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ORIGINAL LECTURES.

LECTURES ON
CHEMICAL AND MECHANICAL DISEASES AND THEIR RELATIONSHIP.

By H. BENCE JONES, A.M., M.D., F.R.S.

Preface.

On the Conservation and Correlation of Force in the Body.

The hypothesis of the constancy of the amount of force in the universe tends so much to promote experimental inquiry in every direction that for this, if for no other reason, it deserves and will obtain the utmost consideration.

No sooner was the relationship between the different forces of nature perceived than it was applied to the explanation of all machines, whether natural or artificial.

To the sun, which gives only the 2,300,000,000th part of its heating power to our earth, was traced the greater part of the energy of our planet, controlled and modified in each part by the daily and annual motions in space.

For the working of each mechanical, chemical, or electrical machine—for example, a mill, a steam-engine, or a telegraph—a source of power is necessary, and also provision for the application, direction, and control of that power.

The steam-engine will, perhaps, make the correlation of the forces and the controlling power most clear. The prime force is the chemical attraction of oxygen for hydrogen and carbon. The force is latent until the particles of matter are brought sufficiently close to enable them to act the one on the other. Hence comes heat, and from the heat mechanical motion, and this resolves itself again into the agent from which it was produced. In addition to the main spring there is a regulating spring, a directing agency which gives or takes away oxygen or fuel, and by proper contrivances controls the motion of the machine.

In plants and in animals the same laws of the indestructibility and the correlation of force offer a new and vast field for experimental investigation into the relationships of the agencies that are in action; and promise to unfold much, though possibly not all, of the mystery that is comprehended under the word "life."

In the course of clinical lectures which I gave each year to the pupils whilst I was Physician of St. George's Hospital, I constantly dwelt on the relations and differences between chemical and mechanical diseases.

Whenever I was able I pointed out a chemical or molecular disease running its course with scarcely any mechanical or massive disease resulting from it; but much more frequently I had to show how the molecular gave rise to the massive disease, how this again reacted on the chemical changes in the body, and these in consequence produced still greater mechanical results, until ultimately the motions of the diaphragm or heart were stopped, or the patient was restored to a healthy state.

Thus, whenever a good case of diabetes was in the wards, I dwelt on the chemical nature of the disease and on the absence of mechanical symptoms; whilst in a case of gall-stone or renal-stone, I dwelt on the chemical error which led to the formation of the stone; and then I pointed out the more serious mechanical disease resulting from the impaction, and then the wrong chemistry that this mechanical disease produced, the jaundice or uræmia, chemical diseases of the blood and textures, far more dangerous than the primary chemical complaint.

If a case of uncomplicated apoplexy was admitted, I pointed out how the escape of blood in the brain caused mechanical pressure; whence came altered chemical actions of nutrition and oxidation (inflammation) set up to repair the injury and to restore the brain to a healthy state.

Or, if a case of chorea from fright was in the House, I dwelt on the resemblance of the symptoms to the effect of the electric shock, and I showed how the mechanical motion caused abnormal chemistry of secretion and nutrition, and sometimes led, even, to the stoppage of the heart.

Some of my lectures on Chemical Diseases were almost identical with some of my lectures on Animal Chemistry; and as a new edition of these has long been asked for, instead of reprinting them with the alterations which the progress of chemistry requires, I shall endeavour to give an outline of a far more extensive application of chemistry to Medicine. I shall do this by taking a few examples of errors of deficiency or of excess in the two great chemical processes of oxidation and nutrition, which, acting and reacting the one on the other, are always taking place in each particle of the human body during life. Thus, oxidation depends on the nutrition of the blood-globules, the heart, and the blood-vessels which admit of the diffusion of the oxygen and the fuel into each portion of the extravascular structures; whilst nutrition depends on oxidation directly by transformation of force, and indirectly by the heat causing a relaxation of the vessels, and thus permitting an increased flow of nutritive substances to the parts.

I am far from supposing that animal chemistry at the present time is sufficiently advanced to admit of the classification of all diseases according to the altered chemical actions that are taking place in the body, and I shall not in the present course of lectures be able to give even a general view of the numberless variations that are already known to occur in the chemical processes of oxidation and nutrition.

But I shall endeavour to show, by a few striking examples, that the theory of the conservation of force opens a vast field of experimental inquiry, not only as regards the origin and connexion of the actions which constitute disease, but also as regards the actions of the remedies by which those diseases are modified or removed.

It must be remembered that animal chemistry is only one hundred years old. The chemical actions of health, as in respiration, digestion, nutrition, secretion, are far from being thoroughly made out, although day by day our knowledge is advancing.

In proof of this I may take the first grand chemical action going on in the body—oxidation. How little of this do we know at present. Pettenkoffer's experiments on respiration in health and in disease will probably give us for the first time accurate information on the amount of oxygen consumed by man in different circumstances. How this oxidation takes place. Whether the oxygen is made into the denser ozone (whose energy is to that of ordinary oxygen as common phosphorus to the allotropic red phosphorus). Whether Schoenbein's views are correct—that every substance capable of being oxidised first makes the ordinary oxygen into ozone, and that this enters into combination, first slightly (still preserving its properties), and then firmly (when the ozone loses its characteristic). Whether antozone exists, and by combining with ozone forms ordinary oxygen. These are questions which show how our knowledge is advancing, while they also show how much remains to be done before the chemistry of oxidation in the body can be thoroughly understood.

One two-thousandth part of ozone in the air is said to cause dangerous engorgement of the lungs, and even smaller doses long continued cause bronchitis and pneumonia. The blood of animals killed by ozone is found very rich in fibrin, and its dark colour shows that it has undergone active oxidation.

Professor Stokes thinks that cruorine (hæmatoglobulin) takes no part directly in oxidation, but that it so exalts the energy of the oxygen that it enables it in and out of the body to do what it could not do in its ordinary condition. However, the most energetic oxidations occur outside the capillaries, where no cruorine exists. Still, further, the modification of oxidation by the presence of substances in the blood and outside the capillaries is one of the problems of animal chemistry which M. Pasteur's work on fermentations out of the body is beginning to solve. The resemblance of inflammation to ordinary combustion has long been recognised, and we are beginning now to see that fevers bear the same relation to inflammations that fermentations do to combustions; and it is becoming clear that a vast class of diseases will be proved to be errors of chemical action—interferences caused either by want of regulation, or by the introduction from without, or by the generation within, the body of substances that increase, diminish, or change the oxidation which is necessary for the working of the body.

Most probably among these simple errors of oxidation the following diseases will be found:—Diabetes, acidity, oxalic acid, uric acid, uric oxide, cystine, fatty degeneration, gout, rheumatism, inflammation; and among fermentations, eruptive fevers, continued fevers, intermittent fevers, small-pox, syphilis, pyæmia, glanders, hydrophobia, plague.

If, instead of oxidation, I take assimilation, or the great chemical problem of nutrition on which the repair of the body depends, it is easy to show that still more difficult questions await solution.

The quantitative and qualitative errors in the chemical com-

position of the different structures of the body are just beginning to be investigated, though but little at present is known of the causes on which these errors depend. The excess or deficiency in the supply of nutritive material—the wrong quality of the matter supplied—the wrong chemistry in the act of assimilation in the different textures—the excess or deficiency of chemical action in the removal of the used organs; these constitute a multitude of chemical diseases, some of which at present are known as hypertrophy, atrophy, and degeneration, and all of which chemistry will some day almost, if not altogether, explain.

In the following lectures I have separated for the sake of clearness the errors of chemistry in the repair of the body from the errors of chemistry in the oxidising action in the body; but a close relationship between these actions exists. Assimilation in great measure depends on the temperature of the body; a few degrees more or less within may produce, as regards nutrition and oxidation, very different results; even the supply of nutriment to any part depends partly on the chemical action going on in that part, and by oxidation the used organs are made soluble or volatile to facilitate their removal from the body.

How far chemistry now is from dealing with these complex problems, or even with the more simple chemical questions of the conversion of food into blood, and blood into textures, may be seen in the fact that the chemical action of simple substances, as arsenic, copper, mercury, lead, zinc, etc., on the blood and textures of the organs is not yet worked out.

Wherever it is possible, I shall point out how excess or deficiency of molecular action produces mechanical disease, and in my last lecture I shall rapidly prove that the converse relationship exists: for massive diseases or injuries give rise to secondary chemical diseases—that is, to excess or deficiency, or altered molecular actions which again react on the original mechanical wrong, whereby the secondary chemical actions are exalted or depressed.

I am far from thinking that all the actions that take place in the body are directly chemical or mechanical. He would be but a poor Physician who overlooked the influence of the nervous system either in the origin, the progress, or the treatment of every disease. The supply of oxygen and nutriment to every part is so immediately under the control of the nerves that act on the heart and capillaries, that the chemical processes of oxidation and nutrition can be accelerated or retarded by the action of the nerves quite as decidedly as by any direct chemical or mechanical action.

The progress of animal electricity will probably make clear the connection between nervous, electric, and chemical force. Then the large class of diseases which arise from the disturbances in the regulators of the chemical and mechanical actions in the body will be as clear as the errors in the chemical and mechanical actions which form the subject of this course of lectures.

We are just ceasing to regard the nervous force as the origin of all the power in the body. Instead of making it a creator of force, we are beginning to regard it as the liberator and restrainer of the force in the body; in other words, as the regulator, through the blood-vessels, of the extent and degree of oxidation and nutrition that occurs in the human machine.

Taking the various parts of the nervous system separately, there are—1st, central organs; 2ndly, conducting organs, transmitting impressions at the rate of twenty-eight or twenty-nine yards a second; 3rdly, sense organs; and 4thly, peripheral working organs; and it is in these that the regulating power is made manifest. For example, mechanical, chemical, electrical irritation of the vagus stops the heart's action. Irritation of the sympathetic or division of the vagi increase the frequency of the heart's contraction. The ganglia of the heart seem to differ in their action. Experiments show that some have a liberating action, an automatic rythmic action; while other ganglia have a restraining action. Another example is seen in the vaso-motor nerves. Both Bernard and Schiff consider that these are of two kinds—the one set closing the vessels and the other set of nerves opening them. When closed, the blood is stopped; there is paleness and coldness, and no effusion of parenchymatous fluid: when opened, there is increased flow of blood, redness, and higher temperature, and increased exudation from the capillaries. In other words, the mechanical and thermal actions in the body are regulated by the nervous force acting on the blood-vessels.

The difference between muscular and nervous action is that between the horse and his rider, the gun and the gunner, the steam-engine and the driver; and it would not be more wrong to attribute all the force in these machines to the action of the spur and bit, the trigger, or the lever, than to attribute the force of the body to nervous action.

The finger of the engineer liberates the power stored up in the boiler; and the nerves unlock forces, already latent in the muscles. But besides those forces which result in the mechanical and other motions of the formed body, there are others to which the body owes its form, and which manifest themselves most wonderfully in the first stages of the embryo's existence. Animal form lies latent in the almost formless first animal cell. It is the power resident in this latter which determines the cycle through which the matter it draws towards it is to run. Whence those powers of the germ ultimately arise, our knowledge is at present insufficient to determine.

In the last century Physiology and Medicine have been chiefly occupied with the determination of the structure of the organs of the body in health and disease, in tracing the microscopical variations in the form and substance of the different parts of the body; the grand principle of the indestructibility of force, which in these latter days has been propounded, will probably cause the next century to be fully occupied with the problem of the metamorphosis of force in the body in health and in disease.

We have ceased to look on the human machine as a creator of vital or nervous force, and we are beginning to regard it as a converter of latent into active force.

In the body the force is latent in the elements, oxygen, hydrogen, carbon, nitrogen, sulphur, phosphorus, etc. The amount in each element may be measured by the heat produced in combustion or by the mechanical work that can be done by that heat. Thus, in the combustion of one gramme of hydrogen, the caloric equals 34462 units—a unit being the quantity of heat that raises 1 gramme of water from 0° to 1° C.—whilst in the combustion of one gramme of carbon the caloric equals only 8080 units, the mechanical work can be calculated from the fact that the mechanical equivalent of each unit of heat is equal to 430 grammetres—(that is, the work of raising 430 grammes one metre high). Hence the work that can be done by one gramme of hydrogen is 14,818,660 grammetres, and by one gramme of carbon 3,474,400 grammetres. As the number of units of heat produced in the body daily amounts to many millions, it is convenient to make the unit 1000 times greater, namely, the heat required to raise one kilogramme water from 0° to 1° C. The mechanical equivalent then becomes 430 kilogrammetres.

Mr. Joule makes the mechanical equivalent of heat 772 foot pounds—that is, the quantity of heat required to raise one pound of water one degree of Fahrenheit is equal to the heat produced by one pound of water falling 772 feet; and it would raise a pound weight 772 feet high, or 772 lbs. one foot high. As yet, distant approximations only can be made to the amount of force that daily goes into the body in the food and oxygen. As with the matter, so with the force of the food: the quantity that goes in is balanced by the quantity that comes out in any given time, provided the force and matter in the body at the beginning and end of the time is constant.

M. Barral has given an approximate estimate of the different amounts of force lost in different ways. From 1 to 2 per cent. of power is given out in heat of the urine and fæces; from 4 to 8 per cent. in the heat of the breath; from 20 to 30 per cent. in evaporation of water from the surface; and from 60 to 75 per cent. in conduction and radiation, and in mechanical work.

Force enters the body latent in the food. It consists of the affinities, as yet unsatisfied, which subsist between the constituents of the food and the respired oxygen. In the body, these affinities come into active play, producing heat, mechanical motion, and all those other actions, internal and external, to the sum of which we give the name of life.

Death is the stoppage of this conversion in consequence of the latent force not being developed into active force, either through some arrest of action in the heart, lungs, or brain, or by some direct interference with the chemical actions in the ultimate molecules of the organs.

When the number of centuries during which natural knowledge has been studied shall have approximated to the number already spent on classical knowledge, we may expect that the changes in the matter and force in the body in health and in disease will be so well known that even mental diseases will be more thoroughly understood than the simplest of those chemical diseases which, as far as our present knowledge admits, I shall endeavour to make clear to you in this course of lectures.

There remains only one subject more to which I must allude.

In my clinical lectures I tried to point out clearly the difference and relationship between the chemical and mechanical treatment of disease, to show that sometimes only chemical remedies are wanted; in other cases, more especially in Surgery, that mechanical treatment alone need be used; but that most frequently both chemical and mechanical actions are simultaneously wanted, and that these react potently on one another. For example, medicine with rest will do what medicine without rest will not; or diet and exercise may do together what either separately could not effect. The mode of action of mechanical remedies is at present much more comprehensible than that of chemical remedies. Motion increases chemical action and rest checks it. When the blood is carried through a muscle at rest the quantity of oxygen remaining in the blood is nearly $7\frac{1}{2}$ per cent., but if the muscle is in motion then the quantity of oxygen is reduced to $1\frac{3}{10}$ per cent. In other words, when motion takes place there is much more chemical action than when the muscle is at rest.

Motion acts in two ways upon chemical action—1st, directly by conversion of force, and, 2nd, indirectly by bringing the molecules more closely into contact, so that the latent energy can be changed into active force. This is chiefly effected by the circulation bringing fresh and larger amounts of oxygen in contact with the hydrogen and carbon, phosphorus and sulphur of the textures.

Rest lessens the supply of oxygen, lessens the pressure in the capillaries; the mixture and contact of molecules in the textures, and thus diminishes chemical action. Heat and cold act both chemically and mechanically in promoting or checking chemical action.

Heat acts directly by conversion of force; it also acts by dilating the capillaries, and thus permitting freeer circulation, and the consequent increased chemical action.

Cold acts directly by stopping chemical action, and indirectly by constricting the capillaries, and thus hindering the circulation and preventing the contact of the oxygen with the combustible and nutritive substances.

Food acts both chemically and mechanically,—chemically, 1st, by furnishing latent force, and, 2nd, material for the formation of the organs by which that force is made active. It acts mechanically by the solid parts increasing chemical action in the stomach, and by the fluid parts adding to the mass of liquid in the blood and by the dissolved solids that pass into the blood, adding to its specific gravity, and thus altering the osmotic actions throughout the system.

Food may be divided into water, salts, carbonaceous and nitrogeneous matters. The water and salts do not take a direct part in oxidation and nutrition, but they are indispensable indirectly to the chemical actions by dissolving the active substances and bringing them into sufficiently close contact for the action to take place. Both carbonaceous and nitrogenous aliments can be acted on by oxygen, and can thus change their latent into active force.

Hydrogen, carbon, and nitrogen, sulphur, phosphorus, iron, and lime, enter into the composition of the organs by which the conversion of latent into active force is effected. Ultimately, more or less completely, these elements are themselves acted on by the oxygen, and thus no distinction exists between respiratory and plastic food. Professor Liebig's division of food, however, gave the first impulse towards the clear comprehension of the two great chemical actions that take place in each particle of the body, and which constitute the mainspring of those forces which are summed up in the word "life."

Royal College of Surgeons.—We strongly recommend the Members of the College to pay a visit and inspect the large additions about to be made to the Hunterian Museum, and which will be exhibited until Thursday next in the Theatre of the College. To those interested in the anatomy and diseases of the eye, there is a very extensive collection made by Dr. Bader, of Guy's Hospital. Those gentlemen interested in the ear will see a most extraordinary collection purchased by the College of Dr. Hubrich, of Munich. Dr. Bell Pettigrew exhibits a very interesting and valuable series of preparations illustrating the anatomy of the bladder. There are also some valuable donations made by several members of the Council of special importance to Ethnologists. It is to be hoped that the Members will see the importance of aiding and assisting the Council in adding to their unrivalled collection.

COURSE OF

LECTURES

ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D., F.R.C.P.,

Professor in University College, and Assistant-Physician to University College Hospital.

Lecture X.

DIABETES MELLITUS—GLUCOSURIA—SACCHARINE URINE—ITS NATURE AND RATIONAL TREATMENT.

In no department of experimental research have results of greater value to the clinical Physician been recently obtained than in that connected with the study of animal saccharine matter. Within the last few years, indeed (since 1848), an entire revolution has taken place in our ideas of the physiology and pathology of diabetes; and although we have still much to learn before we can completely unravel the skein of laws regulating the formation and destruction of sugar in the animal economy, we have, nevertheless, reason to congratulate ourselves upon that which has already been achieved, and be sanguine in our expectations of what science may yet accomplish.

Before entering upon the consideration of this important era, which dawned within my own time, and whose gradual development I have not only watched as an interested spectator, but occasionally assisted as a conscientious actor, it will be advisable for me briefly to scan the earlier literature of diabetes, in order that you may better appreciate the advances that have been recently made, and comprehend in what respect the views of its pathology about to be given essentially differ from those of my predecessors and contemporaries.

From time immemorial, cases of emaciation, accompanied by an inordinate thirst and voracious appetite, had been observed, and in consequence of the patients so affected being at the same time troubled with an excessive elimination of urine, ancient Physicians gave to the disease the name of Diabetes (δια, through; βαινω, I go). It was not, however, until 1674 that the urine was discovered to possess, in some cases, a sweet taste, the honour of which discovery belongs to an English Physician named Thomas Willis. From this time henceforth the disease was divided into two classes, one of which received the name of Diabetes insipidus (without sugar), the other that of Diabetes mellitus (with sugar).

In 1774, exactly one hundred years after the date just alluded to, Mathew Dobson, a Physician practising in Liverpool, discovered that the blood as well as the urine in diabetes contains sugar, and from this observation he justly concluded that the saccharine matter found in the urine is not formed in, but only excreted by, the kidneys.

In 1778, Cowley succeeded in separating the sugar from the urine in a free state. (I may here remark that Bartholdi, so early as 1619, called attention to the presence of saccharine matter in milk; but this is, of course, a point entirely unconnected with diabetes.)

In 1796, John Rollo, Surgeon-General to the Royal Artillery, made the first important observation regarding the treatment of diabetes by discovering that an animal diet not only reduces the quantity of urine, but even diminishes the amount of sugar daily eliminated.

The next two steps were made by foreigners.

In 1815, M. Chevreul ascertained that the saccharine matter met with in diabetic urine differs from ordinary cane sugar, and closely resembles that of the grape.

In 1825, another important step was gained by Tiedemann and Gmelin discovering that starch is transformed into sugar during its passage along the alimentary canal.

In 1837, the next observation of interest was made by M'Gregor, of Glasgow, who found sugar in the vomited matters of diabetic patients—an observation which seemed to confirm Rollo's idea that the disease arises from the gastric juice turning vegetable food into sugar; and from that time till the present animal diet was consequently considered our sheet anchor.

We now arrive at an entirely new phase in the literature of diabetes, in which the teachings of the sick chamber gave place to those of the laboratory.

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioner during the last eight years.—Ed. *Med. Times and Gaz.*

In 1848 the physiological world seemed as if struck by a thunderbolt when Bernard proclaimed that animals, as well as vegetables, had a sugar-creating power. Until then all the saccharine matter met with in the human body, whether in health or in disease, was supposed to originate in the transformation of vegetable substances. And now, for the first time, were we made alive to the startling fact that men, like sugar-canes, possess within themselves a saccharine manufactory. The liver being daily and hourly as actively engaged in fabricating sugar as in secreting bile.

Like all great discoveries, the rays of this one were not limited to its own field of inquiry, but broadly reflected over the various departments of scientific Medicine. By it new ideas were awakened, new discoveries made, and even at the present hour the impetus it gave to original research is still alike perceptible in the laboratory, in the dead-house, and in the clinical ward. In connexion with the subject of diabetes alone, the following may be reckoned as a few of the more important discoveries to which it led :—

In 1849 Bernard discovered that the disease can be artificially communicated to animals by pricking the floor of the fourth cerebral ventricle.

In 1853 I discovered that diabetes may be artificially induced in animals by exciting the liver through means of stimulants, such as alcohol, directly introduced into the portal circulation. An observation which explains the well-known fact that diabetes is a much more common disease in spirit-drinking than other countries.

In 1855 Bernard discovered that the formation of sugar in the liver cannot be regarded in the light of a "vital" process, as it goes on, not only after the death of the animal, but even after the removal of the liver from the body.

In 1856-7, Chauveau and myself gained another piece of ground by ascertaining that the sugar normally present in the circulation is not burned off in the lungs, as hitherto supposed, but disappears from the blood in its transit through the capillaries of the general circulation. The function of the saccharine matter most probably being to nourish the body.

In 1857, Bernard made the additional discovery, that before albuminous substances are converted into sugar, they first pass through the transitional stage of glucogene (animal starch).

Lastly, in 1859-60, Brücke and Jones ascertained, by careful experiment, that traces of sugar are even to be detected in normal urine—an observation which, we shall afterwards see, has an important bearing on the pathology of diabetes ; for, as I stated in a previous lecture, it may be regarded as a fundamental law that in disease neither new substances nor new functions are created. Morbid phenomena being merely the result of a change in the quantity and quality of normally existing agents and agencies.

Chemistry.

Although every one knows, or at least imagines he knows, a good deal about the nature and properties of sugar, I shall venture to say a few words upon the subject ; for the more extensive our knowledge, the easier will be the comprehension of this hitherto-regarded inexplicable disease. And on the present occasion it is the more necessary for me to do so, seeing that I differ from my predecessors and contemporaries in believing that there are at least two distinct forms of the disease, requiring diametrically opposite lines of treatment—an opinion which I shall presently show is as much in accordance with the teachings of the bedside as of those of the laboratory.

The term "sugar" is applied to a great variety of substances, the common essential character being their sweet taste. Chemists have, however, drawn broad distinctions between the different forms of saccharine matters, the properties of which are exceedingly varied. But for the sake of convenience they have been divided into two great classes—a *first* and a *second*—according to the manner in which they are acted upon by acids and alkalies.

To the first class, of which *cane sugar* is the type, are given all those that are easily crystallised, and which when boiled with an alkali are not decomposed, but enter into combination with it to form a saccharate of the alkali.

To the second class, of which *grape sugar* is the type, are awarded those which are not easily crystallised, and which when boiled with an alkali are transformed into the acids of molasses—glucic and melassic acids.

When acted upon by acids, on the other hand, an equally remarkable feature of distinction is observable in these two classes of sugar ; for while sugars of the second class remain apparently unaffected, sugars of the first (cane) are rapidly transformed into those of the second class (grape).

These changes are easily illustrated. If, for example, I boil a little sugar candy (a sugar of the first class) with potash, no apparent change is visible ; whereas, if before boiling it with potash I heat the solution of sugar candy in a test tube along with a couple of drops of hydrochloric acid, on adding the potash, the whole liquid becomes of a dark brown colour in consequence of the grape sugar (a sugar of the second class) which was formed by the action of the hydrochloric acid upon the cane sugar being instantly decomposed by the potash into the acids of molasses (glucic and melassic).

Just as the vegetable kingdom furnishes us with the two great types of sugar, *cane* and *grape*, so the animal kingdom yields to us their representatives in the form of milk and liver sugar ; milk sugar being the analogue of cane, liver sugar of grape. For example, the sugar of milk is readily crystallised, is unaffected by alkalies, but easily transformed into liver sugar by the action of acids. Liver sugar, on the other hand, is crystallised with difficulty, unaffected by acids, but rapidly decomposed by alkalies. (b)

Even the relative distribution of the two classes of sugar in the vegetable and animal kingdom is nearly identical ; for just as in the vegetable world the sugars of the second greatly preponderate over those of the first class, so in the animal economy, while the second class sugar is to be encountered in the blood, the liver, and the urine, that of the first class is limited to the mammary secretion alone.

Tests for Saccharine Urine.—A great variety have been proposed, but I shall only enumerate those possessing a real practical value.

1st. Specific Gravity.—Saccharine urine is generally, though not always, of a high specific gravity, averaging from 1020 to 1040. The specific gravity may be much higher, or much less, even independently of the amount of sugar it contains. For in diabetic urine there is generally a large excess of urea, which greatly adds to its specific gravity ; and occasionally, on the other hand, the disease is accompanied with an albuminuria sufficient to reduce the specific gravity even to below the normal standard. The specific gravity itself is therefore no criterion of the amount of sugar contained in any given specimen of urine.

2nd. Potash Test.—To a drachm of urine in a test-tube add an equal bulk of a solution of potash of the specific gravity of 1060. Heat the upper half of the liquid in the flame of the lamp until it boils ; then mark the change. If sugar be present, the upper boiled portion of the liquid changes colour, and becomes yellow or brown, in proportion to the amount of saccharine matter in the liquid. The browning being due to the transformation of the sugar into glucic and melassic acids. The lower cold half of the liquid, on the other hand, by remaining unaffected serves as a standard of comparison.

3rd. Copper Test.—To a drachm of urine add half a drachm of the potash solution. Shake the mixture and *afterwards* add a few drops of a solution of sulphate of copper(c) ; just sufficient to produce a pale blue tint when the whole is agitated. Boil the liquid from the bottom, and if sugar be present the blue colour will disappear, and a yellow or red precipitate form, according to the amount of sugar present in the urine.

The chemical steps of this process are as follows :—When sulphate of copper (SO_3CuO) is added to a solution of caustic potash (KaO), the sulphuric acid combines with the potash to form a soluble sulphate, and the oxide of copper separates in the form of a gelatinous precipitate, which, however, in consequence of the presence of organic matter remains suspended in the urine.

$$SO_3CuO + KaO = SO_3KaO + CuO.$$

The next stage in the process is produced by the heat causing the sugar to oxidise itself at the expense of the oxide of copper ; whereby the yellow suboxide is thrown down.

$$\text{Sugar} + \begin{cases} CuO \\ CuO \end{cases} = \text{Sugar O} + \begin{cases} Cu \\ Cu \end{cases} O$$

If much sugar be present, and the boiling is continued

(b) By combining liver sugar with chloride of sodium (common salt), Berthelot and De Luca have succeeded in obtaining large, colourless, transparent crystals, the watery solution of which ferments with yeast, and reduces the oxide of copper. The composition of the crystals, as ascertained by analysis, is represented by the accompanying formula—$2C_{12}H_{12}O_{12}, 2HO + NaCl$. The authors conclude therefrom that liver sugar is not only exactly the same as that found in diabetic urine, but that it is also identical with the sugar of the grape.—*Compt.-Rend.*, vol. xlix., p. 213.

(c) The most convenient strength I find is ten grains to the ounce of water.

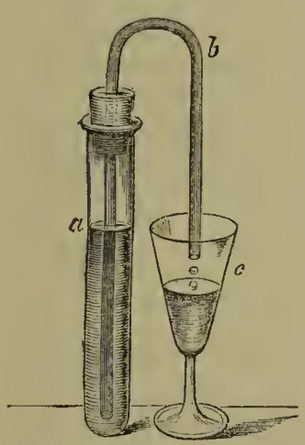
sufficiently long, all the oxygen is withdrawn from the copper, and the red metal is precipitated on the bottom and sides of the test-tube.

N.B.—Should the urine contain albumen, the albumen must be separated by the aid of heat and acetic acid before applying the copper test. Otherwise, on adding the sulphate of copper to the urine + the potash, a purple instead of a blue liquid will be obtained; and, on boiling, no reduction of the copper will occur unless a large excess of sugar be present, the liquid merely changing its tint from a purple to a mauve, and from a mauve to a red colour.

When the urine contains bile pigment, or is otherwise high coloured, and the sugar is present in small quantity only, it is necessary to decolourise the urine before adding the reagents. For this purpose, put an ounce or two of urine into a six-ounce bottle along with a tablespoonful of animal charcoal and a small pinch of carbonate of soda. Shake the mixture well for a few minutes, and then filter. A perfectly colourless liquid will thus be obtained, and greatly facilitate the application of both the copper and potash tests.

A great deal has been said about the fallacies likely to arise from the presence of uric acid, cotton fibres, chloroform, etc., in the urine. All I can say is, that during a fifteen years' experience I have never encountered them. In all cases of doubt, however, in addition to the potash and copper, I invariably apply the fermentation test.

Fig. 24.



4th. Fermentation Test. — The easiest way of applying this to urine is to employ an apparatus like that represented in the accompanying woodcut.

A test-tube, of about six inches long and three-quarters of an inch in diameter, is to be fitted with a piece of ordinary small glass tubing bent to the shape of a syphon in the flame of the spirit-lamp by means of a piece of cork. When ready, the tube is filled brimfull of urine, to which a few drops of baker's yeast have been added. The syphon is next fixed in the tube by means of the well-fitting cork, and the free end allowed to dip into a glass conveniently placed to receive the liquid as it is driven out of the tube by the carbonic acid generated during the process of fermentation. Each equivalent of sugar is transformed into one of alcohol and four of carbonic acid gas, so that every seventeen cubic centimetres of carbonic acid evolved is equivalent to one grain of sugar decomposed.

During the fermentation process the apparatus must be kept in a moderately warm room.

When diabetic urine is set aside for a few days it frequently ferments spontaneously, and the liquid becomes filled with Torulæ, or sugar fungi, which can be readily recognised with the microscope. They consist, like the common yeast plant, of a number of spores strung together in short rows like beads. The sporules of torulæ are, however, smaller than those of yeast, their relative size being represented in Fig. 25.

Fig. 25.

Fig. 25.—*a*. Sporules of Torula cervisiæ from diabetic urine. *b*. Spores from baker's yeast.

(To be continued.)

Pryce *v.* Bowen. — We learn on inquiry that Mr. Evan Thomas, jun., to whom we referred last week in the above case, completed the full curriculum for the Membership of the College of Surgeons, at the Edinburgh Infirmary, and at the University College, London, and that he was not admitted to examination after only *three months' study*, as his answers when in the witness-box, as reported in the *Liverpool Mercury*, led the public to suppose.

ORIGINAL COMMUNICATIONS.

ON THE POSITION OF THE UTERUS.

By Dr. M. CLAUDIUS,

Professor of Anatomy at the University of Marburg.

If we seek an answer in literature to the question regarding the position of the uterus, we obtain everywhere a definite one. Anatomists, gynæcologists, obstetricians, and Surgeons alike in Germany, England, and France, express themselves with rare concurrence to the effect—that the uterus in its normal position is surrounded before and behind by the intestines; in other words, that the Douglasian space is filled up with loops of intestines. In older anatomical works this is in general not directly asserted, but simply implied; for instance, in the frequently-recurring statement that the uterus and broad ligaments form a transverse septum through the small pelvis, and such like. In recently published works, on the contrary, there are the most definite statements on this point. Any observations or reasons on which this opinion rests are in the majority of cases not communicated, the fact alone being set forth as undoubted and generally believed.

On the contrary, the investigation on living persons with healthy uterus, and on the dead subject, furnishes totally different results. In the case of the former, the finger introduced into the rectum always feels the probe lying in the uterus, without intestinal loops being noticeable between. And in the dead subject the uterus with the broad ligaments and ovaries is observed in by far the greater number of cases lying as close to the posterior wall of the pelvis as the lungs are to the ribs. The rectum generally passes close behind the left border of the corpus uteri, swerves, however, also sometimes considerably towards the left, more rarely towards the right, so that the uterus lies in the middle line. The broad ligaments cling so very close to the posterior wall of the pelvis, that in the case of sagittal sections (through frozen corpses) which pass between the uterus and ovary nothing of them is noticeable at first inspection, and it is only discovered after more careful examination that a thin double flap of peritonæum lies against the wall of the pelvis, in whose upper end the section of the tube is visible. The ovary lies more laterally,—its long axis horizontal or generally a little raised at the outer end—in a shallow cavity, the fossa ovarii, which is hollowed out in the tissue, that fills up at the upper border of the musc. pyriformis the hole intended for the vasa and nerv. glutæus superior. The anterior side of the ovary is completely covered by the ala vespertilionis, so that the intestines do not come in contact with it at any point. The Fallopian tube takes its course close above the upper border of the ovary, and then curves downward behind its outer end, so that the infundibulum is enclosed in the lateral half of the fossa ovarii between its base and the posterior side of the ovary. This at least I observed in a case in which there seemed to be nothing abnormal.

The main points of the above description rest on examinations of 88 subjects, 36 of which were sections of frozen corpses represented in Pirogoff's "Anatomia Topographica," while 4 were in Le Gendre's "Anatomie Chirurgicale Homalographique." I have to thank the friendly exertions of Dr. Füngel, Director of the Hospital at Hamburgh, for 38 cases. Lastly, I myself have examined 9 subjects, 5 of which were sections of frozen corpses. 10 cases must be excluded from this number, because the uteri showed evident traces of disease or malformation. But of the remaining 78 cases the genital organs lay 70 times close upon the posterior wall of the pelvis, whereas in 8 cases loops of intestines lay embedded in the Douglasian space.

The last-mentioned cases are, in my opinion, likewise of a pathological nature. The uterus is, then, only in its normal position when along with the broad ligaments it touches the posterior wall of the pelvis and the rectum. In my opinion, it is always a case of anteversio, anteflexio, or antefractio uteri when intestinal loops are present in the Douglasian space. This opinion is founded principally upon two reasons.

Firstly, because in this manner alone the uterus can obtain a safe position in the pelvis. This argument will probably be much attacked. We find in all authors this alone impressed, that the uterus is very moveable, but that is no reason why we should suppose it is capable of movement. To be sure, it is undoubted that the uterus can easily be moved by violent

treatment through moving of the neighbouring parts, but nevertheless certain that it rests in the healthy female quite unmoved in the pelvis. This is sufficiently proved by repeated explorations *per rectum et per vaginam*. If we except the rectum, which during filling and emptying moves the uterus gently forwards and backwards, there are no causes of disturbance at all. The above statement is sometimes grounded on erroneous observations. If a softened vaginal portion may be moved easily in all directions by the finger introduced into the vagina, it is concluded from this that the uterus makes the contrary movements between the intestines in the pelvis, and therefore forms a double-armed lever, whose hypomochlion lies in the bottom of the pelvis, fascia pelvis, and muse. levator ani. It is easy to comprehend that this is impossible. For not only would every considerable movement of the uterus—by which the intestinal loops changing their position would be forced out of the space above the bladder into the Douglasian space, and *vice versa*—cause great violent twitching of the broad ligaments, such as no living being could bear, even although we assume the mobility of the intestinal loops to be very considerable, but also, on account of the round ligaments, the lateral flexures would be much sooner limited than the forward movements, which is not the case. Certainly the body of the uterus can only be moved by the finger, introduced into the vagina through the raising of the bottom of the pelvis. To be sure, this appears to possess in different individuals a very varying resistance. From the rectum the uterus may be pressed as far forwards as the anterior wall of the rectum, and the point of fixture of the uterus yield. It is true that by means of the uterine probe the uterus can be moved forward and towards both sides, but this violent treatment has nothing to do with the solution of the question, whether the healthy uterus ever changes its position during life? No circumstance speaks to the affirmation of this question, while the examination of healthy individuals and of corpses necessitates the admission that the uterus has a seat as well protected against the intestines as the liver has. The unvarying position of the vaginal portion and its resistance in healthy women to the pressure of the finger can only have their cause in the steadiness of the body of the uterus in the small pelvis. Nor is the uterus more affected by the emptying bladder.(a) The plicæ vesico-uterinæ and the tissue lying beneath are, according to examinations on recently killed animals, so lax and yielding that the uterus cannot be drawn by them forward against the intestinal loops. Moreover, experiments on corpses, undertaken with all necessary caution, prove that the bladder can be filled and emptied without the uterus being moved in the least.

The uterus is mainly held in its position by the round ligaments. After these have reached the lateral wall of the pelvis, having left the inguinal canal, and continuing along the posterior wall of the pelvis, in a curve concave forwards and downwards, they attach themselves firmly to the uterus, below the insertion of the Fallopian tubes. In this position they are tense, and permit of a lateral motion of the uterus as far only as their own substance may be stretched. Of themselves alone they would be unable to fix the uterus, because they would cut through between the intestinal loops. This is hindered by means of the broad ligaments, whose use consists in this, that they form broad folds about the round ligaments, by means of which these gain resistance against the intestines. This apparatus can only then be effectual when the broad ligaments touch the posterior wall of the pelvis with their whole surface. If there are intestines in the Douglasian space, the uterus is moved forward, and the round ligaments lose their tension; the uterus is therefore no longer fixed, either laterally, forwards, or backwards. It will be moved to all directions by the intestines, whose state of repletion alters several times daily. If the intestines in the Douglasian space are being filled, while those lying above the bladder are being emptied, the uterus will be anteverted, but in the contrary pressed backward, along with which laterally inflexions generally will be combined. If the intestines are being filled on the one side before on the other side behind the broad ligaments, the uterus must necessarily be turned on its axis. All these movements must be accompanied by distensions of the broad ligaments; and thus the many complaints of those affected with anteversio uteri are rendered comprehensible.

It is easy to understand that as long as the uterus retains its normal rigidity, intestines can never enter the Douglasian space. The pressure which is exercised on its whole anterior surface by the intestines has the result of retaining it in close contact with the rectum, and must completely overcome the gentle pressure that is exerted by parts of single loops of intestines on the superior opening of the Douglasian space. The intestines cannot enter at the side of the uterus, behind the Fallopian tubes, on account of the narrowness of these, just as little as on the borders of the omentum majus. It is not impossible that single loops of intestines, which have passed into the Douglasian space, can be expelled out of it by the overpowering pressure of the filled portions of the alimentary tube, as soon as the former have become more moveable by being emptied.

During pregnancy the uterus touches the posterior wall of the pelvis, as far as the promontorium, and remains there during the involution post partum (b) (see the sections of Pirogoff, l.c.).

The uterus can maintain its position against the intestines only as long as it retains its normal rigidity. As soon as its tissue is relaxed, and therefore the pressure on the under part of the anterior surface is not more continued as far as the upper border, it is possible for the intestines to inflect it from above forward and backwards. These physical conclusions confirm the statement of pathological anatomists, that softening of the tissue of the uterus is the principal cause, in the most cases, of deviatio uteri.

According to the aforesaid, the apparatus of the uterine ligaments is only then useful and effectual when the uterus reclines against an unyielding surface and loses instantly its whole meaning, if intestines are behind it.

The second reason for my opinion seems to be of still greater weight. If intestines lie behind the uterus they will generally touch the ovarium and the infundibulum of the Fallopian tubes. The fimbriæ are so moveable, light, and tender, that it is impossible to conceive their lying safe between the intestines, both as regards their structure and position. They will be removed from the ovary, and the tender fringes covered with ciliated epithelium will be destroyed. We can understand this if we think of the lumps into which the omentum majus is rolled up, if it chances to come between the intestines. There would be no longer the possibility of the entrance of an ovum into the infundibulum. But simply the contact of the ovary with intestines would render the conveyance of a discharged ovum in the infundibulum impossible. Through their changes of form and position the ovary, which is held fast at one end by its ligament, would be tugged up and down, and be thus removed from the infundibulum. The discharged ova must fall into the furrows which run in the most different directions between the close-lying intestines, and through their peristaltic movements be conducted anywhere but into the infundibulum.

If, on the contrary, the ovary with the lateral half of its posterior side resting on the infundibulum lies in its fossa, protected in front by the ala vespertilionis against every touch, the entrance of an ovum into the infundibulum is conceivable. The ova expelled from the follicles are forced by the pressure exerted on the anterior side of the ovary into the canals, which lie upon the upper and lower borders of the ovary, as the pressure there must be less. The canal of the upper border, threesided in a transverse section, is formed by the passage of the ala vespertilionis from the ovary to the posterior wall of the pelvis; those of the under border are small slits before and behind the ligamentum ovarii. They are stretched a little by the liquor folliculi, and the supposition that a stream is excited in them by the ciliated tissue, powerful enough to conduct the liquid with the excessively slippery ovulum into the infundibulum, has nothing absurd in it. It is possible that the pulsation of the branches of the art. hypogastrica, which have their origin directly below the ovary, assists the

(a) I take the freedom of adding a remark on the state of the bladder in corpses, which, as far as I know, is not yet regarded in pathology. The emptied bladder is contracted in the corpses of animals, and very seldom in young human corpses, into a thick walled ball, with a small round lumen. In ordinary dissecting-room-corpses a totally different condition is met with. If in these the bladder is empty the upper half, covered by the peritonæum, and therefore exposed directly to the pressure of the intestines, appears cup-like fitted into the lower, so that the lumen represents a semicircle, open above, by every perpendicular section, passing through the orificium urethræ. Paralysis of the detrusor urinæ appears to be the cause, and the lessening of the energy in the urinal stream in old age leads to the same conclusion. Perhaps the more intimate knowledge of this state of things may be useful for the treatment of many bladder affections. (See Pirogoff fascic, iii., A.)

(b) It is not stated in Le Gendre's work whether the represented pelves were frozen while still connected with the trunks, or after being cut away. In the latter case the drawings would be of no use in determining the position of the uterus.

passage of the ova. We may expect that the special examination of the uterus *in situ* will shed a light upon this process. The examination of the epithelium in the fossa ovarii of a person who has died suddenly during ovulation is very desirable, as, perhaps, ciliated epithelium is developed there on the peritonæum during this time (as in frogs).

It is easy to comprehend from the above that sterility must, as a rule, be united with anteversio uteri. An intestinal loop, indeed, may lie behind the uterus, and still the situs ovarii be quite normal, as I have observed in one case. On the other hand, Dr. Füngel has informed me that in two cases where the situs uteri was normal, he saw the infundibulum hanging down before the ovary between the intestines,—an anomaly which likewise must entail sterility. Sections of female corpses of the rapidly-disappearing savage tribes in America and Australia would be interesting, since it is not impossible that epidemical deviations of the uterus are the cause of the sterility of the females.

The comparative anatomy and the history of development show us likewise the female genital apparatus in close contact with the rectum and the posterior wall of the pelvis. In the first months of fœtal life it is impossible for intestinal loops to enter into the Douglasian space on account of their thickness. In the most Mammalia the central portion of the uterus bicornis touches the rectum.

I lastly take the liberty of calling the attention to some conclusions immediately connected with the aforesaid. If a gynæcologist(c) says, "through its great mobility the uterus can be brought by double manual exploration into every situation, and every change of position can be caused artificially; indeed, a soft uterus can be inflected"—the moral thereof needs not to be explained. But the uterine probe might, in the hands of a careless Physician, become the most dangerous instrument. If the handle of the probe lying in the uterus is but gently moved backwards, the intestines must fall into the Douglasian space, and the consequences thereof will certainly be mischievous.

(c) "Holst. Beitraege zur Gynaekologie und Geburtskunde." Tübingen. 1864. Page 14

RUPTURE OF THE BLADDER—EXTRAVASATION OF URINE—DEATH ON THE THIRD DAY—CORONER'S INQUEST.

By C. GAFFNEY, Esq., M.R.C.S., &c.

On Friday, the 18th November, 1864, at 8 o'clock p.m., I was requested to visit a man who had met with an accident, whilst engaged in his ordinary avocations, which were those of an agricultural labourer. From evidence given subsequently to his decease at the coroner's inquest, it seems that he was filling a barn with barley from a neighbouring stack in company with two other men, and that having completed his task for the night he threw down his fork (a height of some ten feet) which stuck fast in the ground, and he himself followed, letting himself down by means of a beam which supported the roof of the barn: however, when near the ground he made a spring at the rest, and jumped on to the handle of the fork behind him, which entered the rectum, passing through his trousers, and penetrated the bowel to a depth of ten inches. His agony was extreme, and his companions having endeavoured to relieve him to the best of their power conveyed him home, and had him removed to bed, where I saw him. His condition was one of collapse, the features were shrunken and pale, the pulse feeble, and the extremities cold. He had vomited everything which had been given him since the occurrence of the accident; however, having given him a little cold brandy and water, he managed to get it down, and I then proceeded to examine the wound.

It was seated at the anus, the orifice of which was permanently open to the extent of half an inch in diameter. Its edges were jagged and contused, and there was a good deal of discolouration and echymosis for some distance around. Blood was flowing from it in small quantity. Having examined it first with a probe, and then with my finger, I could discover no aperture of communication with the bladder posteriorly, and on examining the bladder anteriorly I found it full of urine, and on passing the catheter I drew off about a pint of urine tinged with blood, which afforded considerable relief. Having ordered a tablespoonful of brandy in a little cold water every hour, and bottles of hot water to the feet, I administered fifteen minims of laudanum and left him, warm fomentations having been laid to the wound.

November 19.—Much worse; has passed a very restless night. Pulse much more frequent and weaker; the skin was hot. Sordes had begun to collect on the teeth and gums, the tongue was dry, and his general condition was much changed for the worse.

State of the Wound.—This looked very unhealthy. Urine mixed with feculent matter was flowing through it. I once more endeavoured to detect the opening into the bladder, but failed in my attempt. Having re-introduced the catheter, which I retained in the bladder by means of tapes, and having carefully sponged the wound, I ordered the brandy to be repeated every half hour, and took my leave.

20th.—Having expressed a very unfavourable prognosis to his relatives on the preceding night, I this morning called in a neighbouring Practitioner of eminence to consult with me, as to the further steps to be adopted in the case. Having carefully examined the wound, he decided that the only thing to be done was to allow the urine free exit through the wound, and to this end recommended the wound to be injected with warm water twice or three times a day, which advice was carefully attended to. Having substituted beef tea for the brandy in the intervals, and having recommended small doses of opium every four hours, no further suggestions were offered, and we took our leave. At 1 p.m. I again visited him, and having injected some warm water into the wound he expressed himself comforted; but occasional delirium having set in, I dared not administer the opium, and finding there was nothing more that I could do, I took my departure, and was informed of his sudden decease one hour after I had left him, the contents of the bowels having been discharged by the mouth when at the point of departure.

By an oversight a post-mortem was not made, which is the more to be regretted as the case presented features of great interest. Still, such as it is, I trust it will not be unacceptable to some of your readers, as exemplifying a great fact embodied in this principle, that a wound may be of trifling extent, and yet the consequences may be very serious and rapidly fatal, and if it leads to a more careful and thorough investigation of wounds of all kinds, however trifling they may seem on a mere cursory examination, I shall be abundantly repaid for my time and trouble in compiling this case.

Buntingford, Herts.

DISLOCATION OF THE HUMERUS, WITH OTHER INJURIES—COMMINUTED FRACTURE OF THE CORACOID PROCESS.

By E. L. HUSSEY,
Surgeon to the Radcliffe Infirmary, Oxford.

A mason's labourer, aged 22, slipped his footing on a scaffolding in the early daylight of a winter's morning, December 1, 1864, and fell from a great height on his left side among a pile of loose bricks. He was picked up insensible, and taken at once to the Radcliffe Infirmary, Oxford.

Among other injuries of very severe character (from which he did not rally), his left humerus was dislocated inwards and forwards, the head of the bone being below the clavicle. The dislocation was reduced immediately without difficulty by the House-Surgeon (Mr. Winkfield).

From the report of his fellow workmen and the appearance of the body, it seemed that the man had fallen on his left side with the elbow drawn back and the forearm flexed on the humerus, the elbow receiving the shock of the weight of his body as he fell.

Upon examination after death, it appeared that the coracoid process was broken completely off from the scapula. Two separate pieces were found, drawn apart by the muscular fibres attached to them—one downwards on to the ribs, the other inwards toward the humerus, below the rent in the capsule. There was not time to allow of making a careful dissection, so as to see whether the muscular fibres attached to the fragments of bone were in truth, what I thought them to be, those of the pectoralis minor in one case, and the coracobrachialis and biceps in the other. These two pieces of bone, when put together, do not form the complete process as it exists in the skeleton. A small piece of bone at the base and side is wanting. This escaped detection in the hasty examination, which was the only one I had the opportunity of making.

Oxford.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

TABULATED ACCOUNT OF TEN DEATHS FROM PYÆMIA, FOLLOWING OPERATION OR INJURY, OF THE YEAR 1864—JAN. 1 TO DEC. 31.

No.	Name and Age.	Disease or Injury.	Operation (if any) and Date.	Date of Commencement of Symptoms.	Remarks.
1	M. W., 47; admitted May 18	Erysipelas of leg and necrosis of femur, following fracture of patella	Amputation in middle third of thigh, June 18	June 20 . .	Shivering and thirst; tongue foul and moist; dark, thin, grumous discharge from wound; free perspiration; pulse went up to 133; death June 27. Brandy to 8 oz., ammonia, chloric ether, quinine, and iron. Post-mortem.—None. This case was accompanied with pneumonia.
2	T. R., 35, male; admitted Feb. 6	Inflammation of knee from fall	Amputation of thigh in middle third, May 30	June 12, 11 days after	Healthy discharge from wound ceased about June 13. Shivering, vomiting, quick pulse, thin brown discharge from wound. Involuntary discharge of urine and fœces June 20. Death June 20. Brandy, wine, ammonia, and chloric ether. Post-mortem.—None.
3	W. P., 46, male; admitted April 27	Injury to ankle-joint; formerly fracture just above joint	Amputation below knee, May 7	May 18 . .	Shiverings, lasting for about four hours at a time; some signs of suppuration on right wrist-joint. May 22, abscess formed in knee-joint; healthy secretions ceased; disposition of flaps to unite; foul thin discharge; end of femur ulcerated completely through the stump; death May 31. Brandy, ammonia, imperial drink. No post-mortem.
4	J. S., 54, male; admitted April 15	Necrosis of os calcis	Chopart's amputation, July 13, 1864	July 30, 17 days after operation	Originally in Medical wards with low fever; suppuration in right foot set in, followed by necrosis. The stump suppurated freely at first; at the commencement of the symptoms the discharge became thinned and dark-coloured; suppuration in the knee came on about August 5, and extended amongst the adductors; shivering, dry tongue, quick pulse, delirium, death August 26. Brandy, ammonia, beef-tea. Post-mortem.—None.
5	M. H., 26, female; admitted Oct. 6	Injury to knee of 17 years' standing; contraction from abscess	Excision of knee-joint, Oct. 29	November 9	Rigors and diarrhœa commenced November 9; brown, moist tongue; unhealthy watery discharge from wound; hectic; breath sweet; pulse fluctuated to 145; death November 22. Brandy, ammonia, beef-tea, opiates. No post-mortem.
6	P. S., 29, male; admitted June 25	Suppuration of hand following blow	Pus evacuated .	July 1 . .	Rigors, lessening of healthy discharge, tongue brown and moist; delirium July 15; diarrhœa, vomiting, coarse crepitation, stertorous breathing, incontinence of urine; sloughing of nates; pulse fluctuated to 152; respiration 64; death July 26. Tr. ferri. mur. quin. disulp.; brandy to 24 oz.; opiates. Post-mortem.—None allowed.
7	J. P., 54, male; admitted Sept. 9	Necrosis of left femur	Abscesses connected with dead bone, opened Sept. 14	In a very low state on admission	Accompanied with pneumonia and jaundice, shivering, bilious purging, discharge of foul brown pus from wound; death September 21. Brandy, ammonia. Post-mortem.—None.
8	J. L., 25, male; admitted Feb. 17	Strumous disease of shoulder-joint	None . . .	Feb. 24 . .	Delirium, shivering, pus in urine, quick pulse, coma, and death September 29. Post-mortem.—Pleuritic adhesions of both lungs; tubercle and cavities in both. Heart healthy. Great quantity of fluid in both ventricles of brain. A small quantity of grumous pus in shoulder-joint; articular cartilages gone.
9	A. B., 46, female; admitted Jan. 14	Fractured femur, and abrasion over elbow-joint	None (fracture put up)	January 21 .	Erysipelas commenced about elbow and extended up the arm. The symptoms, shivering, quick pulse, etc., commenced soon after the erysipelas set in; great pain on surface of body when touched; coma; death January 31. Collodion and oil to arm, sprinkled with flour. Brandy, ammonia, iron. No post-mortem.
10	S. S., 30, female; admitted Aug. 5	Stricture of rectum	Stricture divided, Aug. 10	August 12 .	Shiverings; symptoms of peritonitis August 12; vomiting; death August 20. Post-mortem.—Peritonitis; pus in uterine veins; walls of rectum very much thickened and ulcerated. Brandy to 24 oz.; ammonia; fomentations to abdomen.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

THREE CASES OF GLAUCOMA—IRIDO-CHOROIDITIS—IRIDECTOMY—RESULT—REMARKS.

(Under the care of Mr. HULME.)

Case 1.—Catherine B., aged 44, married, dark hair, brown irides, a thin, sallow-looking woman, always accustomed to wear spectacles (24 convex) from the age of 21, complains that the sight of the right eye began to fail her in the middle of the month of October, 1864, haloes round the flame of a candle, accompanied with pain over the right brow and along the corresponding nasal side of the orbit, etc., etc., for which she did not apply for Medical relief till Tuesday, December 6. During the week previously she had been suffering great pain, the sight had almost entirely gone, and when she presented herself at the Hospital she had all the symptoms of an acute attack of glaucoma—pain, dilated pupil, extreme tension of globe, etc. She could just distinguish the shades of fingers, but could not count them. The field of vision was much contracted in the upper and inner segments. She was admitted on the evening of December 8, and on the morning of the 9th Mr. Hulme, assisted by Mr. Aldridge, who administered chloroform, performed iridectomy, the upper section, removing about one-sixth of the iris. There was no bleeding; the iris prolapsed well through the sclerotico-corneal aperture.

On the 10th the relief from pain was complete, not the slightest bad symptom. On the 12th the eye was examined. The section had healed. She counts fingers easily. On the 17th she left the Hospital, and on December 23 she reads No. 4 at six inches without glasses; with 24 convex she reads No. 2 (pearl) type. The plane of the iris of the operated eye is now vertical; that of the left eye is bulged forwards; this pupil, however, is more contracted, sluggish in action, and there is a shade of increased tension in the globe.

Case 2.—Mrs. B., aged 53. About a year ago the vision of the left eye began to fail. The sight, to use her own expression, "came and went." She has for years used convex glasses, and has increased their power twice. She complains of haloes, etc. The sight of the right eye has been lost for several years; she can just distinguish light from darkness with it. She had the first attack of pain six months ago. The sight got much worse, and glasses only assisted her periodically. About a week before Christmas, 1863, she was laid up in bed with acute pain in the globe, but did not apply at the Hospital till January 1, 1864. The sight was then rapidly failing, the pain continuous, the patient much depressed. The appearances then noted were—pupil dilated, lens and vitreous clear, cupping of the optic disc, increased tension of globe; can barely distinguish the shade of the hand before her. The iridectomy was made outwards, about one-sixth of the iris removed. The relief from pain was immediate. The section healed well. Five days afterwards counted fingers at two feet distance.

She left the Hospital early, and I saw her on February 5, and she then read No. 10 Jæger, and with No. 12 convex reads No. 4.

Case 3.—James W., aged 57, married; pale, sallow-looking man; steward of a steamer. Has worn glasses for the last twelve years. In January, 1864, the sight of the left eye failed him, after an attack of severe pain. He applied two or three days after at the Hospital, and came under Mr. Aldridge's care, with all the marked symptoms of acute glaucoma. In March I assisted Mr. Aldridge in operating under chloroform, who performed an upper iridectomy. With this eye he now can read No. 2 Jæger with 10 convex. In May, 1864, the sight of the right eye began to fail. He went to sea, and could not apply at the Hospital. He was attacked by pain and loss of sight, for which he was leeched. The pain was relieved, and the sight partially returned; but he was always troubled with temporary obscurations, haloes round the candle-flame, and dull circumorbital pains. He applied at the Hospital again December 16, 1864. During Mr. Aldridge's absence he came under my care. The notes are—considerable tension of globe; pain; loss of vision, so far as not to be able to count fingers; muddy iris, but not dilated; leaden-coloured sclerotic; ciliary injection; slight venous congestion.

Ophthalmoscopic examination shows adhesion of the iris at its lower margin; circular pigmentary deposit on the capsule of the lens, with a hazy centre. The optic disc is with difficulty distinguishable; it shows venous congestion, and a patch of bright white sclerotic is seen at the lower and outer part of the fundus.

He was admitted on December 18, and Mr. Hulme operated under chloroform on the 20th; upper section, one-sixth of iris removed.

December 21.—Perfectly free from pain.

December 23. — Can count fingers. Discharged from Hospital.

December 26.—Can make out No. 20 Jæger; with 6 convex, makes out No. 19 at six inches; tension healthy; remains under treatment. Iodide of potassium ter. die.

December 31.—Reads No. 14 with 6 convex.

January 4.—Makes out No. 16 without any glass, and with No. 6 makes out No. 12 Jæger.

Mr. Hulme made a few remarks to the class on the instructive points which these three cases afforded. In the first case, the immediate relief to pain and the rapid restoration to sight, with the perfect absence of any untoward symptom, was very satisfactory. But he wished the gentlemen to notice the bulging forward of the iris of the left eye, which, with the decided degree of extra tension that was present, was a suspicious sign of the recurrence of the disease in the sound eye, although the sight was at present comparatively unimpaired. This case, therefore, required close watching. In case two, the iridectomy was made outwards, the globe being small, tense, deep sunk in the orbit, with an overhanging brow; yet the results as regards vision could not be considered otherwise than good. Case three was an especially well-marked instance of the good effects of early operation, the restoration of sight in the left eye being very perfect, while the insidious form of iritis of the right eye, almost unattended to by the patient, had been slowly doing its destructive work till the attack of glaucoma supervening on the irido-choroiditis showed at last to the patient himself the necessity of again seeking relief by operative interference. Time and treatment are only now required before the permanent improvement to vision in the right eye can be fairly ascertained. Mr. Hulme always keeps the eye closed for three or four days after the operation with a broad strip of adhesive plaster transversely across the upper lid. At present he has not had to regret a cystoid cicatrix as a consequence of the incision.

SAMARITAN HOSPITAL.

CASE OF OVARIOTOMY.

(Under the care of Mr. SPENCER WELLS.)

At page 568 of our last volume we gave the result of Mr. S. Wells's whole experience of ovariotomy in the Samaritan Hospital,—namely, 57 cases, with 41 recoveries and 16 deaths. The following interesting case (with two others which will be reported in a future number) has occurred since our last report:—

Semi-Solid Ovarian Tumour—Never Tapped—Ovariotomy—Recovery.

On the 25th of August, 1864, an unmarried woman, thirty-four years of age, a book-stitcher by trade, consulted Mr. Wells about a swelling in the abdomen, which had been pronounced by Dr. Barnes to be a tumour only removable by operation. The patient was considerably emaciated. The extremities were warm, and there was no œdema nor varicosity of veins about the legs. The mammary areolæ were not deeply coloured; the follicles were large; and in the left mamma was a nodule the size of a walnut. The digestive organs were in tolerably good order, although flatulence was a troublesome symptom. Sleep was disturbed, and rheumatic pains were complained of in the limbs and shoulders. There was an occasional cough, getting worse at night, and a little expectoration of thick mucus. The breathing was shallow and tubular, especially on the right side, but there was no appreciable dulness. The pulse was 110, and the heart's tones normal. The quantity of urine was diminished, and there was occasional retention even for two days at a time. The abdomen was manifestly distended. The girth at the umbilical level was 35 inches, the distance from the umbilicus to the ensiform cartilage 8½ inches, to the pubic symphisis 7½ inches, and to each ilium 9½ inches. The upper margin of the spleen reached to the seventh or eighth rib; its lower margin could not be traced. The liver was not displaced upwards; its lower margin could not be defined. A tumour filled the abdomen, reaching up to within two inches of the ensiform cartilage, and occupying the entire abdominal cavity

with the exeeption of the right iliae region. Fluetuation was not well marked in the tumour; whieh, however, had an elastic feeling, highly suggestive of the presence of very viseid fluid. There was eonsiderable tenderness, especially over the left ilium. All over the tumour, arterial impulse was well marked. In the left iliac regions and elsewhere there was a bellows-murmur synchronous with the radial pulse. The eatamenia, which had first appeared at the age of seventeen, had always been profuse. There was no leueorrhœa. On examining per vaginam, the hymen was found to be entire. The anterior wall of the vagina, towards the right side, was somewhat depressed by a very hard rounded tumour not tender on pressure. The uterus was far back and almost out of reaeh; the eervix felt soft.

The patient said that her father had died of heart disease, and that her mother and six brothers and sisters were all alive and well. She had been born at Stepney, where she had spent her youth, and she had no idea what brought on her disease. Two years previous to Mr. Wells seeing her she had observed a swelling in the abdomen, whieh she persisted in saying had "begun aeross the ehest, and gradually grown downwards." At first the symptoms were not alarming, eonsisting of pain in the right groin and a bearing down of the uterus, with darting pain in the left breast. The tumour did not increase mueh in size, but the symptoms beeame aggravated. Palpitation, dyspnœa, burning heat in abdomen, and pain in the back, along with oeeasional attacks of dysuria, were sufficiently distressing, and oeeasionally became so urgent as to confine the patient to her bed. It was just after recovering from one of those attaeks that she came to Mr. Wells. He was on the eve of leaving town, preseribed some iron, and Dr. Ritchie saw her for him on September 8, when she eomplained of being unable to see well at night, blue flames often dancing before her eyes. The pupils were dilated, and the retinæ were very pale; the blood-vessels, however, were well injected. The patient thought that the iron was inereasing her appetite; she was told to continue it, and to take some wine daily. On September 15 she was mueh in the same state. The blood was examined mieroseopieally by Dr. Ritchie, and found not to eontain any exeess of white eorpuseles. The red ones, however, instead of running into rolls, showed a tendency to eohesion by their margins. Beeberine was ordered. On the 22nd, menstruation began. Fluetuation was felt in the right upper angle of the tumour, whieh appeared to be softening. The stomaeh was displaced upwards, and the transverse eolon eould be traced beneath the lower margin of the liver. On the 29th the abdomen was measured, and found not to have altered in the slightest from the previous measurements.

She was first admitted to the Samaritan Hospital, Oetober 8, 1864. There was still menorrhagia and dysmenorrhœa, but no clots passed. The girth was 36½ inches, the measurement from sternum to pubes 16 inches, and from ilium to ilium 18½ inehes. The right lumbar region was resonant, the left dull. The tumour was much in the same state as before. Some doubt having been expressed by different gentlemen who saw the patient, as to the nature of the tumour, Mr. Wells wrote in the Hospital case-book, on Oetober 28, as follows:—"I found a large semi-solid ovarian tumour. The uterus is pushed backwards, and the fundus flexed to the right." She was quite willing to have ovariotomy performed; but the general health not being in a very satisfactory state, she was sent to the Convalescent Institution at Walton. She returned, and was re-admitted to the Samaritan Hospital on November 25—having eeased to menstruate on the 19th. On the 28th Mr. Wells entered in the ease-book, "Uterus still pushed backwards by the tumour in front of it, whieh appears to be unattached. It is *certainly* not attaehed to the abdominal wall, and *possibly* not between uterus and bladder; but this is not certain."

Mr. Wells performed ovariotomy upon November 30—Dr. Lawrenee, R.N.; Dr. Griffith, of Peckham; and Mr. Savory, of Stoke Newington, being among the visitors. Chloroform was given by Dr. Parson. At first a small ineision was made below the umbilicus, a cyst was tapped, and two or three pints of fluid escaped; then two or three other cysts were tapped inside the first, but very little diminution in the size of the tumour could be effected. The ineision was therefore enlarged, till it extended from three inches above to six inehes below the umbilicus. There were no adhesions, but there were a few ounces of ascitic fluid in the peritoneal cavity. The pedicle was about two inches long, and as broad as three fingers. It sprang from the left side of the uterus. The operator secured it with a medium-sized elamp, which was made to fix by a screw on its arc. As he feared this might slip, he tightened a wire-rope, by means of a small écraseur, round the pediele below the clamp, and left the instrument on. Beneath this again he tied the pedicle with a strong silken ligature. Hæmorrhage was only superficial, and was easily restrained by compression. The right ovary was found to be healthy, and the wound was elosed with eight deep and six superficial sutures of silk. The operation was peculiar only in the smallness of the size of the cysts, leading to the necessity of a large incision, and from the extra precautions which were taken to keep the pediele from slipping on aceount of the eonstruetion of the clamp. The quantity of fluid colleeted after the operation was five or six quarts, and about as much was spilt. The tumour weighed about fifteen pounds.

The patient reeovered well from the chloroform, but required some opium. Six hours after operation Mr. Wells took away the eompressing apparatus of the écraseur, leaving the wire-rope on. On the second and third days the patient was very well, but required eight grains of opium on the second day; in other words, twenty minims of laudanum were injeeted eight times. On the fourth day, the wound being well united, he removed the stitches. On the seventh day the elamp was hanging by a mere shred of dead tissue; and as there was some neuralgic pain in the right hip, he removed the clamp. There was a little dyspnœa, a symptom whieh had been also previously observed. Acetate of ammonia was given freely, and apparently with benefit. The bowels acted freely on the tenth day, after an injection of warm water. There was some escape of pus for a few days from three or four of the suture traeks, but convaleseence progressed very favourably, and she left the Hospital in very good health on January 3, 1865.

METROPOLITAN FREE HOSPITAL.

RHEUMATIC BRONCHITIS.

It will be granted that in referenee to treatment that it is a matter of very great importance to study the nature of tissue changes in disease. It is more important to know that eertain thoraeic symptoms depend on rheumatism even than to diagnose the exact position of the pulmonary disease. In Dr. Laycoek's lectures, published a few years ago in this journal, mueh attention was paid to this subject. If the views of Dr. Jones be correct, we have, in certain cases of bronchitis, more rational grounds for treatment. We can treat rheumatism by general remedies, as by the iodide of potassium and alkalies, with more hope than a more or less local disease like bronchitis, by expeetorants or other empirieal measures. We may refer to some eases recorded in our Hospital Reports by Dr. Sutton a few months ago, illustrating, in a very definite manner, the relations of rheumatism to eertain local affeetions.

We must, however, keep in mind that rheumatism and ehronic bronchitis are very common diseases, and their eoexistence does not by any means imply a relation. Besides, it is a eommon and a useful praetiee to give iodide of potassium in ehronic bronchitis, espeeially with emphysema, whether it be attended by rheumatism or not. Moreover, in Dr. Jones's second case the treatment was too complieated to enable us to judge what share the iodide had in the cure. The two eases here related can, then, only be considered as a text for remarks embodying the more general experience of a Hospital Physieian on an interesting subject. We report Dr. Jones's remarks, in order that he may speak for himself.

Acute Rheumatic Bronehitis.

(Under the care of Dr. JAMES JONES.)

A. E., aged 20, was admitted into Gurney ward with acute rheumatic arthritis, sharp fever, scanty high-coloured urine eopiously depositing pink lithates. There was also much dyspnœa and eough, with all the physieal signs of capillary bronchitis throughout both lungs, but no earditie complication. The dyspnœa was generally most severe at night. She was treated with alkalies in large doses and morphia: the joints were enveloped in cotton wool. Under this treatment both the arthritic and bronchial affections steadily and *pari passu* subsided, and in three weeks she was able to leave her bed.

Chronic Rheumatic Bronchitis.

M. R., a man of middle age, was admitted an out-patient with cough, dyspnœa, and ehronic arthritic rheumatism.

There is nothing in the physical signs to distinguish his case from one of idiopathie chronic bronehitis, but the symptoms run a somewhat peeuliar eourse. The dyspnœa and cough suddenly subside, and as suddenly beeome aggravated without any apparent cause. The ehest symptoms do not appear to be in any way influenced by the state of the arthritie affeetion, but seem to run an independent course. Under the use of iodide of potassium, biearbonate of potass, compound tineture of camphor, and deeoction of senega, both the bronchial and arthritic inflammation were greatly diminished. The patient declares that no medicine he had ever before taken did so much good to his eough and breathing.

Dr. James Jones in commenting on these cases observed that the influence of chronic eonstitutional diseases in the production of bronchitis or the effect of constitutional diathesis in modifying bronehial inflammation, were subjeets of great importanee, and afford a field for inquiry which had been but little explored. As a part of this very extensive subjeet, he would direct attention to a form of bronehitis not by any means uneommon, yet requiring a special mode of treatment—the rheumatic. His attention was drawn to this form of disease by the large number of eases of chronic bronchitis in rheumatic subjects to be found amongst the out-patients, espeeially during the winter months, and the mode of treatment whieh afforded them the greatest amount of relief. In this disease clinieal Medicine demonstrates what pathology suggests—from their eomplex anatomieal constituents—that the bronchi must be liable to rheumatie inflammation. There appear to be two forms of this disease—the one purely rheumatic, of which the first case affords an example; the other of a mixed eharacter, produeed by the modifying influence of rheumatism, or the rheumatie diathesis on ordinary bronchitis exemplified by the seeond ease. The majority of eases of rheumatic bronehitis exist in the ehronic form. The physical signs give no clue to its nature, as they are identieal with the corresponding idiopathic form. But the irregularity of its course, the seeming eaprice whieh rules its exaeerbations and its subsidenees, and its amenability to those remedies whieh are found useful in relieving the arthritie rheumatism will enable us to differentiate between it and the idiopathic disease. Like arthritie rheumatism, it is often aggravated by the warmth of the bed, the dyspnœa beeoming so severe as somewhat to mimic a paroxysm of spasmodic asthma, being, like it also, relieved by a eopious expectoration. Dr. Jones has not yet had any opportunity of determining the nature of the structural lesion, or whether it differed anatomieally from that which aeeompanied the idiopathic disease. The treatment which he had found successful consisted of a combination of the alkalies and opium in the acute form, with the addition of iodide of potassium and senega in the ehronie; an underdress of flannel, and the use of a respirator, as a protection against those atmospherie ehanges whieh exercise so great an influence over rheumatism.

THE LONDON HOSPITAL.

THE BLISTER TREATMENT OF ACUTE RHEUMATISM.

(Case under the care of Dr. DAVIES.)

The Profession will welcome any new and reasonable therapeutical means in the treatment of a disease so eommon and so dire in its effects as acute rheumatism. Few diseases add so largely and in so many ways to the mass of human suffering. Although it rarely kills, it frequently incapacitates the patient for aetive life, and, besides, it is the parent of many other definite diseases—as ehorea and paralysis. In itself, or so far as the patient knows, it is a mere question of a few weeks' severe pain. Although in great distress and helpless, he is nearly eertain to get through it. And at one time, before its connexion with heart affeetion was known, it was not thought by Medical men to be a very serious disease. No treatment, however, can be worthy of the name which does not tend to keep off eardiac complication. To do this ought to be the great object of all treatment, and any plan that falls short of it, however much it may relieve the patient's suffering, is a failure. In spite of all that has been done in the treatment of this disease, we are eontinually meeting with cases of heart disease in the out-patients' department of our large Hospitals.

Now, most Physicians are agreed that one important way of preventing cardiac complication is to cure our patient quickly. To do this many plans have been urged, and the most reeent is that brought forward by Dr. Davies—viz., by free blistering. We think that by far the most important statement in his paper is—"In no ease when the heart was sound at the time of admission did any organic lesion develop itself." We may just add, however, that there are few diseases about which there are more flatly contradietory opinions as to the results of any particular method of treatment than acute rheumatism. Thus the alkaline treatment is mueh relied on by many Physicians, but at Guy's Hospital we see cases treated by Dr. Gull by a plaeebo, *e.g.*, a little extract of taraxacum and water. This Physician avers that this no-treatment, or rather no-drug treatment, is quite as good as the alkaline method. He speaks from experience, as he has earefully tried both. The patient gets well, he believes, as soon, and the heart is as seldom attacked, under one as under the other. Dr. Davies' plan seems to us to be a medium betwixt drug treatment and what we may eall treatment by time. We shall give next week particulars of two cases under the care of Dr. Greenhow, followed by remarks by that Physieian, in which it will be seen that the results were favourable. Dr. Davies' plan has been tried with sueeess in other Hospitals, and we shall shortly report a ease treated by Dr. Jeaffreson, in St. Bartholomew's. Many eases have been treated in the London Hospital since Dr. Davies' paper appeared, and we now give the following example:—

The most striking feature in Dr. Davies's method of treatment is, that it is absolutely and entirely local. In the eases he relates no drugs, except an oecasional purgative, were given. Wherever a joint was inflamed, there a blister was put on. The blisters are to be applied quite round the affe.ted limb; not on, but near to, the inflamed joint. When a large joint like the knee is affeeted, the blisters should be two inehes wide. They should be put on, he says, at "the very height of the inflammatory stage, when the loeal pains are the most severe and the eonstitutional disturbance the greatest." Poultices should be afterwards applied to prevent flow of serum. In one ease nearly 300 square inches of blisters were applied. It may be thought that, as regards pain, the remedy is worse than the disease, but the eontrary is the fact. The patients like the blister treatment, and it has never eaused strangury in any of Dr. Davies's eases, exeept to a trifling extent in one ease.

This seems at first sight a strange way of treating a blood disease like acute rheumatism, but, as Dr. Davies shows, under this treatment the urine will become neutral or even alkaline. So, then, the treatment, although local, produees that eondition of the urine whieh is generally aimed at in the eommon treatment by alkalies. Dr. Davies uses local means, as he thinks the poison loeates itself in the inflamed joints. He believes, indeed, that the blood is not loaded with the *materies morbi*, but that it is deposited in eertain tissues which have temporarily an affinity for it. Instead, then, of giving alkalies to *neutralise* the "aeid poison," he thinks we should try to *eliminate* it by blisters applied near the points where it is then aeeumulated. Whether Dr. Davies's theory of the action of his remedy be eorrect or not, the practiee seems to have been very sueeessful, and is deserving of careful trial in our Hospitals. It is purely a question of fact. Does the blister treatment shorten the duration of acute rheumatism and prevent heart eomplication? If further experienee shows that it does aeeomplish these two important objects, Dr. Davies may be congratulated on having inereased the powers of usefulness of our Profession in no small degree.

The followiug case is supplied to us by Mr. J. E. Adams, Assistant-Resident Medical Officer to the Hospital:—

Ann S., aged 25, married, was admitted November 30, for aeute rheumatism. It had begun eight days before, and was her first attack. Her health had usually been good, but lately she had been weak—*i.e.*, since her eonfinement three months before.

When admitted she had all the eonstitutional symptoms well marked. Her tongue was furred, there was great thirst, complete anorexia, she eould not sleep, her pulse was 108, and temperature 100°; seeretions acid. There was intense pain in both shoulders, both hips, in the left wrist, hand, knee, and ankle, and they were hot and swollen. There was also a very soft systolie murmur audible at the apex of the heart.

Blisters were at once applied to all the affeeted joints, ten in number; and no medicine was given beyond an opiate at night.

The next day there was very little pain in the blistered joints, but the hand was now affected. The constitutional

*

symptoms were about the same, but there was slight strangury. Two blisters were ordered for the right hand.

The next day there were no rheumatic pains, the pulse was diminished in frequency, tongue cleaning, but there was little sleep, and the appetite had not returned. The sweat was still slightly acid; urine and saliva neutral; strangury very slight.

Two days later the pulse was reduced to 80; temperature 99°. She had passed a comfortable night, and the appetite was returning.

From this time she improved steadily (having only once a little pain in the left elbow, but no constitutional disturbance) and left the Hospital on December 20, perfectly well, the condition of the heart being the same as on admission.

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Medical Times and Gazette.

SATURDAY, JANUARY 7.

ANNUS MEDICUS, 1864.

Last week we said a few words on the arrangements we had made on behalf of our readers this year; now we proceed to take a brief glance at the principal Professional events of the year which has just closed. And first we offer our hearty thanks to the many valued contributors and correspondents who have aided and lightened our labours, and enabled us to give our subscribers two volumes of no slight or passing value.

Of our own work we will not speak; we have endeavoured always to uphold the dignity and honour of the Profession, and to advocate its best interests, and we trust that we have laboured not unacceptably, nor without success. But though we say no more than this of our editorial work, it is the merest justice to own that we feel some pride and satisfaction in pointing to the valuable matter the labours of others have enabled us to publish. Such lectures as those of Drs. Simpson, Garrod, Priestley, and Harley, and of Messrs. Paget, Fergusson, Helmholtz, and Huxley, and essays like those of Peacock, Hare, Haughton, Althaus, Laycock, Wharton Jones, John Wood, and others, form, together with the "Medical History of England," the discussion on "Hospital Mortality," and other communications contained in our columns, volumes of no mere temporary interest and worth, but such as, we believe, will be judged a valuable and solid addition to Medical literature.

One of the most, if not the most, prominent topics of Professional interest during the year has been the management, or rather the mismanagement, of the Army Medical Services. This subject has been so frequently and fully treated of in our pages, and is so well understood by the Profession, that there is no need to go into details here. It is sufficient to state that by the Royal Warrant of 1858, by admission into the service through a well-conducted, special competitive examination, and under the able direction of the late Mr. Alexander, the British Army Medical Service was rendered highly popular, and as highly efficient. But this desirable state of things having been attained, the Horse Guards then, for some mysterious reasons, adopted, and have persistently maintained, towards it a course of conduct apparently calculated, and certainly most effectually tending, to utterly destroy it. They took upon themselves to annul the best provisions of the Royal Warrant, and by means of broken faith, and ill-kept promises, and the constant infliction of indignities, slights, and general and petty annoyances of every kind, they contrived to excite in the service an amount of disgust and discontent unparalleled for degree and extent, and in the Profession at large such a feeling that it became impossible to recruit the service, though its portals were enlarged to admit the waifs and strays of the schools. The authorities were at last driven to tout for the services of the unsuccessful hacks of the Profession as "Acting Assistant-Surgeons." The terms of engagement offered were such as no one would venture to propose to a respectable servant, such, viz., as discharge at the pleasure of the Director-General, without notice or compensation; but it is said that the Director-General received 300 applications: very few indeed have, however, been gazetted as accepted. This deplorable condition of the service was warmly and actively noticed by the Medical Press and the Profession, and began to attract the attention of Parliament and the public, and it seemed probable that a more just, generous, and gentlemanly course of conduct would be forced on the Horse Guards; but unfortunately the probability of improvement was mistaken for a certainty, and the younger members of the Profession were induced to enter for the last examination in such increased number as excited much clapping of the wings and defiant crowing at head-quarters; and the day of amendment is postponed. That it must come, however, we do not doubt; for though military authorities may complacently declare themselves satisfied with third-class men, we very much doubt whether John Bull will be content to trust the health of his expensive army to such hands. If some large and liberal measure of reform be not soon granted, the gentlemen who lately entered the service will have only themselves to thank for the delay; and, if they are worth anything, it will not be long ere they bitterly rue having "taken the shilling," for they will find themselves only tolerated by their "brother officers" instead of having definite rank and position as officers and gentlemen; they will get scant pay and more scanty allowances; almost no leave when they have health to enjoy it, and very insufficient and grudgingly-granted sick-leave, however much they may need it; and they will be doomed to constant exile, while the home work is done by the Director-General's hack Assistant-Surgeons.

Why the Horse Guards should thus treat the Medical Department is inexplicable. Was it found that the Medical officers, when first-class men, were too superior in general knowledge and intellectual training to the "combatant" officers? Did the Horse Guards find them too enlightened in their views on military hygiene, and all matters bearing on the health and physical well-being of the soldiers, and too firm and importunate in maintaining such views against leather-stock and pipe-clay colonels? If we wrong the military authorities by suggesting such grounds for their treatment of Medical officers, the fault is theirs; for while they put forth only such an absurd and groundless reason as that the Medical officers aim at military command, we are forced to suppose that their real motives are such as they are ashamed and unwilling to avow. Some slight concessions have been wrung from the authorities, as that the orderly officer for the day, as well as a Medical officer, should be present at the branding of soldiers.

The Indian Medical Service, after a lengthened experience of neglect and ill-treatment, seems to be entering on a brighter era. Our readers will remember that towards the end of the last session of Parliament the Secretary of State for India brought in a bill giving him the power of appointing Medical officers to the Indian army at his will and pleasure, alleging, as a reason, that the competitive system had broken down, for he could not get anything like the number of officers he required; and, at the same time, he declared, as an inducement to trust

him, that had he sent out a new warrant which would remove all discontent and make the service popular. Thanks to the efforts of the press, and to Mr. Pope Hennessy, the Bill was defeated. By-and-by the terms of the Warrant became known, and it is difficult to say whether they excited most astonishment or indignation, for it appeared that Sir Charles Wood's cure for discontent was an universal lowering of the pay of the Medical officers. The whole press of India agreed in denouncing the Warrant in the strongest terms, and the Governor-General suspended its operation. It is hard to conceive how Sir C. Wood could have for a moment really imagined that it could be acceptable. He has, however, had the good grace and good sense to follow it by another new Warrant, the terms of which appear really liberal and satisfactory, and which will, if as good as they at first sight appear, render the Indian Medical Service attractive and efficient. We are obliged to speak of it thus conditionally, and to await the verdict of India on it, for, after what preceded it, we cannot but think of the favourite Parliamentary quotation,—"*Timeo Danaos, et dona ferentes.*" We are, however, at present inclined to think that Sir Charles Wood will not be disappointed in the hope that the last new Warrant, if faithfully carried out, will "diffuse a spirit of satisfaction and contentment among the officers now in the service, and secure for the future a certain supply of Medical officers of good social position, liberal education, and Professional ability for Her Majesty's Service in India."

In Parliament no Act was passed directly affecting the Profession. The public voice, indeed, accuses it of having done very little for good or evil, but get through the Session; but, at any rate, one Act of considerable value, and making a decided advance in intelligent legislation for the public health, was passed, viz., "The Contagious Diseases Act."

That such a Bill was passed gives life and strength to the hope that Parliament may next Session see its way to the enactment of some measure to protect the public against the vile quacks of the "Henery" and "Scott" species. That they can be quite silenced is, we suppose, impossible; but surely it might be made illegal for them to use the Post-office to scatter abroad their filthy pamphlets; and those dens of pruriency and impurity, the "Kahn Museum" and the like, with their "lectures," might be closed. Is it too much to hope that the public press, which boasts, not altogether without reason, of its disinterestedness, purity, and power, may soon be awakened to the scandal and disgrace of making itself the vehicle of the disgusting and lying advertisements of these harpies? The *Times* and some few other journals are without reproach in this matter; would that the daily and weekly press, as a body, would follow their example!

In the House of Commons a charge of inhumanity towards one of his patients was brought against Dr. Flynn, of the Clonmel Lunatic Asylum; but he was eloquently and successfully defended by Sir R. Peel, who declared, *inter alia*, that "the Lunatic Asylums of Ireland were better conducted than any Asylums in other parts of the world, and the Clonmel Asylum, under the superintendence of Dr. Flynn, was a model institution."

In our own little Parliament, as in that of the nation, the members were most diligent in helping one another to do—nothing, but talk; the cause for passing a Session thus being, perhaps, the same for both—their age. The one was in its first, the other in its second childhood. This, not expected at one time to live through the Session, and, at any rate, drawing near the close of its "natural life," was, naturally, garrulous and prosy—"rest and be thankful" its motto; that, meeting for its first Session, as naturally chattered and prattled away, heedless of the flight of time. Had it really been the first meeting of the Medical Council, we might be well content with the results; but for the work of the first Session of its second Parliament, so to speak, of the sixth year of its existence, why—the less said the better. We can hardly hope that that much-enduring class of men, the public reporters, admitted for the first time to its debates, carried away any very high idea of its dignity or usefulness. We much fear their most abiding impression would be one of loquacity rather than of eloquence.

Our new Parliament contains, however, some new and able Members, and the flux of talk this Session may lessen the verbal pressure for the future; so we still will hope for acts as well as words next Session. We are sure that Dr. Burrows is no lover of a merely expectant mode of treatment; and we trust that he will succeed in infusing some of his own energy and business habits into the body over which he so ably presides.

The British Pharmacopœia was published, and we have heard of its being used.

In the Court of the Queen's Bench, Mr. Sargeant, whose name had been struck out of the Medical Register because, "owing to a change of residence," he had not replied within six months to the usual annual letter from the Registrar, obtained a rule absolute for a Mandamus to the General Council of Medical Registration to hear and determine on his application to be registered *de novo*.

Vice-Chancellor Sir J. Stuart directed proposals to be laid before him at Chambers for a scheme for carrying into effect the trusts of the late Mr. A. Morley's will, as to the sum of £50,000 bequeathed by him for founding a convalescent Hospital in connection with St. George's Hospital. We believe that land has been bought for this purpose.

The Lord Chancellor has finally decided, on appeal, that the Donation Governors of St. Thomas's Hospital have the power of selecting the new site for that charity. The choice of the Stangate site therefore holds good.

In the Criminal Courts several members of the Profession have appeared as defendants; but we are happy in having to record only one very flagrant instance of injustice by jury; we refer to the case of Smithyman *v.* Wilson, *vide* vol. ii., p. 198—an action for negligence and want of skill in the treatment of dislocation of the shoulder. The jury gave a verdict for the plaintiff, with £50 damages. The Judge afterwards remarked—"There was clearly upon the evidence no want of skill, and that, I think, the jury may be taken to have found;" but "though there was no want of skill, and the shoulder had been in the first instance properly set, there might have been possibly some little inattention subsequently." For which possibly "little inattention" Mr. Wilson was thus most heavily punished.

In most, if not all, of the other cases the Profession was protected by the good sense of the jury; and we must add that in very few, if in any, would an action have been brought but for some indiscretion, to use a very mild term, and want of true brotherly feeling on the part of members of our Profession. This is a deplorable admission, but such cases as Regina *v.* Goss, Wright *v.* Davies, and Pryce *v.* Bowen, are glaring proofs of its truth. While such things happen, and not exceptionally, does the boast of brotherhood deserve to be estimated as anything more than hypocrisy—the homage paid to a virtue conspicuous among us only by its absence?

Mr. Wilkins was indicted by the Commissioners of Lunacy for an infringement of the lunacy laws, by taking into his house without a license a single lunatic patient; there was no disputing the fact that he had, though we believe unwittingly, sinned against the law, and he was found guilty and bound over to come up later for judgment. We think that under the circumstances the infliction of a mere nominal fine would have met all the requirements of the case, but the judge before whom he finally appeared fined him £50; a druggist who was convicted of having assumed the title of and practised as a Surgeon, was fined by a magistrate one shilling, "to vindicate the law" his worship said. We do not know whether the difference in the amount of fine was due to a Judge's higher appreciation of the majesty of the law than to a Magistrate's, or to the higher position of the defendant in Mr. Wilkins' instance; if the latter, we could

have very well borne to do without such a compliment. At any rate, the Profession will in future remember better the lunacy laws.

The election of Fellows into the Council of the College of Surgeons caused no little excitement, and, as has been the case each year of late, great efforts were made to put in new men. Considerable reward has attended the efforts of the Fellows to break up the old routine system, but they will never meet with more than partial success till the provincial Fellows obtain the right of voting by proxy. Till then the election will remain *de facto* in the hands of the London Hospital Surgeons, and provincial Surgeons, and men of *only* a high scientific reputation, like Messrs. Turner and Gulliver, will have hardly any chance of success. The daring spirit of innovation, the tendency to intrude on the calm repose of officialism and routine, to meddle with the sanctities of time-honoured customs, and to stir up solemn and venerable stagnancies have troubled even the still waters of a Fellowship election at the sister College in Pall-mall. The election of Members to the dignity of the Fellowship has hitherto been a sacred mystery; why some most able and worthy Physicians were year after year passed over, and why others were chosen, was among the things that no Fellow, or, at least, no Member, could understand, and few dared to question. The only clear and certain claim to promotion was apparently the possession of an Oxford or Cambridge degree. But this year, it is rumoured, some "greatly daring" Fellow ventured to inquire why some Member or Members had not been recommended for the Fellowship? and so much dissatisfaction was felt with the nomination-list of the Council, that it was proposed to black-ball all the nominees, and half of them actually were black-balled; a result much to be regretted, for it seems to cast a special slur on the sufferers, all of whom were well worthy of the honour of the Fellowship; it would have been much better, and have had a less personal aspect, to have black-balled the entire list. But the dissentient Fellows were novices in the work of reform, and will doubtless manage better next time. That they will have another opportunity is pretty certain, for we understand that the Council, having been requested by the College to consider whether some better mode of electing Fellows could be devised, have reported in the negative—they think no change desirable. We venture to differ from them entirely: the present mode of election is certainly far from satisfactory. No well-wisher to the College or the Profession would wish the Fellowship made too common or too easy of attainment; but the College has, by its institution of the new order of Licentiates, considerably lowered the public value of the Membership, and ought, we think, in justice to the Members, to admit in a more generous and just spirit their claims to the Fellowship.

A Committee of the College is engaged in inquiring into the condition of the Army and Navy Medical Services. Their report, as well as that of the Committee on Leprosy, which has been sitting for a considerable time, are eagerly looked for by the Profession.

When we turn from considering the active work of the Profession during the year to look down the, alas! lengthy, list of "names once heard, but heard no more," the feeling of sorrow and the sense of loss are excited in very different degrees and extent by the various names that appear. Some, as Drs. Este, Carlyon, Boott, and Headlam, had been able, after long lives of successful labour, to retire from the toils and anxieties of practice, and enjoy a few years of rest and honoured old age before departing hence; and others, as Dr. Osborne, and Messrs. Smyly and Stone, had lived not far short of the three score and ten years of the Psalmist; had lived for "use, and name, and fame;" had had time to gather the harvest, and to "eat the labour of their hands." We grieve for the loss of wisdom, experience, and faithful counsel, and for the breaking up of old friendships; but all these men had had their reward. Others, like Mr. Langley, had scarcely entered into the battle ere it was over for them; for such the sorrow cannot be wide-spread, for their worth and promise, however great, were known to but few. The death of such men as Hardwick, Kirkes, M'Dowell, Miller, Price, and others of like age, excite much more widely-spread and deeper feelings of sorrow and sympathy. In the prime of life, and the full vigour of intellect, having borne the heat and burden of the day, having nobly fought their way to the front, their lives already rich in performance as well as in promise, they actually grasped victory and success, but had no time to taste of their sweets. Of some, the names will live especially for the honour and glory which surrounded their deaths. Who amongst us will ever forget Herbert Llewellyn, the hero of the *Alabama?* His school has honoured itself by erecting memorials to his fame; but his "*monumentum ære perennius*" is the record of his heroism, which will live in the memories of the Profession, and will make his name a household word as long as British Surgery lasts. Not less honourable, though less dramatic, were the deaths of Clarke, Milroy, Gallagher, and their comrades who fell in the field of pestilence in the Bermudas. We at home are, however, touched most acutely, perhaps, when men in civil practice, like ourselves, endowed with every mental qualification for eminence, and rapidly conquering success, suddenly fall from some bodily weakness. We are shocked and surprised, as well as grieved, for they were running only the same daily risks that we ourselves encounter; and we are too apt to forget that for success in any arduous profession, physical strength is as necessary as intellectual power. Of such men lost to us in the past year, the most prominent in London were Dr. Kirkes and Mr. Price.

Mr. Price, gifted with all the qualities that are needed to make a great Surgeon, popular and singularly winning in manner, full of energy, and of a most happy and sanguine disposition, had already acquired a brilliant reputation as an operator, when, at the early age of twenty-eight, he was forced by failing health to resign all hopes of a London career, and, after a long and painful illness, borne with unmurmuring cheerfulness, he died, in November last, at Ventnor. Dr. Kirkes was less brilliantly endowed by Nature, but when, after an illness of less than a week, he was lost to the Profession, by his excellent abilities, his untiring industry and perseverance, and the knowledge and learning that made him equal to every opportunity, he had raised himself to a position rarely indeed attained at his age. Only forty-one when he died, he was Physician to St. Bartholomew's, and joint Lecturer on Medicine in the school of that great Hospital; and he has left behind him works which will long connect his name with the advance of Medical science. Remarkably quiet, unpretending, and gentle of demeanour, and modest in his estimation of his own value, he was of sterling worth and truth, and leaves a pregnant example of a life of rare purity and unswerving high purpose. "*Multis ille bonis flebilis occidit.*" As was said of Mr. Price in the memoir of him which appeared in our pages, it can be most truly said of Dr. Kirkes, that he left "on his part not an enemy behind him, and for friends all who knew him."

THE WEEK.

THE "MEDICAL TIMES AND GAZETTE" FOR THE PRESENT YEAR.

Whilst sketching our programme last week, we omitted to state, in the hurry of composition, that the Medical History of England, by Dr. B. W. Richardson, would be continued during the present year. Our readers will be taken in turn to Bath, Oxford, Nottingham, and Leamington, so we give those good old towns, and all in them whom it may concern, fair warning—

> "If there's a hole in a' their coats,
> We rede them tent it:
> A chield's amang them takin' notes,
> And faith he'll prent it."

We have also the gratification of announcing that during the present year, in addition to the contributions already promised,

Clinical Lectures and Original Papers by the following distinguished Physicians and Surgeons will appear in our columns:—Professor J. Y. Simpson, of Edinburgh; Professor Paget, of St. Bartholomew's; Mr. John Adams, of the London Hospital; and Professors Lionel Beale and Priestley, of King's College.

THE PATHOLOGICAL SOCIETY.

The Pathological Society is the best answer to the men, and there are many such amongst us, who disbelieve in the value of conjoined efforts in the furtherance of science. No doubt the great strides in the progress of all sciences have been the result of individual and unaided work; but individual effort is stimulated and encouraged by a knowledge that others are working in the same direction, under the same auspices, and that every result, by whomsoever gained, will be made public to the whole scientific world without favour or delay. This is the assurance the Pathological Society offers to its members, and this is the secret of its success. Every fact, by whomsoever contributed, finds there a due appreciation, and a specimen shown or a case related before the Society can never be lost or forgotten.

The Report of the past year shows a condition of things of which the founders of the Society and all its officers, past and present, may well be proud. The last Report stated that "the Society was at that moment constituted by a larger number of members than at any previous period of its existence;" but its flourishing condition at that time was only the augury of its present state, for the present Report tells us "that more new members have joined in the past session than in any other of which a record has been preserved;" and not only is the number of names enrolled increased, but the meetings are larger and the specimens exhibited more numerous than at any former period. The finances of the Society seem to be wisely managed, for notwithstanding that the Royal Medical and Chirurgical Society have raised their rent, and the expense of a yearly volume such as the *Transactions* is no small sum, they still have a balance in hand, and by investing life subscriptions and composition fees they have become possessors of funded property to the amount of £308.

We have pointed out what we believe to be one great secret of the success of the Pathological Society—viz., that each man who works for it is certain that his work done will meet with fair appreciation and reward—that it will not be burked by committees or "forgotten" by secretaries. But there is another reason for its striking success which will be acknowledged by every one who has attended its meetings—we refer to the singular good fortune which has attended it in the choice of its officers. We need not speak of its past Presidents, numbering as it does such names as those of Watson, Williams, Fergusson, and other leaders of the Profession; but we feel that more than a passing tribute is due to the President and Medical Secretary who have just retired and to the Surgical Secretary who continues in office. Mr. Prescott Hewett's tenure of the President's chair will not soon be forgotten by the Fellows of the Society. Seldom has the occupation of office been signalised by more talent, extensive knowledge, diligent devotion to the interests of the Society, or by more urbanity and kindness. In quitting the chair, Mr. Hewett, on the part of himself and Mr. T. Holmes, the Surgical Secretary, presented the Society with all that was wanting to give full value to its publications—a complete index to all the volumes of *Transactions*, the labour being contributed by Mr. Holmes, the expense by Mr. Hewett. We congratulate the Society on the most valuable gift it has received, and every student of pathological science, who will find his labours lightened by Messrs. Hewitt and Holmes' liberality. The retiring Medical Secretary, Dr. Bristowe, has so thoroughly identified himself with the work of the Society in past years, and his co-operation and individual labour are of such high value, that we most heartily second the hope expressed in the Report, "that, although they have lost Dr. Bristowe's services as Secretary, the Society may still have his co-operation in other offices." We strongly recommend all who are interested in the real progress of Medicine, who have grasped the truth that facts are of everlasting value, whilst theories are only valuable in proportion as they are built on facts, to join the Pathological Society. Under its able new President, Dr. Peacock, it is, we may safely prophecy, entering on a new stage, in which it will even outstrip its former progress—extraordinary as that has been.

THE CASE OF TIMOTHY DALEY.

It is a matter of no small congratulation that the Poor-law Board have been requested by the guardians of the Holborn Union to institute an official investigation into the real merits of this case. Never was one in which, for the sake both of the individual actors and of the public and Profession, a full and impartial inquiry was more needed. If Mr. Norton, by any wilful neglect, either directly or indirectly, accelerated the death of Daley, by all means let the blame be laid where it is due. Nothing can extenuate inhumanity, and not one word should be urged to mitigate its penalties. But whilst there really exists no clear or convincing proof that Mr. Norton is guilty, we think there is good ground to complain of the unhesitating tone in which he has been condemned by the daily and weekly press. The article from the *Spectator*, which was copied in the *Times* of Tuesday last, would have done credit to the author of "Never too late to Mend" and "Hard Cash." We have rarely seen in any newspaper of respectability, even in a "sensation" leader, such a total disregard of evidence, such unsupported assertion, and such an evident and strong bias against an accused person. The writer starts by assuming the entire truth of the story of the prosecution and the utter falsity of that of the defence. He has recourse to all sorts of expedients to heighten the picture of the poor man's sufferings, and the popular indignation against Mr. Norton. According to the *Spectator*, Daley was not only powerful and muscular, but of *handsome* form. Mr. Norton's daily visit and examination of the bed sores on alternate days, to which he deposed, are construed into "a glance" from the Surgeon "four days in seven;" and the public are twice informed that a pauper patient dying with bed sores is as much killed by the parish Surgeon as though the sores had been made by deliberate blows. As we stated last week, we do not constitute ourselves advocates of Mr. Norton. Let his conduct be thoroughly sifted, and let him be judged by the result. But we do protest against a Surgeon's character being scribbled away by an irresponsible writer, who probably never saw nor heard of a bed sore before he "got up" his article, and who knows nothing of the difficulties and crosses which beset a Poor-law Surgeon in the discharge of his duties. We await the verdict of the Poor-law Board, which we have no doubt will be an impartial one; but in the meanwhile we reproduce Mr. Norton's own statement of the case, published in the *Times* of Saturday, only adding that if he can substantiate what he alleges, he will go very far to clear his character of all suspicion of inhumanity or neglect of duty:—

"*To the Editor of The Times.*

"Sir,—As the Medical Officer of the Holborn Union, will you permit me to say a few words respecting the inquiry into causes which led to the death of Timothy Daley, and the comments upon the inquest which appeared in your paper of Thursday last? I do not for a moment wish this letter to be considered in the light of a defence; that I reserve for the inquiry which will be instituted by the Poor-law Board.

"I am, however, anxious to vindicate my character and Professional reputation to some extent by pointing out certain facts of the case which have either not been reported or have been misrepresented by the witnesses examined. It may be asked why if I had evidence which could disprove the allega-

tions brought against me I did not bring it forward at the inquiry? To this I reply that up to the time of the inquest I had no idea that it would take the form of what I may almost term 'a prosecution.' I had, therefore, no professional adviser to cope with the clever Practitioner engaged against me (although I am indebted to Mr. James for the assistance he rendered me). Moreover, I was told the evidence of two witnesses I was anxious to call was not needed.

"1. Daley is described as being at the time he was admitted into the Holborn Union a strong, muscular man, whereas the evidence of Mr. Lathbury, the Surgeon who saw him on the two days previous to his admittance, proves that he was in a low, weak state, thin and emaciated, and in a condition in which bed sores were likely to occur.

"2. With regard to the length of the bed, it cannot surely be maintained that a man of 5ft. 9in. in height could be cramped in a bed 6ft. long.

"3. With respect to changing the poultices; three witnesses were examined (and two more were present, but not called) who distinctly asserted that the poultices were changed never less than twice, and more frequently three times a-day. As to my Professional care of Daley, the testimony of the nurses proved that I saw him every day, and examined the sores every two or three days, which was as often as I thought necessary, the painful state of his joints causing him extreme agony.

"4. As to the bed sores, in contradiction to Mr. Lowne's assertion that they ought not to have occurred, Dr. Andrews stated, in reply to Mr. James, that if a patient, in addition to rheumatic fever, was in a low, weak, typhoid state, in all probability it would be totally impossible to prevent bed sores.

"5. The man was in the Infirmary six weeks, yet he made no complaint whatever, although a committee visits the wards every week for the express purpose of seeing that the patients receive proper attention and treatment.

"6. A point is made against me on account of my not having signed the dietary cards. Now, these cards were introduced by me to enable the patients to ascertain that they were receiving the diet ordered, poor people being generally suspicious of the treatment they receive in workhouses. These tickets were written by my authority, and when new ones were needed they were copied by a clerk, I invariably satisfying myself that they were correct. There are no regulations concerning them.

"I trust you will kindly give insertion to this letter, which I venture to think does away with much that has been advanced against me. I have been in practice fourteen years, ten of which I have been Medical officer to the Holborn Union Workhouse, during which period I have had many thousands of patients under my charge, yet no complaints have been made against me. I feel it, therefore, a grievous hardship that a charge should be brought against me of which I am entirely innocent.

"Fortunately, the verdict of a coroner's jury does not settle the matter; I have a court of appeal, and I trust you will give the same publicity to the investigation which will be instituted by the Poor-law Board as you have to the inquiry which took place on Tuesday last.

"I remain, yours obediently, "JOHN NORTON."

FROM ABROAD.—RETENTION OF URINE FROM ATONY—ETHER AS AN ANÆSTHETIC—VACCINATION FROM THE COW.

M. FOUCHER detailed to the Academy of Medicine the results of his application of pulverised fluids in the treatment of retention of urine from inertia of the bladder and of vesical catarrh. Such inertia or atony of the bladder is, he observes, a frequent, and sometimes the sole, cause of retention of urine in the aged. It is true that there may be also prostatic obstruction, but this in many cases would be insufficient to induce retention unless atony were also present. When atony forms the chief or sole cause of retention, the urine, on the catheter being passed, flows out unaccompanied by any jet. When the retention is due to the obstruction at the neck of the bladder alone, a jet ensues upon catheterism. Where the bladder is imperfectly emptied in consequence of inertia of the organ, vesical catarrh is a common occurrence, and this, when considerable, adds to the atony of the organ. The two conditions are, in fact, intimately connected with each other, reciprocally influencing one another, each alternately playing the part of cause and effect. As a means of restoring the contractile power to the walls of the bladder and modifying the chronic inflammatory action of its lining, M. Foucher strongly recommends the "capillary intravesical douche," and the injection of "pulverised liquids." The first of these is effected by means of a catheter with a capillary orifice, and to which is attached one of Luer's pulverizators. A small but energetic jet strikes against the walls of the bladder, inducing a marked sensation of cold. In simple inertia this will restore the contractile powers of the organ. But when vesical catarrh, in its varied degrees, is present, a wider diffusion of pulverised liquids is required, for which purpose M. Foucher has had a double catheter specially constructed, which, attached to Luer's pulverizator, effectually irrigates the whole interior of the organ. Either simple water, tar water, infusion of buchu, or other substances, according to the exigency of the case, may be employed, the operation causing no pain, but merely a sense of cold in the hypogastric region. Its success is prompt and satisfactory, some instances of this being adduced in the paper.

M. Regnauld, communicating to the Academy an account of the means of obtaining sulphuric ether in a state of complete chemical purity, questioned M. Gosselin upon the results of any trials he may have made with this pure ether. M. Gosselin replied that he had felt little disposed to abandon the use of chloroform in favour of ordinary sulphuric ether, which induces so much agitation during its administration as to render the production of anæsthesia by its agency difficult. M. Regnauld, however, having supplied him with some ether chemically pure—that is, containing no alcohol,—after trying experiments with it on animals, he administered it to seventeen patients about to undergo operations. He found that the anæsthetic effects of this ether are far more rapidly produced than is the case with ordinary ether, while they are also more certain. There is no stage of agitation, and only from four to eight minutes are required to produce absolute insensibility. In these respects M. Gosselin considers that this chemically pure ether occupies the same rank as chloroform, and that it should therefore be preferred to that agent, as no fatal result has ever occurred from its employment even in its impure condition. (The Surgeons of Lyons have long since renounced chloroform in favour of ether.)

Dr. Lanois, a young Physician of enthusiastic temperament, having listened to the recital at the Lyons Congress of the Neapolitan mode of vaccination, repaired to Naples to thoroughly study the subject under M. Negri, the successor of Galbiati, who has now the management of the enterprise in that city. Highly satisfied with what he observed, he brought back with him to France a heifer vaccinated with all the precaution which M. Negri deemed necessary. The cow, firmly tied, is thrown down on its left side, and its body so flexed as to render the abdominal region supple. A portion of the surface of the right inguinal and hypogastric region, from one to two square decimetres in size, is carefully shaved, and then, by means of a strong lancet with cutting edges and a rounded point, slight scarifications, from six to ten millimetres in length and ten to fifteen millimetres from each other, are traced in a parallel line. Other lines of scarifications are also made, so that there may be about sixty or seventy ranged over the entire surface. They are not made deep, and within the lips of each is deposited the vaccine virus collected on the flat side of a knife from the pustule already produced on another cow. The inguinal region is deemed the most fitting place for the vaccination as the epidermis is very thin there and the skin is mobile, while the part is protected from dirt, friction, and atmospheric influence. From the heifer brought over by M. Lanois, children and another heifer were vaccinated at Lyons, the pustules whence the virus was taken being at their fourth day only since inoculation. Indeed, M. Negri vaccinates from pustules only seventy-two hours old; and he does not open the pustule in the ordinary way from the exterior, but entirely removes it, and even a portion of the dermis situated below it.

It is of great importance that this portion of the dermis should be well scraped away from the excised pustule, so as to expose the virus in its purest condition. To do this effectually requires practice; but the efficacy of the vaccination much depends upon it. All the vaccinations made at Lyons were as successful as those observed at Naples. In a paper which M. Lanois has laid before the Academy, he states that the results of the observations which he made at Naples exhibit the following advantages of the practice:—The possibility of a constant transmission of virus from cow to cow, at all seasons of the year, in sufficient quantities to meet the demands of large establishments; the regeneration and not the impoverishment of the virus by this transmission; the easy practice of the vaccinations; the innocuousness of the course of the eruption; and the certainty of the prophylaxis.

Dr. Philippeaux, from whose paper in No. 51 of the *Gazette Hebdomadaire* we have derived some of the above facts, in reply to the question why this practice, if so good, has not become generalised during half a century, points out that vested interests have stood in its way. Thus, while Ferdinand had his own children vaccinated from the cow, he compelled his subjects to have theirs vaccinated in the ordinary mode at the national establishments; and even members of the Vaccine Committee, who opposed the introduction of the vaccination from the cow, resorted to it for their own relatives. Then, again, it is a more expensive process than the ordinary one, for many heifers have to be kept on hand, so that one may be vaccinated every eight or ten days. In order to acquire the necessary facility and a complete knowledge of this mode of vaccinating, it is necessary that the Practitioner should, like M. Negri, make it a special occupation.

REPORT ON CHEAP WINE.—NO. VIII.

(By our Special Empirical Commissioner.)

(Continued from page 682, Vol. II., 1864.)

Italian, Greek, Hungarian, and Austrian Wines.

As this article may fall into the hands of readers who have not seen any of the foregoing ones, I take the liberty of repeating in these lines the basis of my argument.

The wines in commonest use—that is, port and sherry—are fortified by the addition of large doses of spirit. This not only makes them less wholesome, but it also makes them dear, because to be drinkable with pleasure and safety, they must be kept many years in wood and bottle. Moreover, all sorts of port and sherry have become scarce, and have risen enormously in price. Again, the town is flooded with a lot of the fictitious stuff, chiefly manufactured at Hambro', which is made to look like sherry or port, but which is not *wine* at all, but spirits and water only, coloured and flavoured. If cheapness be an object, or if disguised spirits be really preferred to wine, various compounds of spirits, fruit, sugar, and water, hot or cold, can be prepared to suit every purse and every palate, and to suit common sense also; for it is not common sense to tickle the ear with the name of sherry, and the eye with the sight of a wine-decanter, whilst the liquid is but spirits in disguise; still less to pay even eighteenpence for a bottle of Hambro' sherry, whilst the same amount of spirit may be had in its native purity for eightpence. The hypocrisy of every-day life, too, is much to be wondered at which palms off adulterated spirits as sherry because cheap, but sneers at pure wine if that be cheap. Defrauded, too, by long wars and mischievous legislation, of access to the pure, cheap, and abundant wines of our neighbour, France, our population has been bred up to estimate the brandied wines of Spain and Portugal as the true types, and to look on wine as a dram to be sipped, instead of a beverage to be drank. Hence, natural wine was, before the increased intercourse with France of the last ten years, and the reduction of the duty, a thing quite unknown to the mass of the people. "Claret" and "Hock" were introduced at the tables of the rich as great luxuries; but they were also often used by the vulgar rich in a way which showed that they were part of the apparatus of ostentation and not of enjoyment, just like the heavy silver dishes and hired flunkeys. These delicate wines were often sipped with sweetmeats; they were chilled and even *iced*, instead of being gently warmed; and then of course were condemned as sour, cold, and poor, by persons who had no knowledge of wine-flavour as distinct from alcoholic strength, and who, perhaps, would not have been able to taste it even had they known of its existence. Five years ago a friend of mine died, and as I knew that he had some good wine, I attended the sale of his effects at Reed's, in Great Marlborough-street. There was some very indifferent sherry which he had lately bought, and which the Israelites who haunt auction-rooms bought up greedily at 10s. a dozen more than he gave for it; there was also some superb claret worth 84s. per dozen. It was amusing to see the wry faces which these Jew brokers made at this, and how they spat it out of their mouths; not one of them bid for it, whilst the wine-merchant who had supplied it, and I, bought it in alternate lots at 30s.

People cannot be expected to change the habits of their lives in a hurry, nor yet all at once to relish pure, natural, unbrandied wine after having for years reviled it as sour, cold, and poor. There is a good deal of the *subjective*, however, in our habits of gustation. People will say they relish, and will pretend to relish, and at last may end by really liking, almost anything if they think it a mark of fashion to do so. We want to have people taught what wine really is, how to taste it, and how to discriminate pure wine flavour from the hot fumes of disguised spirits, and then the relish will follow the knowledge.

In describing the cheap wines of Bordeaux and Burgundy I was treading on well-known ground. They have long been familiar to the more refined part of our population. Up to the time of the vine disease they were produced in large quantities; the *brands* or qualities are well known, and any man who fixes what price he likes to give can readily suit himself by applying to almost any wine merchant. Not so with the wines of Italy, Greece, Hungary, and Austria. They have as yet been sent in no great quantity, they are little known even to wine merchants, and are kept in stock by but few. My knowledge of Italian wines is entirely derived from specimens furnished by Messrs. H. B. Fearon, 94, Holborn-hill. Greek wines I only know through Mr. Denman, of Abchurch-lane, City, and Piccadilly. The Hungarian have rather a wider reputation, for I have often met with it at the houses of patients, who have procured them from Mr. Denman, or from Mr. F. Andres, 12, Mark-lane, or Max Gregor, 7, Mincing-lane, or M. Azémar, 40, Mark-lane, or some few others whose names have escaped me.

White Capri (*Vino Bianco di Capri*) is a wine that I have referred to before. It was recommended to me early in 1863 by a well-known Physician, and I procured some from Fearons'; afterwards I got some of the same wine at almost double the price from E. Brun, of Dean-street, and as this went bad I dropped it. I have, however, lately again procured some from Fearons', who have continued to sell it, and find no fault with its power of keeping. It is, as I said before, a remarkably useful wine. Its percentage of proof spirit is 21·8. It is of a light cowslip colour; fragrant, not acid, not rough; brisk, as if slightly ærated; has nothing in it to offend any one; not hot, nor yet cold, and seems capitally adapted for young innocent people at their Christmas merrymaking. With such wine at sixteenpence per bottle there cannot be the slightest excuse for poisoning poor unsuspecting boys and girls with Hambro' sherry.

Besides this, I drank in the summer of 1863 a red *Montepuleiano*, from Tuscany, at 14s. per dozen, and noted it as astringent, clean, light, dry, and wholesome. Also a red *Chianti Broglio* at the same price, which I noted as peculiar tasting, astringent, subacid, and wholesome. Also a red *Barbera*, a Piedmontese wine, at 20s., a peculiarly-flavoured, fuller-bodied, rough wine; and a *sparkling Vino d'Asti* at 24s., strong, sweetish, unstable, not to be recommended so far as one specimen was a test. I believe that now not all these wines are in the market, but I have got fresh specimens of Chianti and of Barbera, of which this is the description:—

Chianti, 14s., peculiarly and full coloured, alcoholic strength = 19·8 per cent. of proof spirit; *Barbera*, 20s., also peculiarly full coloured; alcoholic strength = 25 per cent. In each great and peculiar astringency. Compared with good specimens of Bordeaux of equal price, less acid, more astringent, more body and substance. Large quantities are consumed by Italians in London; little by others. The taste might seem unusual and startling at first, yet there is no reason why any

one who desires a rough red wine to drink with water might not try these, and might possibly relish them.

The Greek wines, which, as I said, I only know through Denman, appear of almost perplexing number, and I believe it would be good policy for the vendor to eliminate some of the less important, and fix the public attention on fewer varieties. I first procured these wines in the spring of 1863, and find the following note of *Red Mount Hymettus*, 16s. :— "Clean, tasting rough; fair body, not too acid or sweet, something of a resinous flavour—satisfactory." I have lately studied them with considerable care, and, to say the least, am convinced that they will form no inconsiderable portion of the future wine of this country, so soon as the middle classes, to whom cheapness is essential, learn to look out for a decided *wine flavour*—that is, for the taste and smell of the grape, more or less modified by fermentation, instead of the taste of spirits. Nay more, the specimens I have tasted of some of those wines which have had age in bottle, led me to believe them so capable of developing flavours of peculiar marked character, that they will be sought out for their own intrinsic excellence, cheapness apart.

In order to classify them, we may divide them into dry and sweet. Of the dry there are the *White Mount Hymettus*, *White Keffesia*, *St. Elie*, and *Thera*, which are white; the *Red Mount Hymettus*, *Red Keffesia*, and *Santorin*.

Of sweet wines the *Como* and *Bontza*, which may be compared to port, the *Caliste* and *Vinsanto*, which are more or less sweet, luscious wines, full of flavour, and suitable, not for dinner, but to drink with cake and sweetmeats, or to give as occasional restoratives to the convalescent. Certainly sweet wines have their place in the economy of nature, and agree well with sweet dishes, and they suit the active digestions of children and some old persons.

The *St. Elie* at 24s.; alcoholic strength = 25. A light-coloured, firm, dry wine; not too acid; clean and appetizing. An older specimen, which had some age, in bottle, was a delicious, firm, well-flavoured wine, admirably adapted for dinner. There seems great promise about it.

The White Mount Hymettus, 16s., and White Keffesia, 20s., as I am informed, differ merely in age; and it seems a pity to multiply names. Alcoholic strength, about 21. The White Mount Hymettus is a very cheap wine. It must be recollected that most, if not all, in the market is very new; yet it has abundance of wine *taste;* whereas some that is older has perfectly astonished me by its firm, dry, clean character, and the abundance of peculiar wine flavour of a Tokay sort which it seems capable of developing.

The *Thera* at 20s.; alcoholic strength = 25. This is a wine which I have only tasted new, from the cask, of a darkish sherry colour, full bodied, and very capable of taking the place of "dinner sherry." Comparing this wine with a cheap fictitious wine of equal price, it is instructive to notice the fulness of wine taste and absence of spirit taste. The taste is peculiar; but this wine seems to have great potentiality of developing flavour in bottle. As it is, how superior to cheap sherry!

The Red Mount Hymettus, 16s., or the older Red Keffesia, 20s., are also wines of great usefulness and great promise when age shall have matured them. The alcoholic strength is about 21. Full bodied, dry, markedly astringent, not acid, they are much more satisfying than pure Bordeaux of equal price.

The Santorin at 20s. has been described in a former article: a very useful wine, the colour and dryness of light port, with little alcohol.

The *Como* of 1861, also described in a former article, is a wine which seems to have been artificially fortified to imitate Port. It is one of the false steps which wine-growers took a few years ago, when, instead of trusting to the excellence of their produce, and having faith that anything good in itself will be liked, though its flavour may be new or *sui generis*, they tried to imitate port or sherry. This Como is a good imitation of new port. Price 28s.

Como of 1862, price 28s.; said to be natural unbrandied wine, is extraordinary stuff, and deserves the attention of Hospital and Dispensary Committees. Its alcoholic strength is 30 (it paid shilling duty only); its specific gravity, 1020; and it is intensely sweet, full bodied, rough, and grapy.

Bontza of 1862, price 24s.; also a natural wine; specific gravity, 1015; alcoholic strength, 25; sweet; decidedly rough; like young port; nothing unpleasant. These wines evidently want age, and must come up for judgment two years hence. It is hardly fair to speak of them now. But I believe that the wine trade of Greece will hereafter be largely developed; that some of these wines are well worth laying down; and that the existence of them is a great boon to the middle classes. In the St. Elie and Hymettus we have pure wine, that seems able to maintain itself without brandy, and yet is not too thin for the English palate.

(To be continued.)

REVIEWS.

The Plurality of the Human Race. By Georges Pouchet. Translated and edited from the Second Edition by Hugh J. C. Beavan, F.R.G.S. London: Longman and Co. 1864. (Anthropological Society.)

Monsieur Pouchet argues forcibly for the doctrine that man is an integral part of the vertebrate series, and not separated from other animals by an impassable gulf, moral or physical. The psychological differences between some men and some animals are not greater than those between men of different races. Different races of men differ in structure, in moral and intellectual qualities, as much as species of animals do. The differences between races of men are *specific*, in whatever sense that word is used of animals. Such are the main points argued in this very interesting treatise, which the Anthropological Society has laid before its members.

A Manual of Practical Hygiene, prepared especially for Use in the Medical Service of the Army. By Edmund A. Parkes, M.D., F.R.S., Professor of Military Hygiene in the Army Medical School, Examiner in Medicine in the University of London, etc. Pp. 612. London: John Churchill and Sons.

One might fairly conclude from the above title that the work was of interest to the military Surgeon alone, but its perusal has convinced us that it is equally suited to their civil brethren, who will find in it much that they would be unable to acquire elsewhere, except after a course of extended reading. The laws of health and the general management of the healthy, although noticed by Celsus—whose advice, by the bye, is in many cases of a very questionable character—Galen, and others, have been to a great extent left unheeded by our Profession as unworthy of consideration; but during the last few years attention has been aroused to our duty on this point, and we thoroughly recognise the fact that he who would practise his Profession with benefit to his patients and with credit to himself must be prepared to avail himself largely of those hygienic rules which tend to produce *mens sana in corpore sano*.

The utter disregard of these rules is confined to no class; high, low, town, country, alike vie with each other in breaking the commonest laws which Nature has laid down as necessary to the well-being of our bodies. If we enter a place of public amusement we are stifled by the heat, poisoned by carbonic acid, or else sit in such a whirlwind that a severe cold is the ordinary penalty for the evening's enjoyment. You are called to see a Dispensary patient, and passing up stairs you find a small room with five or six people in it. The patient is lying on a bed, saturated with perspiration; and as one of the persons in the room is probably a child, a strongly-marked urinous smell pervades everything. In the country you enter a neat-looking cottage early in the morning, and the odours which greet you render a speedy retreat advisable. While we have been looking at the dark side of the picture, we must not forget that the present age has seen at least a beginning of improvement in our sanitary arrangements. The vast drainage systems, the sums of money expended in procuring a plentiful supply of pure water, the legislative enactments made to secure us from the various forms of adulteration from which even the staff of life was not free, and such like precautions have done much to ameliorate the public health; but all the good in this direction cannot be accomplished until the mass of the people are taught that they are responsible for much of the disease to which they are liable by their neglect of common prudence in the management of their homes.

The purity of water, the quality of milk, the adulteration of bread, arrowroot, coffee, etc., are questions which will often be put to every Practitioner. Dr. Parkes's book will afford him the means of giving a decisive and correct opinion: the methods pointed out for this purpose are clear and succinct, and such as every Medical man should be prepared to carry out.

The chemical and physiological effects of food and drink

are ably stated; while those of exercise on the lungs, heart, and skin, as well as on the nervous, muscular, digestive, and eliminative systems are traced with the skill of an experienced observer.

The chapter on Meteorology contains a great deal of useful information. The plates scattered throughout the book add greatly to its value, among which we may notice the various starches from wheat, barley, oats, etc., and representations of tea, coffee, chicory, and cocoa.

We have seldom read a more useful book, or one which we can more conscientiously recommend to our readers.

Acupressure, a New Method of Arresting Surgical Hæmorrhage, and of Accelerating the Healing of Wounds. By James Y. Simpson, M.D., F.R.S.E., Professor of Medicine and Midwifery in the University of Edinburgh, and Physician-Accoucheur to the Queen for Scotland. With Illustrations. Edinburgh: Adam and Charles Black. 1864. Pp. 576.

This handsome and most interesting volume contains, in their fullest form, those doctrines respecting new and improved methods of sealing arteries and hastening the cure of wounds, which were given to the Profession by Professor Simpson in the *Medical Times and Gazette* of 1864, and of which earlier indications are to be found in our volume for 1860, February 11. Dr. Simpson shows that the two great sources of danger in surgical operations are: 1st, hæmorrhage; 2nd, pyæmia—in other words, chemical changes beginning in an open wound and propagated over the whole system. Now, unfortunately, the means in present use for arresting hæmorrhage not only keep wounds open, and so prolong the patient's danger from extraneous sources of infection, but they themselves cause sloughing, however slight, and hence create chemical decomposition within the wounds. Dr. Simpson traces the history of the modes adopted for checking bleeding, with plates of the Surgery of the seventeenth century, and shows that, 150 years ago or less, Surgeons talked with as much complacency of frizzling the wounds, which they afterwards kept open with digestives, as we now do of strangulating tissues by ligatures which keep up suppuration perforce, spite of our theoretical notions of "union by first intention." Then comes the question, how long must an artery be obstructed in order that it may be sealed by a firm clot? and what means have we of obstructing arteries, and of withdrawing our pressure so soon as our end is accomplished? Modern investigations have shown that this may often be attained in a very short time. The *details* no doubt require that further completion which can be attained only by use; but Dr. Simpson has shown the *prineiple*. The ligature must be given up; and if England refuses the boon, it is some consolation to know that it is gratefully accepted by Surgeons at Madagascar; and that there is every hope that the man who has invented the chief means of enabling patients to leave the operating theatre without pain may have the proud satisfaction of enabling them to go to their bed with less risk of decimation by Hospital disease.

Lectures on Public Health Delivered at the Royal College of Surgeons. By E. D. Mapother, M.D., Professor of Hygiene, Medical Officer of Health City of Dublin, and Surgeon to St. Vincent's Hospital. With twenty woodcuts. Dublin: Fannin. London: Hardwicke. 1864.

A Manual of Physiology and of the Prineiples of Disease. With 150 illustrations, and a glossary, questions, etc. (By the same author.) Dublin: Fannin. London: Longman.

Professor Mapother has evidently, in a high degree, the faculty of representing complex subjects in the clearest and shortest possible language. The Lectures on Public Health relate to air, water, food, cleanliness, soil and malaria, climate and vital statistics, and form a manual of the subject which deserves to be circulated as a text-book in national and other schools, and to be adopted by societies which have the function of enlightening the people on matters relating to health. The second work, of which we announce a second edition, is more ambitious, but not so likely to be useful to the whole educated public. It is an attempt at an epitome of physiology, physiological and structural anatomy, and general pathology, in a very small book of 550 pages. It may be convenient for gentlemen preparing for examination, for whom it seems specially intended, but it is far too short for a good text-book for general use either by Medical tudents or the public.

An Elementary Atlas of Comparative Anatomy, in Twelve Plates. The objects selected and arranged by Professor Huxley, F.R.S., and drawn on stone by B. Waterhouse Hawkins. London: Williams and Norgate. 1864. 4to.

This very useful atlas is intended to assist the student of comparative anatomy. It gives, in twelve plates, a comparative view of similar parts in the skeletons of such animals as are most easily accessible. Thus, it begins with the skulls of the dog, horse, sheep, pig, man, the apes, hare, guinea-pig, fœtal chicken, tortoise, turtle, tench, and carp. These occupy the first three plates. In the next we have the skulls of the reptilia, fishes, and amphibia contrasted; and in the fifth the skulls of the six orders of fishes, the examplars being pike, lepidosteus, sturgeon, shark, chimœra, mudfish, and lamprey. Then follows the vertebræ, tails, and hyoid apparatus; lastly, the extremities. All the homologous bones are marked by letters or symbols, so as to be readily identified, and the figures are so arranged as to facilitate comparison.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

December 12.

I find from the published reports in our local newspapers that during the week ending December 3, 77 deaths occurred from typhus fever, being 64 above the average; whilst, at our Workhouse Hospital, out of 1207 cases under treatment, 377 were fever, to which disease alone 36 out of the 65 deaths that occurred are to be credited. Under the class "fever," I presume the exanthemata are to be included, and the varieties of continued fever. Small-pox has been prevalent for some time past, and several deaths have occurred from it. Figures speak for themselves, and show plainly the necessity for strict investigation. The selection of the Special Commissioner was a happy one,—a gentleman who has conducted similar inquiries, and by his relationship with the London Fever Hospital been brought into daily contact with the various forms of the disease that has been so prevalent amongst us. Considering this, and the readiness with which everybody in office and out of office here came forward to give information gleaned by actual observation, we may look forward with much interest to the publication of Dr. Buchanan's report. If he can fix on the cause, and demonstrate it to the satisfaction of our corporate officials, they will not be long in applying the remedy. Dr. Trench, our Medical Officer of Health (if I understand him rightly from his published speeches), believes that indigence is the "*fons et origo mali*," bad ventilation and intemperance assisting in the propagation of the disease. Dr. Shearer, one of the District Medical Officers, has prepared and circulated a careful report on the prevalence of fever in his own district—Toxteth-park. Dr. Shearer shows by a map that the fever raged first in the streets parallel to the river Mersey, and which were unpierced by any cross streets or openings; and secondly in those courts entered by a narrow passage, and blocked up at the other end by rows of privies and ashpits arranged behind the houses of contiguous streets. With regard to the first case, he asserts that no free current of air can pass through them, "rearing their compact bulk like so many solid veils or screens, mutually warding off, instead of opening towards and inviting, the atmospheric influences from the river." And as to the courts, there can be no current through them, and all that the entrance of air can do is to stir up and waft from house to house the pestilential odours arising from the previously-mentioned nuisances. Dr. Shearer's pamphlet is worth perusal by those interested in fever. The observations extend over a year, from October, 1863, to 1864, the type of the disease being nearly exclusively typhus. Mr. Steele gives us a paper on the epidemic at our next Medical meeting, and doubtless it will elicit a warm discussion. From what I have said you will see that the subject of fever is being pretty well ventilated here at present. There are very few evils that are not productive of some amount of good: familiarity with a disease ought to render us more proof against its attacks, for it was not till small-pox had consumed more victims than armies, that the immortal Jenner, guided by the hand of scientific inquiry, plucked the destroying weapon from his foe and used it for his own defence. Two cases of "bone-pegging" have occurred here according to the plan recommended by Mr. Bickersteth, and practised so far with success in the treatment of un-united fractures. The first was done

by Mr. Hakes, at the Northern Hospital, on a boy aged 14. Five months after fracture of the thigh, there being no attempt at repair, Mr. Hakes scraped the ends of the bone with a tenotomy knife, and failing to excite union, he resorted to this new operation. I saw the case six weeks after the operation, the two dull heads were firmly fixed through both portions of the fractured bone, and had caused no uneasiness whatever. The second case was by Mr. Bickersteth, at the Infirmary. The patient was not a good subject for any operative interference, and the introduction of the dull heads caused more action than has hitherto been met with. This was also for fractured thigh.

Doubtless we shall hear further of these cases, as, before this operation will be generally acknowledged and practised by operating Surgeons, the cases where it has been tried must from time to time be brought before the Profession. Mr. Nash, the House Surgeon at the Infirmary, related to me a rather unusual injury to the eye, or rather eye-ball, that occurred the other day—complete dislocation—from a fall on a saucepan-handle. The whole ball completely protruded, the eyelids being closed firmly behind it, the muscles being not torn but on the stretch; the optic nerve could be seen uninjured. Some difficulty was experienced in effecting reduction in consequence of contraction of the eyelids. In a very short time the eye recovered from the concussion to the nerve, and the patient has recovered without a bad symptom.

At the last meeting of the Medical Society Dr. Turnbull read a paper on "Chorea;" alluding to sulphate of aniline, a remedial agent for this disease that he had introduced, he remarked that he had found it exceedingly useful in obstinate cases that had resisted ordinary treatment. Mr. Batty, after fifty years' connexion with our School of Medicine, has resigned, and in consequence of his long-continued and arduous labours has been elected an honorary member of the School, being the first lecturer who has received this distinction. Dr. Grimsdale succeeds Mr. Batty in the Midwifery chair, Dr. Gee taking Diseases of Children, and Dr. Rawdon Pathology. I saw in the hands of Mr. Hewitt, the Surgical instrument maker, a few days ago, a green elastic catheter, originally the property of Napoleon I.; it was taken from his carriage, I believe, at the burning of Moscow, and is now in the possession of Mr. Sharp, Surgeon, at Warrington, who has a well-authenticated history of it. I just mention what I heard of it, thinking it might interest some of your readers. I regret to say that I hear rumours of some trials that are to take place involving the reputation of Medical men; one has advanced as far as So-and-so *versus* So-and-so; others still in their infancy. Numerous examples have shown us now what hollow affairs these generally turn out, and we know that for these annoyances we have frequently not solely to thank our patients. In every large town, and in some small ones too, there are to be found those who dare not for an instant show themselves before a public tribunal and subject themselves to the scrutiny of a severe cross-examination, but are only too ready (*sub rosâ*) to suggest such doubts in the mind of a patient as would ultimately lead to a respectable Practitioner being subjected to a painful and expensive prosecution—Professional jackals, devouring by night the refuse rejected by those that would scorn to touch anything calculated to pollute or stain. We should deeply regret to see further instances humiliating to a long-honoured Profession repeated again similar to those enacted before the public at Chester and also in this town in connection with a public institution. To expose ignorant and presumptive *soi disant* Doctors, and to defend the skilful, though may-be unsuccessful Surgeon, are duties alike incumbent upon us; but to connect unsuccess in all instances with unskilfulness is to assert that the sciences of Medicine and Surgery are certain in their results, and are not influenced by those mysterious workings of Nature which can be best understood by men of extended experience and observation.

Tragical Occurrence at the Berlin Charité Hospital.—In one of the wards of the Berlin Charité there were four patients, all suffering from delirium, and all fastened down in their beds. While they were all apparently asleep, the nurse left the ward for some temporary purpose, when one of these patients, who had apparently well-nigh recovered, managed to loosen the ligatures which fastened him, and springing out of bed, seized a stool, with which he frantically attacked the three other poor wretches tied down in their beds. One of these he killed on the spot, another died in half-an-hour, and the third remains in a hopeless state.

GENERAL CORRESPONDENCE.

PRYCE *v.* BOWEN.

Letter from Mr. Edward Lund.

[To the Editor of the Medical Times and Gazette.]

Sir,—I regret very much that I have been mixed up with the case of Pryce *v.* Bowen, tried at the last Liverpool assizes, and commented on in the *Medical Times and Gazette* of Saturday last. The facts were simply as follow:—The solicitor for the plaintiff called upon me about ten days before the trial and read over to me, before I saw the plaintiff, her own declaration of the manner in which she stated the defendant had treated the arm from the time of the accident until he ceased to attend her, at the end of six weeks; and he asked me to give an abstract opinion on the merits of the case, whether I considered such treatment had been correct, and if it could have had any influence on the issue of the case. I then examined the patient, and gave it as my opinion that in no respect was the defendant liable except as to the treatment during the first nine days after the accident, and then only on the question as to the position in which, according to the plaintiff's statement, the arm had been retained during that time. I was then served with a subpœna to attend the assizes if the case went into court, but in no way had I anything to do with any other witnesses; nor did I know that Evan Thomas, the "bone-setter," would be brought forward until I saw him in the witness-box on the day of the trial, for it had been concealed from me that he was to be in any way connected with this case.

If you will permit me to go into further detail next week, I hope I shall be able to make it plain to you, and to every member of the Profession, that the report which appeared in the Liverpool papers has not truthfully, though doubtless inadvertently, represented the views and opinions that were expressed by me in court, but for which I must wait until I can obtain an authentic copy of the short-hand writer's notes of the evidence taken at the trial, for which I have made application. I am, &c.

Manchester, January 3. Edward Lund.

DEATH FROM CHLOROFORM.

Letter from Mr. J. Usher Huxley.

[To the Editor of the Medical Times and Gazette.]

Sir,—Enclosed are notes of a sad case of death by chloroform which occurred at this Hospital on the 1st of the month.

I subjoin a brief notice of another case which happened here about three years ago, but which was not reported in the Medical papers. I am, &c.

J. Usher Huxley, M.B., House-Surgeon.

Devon and Exeter Hospital, November 4.

W. L., a healthy-looking young man, aged 24, was admitted into the Devon and Exeter Hospital on September 26, suffering from a severe injury to the right foot. A heavy piece of timber falling on it had fractured the metacarpal bone of the great toe, and deeply lacerated the structures of the inner side and sole. The case went on well, and after the separation of some rather extensive sloughs, healthy granulations filled up the greater part of the chasm. The distal end of the fractured metacarpal bone, however, though evidently dead, remained firmly fixed, and considerably hindered the progress of the wound. The man was therefore told that he must either be contented to remain in bed several weeks longer while the bone spontaneously separated, or must submit to a slight operation for its removal. He chose the latter, on condition that he might have chloroform. The heart was examined, and nothing being found to contraindicate the employment of an anæsthetic his wish was acceded to.

On November 1, at 10 a.m., the patient was carried to the operating-room. Two of the Hospital Surgeons and the House-Surgeon were present: three pupils and two nurses were also in attendance. Forty minims (measured) of chloroform were placed in a Snow's portable inhaler, and the inhalation was commenced, the external valve being at first turned aside and afterwards gradually closed. The man breathed calmly and showed no symptoms of annoyance or distress, and in about a minute began to smile, talk, and move his head slightly. The pulse, which was kept throughout, beat quite steadily for from two to three minutes, when it

suddenly became imperceptible; there was no congestion or other change of the countenance, the pupils were not dilated, and the breathing was as yet quite natural; the inhaler, to which no fresh charge of chloroform had been added, was, however, immediately removed. In the course of a few seconds the respiration became deep and sobbing, and the tongue was protruded between the teeth; no return of the pulse could be felt. The only approach to spasm or convulsion was that for a few seconds the teeth were firmly clenched; this quickly passed off, and the tongue was again protruded. The time during which the respirations continued, unaided, after the pulse had ceased may be put down at fully a minute, and not until still later did the face become congested or the pupils dilate.

The cold douche, ammonia, brandy, galvanism, and forceps for the tongue (as always at this Hospital) were at hand in the operating-room. The first was applied directly the pulse was missed, and in the shortest possible space of time brandy was injected into the rectum, solution of ammonia on lint was applied to the nostrils, and galvanic shocks were passed (with due intermissions) through the cardiac region, whilst friction was applied to the extremities. The forceps were not needed, as the tongue did not fall back.

Immediately the breathing began to flag, artificial respiration by the "Sylvester method" was commenced, and this was steadily carried on for upwards of half an hour. The galvanism was applied at intervals for a like period. No trace of reaction occurred. It should be stated that the inhaler had not been used for any other case that morning, so that it contained absolutely no chloroform but the 40 minims.

Autopsy Six Hours after Death.—Body muscular, well-nourished. Thorax.—Pericardium natural; surfaces of right pleura everywhere firmly adherent; both lungs healthy in structure, the right more congested than the left. On removing the heart (all its orifices having been previously secured), the ventricles were found firmly contracted and empty; the auricles contained some blood, the right in larger proportion. In these and in the large veins the blood was mostly, but not wholly, uncoagulated. All the valves of the heart were perfectly healthy. The muscular substance was firm, of good colour, and without the slightest appearance of fatty or other degeneration. On microscopical examination, the ultimate fibres were found free from oil-globules, and the striæ were well marked. The walls of the left ventricle were slightly hypertrophied without dilatation. The whole organ, washed free from blood, but with a portion of the large vessels adhering, weighed 14½ ounces. Aorta healthy; no appearance of clots in the pulmonary artery. Abdomen.—Stomach moderately filled with food. Spleen natural; weight 11 ozs. Liver large, congested; weight 5 lbs. 12 ozs. Kidneys, large and much congested; weight, the right, 9¼ ozs., the left, 9¾ ozs. Both liver and kidneys were firm to the knife, and the surface of the sections looked smooth and rather glistening, so that there was a question as to albumenoid (amyloid) degeneration; but there was no semi-transparent, glue-infiltrated appearance of the cut surfaces and edges, and no reaction, characteristic of amyloid change, took place when solution of iodine was applied. Under the microscope, too, both the arteries and cells of the hepatic and renal structures appeared perfectly natural. After being allowed to remain for some hours (covered over to prevent evaporation), it was found that a quantity of blood had drained from the cut surfaces, and that the liver had assumed the ordinary size, while the kidneys were much reduced in bulk. Sections now freshly made showed perfectly natural surfaces. Head (examined last).—The brain and its membranes were perfectly healthy, and not at all congested; blood, however, had probably drained away from the divided veins of the neck. Some urine drawn off from the bladder after the examination contained a trace of albumen, and a flocculent deposit consisting solely of epithelium.

At the inquest held on this case the jury returned a verdict of "Homicide by misadventure," and wholly exculpated the Medical officers from blame in the matter.

The following case, which occurred in this Hospital about three years ago, is subjoined as it was not reported in any Medical journal nor sent to the Chloroform Committee:—

R. G., a very healthy-looking man, aged 33, wished to have chloroform to avoid the pain attending cauterisation of a sloughing sore on the penis. One drachm of chloroform by measure was placed in the inhaler, and inhalation commenced. The patient soon became very restless, holding his breath, and trying to avoid the vapour (which was, however, much diluted), so that the larger portion of the chloroform was wasted. He was allowed to sit up to spit, and then a second (measured) drachm was put into the instrument; but again he grew turbulent, and struggled so violently that it was found difficult to watch the pulse continuously, though every effort was made to do so. Suddenly he sank back motionless, with widely dilated pupils, and no trace of pulse to be felt. The inhaler was instantly removed from his face, and he continued to draw deep gasping breaths for half a minute. Cold splashing was applied, and artificial respiration by the "Marshall Hall method" was resorted to without the smallest delay. Ammonia was applied to the nostrils, and subsequently a brandy injection was given, while galvanism and friction were assiduously employed. Pressure over the cardiac region (as suggested by Dr. Brown-Séquard in his lectures at the College of Physicians) was also tried. The artificial breathing was afterwards continued by the "Sylvester method" for upwards of an hour. No sign of returning animation occurred.

At the post-mortem examination, the heart was found to be of a normal size, the ventricles were partially dilated, and both contained fluid blood. There was no valvular disease. The muscular structure was firm, of good colour and without trace of fatty degeneration. The brain, lungs, and abdominal organs were all carefully examined, but no sign of disease was found, nor was there marked congestion of any organ.

THE ABORIGINES OF AUSTRALIA.

Letter from Dr. J. A. Baesjou.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the *Medical Times and Gazette* of February 20, 1864, I perceived an account of a paper, by Mr. A. Oldfield, "On the Ethnology of Australia," at a meeting of the Ethnological Society on February 9, 1864.

As several observations made by that gentleman were not conformable to my experience of the Aborigines here, I brought it under the notice of Mrs. Carnfield, the lady of our late resident magistrate, who has had an experience of many years with the natives, and proved herself a real benefactress to these poor creatures.

I take the liberty to request that you will forward the enclosed letter, and also do me the favour, if space allows, to insert the same in the *Medical Times and Gazette* in the "General Correspondence."

I am, &c.,
J. A. Baesjou,
Government Medical Officer.

Albany, King George's Sound, W. A., May 30.

"Albany, King George's Sound, Western Australia,
May 27, 1864.

"Sir,—My attention has been called by Dr. Baesjou to a paper on the ethnology of Australia, read at a meeting of the Ethnological Society on February 9, 1864.

"It has suggested to me that as I have had the experience of twelve years among native and half-caste children, and have been upwards of twenty-five years in Western Australia, some few words from me would not be unacceptable to your society.

"Ever since I have been in the colony I have had the strong conviction that we ought not to take possession of their country without trying to do something for the natives, and therefore I have been interested in all that has occurred to them consequent on our presence among them. But it was not until June, 1852, that I made an attempt to civilise a few of the children of this place. I commenced on my own account with one little Aboriginal girl. Since then I have had, with the sanction and by the support of Government, forty-one children under my charge, not more than twenty-four at one time. Twelve of the whole number have died, but nine of them were ill when admitted. Several were infants; one was only three weeks old. The mothers of these had died. Three boys and four girls from the school are in service, and four of my first pupils are married, three to Englishmen and one to a converted native at the Moravian mission station in Victoria. There are eighteen children at present in the school, and in no respect are they behind European village school children. The eldest of these we have trained so as for her to become a teacher in the school. She is a very intelligent girl, especially fond of reading. She is often found hidden in some corner with a story book, such as *Chambers' Miscellany*, the *Leisure Hour*, *Sunday at Home*, etc., etc., which she reads with avidity.

Since Christmas last she has played the harmonium in church (a fine instrument with two keyboards), and when the Bishop of Perth and the Colonial Secretary were here last month they expressed their surprise at her performance. She has great pleasure in a game of chess, and is quite interested to learn as much as she can when any one plays with her who understands it better than she does.

"It has often been said that do what you will with the natives they will go back to the bush and forget all they have learnt. Our children have had every opportunity to return if they had liked to do so, as their parents and friends come to see them whenever they choose.

"This institution has fully proved that the natives are capable of being raised importantly in the scale of humanity, but it requires extensive and persevering efforts to accomplish this end with the whole population of natives. If such efforts were made, the succeeding generation or generations of them would afford a happy reward to those who used them.

"There are both Aboriginal and half-caste children in the school, and in conduct, manners, and progress in learning they will bear comparison with European children having only their advantages.

"His Lordship the Bishop of Perth, Dr. Baesjou, and our clergyman can be referred to if necessary.

"I am, Sir, your obedient servant,

"A. Carnfield.

"The Secretary of the Ethnological Society."

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, December 20.

Mr. Prescott Hewett, President, in the Chair.

Dr. Morell Mackenzie brought before the Society

TWO LITTLE CHILDREN, FROM WHOM HE HAD REMOVED LARYNGEAL EXCRESCENCES.

The first case was a child aged 4 years, who for two years had suffered from loss of voice, stridulous breathing, and occasional attacks of threatened suffocation. On examining the patient with the laryngoscope, an oblong tumour, about half an inch long and a quarter of an inch wide, was seen to be attached just above the anterior insertion of the vocal cords. After a consultation with Mr. Mason, who also examined the case with the laryngoscope, Dr. Mackenzie removed the growth with his laryngeal forceps. After this growth had been taken away, numerous excrescences were seen below, and some of these had since been removed. The base of the growth could still be seen. In this case the respiration had become easy, but the voice was still suppressed. In the second case—that of a child aged 6 years—there had also been loss of voice for two years. The patient had been under several Medical men, and, among others, under Dr. Martyn, of Knightsbridge, who used the laryngoscope, and recognised the nature of the disease. Finding numerous excrescences on the true and false cords, before operating Dr. Mackenzie had a consultation with Mr. Mason. Since the growths had been removed the voice had become loud and distinctly phonetic, though it was still a little hoarse. He had brought these cases before the Society whilst they were still under treatment, as the bases of the tumours could still be seen, and as he wished to show with what facility operations on the larynx could be performed. These were the youngest children from whom excrescences had been removed either in this country or abroad. The fragments removed in each case were exhibited, and also drawings showing their previous position in the larynx. Dr. Mackenzie also showed the forceps with which the growths had been removed.

Several members examined the children with the laryngoscope.

Mr. Mason said he could corroborate Dr. Mackenzie's statements, as he had examined the children with the laryngoscope both before and after the operations.

CURED SPINA BIFIDA.

Dr. Playfair then exhibited a patient who had had spina bifida. When first seen a year before, there was a large tense swelling. It was smooth and covered with vessels. The mother objected to its being punctured. Now there is no tumour, but in the position of it the skin is curiously folded, strikingly like the convolutions of the brain.

The President, after remarking on the great interest of the specimens, suggested that a drawing of the appearances should be made for the Society's *Transactions*.

Mr. Brooke suggested that a photograph would give a better idea of what was to be seen.

Dr. Cayley then showed a specimen of

DISEASED SUPRA-RENAL CAPSULE.

There was a yellow tumour in one part of the cortex, but in the rest of its extent the capsule was nearly normal. There had been no bronzing of the skin.

Dr. Greenhow said that although there was disease of the capsule in this case, it must be kept in mind that it was not disease of the kind found in Addison's disease.

At a previous meeting, Dr. Dickinson brought forward some

PREPARATIONS AND DRAWINGS TO ILLUSTRATE A CASE OF ADDISON'S DISEASE, WHICH WAS ALMOST TYPICAL IN ITS CHARACTER.

The patient was a woman, Sarah D., 39 years of age, who died in St. George's Hospital, under the care of Dr. Pitman. She had been losing strength for eighteen weeks, and had been growing dark for twelve. The colour of the skin when she came into the Hospital was most striking, and the hair had become darker than it used to be. She had repeated vomiting, and at last sank. Death was preceded by slight convulsions. When the body was examined it was seen that the tint was generally that of a Mulatto, though some variety was found. The face was darker than the shoulders, the colour shading off like a sunburn. There was a dark patch above each patella, but the darkest places were the buttocks, and the front surfaces of the thighs near the groins. The hair was dark brown, short, and curly. There were indications of whiskers and monstache. The supra-renal capsules were produced; they were both increased in size, the left weighed three-quarters of an ounce, and was adherent to the surrounding structures. It was hard, nodular on the surface, and of a light buff colour. On section, it had much the appearance of a fibro-plastic tumour. The centre was different from the rest: it was soft, yellowish, and not unlike crude tubercle. Under the microscope the outer part was found to consist of an aggregation of cells, large, and various in shape. Some were spindle-shaped, some spear-headed, others rounded or polygonal; almost all were nucleated. The central part contained oil-globules and imperfectly-formed pus. On the whole the structure was something *sui generis;* it had some points of resemblance to a fibro-plastic tumour, and some to a malignant formation, but it was clearly distinct from both these forms of disease. It was far removed in its characters from tubercle. The right supra-renal body was only a third as heavy, but was similar in all other respects. Under the peritoneum in many places small growths were seen, of the size of mustard-seeds, or smaller, which were firm, grey, and semi-transparent, and had the same microscopical structure as belonged to the supra-renal bodies. All the other organs were natural excepting the lungs, in which one or two isolated crude tubercles were found. Thin sections of the discoloured skin were made after freezing in ice and salt, and the disposition of the pigment was found to be precisely such as is represented by Mr. Hutchinson in the 8th volume of the *Transactions*. The colouring-matter was limited to the single layer of epithelial cells which is in contact with the papillæ. In the section, the deepest row of cells was the only place where any pigment existed. The row of cells in contact with these was, like all the rest of the cuticle, perfectly free from colour. For the purpose of comparison, sections were made in the same way from the skin of a Hindoo, which was coloured to about the same depth. Here a great difference was found in the disposal of the pigment, which, instead of being limited to the deepest layer of cells, was most marked there, and gradually diminished towards the surface, so that all the cuticle was more or less tinted. The difference was so decided that it would have been easy to say from the microscopic appearances whether the specimen was obtained from a case of supra-renal bronzing or from an inhabitant of the tropics. It was suggested that the difference might be due to the fact that in one case the colouring was congenital, and the deep layer of cells which first received the colour had had sufficient time to become superficial, so that the active epithelial growth had become more or less tinted; while, in the other case, the colour was due to a comparatively recent cause, and enough time had not been allowed to take the brown cells to the surface in the natural progress of epithelial growth.

Mr. Henry Smith showed

PARTS REMAINING AFTER A SUCCESSFUL REMOVAL OF THE ELBOW JOINT.

A little boy was operated on three years ago, when he was five years old. He had been under observation until three weeks ago, when he died from disease of the spine. During the last two years he had been able to use the arm quite well; in fact, as well as the other. The lower part of the humerus, part of the radius, and ulna were removed, and in the specimen the triceps was to be seen attached to the ulna, and the biceps to the head of the radius. The bones were fastened together by dense fibrous tissue. The motions of the *ci-devant* joint were free, and there was no disease.

Mr. Hulke said it would be interesting to hear more exactly the condition of the ends of the bones. If the biceps were attached to the head of the radius, the excision could only have been partial.

Mr. Henry Smith said that he could give no information as to the condition of the ends of the bones than was to be seen in the specimen. No doubt very little of the radius had been removed, but a resection would be complete, however little was removed. A similar objection had been made to some of the cases operated on by Mr. Jones, of Jersey. It was said that some of his cases of excision of the knee were not complete, as scarcely any of the bones were removed. But Mr. Jones remarked that the excision would be complete if the thinnest slice were taken away.

Mr. Holmes exhibited

THE URINARY ORGANS AND TESTES FROM THE BODY OF A MALE INFANT WHO DIED AT THE AGE OF SEVEN DAYS FROM THE CONSEQUENCES OF A MALFORMATION OF THE BLADDER.

As the parts had only been removed from the body a few hours, there had been no time to make an accurate dissection, and the specimen will therefore be exhibited and more fully described at a future meeting; but it was thought desirable to exhibit it when quite fresh, in order to call the Society's attention to the peculiar shape of the bladder and the singular appearance of its lining membrane. The bladder consisted of two distinct sacs, each about the size of an orange, communicating with each other by a round hole about half an inch in diameter. One of these was the true bladder, containing the openings of the urethra and ureters, all of which were quite unobstructed. The parietes of this sac were very thick, and studded with red projections like nævi. The other sac was thin, and appeared to contain little, if any, muscular tissue. There had been no retention of urine during life. The testes were retained in the abdomen. There was considerable deficiency of the muscular parietes of the abdomen, though the skin was perfect, and there was a nævus occupying the region of the pubes. Further particulars will appear in the report of a future meeting.

CORDÆ TENDINÆ OF DISEASED MITRAL VALVE RUPTURED DURING VIOLENT VOMITING.

Dr. Peacock exhibited the heart of a female aged 21, who died recently at the Victoria Park Hospital. She had been an in-patient of the Hospital in 1851, labouring under cardiac symptoms, the sequence of an attack of rheumatic fever two years before. She had not been under any Medical care for some time, and was in her usual health, when she was taken in a cab from her home in Artillery-street, Bishopsgate-street, to the Victoria Park Hospital to be examined for admission. The motion of the cab was very uneasy, and shortly after leaving home she vomited violently; she was then attacked with difficulty of breathing and faintness, and when she reached the Hospital, a distance of scarcely a mile and a-half, she was pulseless at the wrist, and apparently dying. When seen by Dr. Peacock, a few minutes after her arrival, she had in some degree rallied; the pulse was feebly to be felt at the wrist, but she was too weak to be carefully examined, and the loud tracheal rhonchus rendered it difficult to hear the cardiac sounds. It was, however, thought that there was a feeble systolic murmur at the apex of the heart. She was removed to bed, but died in a few hours. On examination after death the pericardium was found to be entirely attached by old and firm cellular adhesions. The heart when deprived of the adherent pericardium and freed from coagula, weighed 20¼ oz. av. (the healthy range for males being 9 to 11 oz.) There was considerable dilatation of the left ventricle, but the walls were not increased in thickness, measuring from ·1776 to ·3996 of an English inch (the healthy average in males being ·541 of an English inch). The aortic aperture was somewhat contracted, measuring 2·93 of an English inch (average in males 3·145), and the ventricular surfaces of the valves were considerably thickened, while the crescentic edges were free. The left auriculo-ventricular aperture was slightly diminished in capacity, admitting only a ball measuring 3·996 of an English in circumference (the healthy average in males being 4·02 of an English inch.) The mitral valve was considerably thickened and indurated, and the cordæ tendineæ of the free fold of the posterior columna carnea were entirely torn from their attachments, so that the valve was entirely loose, and must have admitted of free regurgitation. The walls of the right ventricle were somewhat thickened, measuring ·1776 of an English inch (healthy average ·1666 of an English inch). The right auriculo-ventricular aperture was slightly constructed, measuring 3·996 of an English inch (healthy average 4·791 of an English inch), and the tricuspid valves were thickened and firmer than natural. The lungs were much congested, and the bronchi contained bloody mucus.

Dr. Peacock remarked there could be little doubt that the tendinous cords had been torn from their attachments during the violent vomiting soon after the girl entered the cab, for her mother expressly stated that she did not suffer at all seriously when she left home, and that she had not the slightest idea that there was any risk in taking her to the Hospital. Though cases of rupture of the valves or their attachments, when diseased, were of more common occurrence than such injuries to healthy valves, yet all such cases were very rare. The case did not throw light upon the question of the effect of universal adhesion of the pericardium to the heart upon the functions and nutrition of that organ, for there was considerable disease, both of the aortic and mitral valves, which would explain the great increase of weight. He had, however, seen specimens in which the pericardium had been universally attached, and evidently inflammation of old date, in which the size and weight of the heart did not exceed the healthy average.

Mr. Teevan exhibited

SECTIONS OF DIFFERENT SKULLS SHOWING THE INCORRECTNESS OF CALLING THE INNER TABLE OF THE SKULL THE "TABULA VITREA."

Mr. Teevan observed that in nearly all anatomical and Surgical works it was stated the inner table of the skull was more brittle than the other; and hence had been named the *lamina, vel tabula, vitrea*. The two facts which had given rise to the above supposition were—firstly, when a foreign body penetrates the skull from without, the inner table will always be found more injured than the external; and, secondly, fracture of the internal table alone, without any injury to the external table, sometimes occurs from violence applied externally. He remarked, the above did not happen because the inner table was more brittle, but depended on other causes. The reason why the inner table of the skull is found more damaged than the outer when a bullet enters is because the aperture of exit is always larger than the aperture of entry when a foreign body passes completely through any part of the skull; it matters not what the direction may be. One of the specimens was a section of a skull, in which both parietal bones had been perforated by the same bullet, showing an aperture of entry in the inner table of the right parietal bone the same size and form as an aperture of entry in the external plate of the left parietal. Three other specimens were calvaria, in which Mr. Teevan had produced fracture of the external table without any fracture of the internal table by striking from within. He then explained the causation of the above, and also why an aperture of exit is always larger than an aperture of entry.

Mr. Brooke suggested that the difference depended on the form of the striking body. A cylindrical, flat-headed bullet would make a hole with apertures much more parallel; and the same was borne out by experiments at Shoeburyness.

Mr. Teevan had tried the experiments with bullets shaped as Mr. Brooke had suggested, and had witnessed the experiments at Shoeburyness, and had found no reason to alter his views.

Mr. Balmanno Squire showed a coloured photograph of a patient the subject of

PITYRIASIS VERSICOLOR.

It showed well the variegated hue of the disease, there being no less than four tints. This patient's case showed what he had often observed, but what he believed had not been noticed before—viz., that pityriasis versicolor attacks only the front and back of the body.

Mr. Thomas Windsor, of Manchester, showed specimens from

TWO CASES OF BLACK CATARACT.

As we believe these are the first cases recorded in this country in which the *whole* lens was *perfectly* black, we give the case in a little detail. On September 28, 1864, Mr. Windsor was consulted by a gentleman, aged 48, who had received a blow on the left eye sixteen years ago; severe inflammation followed, a cataract of the usual white colour formed, and in the course of two years the sight was gradually lost. Eighteen months ago he suddenly found that he could again see objects, even newspaper print, and that the cataract had disappeared. Next day there occurred a very violent inflammation, and the sight was again entirely lost. From that time he has been incessantly tormented by severe stabbing pains in the eye and over the left side of the head, and repeated attacks of internal ophthalmia. There was, when Mr. Windsor saw him, no conjunctival congestion, the cornea was clear, the pupil of medium size, but immovable. Perception of light was entirely lost, and it was considered unnecessary to make an ophthalmoscopic examination. From the symptoms and previous history, Mr. Windsor judged that the lens had undergone calcareous degeneration, and had then become displaced, and that it now irritated the eye like a foreign body; as he had already undergone much useless treatment before Mr. Windsor saw him, he at once enucleated the globe. No particular symptoms followed, and in a few days he was perfectly well. On making an equatorial section of the globe, the vitreous was found to be quite fluid, the choroid was much atrophied, and the lens was floating hither and thither at the bottom of the vitreous space. The iris appeared at parts much thinned. The lens was of a jet-black colour by reflected, and of a deep blood-red by transmitted light, though its equatorial margin for perhaps half a line was whitish; it felt very hard and heavy, was of medium size, and appeared to be still in its capsule. No trace could could be found of any effusion of blood. Both the lens and eye were placed in dilute spirit. The former is now only about half its original size, and its colour has, I think, slightly changed. The next case was that of a labourer, aged 35, admitted into the Manchester Eye Hospital in October last. Last July his left eye was struck by a piece of coal; there was when Mr. Windsor saw him some conjunctival injection. The pupil was large and motionless, the iris muddy and tremulous, and there was a small round hole in its outer portion; in the centre of the pupil there was a piece of capsule of a dirty yellow colour, the rest of the space was filled by a perfectly black lens; the tension of the eyeball was somewhat increased, the perception of light was moderate; he saw movements of a hand to two and a-half feet. In a few days Mr. Windsor made a good-sized iridectomy at the inner side. Further examination having satisfied him that the thickness of the lens was considerably diminished, on November 15 he made a flap of a little less than half the cornea and extracted the lens. No accident followed, but the sight was very imperfect, owing to haziness of the vitreous humour. The lens was placed in glycerine, and appears to have undergone no change.

Mr. Hulke, at the request of Mr. Windsor, was asked to examine and report on the specimen.

Mr. Francis Mason showed

A PHOTOGRAPH OF EXTENSIVE COLLOID DISEASE OF THE INTESTINES.

The photograph was brought forward chiefly to illustrate the value of photography in the record of pathological appearances. It showed very clearly the intestines here and there united together by masses of disease.

Dr. Harley then showed a specimen of

URINE FROM A CASE OF INTERMITTING HÆMATURIA.

The patient, sent by Dr. Wilson Fox, said that whenever he was cold he passed bloody urine. He brought with him two specimens, one clear and the other dark. Dr. Harley then gave details of the history of the case, and said that he should have regarded it with great doubt if he had not had under his care a Medical man who had had exactly the same symptoms. There were no blood corpuscles in the urine, but abundance of the colouring matter of the blood and much albumen. The Medical man took mercurials and quinine, and got quite well.

Dr. Martyn showed a specimen of

PLUGGING OF THE PULMONARY ARTERY.

The patient had had rheumatic fever, and was going on as well as usual for several days, and seemed to be recovering. One night she became restless; was said to have had a fit. She said she felt as if choking, and her breathing was laboured and she was pulseless. Her breath was cold, and her nose and cheeks were cold, and the nose and ears became white. She was quite sensible, and complained much of want of air. Auscultation showed, however, that there were loud respiratory murmurs audible throughout the lungs. Ammonia, brandy, and coffee was given, but with no avail. She at last insisted on being laid on her side, after which she gasped and died. Both pulmonary arteries were found to be occluded by a considerable coagulum, but the clot on the right side was more recent.

Dr. Frederick Robinson exhibited a specimen of

FATTY HEART, ASSOCIATED WITH GREAT DILATATION AND THINNESS OF RIGHT AURICLE AND VENTRICLE, TOGETHER WITH WARTY VEGETATIONS DEPOSITED AT THE BASE OF MITRAL VALVE.

The appearance of the diseased auricle was almost melanotic (externally) owing to weakened circulation. Both lungs were completely filled with miliary tubercles, not the smallest portion of the parenchyma being crepitant. The diseased organs were taken from a delicate young soldier in the Fusilier Guards, aged eighteen, who was admitted into Hospital on November 1. He complained only of slight sore throat; was free from pyrexia; and did not complain of cough, dyspnœa, or any chest symptom. He soon recovered from the throat affection, but remained in a cachectic state—well enough, however, to go out of doors for exercise. He was about to be sent to the country for change of air, when he was found in a state of collapse on the morning of his intended departure (December 6). The extreme lividity of the face resembled much the condition met with in cyanosis. The heart sounds were very feeble, and extended over the chest, which was abnormally resonant; a slight systolic murmur was audible below the nipple; and bronchial respiration everywhere, mixed with large crepitation. He survived the seizure but twenty-four hours. The points of interest in the case Dr. Robinson considered to be the faulty state of the pulmonary circulatory system, defective oxygenation of the blood arising from the abnormal condition of the right side of the heart, in connection with tuberculosis. He had never met with a case in which the lung tissue had been so completely displaced by tubercle. The patient might be considered as almost suddenly asphyxiated in consequence, a slight exposure (possibly) to cold in taking exercise sufficing to cause the sudden and fatal issue.

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, DECEMBER 17.

Mr. Erasmus Wilson read a paper

ON PREVENTIVE MEDICINE AS ILLUSTRATED IN THE PROPER USE OF FOOD.

Mr. President and Gentlemen,—I feel that some apology is due from me to this meeting in presenting myself before an association of experienced men as an expositor of a department of science of which they are the special representatives; and I ask you to receive as my apology for so doing the commands of your chairman, whose invitation I have ventured to accept. The subject of preventible disease is so vast that an attempt to deal with it as a whole must necessarily lead to confusion; I have, therefore, selected for my dissertation this evening only one twig from the great bundle of branches which constitute the facts of this interesting science. The subject which I shall endeavour to illustrate is contained in the following propositions:—Firstly, That good and sufficient food is necessary to health; and, secondly, that insufficient and inferior food is a fertile source of disease. And, as a deduction from these propositions, applicable to your particular study, I will venture to add, That good and sufficient food is an element of the first importance in the prevention of disease. By food we are to understand that kind of aliment which best conduces to nutrition, growth, and strength; which is capable of producing the most complete development and highest amount of power of the human being; which, in one word, creates health; for in health we have the only trustworthy antagonist of disease. The art and the science of the Physician are alike vain, in his combat with disease, unless he can bring about health; and his first and chief aim is to restore health, being fully assured that if he can succeed in renovating health, disease must be extin-

guished. So, the end and aim of existence of the officer of health may be said to be, to develope the means by which health may be made to occupy the ascendant in the human economy. We have one grand example before us, in which Nature prepares the food of the human being with her own hand, and administers that food at stated periods and according to a prescribed rule. We may ask, What is that food? What are those periods? What is that rule?

The food is milk; the first food of the newly-born man; an animal food. The periods are determined by the sense of appetite or want; and the rule which determines these periods is the space of time occupied in digestion and assimilation. If we examine this food we shall find that it is composed of a variety of principles; if we regard the periods we shall find that they present a perfect regularity of time; if we examine the rule we shall find that it has its origin in the necessities of the animal economy. And we may fairly deduce from our inquiry the three following laws:—

The food of man must possess a variety of composition, in which the animal principle should predominate. The food of man must be repeated at regular intervals, such intervals during the waking hours being not less than three in number. And, thirdly, looking to the fact that the desire for food originates in the necessities of the individual, that the food should be uniformly nutritious. Let me put these propositions in a different manner:—

Man requires variety in his food.

His meals must be regular.

Every meal should be equally nutritious.

Looking to the milk as the food of the infant man, we see the importance which attaches to the perfect purity of the milk, its sufficient quantity, and its regularity of supply; in other words, of a healthy mother—of a mother to whom the nourishment of the future man is a primary and not a secondary purpose of life—of a mother whose instincts harmonise with those laws of nature which govern her infant and should equally govern herself.

But let us take the reverse of these propositions: an unhealthy mother; unwholesome milk; irregularity of exhibition of that milk. I need hardly say that the results must be an unhealthy, weakly child; or, in other words, a fractious, crying child, the subject of vomiting, colic, convulsions, painful dentition, scrofula, rickets, tabes, etc. Is not this preventible disease?

Let me illustrate the subject a little further by reference to my own practice. Eczema is not infrequent in infants; it is apt to commence at the end of the second month, and it sometimes lays the foundation of a life of suffering. Now, eczema in infants is, in every instance, an aberration from the laws of health in the composition and in the supply of the mother's milk. Sometimes the source fails, and is to be made up artificially; and we all know the extreme difficulty of supplying infants with a proper substitute for their natural diet, of rearing them "by hand," as it is popularly termed. In this endeavour we cannot attain either the just variety of composition or the ever-ready supply.

But, as preventive medicine is especially interested in remote predisposing causes, let me adduce a few illustrations. A lady was called upon to give a dinner party a few weeks after her confinement; the excitement of that dinner party cost her infant an eczema. We might go further, and say that the lady transgressed a law of nature, and was punished in her offspring. A young mother hurried from the metropolis to the seaside in the month of November to attend the sick couch of a parent; she was chilled by her journey, her infant was six weeks old; the following day the child was seized with eczema. A lady, recently confined, was worried by a lawsuit; the source of her milk dried up, and remained lost for three days; a similar occurrence took place a few weeks later, and the child was visited with eczema. A poor woman a neighbour of my own was confined in the upper story of her house, her husband was dying in the room below. We might ask: Could the child escape under such circumstances? No: it was covered a few days after its birth with eczema. Within the last week a young woman brought her babe to me covered with eczema from head to foot. The colloquy which took place between myself and the parent was as follows:—"How old is your child?" "Four months." "How long has he had this eruption?" "Since he was three weeks old." "What occurred immediately before the appearance of the disease in your child to cause you annoyance?" "I was vexed by my servant." "And what since?" "I have been vexed to see my poor child in this miserable state." "Have you sufficient milk for him?" "No: I think I must begin to feed him." "By all means do so; that is your only chance of rearing him at all." I could multiply cases of this nature almost indefinitely were it necessary; their relation to the subject before us is self-evident, and I adduce them only as examples of causes disturbing the healthy composition of the milk, and consequently engendering disease in the child.

* * * * * *

But a period comes when milk is no longer the diet of children, and when custom, originating, as we have seen, in Nature's promptings, has determined the necessity of three meals in the day. The infant demands more than three meals, and makes no distinction between the day and the night. The day of the infant is a day of twenty-four hours; the day of childhood, as of the remainder of life, has a duration of twelve to sixteen hours. The three meals at present under consideration are the morning meal, the mid-day meal, the evening meal. These meals represent the wants of the body arising during the intervening interval. The morning meal is intended to supply the moderate waste of the night, the mid-day meal the active waste of the morning, the evening meal the active waste of the afternoon. The amount of the three periods of waste is pretty equal; the amount of the supply should be equivalent to that of the waste.

I am desirous of impressing upon my hearers my opinion and firm conviction that food is not only a necessity, but in civilised life a threefold necessity, and that the three meals should each represent the third of the nourishment of the day, and be so apportioned as to comprehend an equal amount of variety and an equal amount of nourishment. In the primitive life of the labouring class this law is fully appreciated, and is acted upon to the full extent of their means. With the exception of a somewhat more bulky mid-day meal, the morning meal and the evening meal do not far diverge from the standard of the mid-day repast.

But the educated classes are apt to fancy that they possess a knowledge superior to that of Nature, and the result is a perversion of the law of nourishment that leads to the development of debility and disease. A careful, well-meaning mother, from purest ignorance—another expression for superior knowledge, the "little" knowledge that is so proverbially dangerous—will tell you that she conforms to the law of Nature in providing for her children three meals in the day. She will describe those meals as breakfast, dinner, and tea, and you will find the composition of those meals to be as follows:—A vegetable breakfast, namely, bread and butter, with tea and a little milk; a dinner half animal and half vegetable; and a "tea," vegetable like the breakfast. Here, then, we find education bringing about a total change in the diet of man. Born an animal feeder, he is quickly transformed into a vegetable feeder; that is, more than two-thirds of his diet is vegetable and the remaining third only animal, the exact opposite of that which I consider should be the standard diet of children, namely, one-third vegetable and two-thirds animal.

My deduction from these premises is, that children are almost universally under-fed, and that the majority of the diseases of children arise from the debility of constitution induced by this habit of under-feeding. If I am right in this view, preventive medicine may do much in the prevention of disease by correcting an error so widely spread.

The diet of children of all ages should be, a substantial breakfast, with animal food in some shape; a substantial dinner of meat, vegetables, and cereal pudding; and a substantial supper, also consisting, in part, of animal food. The drink may be milk, tea, cocoa, and, possibly, beer. I would call this the diet of health; a diet capable of making a strong body and also a strong mind; and a diet capable of preventing disease. Compare it for an instant with the milk-and-water and bread-and-butter diet of some establishments; the meagre dinner of meat, and the miserable grouting of rice and amylaceous pulp. Rice and amylaceous food should have no place in the diet of health, but should be reserved for the sick room.

Born in prejudice and matured in prejudice, it is the struggle of a lifetime to throw off the trammels of prejudice. We are apt to attach a peculiar signification to the terms which we are in the habit of employing. Ask a person what he usually takes for breakfast, and he will pretty certainly begin his enumeration with the word "tea," the mere drink of the meal; it is, in truth, with him a mere break-fast, instead of being, as it ought to be, a substantial morning meal. The

dinner of labour is the luncheon of fashion; then follows the mildly alkaline and stimulating drink that is termed "the tea;" and last of all comes the supper, the late dinner of fashionable life. We have, therefore, before us a succession of three meals and an intermediate drink, but the drink precedes the last meal; and, therefore, the orderly matron, who is more attentive to her 1, 2, 3 than she is to the intention of the daily fare, prescribes for her children breakfast, dinner, and tea—two slops and a meal. But let her, in good English phrase, call the children's meals breakfast, dinner, and supper, and then we immediately obtain two dinners and one slop, the breakfast—an obvious improvement. I have secured to many a child a reasonable evening meal by suggesting to the mother the mere use of the word "supper" as the name of the third meal. No human being could call bread and butter and tea by the hearty name of supper.

Assuming that the amount and richness of the supply of food should be determined by the offices which it has to perform, there is no period of life when more food is required than in childhood and youth. The hard-worked labourer in a long summer's day scarcely exhausts a greater quantity of nutritious matter than a growing boy of ten or twelve years of age; in the labourer the consumption is waste; in the growing boy it is bestowed in the construction of the body, in developing and building up the future man. And it is no uncommon thing to find that although the general construction of the body has been fairly performed, there is some one organ of the economy that has fared less well than the rest, and that part not uncommonly the skin; hence the origin of acne, of the ringworms, *et hoc genus omne*.

If it be admitted that food is the source of the elements of which the body is composed, what kind of body can be expected in the case of a deficient supply of food, whether that deficiency proceed from actual want or from some perverse theory of refinement founded on a false conception of the nature and objects of food and of its direct convertibility into the flesh and blood of man? Parents are too apt to take their own stomachs as the standard of diet of their children: a cup of tea and a slice of toast suffices for them, so it must suffice for the little ones. I knew a lady who brought up her children on mutton alone, because she herself could digest nothing but mutton. Her children were a feeble, puny, sheepish race, always in the Doctor's hands. A mother, in anticipation of the full meal at seven o'clock, can afford a light lunch; but she unfortunately concludes that, because a light midday meal is good for her, a spare dinner is equally proper for her children. She has heard somewhere that suppers are heavy and interfere with sleep; so, the children must be content with their tea, and go supperless to bed. Parents have rights over their children, but not the right of feeding them in such a manner as to make them the subject of disease. Such parents become the authors of a puny and degenerate race, and are unintentionally traitors to their country.

If the two periods of life already adverted to be important in their influence on the future man—namely, the period of infancy, ranging from birth to the age of two years, and the period of childhood, ranging from two years to seven years—the next two periods—namely, those of boyhood and youth—are equally so. While the food of the infant and the food of the child are abundant and regular, the food of the boy and the food of the youth should be the same. Both are occupied in the great business of growing life; on both are dependent the future man, for his strength and for his manhood.

Boyhood and youth have besides other duties to perform—namely, cultivation of the mind or education; and then the question arises whether these two important processes are equally provided for in the training of our youth. To be well instructed mentally, they must be properly fed physically; and at no period of life are the three ample meals of mingled animal and vegetable food so necessary. There must be no putting off of the stomach with bread-and-butter and slop as the effigies of two of the three meals of the day; but a generous intermingling of all the elements that constitute a sound and nutritious diet.

It is notorious that the importance of a substantial regimen is not sufficiently recognised in scholastic establishments; and the consequence to the pupils is debility and disease, a constant appeal to the Doctor for tonics *vice* food, a frequent outbreak of ringworm, and, worse than all, the development of scrofulous tubercle, and the laying of a foundation for future organic disease and morbid life, or premature death.

Ringworm is essentially a disease of defective nutrition; and those even, who, looking no deeper than the surface, believe the ringworm to be the growth of a plant in the horny covering of the skin and actively contagious by means of its seeds, are the first to admit that the seeds are incapable of vegetation without the presence of a morbid soil, of an unhealthy condition of the skin and of the economy favouring their development and growth.

In all these examples, as it appears to me, the one most pressing want is food, abundant and regular; and could we secure this necessity of our nature to all our fellow-creatures, one-half of the whole of the disease which pervades the world would be spared.

I must not be supposed to undervalue light, and air, and cleanliness, and exercise, the kindred of food; but if it were my commission to improve the human race; to produce finer, stronger, and better men; to extinguish disease; I should begin with food; and if it were my duty to lay down rules for the prevention of disease, I should, in the first instance, endeavour to secure the co-operation and influence of man's first and best friend—his stomach.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—Candidates admitted from July 1 to December, 1864:—

Charles Garland, Armagh; Brinsley M. Walton, Hurstpierpoint, Sussex; W. S. M. Price, Carmarthen; W. R. Thomas, 14, Church-street, Sheffield; Thos. Elmes, Limerick; Rowan Purdon, Tralee; John A. Byrne, Dublin; Nicholas J. Butler, Jordanstown; Wm. R. Macauley, Blackrock; John Snow Cunningham, Rathgar; Richard James Tyrrell, Dublin; Robert Francis Buchanan, Westport; Wm. S. B. Hamlyn, Plymouth; Joseph Allison, Barrow-on-Furness; George Bedford Saunders, Dublin; James M. Hannan, Staff Surgeon; Isaac Hoysted, Assistant-Surgeon 8th Regiment; Wm. Dyas, P. and O. Comp. Service; James Charles Broadbent, Hadlow, Kent; Henry Wade Battersby, Killarney; John S. Greene, Dublin; Thos. Henry Pickering, Dublin; Ed. Turner Thompson, Dublin; Chas. Stennet Redmond, Atley; Joseph Burne, Booterstown; Richard F. Tobin, Waterford; Andrew Rd. Cowell, Dublin; Wm. Henry Sexton, Dalkey; Shewbridge John Connor, Carlow.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, December 29, 1864:—

Frederick Chabot, 245, Camberwell-road; Tregenna Biddulph Goss, 24, Newington-place; Henry Mortimer Hawkins, St. Mary's-road, Peckham; Henry Harris, Finchley.

The following gentleman, also on the same day, passed his First Examination:—

John Loam, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

LINGEN, CHARLES, F.R.C.S. Eng., has been elected Surgeon Extraordinary to the Hereford Infirmary.

LUDLOW, EBENEZER, M.B., has been appointed Assistant-House-Surgeon to the Bristol Royal Infirmary.

TURNER, THOMAS, M.R.C.S. Eng., has been elected Surgeon to the Hereford Infirmary.

DEATHS.

HUMPAGE, EDWARD, M.R.C.S. Eng., at Cotham, Bristol, on December 22, aged 61.

LAWSON, WILLIAM, L.S.A., at 28, Howland-street, Fitzroy-square, W., on December 17, aged 64.

MOORE, EDWARD DENNIS, M.R.C.S. Eng., at Walsall, Staffordshire, fourth son of the late Brigadier-General George Moore, Colonel, 59th Regiment Bengal Army, on December 24, aged 31.

SCOTT, JOHN J., Staff-Surgeon, of Emaroo, Co. Tyrone, at Up Park Camp, Jamaica, on October 30, aged 34.

THOMSON, DAVID P., M.D., at Wakenaam, British Guiana, of yellow fever, on December 6, aged 43, one of Her Majesty's Justices of the Peace for the Colony, and Coroner, formerly of Liverpool.

YOUNG, EPAPHRODITUS, M.D. Edin., at Boswell House, Croydon, on January 2, late of Clapham-common.

THE CARUS PRIZE FOUNDATION.—Several friends of the veteran zoologist, Carl Gustav Carus, have determined to raise during his Presidency of the Imperial Leopoldino-Carolinian Academy, sufficient funds to found either a travelling fellowship or a prize for the reward of works distinguishable for their novelty or importance. The King of Saxony has placed his name at the head of what is already a considerable list of subscribers; but as it is believed that the

naturalists of various countries will gladly co-operate, a Committee has been formed (Dr. Berthold Seeman being the member for London), which will receive additional subscriptions.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

E. S.—Mr. John Wood, Montague-place, W.C.

Mr. J. Clarke.—The paper has been received, and is intended for publication.

An Old Subscriber, Liverpool.—Sir Hans Sloane (an Irishman) was the first Physician upon whom an hereditary title of honour had ever been conferred. George the First created him a Baronet; he was also the first Medical President of the Royal Society.

A Guy's Student.—The Harveian Oration, in memory of the discoverer of the circulation of the blood, is delivered annually (Midsummer-day) at the Royal College of Physicians. It is the Hunterian oration, in memory of John Hunter, which is delivered *biennially* at the College of Surgeons on February 14.

Mrs. Walker and Family, of Crick, near Rugby.

The following subscription has been received at the office of the *Medical Times and Gazette*:—Dr. Paterson, Partick, £1.

The Griffin Testimonial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following subscriptions have been further received on behalf of the above fund:—Messrs. Davies and Hancome, Gower, 5s.; J. T. Tallent, Esq., Hingham, 10s.; Dr. R. Anson, Cambridge, 10s. 6d.; W. S. Barker, Esq., Thingoe, 10s.; A. S. Vandenbergh, Esq., Bethnal-green, £1 1s. Amount previously announced, £108 19s. 6d. Received at *Lancet* Office, £6 14s.

I am, &c.

Robert Fowler, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, January 4.

Pryce *v.* Bowen.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I should esteem it a great favour if you would insert in this week's *Medical Times and Gazette* the following subscriptions for Dr. Bowen to assist him in defraying the legal expenses incurred by the late trial of "Pryce *v.* Bowen," and so oblige.

I am, &c.

H. D. Scholfield, M D., Treasurer.

14, Hamilton-square, Birkenhead, January 3.

Subscriptions for Dr. Bowen.

Dr. Scholfield, £5; G. Walker, Esq., £5; J. Godden, £5; Dr. Ricketts, £3 3s.; Dr. Downing, £2 2s.; Dr. Lambert, £2 2s.; Dr. Craig, £2 2s.; Dr. Spratly, £1 1s.; S. Edgar, Esq., £2 2s.; — Daniels, £2 2s.; M. Jennett, £1; E. L. Jacob, £1 1s.; — Lamb, 10s. 6d.

Received at the office of the *Medical Times and Gazette*:—Dr. Clapton, £1 1s.; Dr. Sydney Jones, £1 1s.

Consanguineous Marriages.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I am obliged to "A. R." for the references which he has given me, but the papers he names do not contain all I want. As this is a subject of some practical interest, I hope you will not allow it to drop without eliciting some information as to what opinion is held about it by those best qualified to judge, and whether the "warm debates" of "learned bodies" alluded to in the circular to the prefects have resulted in any conclusion that may be regarded as final, and if so, what it is. Possibly the discussion in the French Academy is not yet finished, but postponed pending the result of the circular.

I am, &c.

January 1, 1865. X.

The Birkenhead Case.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir.—It is not my intention to offer any opinion on this case, beyond stating my firm belief that Dr. Bowen treated Mr. Price according to the most scientific rules of Surgery; and the only oversight he committed was, that when vesications and sloughing of the skin commenced he did not ask some of his friends to see the case along with him—a proceeding which every young Surgeon is fully justified in, for his own safety and reputation.

As the case now stands, and in the absence of Mr. Lund's own statement, I also agree with you that, after having heard Mrs. Price, he might have communicated with Dr. Bowen before giving any opinion; and it is the greatest paradox to me that he did not do so.

I flatter myself that I know Mr. Lund well, or, at least, I ought to do. I was in the Manchester Hospital for three years, and out of that time I was Dissector for Demonstrations and clerk to that gentleman for over eighteen months. This brought me into constant contact with him; and during the whole of that time his conduct was that of the most perfect gentleman.

Judge, then, Sir, of my feelings when I read the letter signed "G.," in your journal of last week, in which the writer says: "Such a fellow (for he does not deserve the name of man or gentleman) should be scouted from the Profession."

Let me tell "G." that he is condemning an unheard person; that he is also condemning a man whom I believe to be as incapable of the charge laid against him as either he or any other gentleman can possibly be.

Hundreds of young Physicians and Surgeons, who have received their anatomical knowledge from Mr. Lund, will, like myself, rush to the rescue of his character. With Horace I may say:—

"Absentim qui rodit amicum
Qui non defendit alio culpante.
Hic niger est hunc tu Romane caveto."

I am, &c.,

James Leach, M.D.

Clough Cottage, near Oldham, January 4, 1865.

Resection of the Knee-joint at the Cape of Good Hope Naval Hospital.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A letter received by the last mail from Dr. Stirling, Staff-Surgeon R.N., in charge of the Naval Hospital at the Cape, informs me that he had performed the operation of resection of the knee-joint on a warrant officer with complete success. The healing process appears to have gone on very rapidly, and at the date of the letter the patient was up and moving about.

The particulars of this case, with other capital operations which Dr. Stirling has had to perform during his short tenure of office at the Cape Hospital, will be found in due time among the records at Somerset House for 1864.

I very much fear that my friend's modesty will prevent him giving the details of this case to the public, although there is no one more competent to do so than he is. I would, therefore, beg to solicit a corner in your journal for this notice of the case, because the result of resection, as applied to the knee-joint, is still *sub judice*, and every case is valuable; and because, as I believe, this is the very first operation of the kind that has ever been performed in a naval Hospital.

I am, &c.,

Wm. Loney, F.R.C.S.

Army and Navy Club, January 2, 1865.

Incision of the Os Uteri in Rigidity.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I shall feel obliged if some of your experienced obstetric readers will favour me with the results of any cases where they have incised the os uteri in cases of rigidity which resist other means of procuring dilatation.

I had a case lately in which, though the labour lasted for three days, the os was only dilated about the size of a florin, and extremely rigid. Having held a consultation with a senior Practitioner, he was of opinion that any incision made in the os would be converted into a large rent during the process of extraction of the child, and that the os would dilate after opening the head by using traction. We accordingly delivered by the crotchet, and I ascertained that the os uteri was lacerated after the delivery.

I write this in order to elicit the opinions of some of the seniors of the Profession for guidance in a similar case, as I cannot find any directions in the writings of Ramsbotham and Churchill as to how the operation should be performed, and, indeed, they seem rather averse to the operation. I should think that four small incisions on opposite sides of the os would be preferable to forcible efforts at extraction.

I am, &c.

Obstetricus.

Management of the Third Stage of Labour.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The letter from your correspondent "Celer et Audax," in your number of the 24th ult., escaped my notice until it was too late to send a reply in this week's impression. I really think it would be a very useless controversy to discuss the claim to priority in describing the great importance of uterine pressure in the management of the placental stage of labour. I can assure "Celer et Audax" that I have no desire to contend for such a right. I distinctly stated in my paper that I had no doubt many would say that the principle advanced was, after all, no novelty; but I maintained, and I still repeat it, that this teaching is not definitely described and insisted on in our obstetric manuals. The capability of pressing off the placenta by judicious manipulation alone, without any traction on the funis whatever, is certainly not laid down; nor is it, I believe, understood or practised as it should be. I am convinced that there is a certain knack in the performance, which is only to be acquired by experience, if we would be almost universally successful in this manœuvre. I cannot agree with your correspondent as to the propriety of extracting the placenta instantly after the child is born—unless, indeed, it is clearly indicated from hæmorrhage, etc. Surely ten minutes is not too long to allow the poor sufferer to rest after the agonies of the expulsive efforts are ended? There are many little details in my paper which may not be uninteresting to "Celer et Audax;" and if he will kindly send me his card I shall have much pleasure in forwarding him a copy, should the dissertation be printed *in extenso*. I entirely endorse the opinion of Mr. Stedman (whose letter appears in your journal this week), that the teaching of the Dublin school, with regard to the arrangement of the Medical Attendant's hands during the birth, is greatly superior to any other school that I am acquainted with.

I am, &c.,

Henry E. Eastlake.

48, Welbeck-street, Cavendish-square, W., January 2, 1865.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you kindly allow me space for a word or two in reply to Dr. Greenwood and Mr. Stedman, both of whom assure me that "pressure on the fundus uteri and early extraction of the placenta" are not novelties? Although I am greatly gratified to see the testimony of two such veterans in favour of a practice which I, as a precocious youngster, have ventured to think my own, I should have felt better pleased had their letters appeared when I first wrote in August last. Never having seen or heard of such a practice being inculcated in text-books, or by writers on "Midwifery," and having found it so successful in my own practice, I was induced to suggest its adoption; and I was greatly surprised to find, three months afterwards, Dr. Eastlake propounding the same ideas (in a more elaborate form) at the Obstetrical Society, and being congratulated on bringing the subject so prominently before the Profession: hence my letter of December 24. I have been influenced solely by a desire to contribute my unit towards the advancement of our present knowledge; and I shall most willingly waive my claim to priority, merely remarking that it seems somewhat singular that a practice adopted twenty years ago at the Rotunda Holpital, Dublin, is only mentioned in Dr. Churchill's manual, under the head of "Treatment of Post-partum Hæmorrhage," instead of being regarded as a *sine qua non* in the management of natural labour.

I am, &c.,

January 2, 1865. "Celer et Audax."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The communications on this question by your several correspondents cannot be otherwise than deeply interesting to all of us who practise Midwifery, and if the assertions of these gentlemen be conclusive as to their habit of handling the fundus uteri and removing the placenta without adhesion or hæmorrhage, then many of us are taught a lesson which it were well we had been taught before. One thing seems omitted to be said—how long it may be necessary to keep the hand in that position for its pur-

pose. Having had in a long experience much Midwifery, I cannot help thinking these gentlemen have been very lucky as well as wise, for I certainly have on many occasions, notwithstanding keeping my hand over the uterus on the birth of the child, found a feebly contracting uterus, with relaxed abdominal muscles, exhaustion, and flow of blood on the separation of the placenta—all requiring further measures than such manipulation so infallibly successful in the practice of your correspondents.

In many delicate women, whose blood possesses little fibrin, hæmorrhage is most prone to occur under any and all circumstances, and especially when the *vis nervosa* is below par, with weak muscular fibre. Labour being a natural process, I believe many Practitioners leave too much to Nature; but at the same time Nature is not to be treated as an ignorant and helpless doer of her own work, as Mr. Figg and a few others seem to assert. In many cases it has appeared to me that when the uterus has cast the placenta into the vagina, and it is allowed to remain a time with the abdomen properly swathed so as to support the muscles and compress the uterus, it has been a block or impediment to more loss of blood. The "Celer et Audax" plan may be all very well, but I cannot allow it the infallibility which seems to be claimed for it. There can be no objection, however, to its adoption, and I thankfully accept all information so far as not to make it, when its magic may not be prompt, the plea of hasty interference. I am, &c. AN OLD PRACTITIONER.

THE REPORT ON THE HEALTH OF THE NAVY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the Statistical Report of the Health of the Navy for 1861, just published, the compiler has improved upon preceding reports by the addition of the names of the Medical officers employed during the period afloat. He evidently took a hint from the Army Statistical Report, but has failed to make his as perfect in this and other particulars. By comparing the two, you will observe that to the Army Report is appended a complete list of the Medical officers of that branch of the public service in order of seniority, including amongst its ranks that of Surgeon-Major; while to the Naval Report is appended simply the names of those officers who happened to have been employed in ships, or attached to ships for service, with marines, etc., during the period, without any distinction according to seniority, or any recognition of the rank of Staff-Surgeon—a rank corresponding with that of Surgeon-Major in the army. This is a grave error on the part of the compiler, and one he should correct in future reports; and I will tell you why. The Naval Warrant regulating the status of Medical officers, like the Army Warrant, states that there shall be four grades of Medical officers—viz., "Inspector-General, Deputy-Inspector-General, Surgeon, and Assistant-Surgeon"—and in another clause it directs that "Surgeons after twenty years' service on full-pay, ten of which must be in the rank of Surgeon, shall be styled Staff-Surgeons." The naval Staff-Surgeon, like the army Surgeon-Major, takes rank with Lieut.-Colonels, and gets higher pay than the Surgeons in either service, who only rank with Majors; but, from the date of the Warrant until the present, the Admiralty have never acknowledged the rank of Staff-Surgeon in the Navy-List beyond prefixing the letters S.S. to the name. The Army Office gazette their men to the rank of Surgeon-Major. Why should not the Admiralty gazette Staff-Surgeons? I, therefore, think that in a publication so purely professional a complete list of officers on the active list might have been given with with advantage. It would go far to force the Admiralty to a proper recognition of the Warrant, and do more good than may appear at first sight. You will also not fail to observe that the recommendations or suggestions of army Medical officers tending to promote or to preserve the health of the soldier are fully and fearlessly quoted at full length, whether they have met with attention from commanding officers or otherwise: whereas, in the Naval Report there is a remarkable reticence on this point whenever recommendations have been disregarded. If you should think it worth your while to review this Blue Book in the columns of your journal, I would suggest that you advise the publication of the names of all Medical officers on the active list on all future occasions after the enclosed model.

November 21, 1864. I am, &c. W.

Name.	Seniority.	Ship, etc.	Station, etc.
	Inspectors-General.		
A. B.	1860. 1 January.	Hospital.	Greenwich.
C. D.	1861. 1 February.	Hospital.	Haslar.
E. F.	1862. 1 March.	Unemployed.	Half-pay.
	Deputy-Inspectors-General.		
A. B.	1850. 1 January.	Hospital.	Malta.
C. D.	1851. 1 February.	Hospital.	Hong Kong.
E. F.	1862. 1 March.	Unemployed.	Half-pay.
	Staff-Surgeons.		
A. B.	1840. 1 January.	Hospital.	Plymouth.
C. D.	1841. 1 February.	Dockyard.	Portsmouth.
E. F.	1842. 1 March.	Unemployed.	Half-pay.
	Surgeons.		
A. B.	1859. 1 January.	*Victory.*	Portsmouth.
C. D.	1860. 1 February.	*Rinaldo.*	Pacific.
E. F.	1861. 1 March.	Unemployed.	Half-pay.
	Assistant-Surgeons.		
A. B.	1855. 1 January.	Marines.	China.
C. D.	1860. 1 February.	*Formidable.*	Sheerness.
E. F.	1864. 1 March.	*Shannon.*	West Indies.

COMMUNICATIONS have been received from—

Mr. J. CLARKE; CELER ET AUDAX; Dr. H. EASTLAKE; Dr. LIONEL S. BEALE; Mr. W. LONEY, R.N.; MICROSCOPICAL SOCIETY; Messrs. LEE and NIGHTINGALE; Dr. H. D. SCHOLFIELD; Mr. T. STOKES; Dr. SMART; E. S.; Mr. EDWARD LUND; PATHOLOGICAL SOCIETY OF LONDON; ROYAL INSTITUTION; APOTHECARIES' HALL; Mr. E. L. HUSSEY; X.; ERIGENA; OBSTETRICUS; Dr. E. BELLAMY; Dr. FOTHERBY; Dr. R. FOWLER; ETHNOLOGICAL SOCIETY OF LONDON; Dr. JAMES LEACH; MEDICAL SOCIETY OF LONDON; ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Dr. PATERSON.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 31, 1864.

BIRTHS.

Births of Boys, 1000; Girls, 956; Total, 1956.

Average of 10 corresponding weeks, 1854-63, 1658·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	846	851	1697
Average of the ten years 1854-63	700·3	682·0	1382·3
Average corrected to increased population..	..	..	1520
Deaths of people above 90	..	..	8

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	2	12	8	..	2	14	2
North ..	618,210	..	7	11	..	11	26	5
Central ..	378,058	2	3	4	1	4	8	3
East ..	571,158	1	9	13	2	15	17	..
South ..	773,175	3	11	17	4	11	25	2
Total ..	2,803,989	8	42	53	7	43	90	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·047 in.
Mean temperature	35·6
Highest point of thermometer	43·5
Lowest point of thermometer	27·8
Mean dew-point temperature	30·3
General direction of wind	N.E. & S.W.
Whole amount of rain in the week	0·10 in.

APPOINTMENTS FOR THE WEEK.

January 7. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Frankland, "On the Chemistry of a Coal"—(Juvenile Lectures).

9. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Dr. B. W. Richardson, "On Inhalation in the Treatment of Disease."

10. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. M. Khamkof, "Contributions to the Natural History of the Iranians." Sir Woodbine Parish, "On the Artificial Eyes of certain Peruvian Mummies." The Duc de Rousillon, "On the Scythians." Mr. Wallace, "On Civilisation in North Celebes."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Mr. Furneaux Jordan, "On Eczema of the Eyelids, Conjunctiva, and Cornea." Mr. Desvignes, "On Subcutaneous Injection of Quinine in Ague." Dr. Dobell, "On 'Winter Cough.'"

11. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

HUNTERIAN SOCIETY, 8 p.m. Dr. Peacock, "On Some of the Forms of Epidemic Disease recently Prevalent."

MICROSCOPICAL SOCIETY, 8 p.m. H. J. Slack, "On the Vinegar Plant."

12. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

13. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

CLINICAL LECTURE ON THE USE OF PERCHLORIDE OF IRON IN SOME CHRONIC DISEASES.

DELIVERED AT

King's College Hospital.

By LIONEL S. BEALE, M.B., F.R.S.

Fellow of the Royal College of Physicians; Physician to King's College Hospital; Professor of Physiology and of General and Morbid Anatomy in King's College, London.

I PROPOSE to-day to ask your attention to a very simple plan of treatment useful in certain forms of urinary diseases which often last for a very considerable period of time, and frequently resist the effects of various remedies administered for their relief. Many of the remarks I feel called upon to make are applicable not only to the particular cases under our immediate consideration, but to affections of other organs.

It is of the utmost importance you should observe for yourselves the course of the cases in the wards, and watch carefully the changes which take place in the patient's state while he is under treatment, for by careful observation alone can you hope to gain that practical knowledge which will give you confidence in diagnosing morbid conditions, or the experience which will enable you to suggest the plan of treatment most appropriate, and which affords the best prospect of being of service. We are not able to give precise written directions which would enable any one to suggest at once the exact treatment which should be adopted in each individual case of disease that may arise. A vast number of collateral matters must be considered, besides the disease itself, and these will differ in each individual patient; so that in the conduct of the case much must depend upon the judgment of the Practitioner, and good judgment can only be acquired by long-continued observation of very many different cases. This is one reason why our clinical observation is so much more useful to us in practice, and so much more to be relied upon than mere book knowledge.

I suppose there is not one branch of natural knowledge more difficult of investigation than therapeutics. Although Practitioners not unfrequently exhibit the utmost confidence in a particular remedy, and patients attribute to it the most wonderful powers, and appeal to its effects upon their own organisms in support of their assertions, it very often happens that after more careful observation it is discovered that the only virtue of the famous remedy is that it is harmless. Hundreds of new remedies are introduced, advertised into popularity, and found by experience to be useless. Practitioners apologise to themselves for using them on the ground that in a particular case very many other things have been tried in vain. Patients are so desirous to try anything new that they often consult one Practitioner after another in the hope of hearing of some new medicine they have not tried before. Thus it comes to pass that we really know very little of the action of many of the remedies we employ, and medicine profits but little by the life's work of hundreds and thousands of Practitioners.

I have often impressed upon you the importance of studying carefully every case before you attempt to advise as to its conduct, or to prescribe medicines, so that you may ascertain what actions are at fault, and consider how the general conditions under which the sick man lives may be modified so as to favour his recovery.

You must not, for example, when you find a quantity of pus in the urine say "Here is pus in the urine; what is good for pus in the urine?" but you must try to find out where the pus is formed, and consider what conditions favour or interfere with its formation. In fact, you must investigate fully the nature of the whole case, and you must think over the physiological and pathological changes which are going on. A Physician is not a mere physic-giver, but one whose business it is to relieve suffering and place sick people in a condition most favourable for their recovery. So that there are cases which may be well treated without a particle of medicine, in which if medicine alone were given, without any change of food and drink, air, clothing, &c., the treatment would be bad treatment indeed.

In prescribing I always employ the most simple remedies, and give them in the simplest form. I prescribe as few different medicines as possible, and avoid changing the remedy unless it is really necessary to do so. In this way every case may add something to our experience, and may teach something to every one who watches it. You will probably have remarked that I very seldom order a new remedy, and for years past I have persisted in prescribing some of the very simplest preparations in the Pharmacopœia, the value of which is undoubted. And I feel quite sure that we have yet very much to learn with regard to the action of some, even of the simplest and most common remedies, as, for instance, acids and alkalies.

For the last six years with very few exceptions the only preparation of iron that I have used is the tincture of perchloride of iron, and I propose to allude to certain classes of cases in which this remedy has proved of value. I have given it almost always in infusion of quassia. The mixture is one known to all Practitioners and commonly prescribed, but in many cases I am sure it is not continued for a sufficient length of time to produce benefit. I used the acid solution of the perchloride of iron in solution in water for many years when I was attending in the out-patient department, and I came to the conclusion that this much cheaper preparation was just as valuable as the more costly tincture. The composition of this "solution" is the same as that of the tincture, except that water is used instead of spirit. It has been in constant use in our Hospital for the last eight or nine years.

There is one other question to be considered with reference to the action of this remedy—namely, whether the benefit is due solely to the iron salt, or partly to this and partly to the free hydrochloric acid present. I am so satisfied of the advantage of the free acid that I often add to the mixture a little free hydrochloric acid. A little chloric ether or the spirit of chloroform of the British Pharmacopœia may be added; and in some cases, especially when the bladder is irritable, you will find the advantage of prescribing at the same time a little tincture of henbane. You may give these medicines in the following doses, omitting the spirits of chloroform or henbane as you think best:—

℞. Brit. Pharm.
Tr. Ferri Perchlor., ♏x. to ʒss.
Acid Hydrochlor. dil., ♏x. to ʒss.
Tr. Hyoscyami, ♏x. to ʒss.
Sp. Chloroform, ʒss.
Inf. Quassiæ ad, ʒj. to ʒjss.
M. To be taken twice a-day, at 11 and 4 o'clock.

Among the most obstinate and tedious cases which come under our care are those which depend upon chronic structural change in the kidneys. There is no remedy under which the condition of the patient improves so steadily as iron. Nor is it in one form only of the affection that iron is found to be of benefit. Iron may be given with the greatest advantage in that distressing form of fatty degeneration which occurs in young persons, as well as in the various forms of chronic contraction met with at a later period of life and under very different circumstances. I feel sure that in certain instances where the renal affection has not very far advanced the long-continued use of iron, combined with judicious management, may do more than improve the condition of the patient or retard the progress of the malady. It not unfrequently happens that a patient quite recovers, although albuminous urine has been passed during many months.

I would caution you against the inference that fat cells or even casts containing oil in the urine are necessarily indicative of the existence of fatty degeneration of the kidney, that must terminate fatally in a short time. I have shown that many small casts filled with oil and cells containing oil are formed in the follicles about the membranous portion of the urethra.(a) These are very likely to be mistaken for casts of the uriniferous tubes. Not unfrequently such bodies are found in urine containing pus and a *little albumen*, which might tend still further to mislead the Practitioner as to the nature of the case. It should be borne in mind that in fatty degeneration of the kidney there is almost invariably present a large quantity of albumen; but the Practitioner should always avoid committing himself to any positive diagnosis in a case of chronic renal disease until he has watched the course of the case for a short time.

In our Hospital we have unfortunately a far greater number of cases of chronic renal diseases than we desire for clinical study. It is seldom that there are not three or four

(a) "Urine, Urinary Deposits, and Calculi," page 309. "The Microscope in Medicine," fig. 216.

cases in each Medical ward. We have, however, the advantage of being able to watch carefully the course of many different examples of a most important class of cases, and are often enabled to study a case of chronic renal disease in various stages from its first commencement in an acute attack to its termination in recovery or death.

I have often had occasion to draw attention to cases of acute dropsy, which progress very favourably up to a certain point. By our purgatives and sudorifics all the acute symptoms are relieved, and perhaps very quickly so; but still there remains some anasarca, and still albumen in small quantity exists in the urine, and after the lapse of a month or six weeks the patient is no better than he was after the first fortnight. Now, it is useless to persevere in purgatives, dry cupping over the kidneys, hot-air baths, and various kinds of sudorifics. These remedies may even cause the dropsy to increase rather than diminish. The patient, already pallid, becomes more so, while the albumen continues to escape in the urine. A generous diet, with large doses of iron, will do much at this period of the affection. You may begin with twenty drops of the tincture of perchloride of iron in infusion of quassia two or three times a day, and gradually increase the dose to a drachm. Sometimes within a week manifest improvement has taken place, the fluid effused in the areolar tissue is absorbed, the quantity of albumen in the urine is diminished, the pale, pasty appearance of the face gives place to a ruddy complexion, the patient gains in strength, and in the course of a few weeks completely recovers.

I do not suppose that the benefit results merely from the addition of iron to the blood. There can, I think, be little doubt that the improvement is due to several circumstances. The state of the digestive process is altered, and the appetite is increased. The quassia and the free acid no doubt improve the action of the stomach, as well as the iron, but where digestion is very weak, you may give three or four grains of pigs' pepsin at dinner. I conceive that the reabsorption of fluid from the areolar tissue is brought about by the improved state of the blood. When the blood is poor the serum more readily permeates the walls of the capillary vessels, and if you keep the blood in a poor state by low diet, purgatives, and the like, the anasarca may increase rather than diminish. Not only so, but, as is well known, anasarca may be produced in a healthy person by depletion, low diet, etc. One of the worst cases of general anasarca I ever saw was that of a poor woman who had had a polypus of the uterus, which she would not permit to be removed, and from which hæmorrhage had been going on for months. After she had at last consented to its removal, the dropsy gradually disappeared, and, by the help of iron and good living she slowly got perfectly well.

But it does not always happen that by the use of iron, the dropsy, in a case of albuminous urine following acute dropsy, entirely disappears. Sometimes the patient remains in *statu quo* for weeks. In too many instances this results from a state of chronic change in the organ which we cannot cure. I have, however, found in several cases the greatest advantage result from the administration of alcohol at this period of the disease. In some cases in which the dropsy has continued for two months or more after the acute symptoms had entirely passed off, and perhaps for five or six weeks after the patient had been taking the iron, I have given four ounces of brandy or half a pint of wine in the twenty-four hours, and from the time this plan was commenced the case has steadily progressed towards complete recovery. You might at first be disposed to doubt the propriety of giving alcohol in chronic renal diseases, upon the ground that alcohol will produce chronic renal disease, and some consider that alcohol, as alcohol, reaches the kidney in a state of sufficient concentration to damage its structure directly; but of this there is the greatest doubt. Chronic disease both of the liver and kidney is induced by many other conditions besides spirit drinking. I think over-eating, and eating enormous quantities at one single meal, has given rise to quite as many cases of these conditions as alcohol, and therefore it is probable that the action of alcohol upon the renal tissues, like food, is indirect. But be this as it may, much benefit often results from the use of alcohol cautiously given in the course of chronic kidney disease.

We have learned that many cases of chronic renal disease which years ago would have been regarded as almost certainly fatal, recover, while others become so chronic that with ordinary caution the patients live for years, and it is often difficult to persuade them that they are not perfectly well. Albumen, however, still passes away in the urine, and so long as this continues the patient must be very careful to avoid taking cold. Not that he should be kept constantly indoors, for this is not the way to avoid "catching cold," and there can be no doubt that in chronic renal disease free oxidation is of the utmost importance. Even in the winter such patients should go out as much as possible, being well protected by warm clothing. Probably a thick woollen or wash-leather suit next the skin is the best protective in these cases. The general health should be carefully attended to in all cases of chronic renal disease. We should consider every point in connexion with the patient's daily life, with the view of keeping him in a good state of health, bearing in mind that it is almost invariably necessary to explain to the patient and his friends that confinement in hot ill-ventilated rooms is not the way to prevent persons from catching cold. The patient should be made to persist steadily with the tincture of perchloride of iron. You may modify the mixture I have suggested in very many ways, nevertheless still insisting upon the importance of the iron being continued twice or three times a-day for many months.

I might have supported the remarks I have made by giving several cases treated upon this plan, but as not two of them would be alike in all particulars, I prefer rather to draw only a general, and, it may be, a rough and not very decisive or convincing, inference than to follow the method sometimes adopted in such inquiries, of tabulating a great number of dissimilar cases and showing how many recovered in proportion to the number treated. Although this plan appears very precise, there are so many disturbing circumstances, that if employed I believe it is scarcely possible to arrive at the truth with reference to the value of different methods of treatment. Many would differ from me in this opinion, no doubt, but I feel convinced that the inquirer learns more with regard to the action of remedies by watching very closely and carefully a few cases than by putting down in different columns hundreds of cases treated upon one plan, and hundreds treated upon another, and hundreds not treated at all, and comparing the results. Some persons having done this, and finding that the number of deaths and recoveries under several different plans of treatment and under no treatment at all were about the same, have considered that the only legitimate inference to be deduced was that the treatment did nothing, and that it was therefore as well to adopt no treatment at all—an inference neither justified by the premises nor supported by evidence of other kinds. Statistics applied to such inquiries in the present imperfect state of knowledge are more likely to promote scepticism and retard the progress of Medicine than to advance therapeutics.

COURSE OF

LECTURES

ON THE URINE AND DISEASES OF THE URINARY ORGANS. (a)

By GEORGE HARLEY, M.D., F.R.C.P.,

Professor in University College, and Assistant-Physician to University College Hospital.

Lecture X.

DIABETES MELLITUS—GLUCOSURIA—SACCHARINE URINE—ITS NATURE AND RATIONAL TREATMENT.

(Continued from page 5.)

Quantitative Analysis.—At one time the quantitative determination of sugar was a long and tedious process, but now by adopting the following method I find it both quick and easy. Three solutions must be retained in readiness:—

1st. A standard solution of sulphate of copper, made by dissolving 34·63 grammes (536·76 grains) of dry sulphate of copper in 1000 c. c. (32·26 oz.) of distilled water. 1 c. c. of this solution represents 0·005 gramme of dry diabetic sugar.

2nd. A solution of caustic potash of the specific gravity of 1060.

3rd. A saturated solution of the bitartrate of potash.

The object of keeping these solutions separate, instead of combining them as is usually done, is in order to avoid the danger of the spontaneous reduction of the oxide of copper, which invariably takes place sooner or later in all the ordinary standard solutions. Having the solutions at hand, place before you two porcelain capsules, each containing an ounce of

(a) This Course of Lectures which we are now publishing has been, with certain modifications, annually delivered to Medical Practitioners during the last eight years.—Ed. *Med. Times and Gaz.*

distilled water; to which add 20 c. c. (measured in glass A, Fig. 8) of each of the solutions, first adding the copper, then the bitartrate, and lastly the caustic potash. Next take the measure B, Fig. 4, and pour into it 10 c. c. of urine, and dilute with 90 c. c. of water. The mixture will thus amount to 100 c. c.

The succeeding step is to put one of the capsules over the spirit lamp, and as soon as its contents begin to boil add, drop by drop, the diluted urine until the blue colour of the liquid entirely disappears. Then place it aside in order that the reduced copper may fall to the bottom, and allow you to judge by the depth of colour of the supernatant liquid if much of the oxide of copper still remains to be precipitated. While this is going on, boil the contents of the second capsule after adding to it an amount of dilute urine equal to that which was employed in the first experiment; and should the supernatant liquid in the first capsule turn out to be still blue, add, in addition to the amount already used, 5 c. c. of dilute urine. After boiling for a few minutes, place it aside in order that its reduced copper may fall down, and repeat the same thing with the other capsule until the exact quantity of dilute urine required to reduce the 20 c. c. of standard copper solution be ascertained. So soon as that is accomplished, all that is required in order to find out the quantity of sugar eliminated by the patient in twenty-four hours is to divide the total number of c. c. of urine passed by the number of c. c. of dilute urine required to reduce the 20 c. c. of copper solution.

Suppose, for example, the patient passed, as in case now before me, 3720 c. c. of urine in twenty-four hours, and 26 c. c. of dilute urine were required to reduce the oxide of copper, the 3720 divided by 26 would give the number of grammes of sugar contained in the twenty-four hours' urine.

$3720 \times 26 = 143$ grammes in the 24 hours' urine.

Those who have not the means of making a quantitative analysis in the way described may adopt the simpler, though less exact, method proposed by Dr. William Roberts. The following is the mode of procedure:—

1. Four ounces of urine are placed in a twelve-ounce phial, with a lump of German yeast of the size of a small walnut.
2. This is loosely corked, or covered with a slip of glass, and placed in a warm place to ferment.
3. A companion phial filled with the same urine—say a three-ounce phial—is tightly corked, and placed beside the fermenting phial.
4. In about twenty-two hours, when fermentation has ceased, the two phials are removed, and placed in some cooler part of the room.
5. Two hours after—that is, about twenty-four hours from the commencement of the experiment—the contents of the phials are separately poured into cylindrical glasses, and the density of each observed.
6. The difference between the two specific gravities is thus ascertained, and every degree of "density lost" indicates one grain of sugar per fluid ounce of the urine.

Crystals of diabetic sugar may be prepared by simply evaporating a few drops of urine to dryness on a glass slide. But this is only possible when the urine is very rich in sugar, and contains but little urea, and other salts. The most characteristic form of crystal is that of the rhomboidal prism occasionally arranged in arborescent tufts, as represented in the accompanying drawing (Fig. 26), which was kindly made for me by Mr. T. R. Loy, one of the gentlemen attending my practical class. Such crystals are in general called diabetic

FIG. 26.

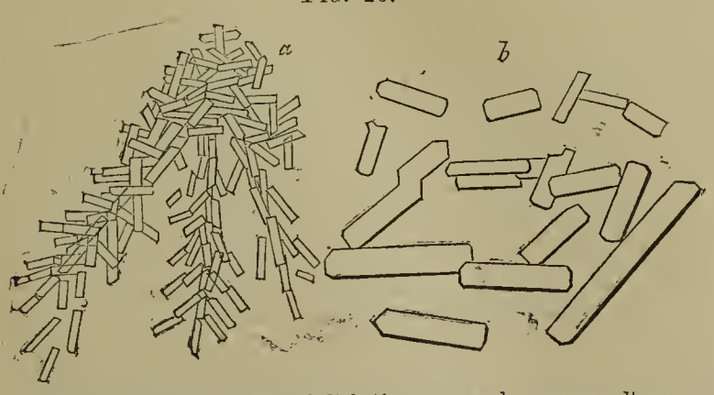


FIG. 26.—Compound crystals of diabetic sugar and common salt, spontaneously formed in concentrated human urine. *a* As seen under a low power. *b*. Highly magnified.

sugar; but I believe them to be a combination of sugar and chloride of sodium, for except in the presence of chloride of sodium diabetic sugar never assumes a so regularly prismatic form of crystallisation. Gibb says that when diabetic urine contains a larger proportion of salts, the sugar crystallises in little circular masses, with minute crystals projecting from the surface. The masses appear to be made up of an aggregation of flat plates of sugar, and, when examined on a dark ground, resemble lumps of the well-known barley-sugar.

Physiology.

If we desire to be philosophical as well as practical, it is necessary that we should thoroughly understand the origin and destruction of the sugar met with in the animal economy. I shall, therefore, now proceed to the consideration of the *physiology* of diabetes.

That sugar is a normal constituent of the human frame is easily shown by withdrawing an ounce of blood from a healthy man in full digestion, and allowing it to fall drop by drop into a couple of ounces of boiling water faintly acidulated with acetic acid. By so doing all the albuminous matters are so firmly coagulated, that on filtration a perfectly colourless liquid is obtained, and on applying to it the copper, potash, and fermentation tests, the existence of sugar can be demonstrated with facility. Should the patient have had a mixed meal, a great part of the sugar found in his blood will have been directly obtained from the food. This opinion is opposed to the view of Bernard, who on finding that animals have the power of making sugar out of albuminous substances, fell into the error of supposing that all the saccharine matter met with in the human body must of necessity be the product of the liver. The results of my experiments on animals have led me to an entirely opposite conclusion in as far as the omnivora and herbivora are concerned. This opinion I arrived at from finding abundance of saccharine matter in the blood of the portal vein and chyle of the thoracic duct of a dog, three hours after he had partaken of a quantity of horse-flesh, to which had been added a couple of ounces of soft sugar.

Even in those cases where the patient has had a mixed diet, without, however, having partaken of any sugar in a free state, I still maintain that a great part of the saccharine matter met with in the blood is the direct product of the food, for the following reason:—All vegetable foods, such as bread, turnips, carrots, potatoes, etc., contain a large quantity of starch, which starch during its passage along the alimentary canal is all, or nearly all, converted into sugar through the agency of the digestive juices, especially of the saliva and pancreatic fluids.

The transformation of amylaceous matters into glucose during their sojourn in the alimentary canal is not the result of accident, but the sequence of an unalterable law, which is equally in force in or out of the body, so long as the physical conditions necessary for its action are in operation. Thus, if an ounce of boiled arrowroot, in a test-tube, be mixed with a little saliva, or have added to it half a dozen drops of pancreatic juice, all the starch contained in the arrowroot will infallibly be changed into sugar in the course of a few minutes. And for this operation the intervention of no other agency than that of a temperature equal to that of the human body is required. A precisely similar change occurs in the animal organism, and the sugar thus formed is absorbed by the mesenteric veins and lacteals, and of necessity forms part of that met with in the circulation.

As regards carnivora, on the other hand, Bernard's assertion is strictly correct, as the result of the following experiment will prove. The experiment was most carefully performed some years ago by Professor Sharpey and myself, with the view of ascertaining not only if sugar exists in the blood of carnivora, but if sugar is actually present in the blood of the healthy animal at the moment of its withdrawal from the circulation.

From the femoral artery of a dog fed solely, during four days, on boiled flesh, perfectly devoid of sugar, one and a-half ounces of blood were allowed to flow directly into boiling water, acidulated with acetic acid, and when the clear filtrate from this blood was tested, it gave unmistakable evidence of sugar, which sugar must have been formed in the animal's body, seeing that not a particle of saccharine matter was introduced with the food. It is quite unnecessary for me to cite another experiment in order to prove that the animal organism has a sugar-creating power, for Nature has herself supplied the proofs. Is sugar not a constant ingredient of the normal milk of the flesh-eater, as well as of the vegetable

feeder? Most assuredly it is. If the animal body cannot form sugar, from whence does the milk of the carnivora receive its supply? For example, where does the sugar found in the milk of the polar bear come from if it is not manufactured by some organ or other in the animal's own body? Not only does the polar bear live on animal diet, but on the flesh of animals, such as the walrus and seal, whose chief food is fish, which fish, in their turn, are not usually supposed to live upon vegetable matter. As regards this point, I am even inclined to go a step further than Bernard, and not only assert that the carnivorous animal has the power of forming sugar out of albuminous substances, but that even in the case of the herbivorous animal the sugar met with in its milk is not directly obtained from the digestive canal. This, I think, is proven by two facts.

1st. Milk sugar possesses certain special characters which distinguish it from all vegetable sugars.

2nd. Milk sugar, although abundantly present in milk, has not yet been detected in the circulation. The natural conclusion, therefore, is, that it is formed by the mammary gland.

Consequently, it is perfectly clear that there must be at least one organ in the body capable of forming sugar.

Now comes the question—In what organ of the body is the sugar formed which is met with in the general circulation of the carnivora? Answer—The liver. Why the liver? Because, in the case of the carnivora, the blood proceeding to the liver is devoid of sugar, while that coming from it is rich in saccharine matter—richer, indeed, than the blood of any other organ of the body. As Bernard may be considered in the light of an interested party, and I have already cited some of my own experiments, I shall now quote three from an entirely independent observer—Schmidt, of Dorpat; (b) the results of which are as follows :—

	Percentage of sugar in Portal vein.	Hepatic vein.
1st dog (on animal diet) . .	0·00	0·93
2nd ,, ,, . .	0·00	0·99
3rd ,, (fasting during two days) .	0·00	0·51

These results I have again and again confirmed, so that there is not the slightest doubt left in my mind regarding their validity, and I believe that they furnish us with the key to the well-known fact that some diabetic patients, even when totally restricted to animal diet, still pass a large quantity of sugar.

Having now ascertained that the healthy blood always contains sugar, and that when the saccharine matter is not obtained from without, the body manufactures it for itself, the next point is to determine if sugar be absolutely essential to life, and what use or uses it is put to in the animal organism.

We must begin by finding out if the quantity of sugar in the blood is always the same, or if it be liable to variations, and to what extent.

From the results of a series of experiments made many years ago, I came to the conclusion that the amount of sugar present in the arterial blood of healthy animals is subject to great fluctuations, varying from an almost inappreciable quantity, after long fasting, up to 0·24 per cent. during the time of full digestion. In the hepatic vein the amount, Bernard says, may even be as much as 2 per cent.

The quantity of sugar present in the general circulation seems to follow a definite law, for it goes on gradually increasing as digestion advances, and as gradually diminishing as we approach the period for the next meal,—the maximum being reached four or five hours after food, the minimum during fasting. Saccharine matter does not entirely disappear, however, from the circulation till after prolonged fasting. Chauveau found as much as 0·05 per cent. in the blood of a dog, and 0·09 per cent. in that of a horse kept during three entire days without food. In these cases, as the animals were of course forced to live on their own tissues, the sugar formed by their livers must have been made out of some one or other of the constituents of the blood.

The rise and fall in the amount of sugar in the circulation, according to the state of the digestion, is clearly the key to another often-observed pathological fact—namely, that in all cases of diabetes the amount of sugar in the urine is subject to great fluctuations during the course of the day; while it furthermore explains why in some slight cases of diabetes sugar is only to be found in the urine a few hours after a meal.

(To be continued.)

(b) *Compt. Rend.*, vol. xlix., p. 63.

ORIGINAL COMMUNICATIONS.

CASE OF AMPUTATION OF THE THIGH—ACUPRESSURE—RECOVERY.

By WILLIAM KEITH, M.D.,
Senior Surgeon Royal Infirmary of Aberdeen, and Lecturer on Clinical Surgery to the University.

Mary M., aged 29, married, admitted into the Royal Infirmary, Aberdeen, on October 17, 1864, with complete disorganisation of the knee-joint, abscesses burrowing in the thigh in all directions, and communicating with the joint. Had been ill for three years, and was in a very exhausted condition. Having somewhat recruited by November 16, by absolute rest and a generous diet, the limb was removed at the upper third of the thigh; and having previously warned my clinical class to watch the case as one in which I meant fairly to test the value of acupressure and wire stitching as proposed by Dr. Simpson, I secured all the arteries—six in number—that required it, by long pins passed under the artery a little way above its open mouth, looped over with wire, and a twist given to the wire round the pin, the tail ends coming out alongside of the pin, exactly as Dr. Simpson planned at the outset of this movement. The faces of the flaps were brought into apposition and secured by eight wire stitches, and the edge of the wound hindered from crusting by a small strip of moist lint laid over the wound.

November 17.—The blood ooze from the wound was most trifling.

November 20.—Four days in. Two of the pins and wire loops were removed; no bleeding whatever.

November 21.—Three of the remaining four pins were to-day withdrawn; a mere drop of blood following as the wire loops came out. The patient going on most favourably; though weak, yet cheerful, sleeping soundly and eating well.

November 23.—Seven days after insertion. The pin controlling the femoral artery was withdrawn, not a drop of blood following.

December 4.—The wound is at this date quite cicatrised, and now only are the eight wire stitches removed, eighteen days after insertion, having caused neither heat, redness, nor suppuration. At no period during the healing process was there ever beyond a teaspoonful of pus seen within the twenty-four hours, and that evidently from the lips of the wound. As she had to travel a distance to her home, she was detained in hospital, only to be fed up until December 21, when she left as sound as a bell. It was unquestionably one of the most satisfactory recoveries I have ever had after amputation of the thigh.

CHILD-CROWING—THE MOST EFFECTIVE REMEDY EXPOSURE TO DRY, COLD WINDS.

By J. ROBERTON, Surgeon, Manchester.

Having a number of years ago given an account of this complaint. with a history of twenty-two cases, I am, notwithstanding, induced (owing to the timidity of parents, as well as of some of my Professional brethren, to have infants exposed in cold spring weather) to furnish additional evidence with regard to the innocence of my principal means of cure.

It may be said, and with truth, that various authors among their remedies for this disease recommend change of air. It is not, however, mere change of locality that I advise, but the free exposure of the infant out of doors, for many hours daily, to a dry, cold, atmosphere; and if the air be dry, the colder the better. The following, from the pen of the late Dr. Marshall Hall, is worthy of attention; and I refer to his opinion regarding atmospheric exposure in child-crowing on account of his acknowledged eminence both as a writer and a practical Physician :—

"The baneful influence," says he, "of the north-east wind, and the curative influence of change of air, and especially of the sea breezes, are not less marked in this affection than in whooping-cough." Again: "All inclemencies of the weather being avoided—for heat, cold, and the north-easterly winds are alike injurious—the child should be much in the open air."

The five following cases, selected out of a number in which

I have been consulted since the publication of my paper above referred to,(a) and all of which have been treated on the same principle, are instructive, especially as showing, contrary to Dr. Marshall Hall's opinion, that easterly and northerly winds are not injurious but curative. Were these winds injurious it would indeed be unfortunate, since, owing to causes I cannot account for, every instance of child-crowing that I have seen has commenced in the winter or spring, as the following list of cases (of which I possess notes) proves:—In November there was one, in December four, January seven, February eleven, March thirteen, and in April four; in all forty cases.

In the way of preparation for change of air the following particulars demand attention:—

1st. Careful scarification of the gums, so as to make and keep bare the tips of the advancing teeth.

2nd. Correction of the alvine secretions, which are nearly always of a pale colour, by small doses of mercury with chalk shaken up in a little syrup.

3rd. Free sponging of the body every morning with cold water.

4th. Warm clothing, suitable to the season of the year.

5th. If the child is in part or altogether handfed, careful attention to the diet; since excess of food is found to aggravate the crowing and other symptoms.

Case 1, January, 1856.—E. H., a girl twelve months old, with only two lower incisors cut, and suffering from the gums over the upper incisors, had crowing spasms very frequently, and while in them was stiff and struggled severely. The thumbs were turned into the palms of the hands, and there was blueness always remaining under the eyes and round the mouth and nose. Was taken in January to Alderley, but the weather being damp and close, she grew rapidly worse while there, having as many as thirty-two attacks of crowing in the twenty-four hours. At the end of a week she was brought back to Manchester, and then taken without delay to the shore below Liverpool. There the weather was found to be intensely cold, and a strong and bitter east wind blowing. Sometimes the nurse who carried baby about could hardly stand with her in her arms, so strong was the wind. Baby was a month at the shore, being out in all weathers for about six or seven hours a-day. From the end of the first week there was evident improvement, and by the end of the third week the crowing spasms had ceased, nor has she ever suffered from a return of them. She was sponged with cold water night and morning; had careful attention paid to the diet, especially as to the quantity she ate; and before the two upper front teeth (which caused her much suffering) came through, her gums had been lanced eleven times. She is now a strong healthy child.

Case 2.—February, 1856.—H. P., a boy ten months old, had for some weeks been feverish and starting in consequence of cutting his side teeth; the gums were frequently scarified, giving relief at the time. About a week before "crowing" was heard he had two convulsions, and for some days was seriously ill. "One morning," as the mother wrote me, "on going up early to his room the nurse drew my attention to his hands—the thumbs were drawn into the palms; and when dressing him I found his feet were also drawn, so much so that I was unable to put on his boots. The nurse told me she had been alarmed by the child making a peculiar noise as though struggling for breath. I remarked also a blueness about the mouth and nose, which made me fear he had been convulsed during the night. I had heard you describe the symptoms of "crowing inspiration," and therefore lost no time in sending for you. Your order was to take him off without delay to Blackpool or Fleetwood. On account, however, of the severity of the weather, and his having a cough, I sent him with his nurse to Southport. In a day or two I went to see him, and found him very little better: his hands and feet were not so much drawn, but the "crowing" was more frequent. On my reporting this, you considered Southport not sufficiently bracing, and you wished me to take him to the bleak shore at Fleetwood, which I accordingly did. There had been a heavy fall of snow, and a north-east wind prevailed more or less the whole time we were at Fleetwood. Every day, wet or fine, he was wrapped up warmly and drawn out in a perambulator from morning till evening. He improved daily; the fits of "crowing" became gradually fewer and less severe, and at the end of three weeks he returned home perfectly well.

(a) "On the Treatment of Laryngismus Stridulus, or Child-Crowing." Page 502 of "Physiology and Diseases of Women, and on Midwifery," published in 1851

Case 3.—January 11, 1857.—Visited Mr. W.'s baby, a male, aged fourteen months, suffering from the incisor teeth, and from fits of crowing with clenching of the thumbs. The gums were scarified, the bowels regulated, care enjoined as to diet, and it was intimated that he must be removed immediately to the sea side. In about a couple of days an attack of crowing terminated in convulsions, and as the child's grandfather happened to live near Disley, at the foot of the hills, the family, with my approval, had him carried thither. On reaching Disley, as the nurse was lifting him from the carriage, he had crowing followed by convulsions. The weather was dry, the cold intense, and the country deep under snow; nevertheless, he was carried daily to the top of a neighbouring hill, and afterwards in a perambulator was wheeled about in the snow most of the day, greatly to the surprise of the country people, who thought the nurse must be out of her mind. A man said, "Are ye mad, lass? ye'll kill that child." She replied, "The Doctor has ordered him to be carried on the hills." "I don't care about Doctors," said he, "ye'll kill him." The crowing was rapidly mitigated, and I was assured by the babe's aunt, who accompanied the nurse, that the crowing and other symptoms had disappeared by the end of a week.

Case 4.—February 4, 1857.—Was consulted regarding a fine, vigorous, male infant, aged 11 months, suffering from the incisor and bicuspid teeth, with crowing and drawing of the thumbs. After dividing the gums, minding the bowels, the diet, and the clothing, I advised a removal to the sea side. The baby's mother, however, having occasion to visit a relative, about ten or twelve miles north of this, in the country, took him thither for change, but with little or no benefit, and on her return, the crowing being frequent and of alarming violence, I advised his being taken forthwith to the dry breezy shore of Blackpool. His mother wrote me from Ulverston as follows:—"We have come here after a month at Blackpool, and I am thankful to be able to give you a satisfactory report. You will remember that the day we last brought baby to you his thumbs were in; we went that afternoon to Blackpool, and before night the thumbs were out, and have only been in once since for part of a day, which was about the tenth day after we got there. We were not able to carry out your system fully for the first ten days, on account of a sharp cough, the weather being at the time most severe, but as soon as the cough moderated we had him out all weathers—for the first week from five to seven hours daily, the second week from seven to eight hours, and for the last week he has been out between ten and eleven hours each day. We took him out both when sleeping and waking, in hard frost, in the bitterest east wind, in a north westerly wind that I could scarcely stand against with him in my arms, in hail-storms and in snow, and yet he never suffered from cold, but on the contrary benefited visibly in health, whilst the crowing gradually diminished. We wrapt him up well certainly, and in that inclement weather he was the only one of the party to come in warm. I have strictly followed your directions; the diet is plain, and the meals given with regularity; the bowels are in order, and he ails nothing but the occasional crowing, which has now ceased to be alarming. His eye teeth and four double teeth are coming, yet it is wonderful how little they affect his health and spirits; he has twelve teeth through, and is now 13½ months old." On returning from Ulverston after two or three weeks, the crowing and the other symptoms had ceased.

Case 5.—January, 1861.—This I attended with my friend Mr. Mellor. The narrative is chiefly from the pen of the little patient's mother. "My baby (a girl aged five months) had her first attack of crowing when at Southport, near the end of January, 1861; but, not knowing anything of the nature of the complaint, it did not alarm me until the attacks, on our return home in February, became frequent and severe. One Sunday the crowing recurred every fifteen or twenty minutes, and early next morning the gums were freely lanced; yet still the paroxysms continued frequent. In the course of the following night they altered in character, for baby with the crowing had twitching of the face, and the feet and hands were drawn. This state of things lasted only for a short time; but still, after each attack, the toes and thumbs were drawn in, and remained so for about an hour, leaving her painfully restless. Baby had now to be hand-fed, and took the bottle well. On Tuesday, by your advice, we set out in an open carriage for Kersal Moor; but before going far she had a convulsion, and we had to turn back. The same afternoon she had a most distressing attack; for, after a crow, the

features were drawn, the eyes and mouth firmly closed, and she lay as if dead. After a short interval, however, she sobbed, and by degrees became sensible. On one occasion I stood with my watch in my hand, when baby remained in the apparently lifeless condition I have mentioned for three minutes. On each of the two following days we drove in an open carriage to Kersal Moor; and the last of these alarming attacks occurred at the inn there. On Friday morning we left for Buxton, in Derbyshire. The day was bright, but cold; yet she was out all day. After this she passed a better night, having no attack till early morning, when there was one of a comparatively mild character. We remained at Buxton till the end of March. The weather was very stormy and windy, the wind generally from the north-west. The hills around were capped with snow, and the ground also occasionally was covered with snow; yet, unless a downfall prevented us, baby was out four hours every day; and if she could not be taken out, the hall door of the inn was kept open and she carried about in the hall. Sometimes we took a drive in an open carriage; and twice went half way to the Cat and Fiddle, said to be the highest inhabited house in England. Here I may remark that although the weather at Buxton was bitterly cold, baby never took the least cold, but steadily improved. When we returned home at the end of the month the complaint was gone, save an occasional catching of the breath. In April, 1862, when she was nearly twenty months, the crowing returned during the cutting of the eye teeth; but this time it occurred only in the night—about four times nightly. She had her gums lanced, and was sent to the shore at Southport; after arriving there she had no return."

I have, in conclusion, to observe that in the numerous cases of stridulous crowing that have come under my notice, painful dentition has been the sole cause. I have never seen or heard of one instance of the disease before or after dentition —always during the teething period; and the opinion advanced by some that child-crowing is owing to morbid enlargement of the glands of the neck, or of the thoracic absorbent glands, has no support from facts.

SUDDEN DEATH, SUPPOSED TO HAVE BEEN CAUSED BY TAKING BATTLE'S VERMIN KILLER.

By WILLIAM STEDMAN, Esq., M.R.C.S. Eng.

On the 29th November, 1864, I was sent for to see M. A. S., aged about 30 years. I found her lying on the floor of her bedroom, dead. Her features presented perfect calmness, the eyelids were partially closed, the lips livid, the fingers and toes quite flaccid.

Rumours of poisoning having arisen, I was desired to make a post-mortem examination in time for the inquest on the 1st December:—

From the evidence adduced, it appeared that on the day of her death she sent a little boy who was passing her door for twopennyworth of vermin poison at about 11·25 a.m.: the boy returned without it, not being able to get so small a quantity; the deceased went next door, borrowed a penny from her neighbour, and again sent the boy, who returned with the poison, "a 3d. packet of Battle's Vermin Killer," gave it to the woman and left the house. In the course of a few minutes a little boy living in the same house wanted to speak to the woman, found her in the bedroom, and she asked him "Are my lips black?" "Is my tongue black?" The boy took no notice of the remark, because, as he says, "she had had fits before." In a few minutes he went up again to the woman, found her leaning on the table, speechless and motionless (doubtless dead). He ran for a neighbour, who came in, and being alarmed fetched her husband, who returned with her, laid the deceased on the floor, and came for me. I arrived exactly at 12·10, and found her dead.

No trace whatever of the poison has been found on the premises; neither cup, nor glass, nor any other vessel in which she could have mixed it, was to be seen. One glass only was found down stairs which was not clean, but from which, without washing it, some gin was taken by one of the layers out, who found no injurious effects from it.

Another witness stated that he was about to be married to the deceased; that he had been to sea; that he had at different times given her money to the amount of £12, and that he was about to receive from her a sum of money to go to Portsmouth to buy tools on the day following that of her death; that on examining her pockets, etc., no money could be found, and none had been paid into the savings bank as had been expected.

I then gave evidence as to the results of the post-mortem examination (in which I was assisted by Mr. Bannister) which were as follow:—

External appearances quite natural, without any sign of spasmodic rigidity. Lungs healthy in structure and very much congested. Heart rather large, pale, and flabby. Stomach contained a small quantity of thick fluid, the stomach itself presenting appearances of slight congestion, which may have resulted from chronic indigestion. Liver and intestines healthy. The head was not examined, as our attention was more particularly directed to the stomach. I gave as the cause of death, failure of heart's action and congestion of lungs.

Having given this opinion, and explained to the jury that I did so in the absence of analysis, and the coroner not thinking the latter necessary, as there was nothing criminal in the case, the jury were evidently dissatisfied, and could not agree as to the verdict, there being such strong evidence of the tracing the poison to the deceased, and of the supposed motive for her having committed the act, viz., that the money which ought to have been forthcoming had been made away with: they deliberated for some time, and ultimately found a verdict of "death from natural causes," although I am satisfied that every one of them, and indeed every one in the room, with the exception of myself, believed her to have taken the poison.

Under these circumstances I, the next day, sent the stomach with its contents to London, and through the kindness of my friend, Dr. Gervis, of St. Thomas's-street, and Dr. Bernays, the Lecturer on Chemistry at St. Thomas's Hospital, they were carefully analysed by the latter gentleman with this result,—that no trace whatever of strychnine, arsenic, or any ordinary poison was to be found; but that in the opinion of Dr. Bernays, the stomach presented appearances of having belonged to an intemperate person.

Now, I conceive this to be a very interesting case, both in a pathological and a Medico-legal point of view.

First, as to the poison and its acknowledged action.

The active principle of this poison, "Battle's vermin-killer," doubtless is strychnine, and according to Dr. Letheby, who analysed a packet of it in the year 1861, contains 23 per cent., or about three grains in each packet: although Mr. White, from whom the packet in question was purchased, tells me that it contains 10 per cent., or from one and a-half to two grains in each packet.

As to its action:—From all that I can glean from authors and experiments of the present day, strychnine taken in poisonous doses never fails to produce tetanic spasms; and although half a grain has been known to kill in five minutes, the same symptoms presented themselves, and indeed, for the last forty years the effects have been the same, Orfila, in his "Traité des Poisons," 1818, giving the following description of the action of those poisons containing it:—

He says—"Ils doivent être regardés comme des excitans de la moelle épiniére, sur laquelle ils portent leur action en déterminant le tétanos, l'immobilité du thorax, et par consequent, l'asphyxie, à laquelle les animaux succombent."

"Quellque soit la surface du corps avec laquelle ils aient eté mis en contact d'une maniére convenable ils sont absorbés, portés dans le torrent de la circulation, et l'absorption parait s'opérer par l'interméde des veines, comme M. Magendie l'a observé le premier."

"Leur action est trés prompte lorsqu'on les injecte dans le pléure, le peritoine, ou la veine jugulaire; elle l'est moins lorsqu'on les applique à l'extérieur, ou lorsqu'on les injecte dans les artères éloignées du cœurs; les effets tardent encore plus à se manifester lorsqu'on les applique sur les surfaces muqueuses.

"Aucun de ces poisons ne produit l'inflammation des tissus sur les quels on l'applique."

Now, in this case, the poison was sent for twice, at a distance of 100 yards from the house, received by the woman, and death had taken place in the course of thirty minutes, and not a trace of rigidity was to be seen on the body immediately after death.

Then, with respect to the motive of the poor woman to destroy herself, it is true that the man may have given her the money, but it is much more likely that he had received it back again, as he was known to have been drinking about a great

deal, and his own sister told me she was quite sure that the poor thing would not spend her brother's money.

Great stress was laid on the remarks, "Are my lips black?" "Is my tongue black?" These were very likely remarks to have come from a woman who had been subject to what is termed "fits," who had doubtless been subject to hysteria, and might have had fainting fits; and why should she ask "Are my lips black?" when the poison supposed to have been taken was not black, but light blue? And she could not suppose that the colour would be changed by contact with her lips.

The post-mortem appearances were quite sufficient, independently of poison, to account for death by syncopic asphyxia; and, although there is nothing in these appearances opposed to the possibility of death from strychnia, the results of the analysis, conducted not by any inefficient manipulator, but by one of the first toxicologists in London, are to my mind quite conclusive, especially as a sufficient cause of death existed in the condition of the heart.

It is true that she was a poor woman, without any friends, and who would not be missed at all by the world in general, and but very little by her own class of life; still, it is equally true, that under any circumstances, and in any position of society, the awful crime of suicide is a very dreadful one, and one which is regarded with natural horror by every right-minded person; and therefore I say, that without some positive proof of poison having been taken, it is equally cruel and unjustifiable in any person to cast such a stain on another who may have died suddenly, and, as in this case, because the poison was traced to the deceased and could not be found afterwards. It is impossible to say what was done with it, but after the results of the analysis it is quite clear it was not in the stomach.

It has been suggested, but I think without much reasoning, that the poison acted at once on the deceased, because she had a weak heart; if this were so, how is it that the poison was not detected? Death having taken place so suddenly, it must have remained in the stomach, and therefore must have been found.

Looking at the case in all its points, I think it a very interesting one; and although it would take a great deal to convince me that strychnine can produce such sudden action, without tetanic spasms, still everything is possible; and should strychnine be possessed of more deadly properties than at present it has the credit of, it is a most fearful thing to know that in so short a space of time, and without leaving a trace behind, lives may be destroyed by a 3d. packet of vermin powder, which may be procured by any little boy who may be sent for it; and it would certainly become the duty of the Legislature to place some check on the indiscriminate sale of such a frightful means of death.

Havant.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

NORTHAMPTON GENERAL INFIRMARY.

FIBRO-PLASTIC TUMOUR OF THE ANTRUM — EXCISION OF THE SUPERIOR MAXILLA — RECOVERY.

(Under the care of Mr. MASH.)

For the notes of the following interesting case we are indebted to Mr. Buszard, Resident Medical Officer to the Infirmary:—

Ann H., aged 24, a domestic servant, was admitted January 30, 1863, with a tumour of the upper jaw.

History.—She has never been strong, and has had several rheumatic attacks, which have left their traces in considerable disfigurement of the finger joints. The right knee-joint is also partially anchylosed from previous chronic inflammation. For the last ten months the tumour in the jaw has been slowly growing, but without occasioning any very severe pain.

Position and Appearance of the Tumour.—Viewed externally the tumour formed a smooth globular swelling over the left superior maxilla, causing a considerable prominence of the cheek on that side. On looking into the mouth, the tumour was seen to spring from the left upper alveolar ridge (the molars were lost), and to project across the roof of the mouth towards the opposite side. The upper surface of the projecting portion was covered by the tense mucous membrane of the gum, but the under surface was ulcerated and sloughy, though firm, and without any disposition to bleed. The premolar teeth were loose, and embedded in the substance of the growth, the site of which was plainly indicated by the easy passage of a probe from the gum into the antrum. There was no enlargement of the submaxillary glands.

When admitted the patient was in a very anæmic state, with a furred tongue, bad appetite, and feeble pulse, but after a course of tonics and generous diet she improved considerably, and on March 28, eight weeks after admission, she was considered well enough to submit to the operation proposed, viz., excision of the left superior maxillary bone.

Chloroform having been administered, to complete insensibility, the operation was performed in the following manner: The left central incisor having been removed, a semi-lunar incision was made commencing a little below the external angular process of the frontal bone, and extending across the cheek into the angle of the mouth, the dissection being carried gradually from the skin to the mucous membrane, so as to allow of each artery being secured as soon as divided, and to prevent the escape of blood into the mouth. A second incision was then made from the upper edge of the nasal process of the superior maxilla along the side of the nose, round the ala, and into the mouth through the centre of the upper lip, and the flap thus formed dissected up. The alveolar border and palatine process were next sawn through by means of a narrow saw introduced into the nostril, and a notch was then made in the bone with the saw immediately below the orbit, as this was not encroached upon by the tumour, and the cut continued through the malar bone, the nasal process being divided by pliers. The operation was speedily brought to a close by seizing the superior maxilla with forceps and drawing it steadily forwards, a few touches of the knife facilitating its removal. A small portion of the tumour which extended deeply required scooping out with the handle of the knife. There was but little hæmorrhage, and only one bleeding-point required a touch with the actual cautery. Some strips of lint were laid in the cavity, and the flap having been brought down and retained *in situ* by a few interrupted sutures and strips of plaster, the patient was removed to bed and ordered ♏ xv. of Battley's liq. opii sed. Milk and beef-tea in small quantities occasionally.

In the evening she was tolerably comfortable; pulse 110; liq. opii sed., ♏ xxv.

29th.—Patient twice sick during the night. Slept a little at intervals. Pulse 118. Slight swelling of cheek. Ordered—ice and milk, one ounce of brandy with arrowroot. Rep. haust sed., hâc hocte.

30th.—An erysipelatous blush has appeared on the face, and there is slight oozing of pus from the incisions. The mouth was well syringed and cleaned with warm water, the lint removed from beneath the cheek and replaced by fresh; the external dressings were likewise reapplied, and warm water dressing laid over the face. Eight ounces of port wine and strong beef-tea ordered.

31st.—Erysipelas has spread over the forehead, and both sides of the face, which is much swollen. Pulse 130, feeble. Pus thin and serous. All the sutures were removed, and the cheek supported by a few strips of plaster, warm water dressing over all the inflamed surface. To relieve the fetor and unpleasant taste caused by the escape of pus into the mouth, it was ordered to be well washed out with a dilute solution of permanganate of potash two or three times daily. The bowels not having been relieved since the operation, an enema of castor oil and barley water was ordered to be given.

April 2.—The parts present a more favourable appearance this morning; the erysipelatous inflammation is subsiding. The incision in the lip and a portion of that through the cheek have united. The pus is more healthy in character. Pulse 120. The patient has derived great comfort from the use of the permanganate of potash lotion; it has certainly greatly diminished the fetor of the breath.

5th.—Progressing favourably. All inflammation has disappeared; the appetite is returning. An egg pudding was ordered.

On the 7th she was able to eat some chicken, and on the 9th she was put on the ordinary diet of the Hospital, with a pint of porter instead of wine.

From this date recovery was uninterrupted; the external wound was soundly healed by the end of the month, and she was discharged cured on May 21. There was but very slight

deformity of the face, except that caused by the cicatrix across the cheek. When seen four and a-half months after discharge, she continued quite well, and there was no appearance of any return of the disease. She continues well to the present time.

The tumour examined microscopically was found to be of the fibro-plastic variety, consisting for the most part of nucleated elongating fibre cells, with intervening fibrous tissue.

GUY'S HOSPITAL.

DISEASE OF THE HIP-JOINT—LARDACEOUS DISEASE OF THE LIVER—PYÆMIA.

(Under the care of Mr. COOPER FORSTER.)

The following case shows the relations of visceral affections to disease which at first is local. It points to the necessity of bridging over the practice of Medicine and Surgery. Whilst a Surgeon is treating a patient for disease of bone he may be dying, not directly of exhausting discharges, or worn out by pain, but of lardaceous disease of his viscera. We have heard it remarked by an eminent Pathologist that not unfrequently the visceral disease is discovered for the first time on the post-mortem table. As a rule, lardaceous disease is connected with diseased bone or with syphilis; but, as in Dr. Greenhow's case, there is no such cause. Not unfrequently the hip-joint is the part diseased, and this probably produces the visceral disease, because it keeps the patient in bed, and is altogether more serious than disease of one of the smaller joints. Not long ago, however, we saw in Guy's Hospital, at the same time, two cases of lardaceous disease, in one of which the hip, and in the other the elbow, was affected. Curiously, the patients were brothers. In all cases of disease of joints, or of disease of bone, we ought at least to examine the urine. Indeed, Dr. Wilks says that he had observed that albuminous urine was very frequently found in cases of disease of bone before he noticed the more particular relations of lardaceous disease of the kidney. The following cases are unfortunately meagre, but they show, in outline at least, the relations we have mentioned. They are copied from the records of post-mortem at Guy's Hospital. The first of the cases has a particular interest as showing the occurrence of pyæmic abscesses in a liver previously diseased. The patient was cut off by pyæmia whilst dying of lardaceous disease.

John T., aged 26, was admitted under the care of Mr. Forster, November 19, and died December 23. He was admitted with suppurative disease of the hip-joint, and was at the same time in a very bad state of health.

Autopsy by Dr. Wilks.—The left hip-joint was quite disorganised, and the bones necrosed. On attempting to remove the head from the acetabulum it was found that it was loose in the socket, but whether the separation had occurred before death was difficult to say. The head and neck of the bone were black and carious, and the former separated into a number of small portions. The acetabulum was also black, and decaying. Suppuration existed all around, and a large abscess in the thigh had extended upwards beneath Poupart's ligament, along the psoas as high as the kidney. Except minute cretaceous deposit in the apex of one lung, the lungs were healthy. The liver was lardaceous throughout to an extreme degree, but scarcely above the ordinary size, although heavier. It also contained numerous abscesses in its substance. They were recent, and evidently of pyæmic character, having their origin in the abscess connected with the hip, which nearly reached the liver. The spleen was healthy. The kidneys were pale, soft, and coarse. There was no reaction with iodine, but they did not appear healthy.

SYPHILITIC CACHEXIA—LARDACEOUS KIDNEYS—DEATH FROM INJURY.

(Under the care of Mr. HILTON.)

Thomas J., aged 50, was admitted, under the care of Mr. Hilton, on October 16, and died December 12. This patient was run over, the wheel passing over the abdomen. He was a cachectic man, and suffered from the results of syphilis, and had sores on his legs. His urine was highly albuminous. Some peritonitis followed the injury, but from this he recovered, but died afterwards from gradual exhaustion.

Autopsy by Dr. Wilks.—The body was cachectic-looking, and showed results of syphilis. There was a depression on the head, where there had been caries of the bone, and the nose was sunken, and flattened, and seamed. There were sores on the legs, and the tibiæ were enlarged. These were old pleural. The lungs were puckered in several parts. At the lower edge and front part of the upper lobe of the right lung a tumour could be felt, about the size of a marble. When cut through, it was found to consist of a hollow case, consisting of some cretaceous matter, and it was filled with a gelatinous matter, looking like coiled-up hydatid membrane. The coils of intestine in the lower part of the abdomen were closely adherent to each other and to the abdominal wall. The liver was firm and of a dark colour, but gave no reaction with iodine. The spleen was rather larger than usual, and very firm. Its sections showed it lardaceous throughout. The kidneys were very firm and wax-like, showing an extreme form of lardaceous disease, and giving the reaction with iodine. The testes were structurally destroyed, and consisted of tough masses of fibrous tissue.

MIDDLESEX HOSPITAL.

CASE OF LARDACEOUS DISEASE OF THE LIVER, SPLEEN, AND KIDNEYS.

(Under the care of Dr. GREENHOW.)

The chief interest of the following case lies in the fact of the apparently spontaneous origin of the degenerative disease, unassociated with either necrosis, constitutional syphilis, or phthisis, one or other of which diseases almost invariably precede it.

T. A., aged 33, baker, admitted as an out-patient June 17, 1864. A thin man, of pallid complexion, but not otherwise of unhealthy aspect. Had never had jaundice, nor, indeed, any other disease before his present illness, his health having always been perfectly good until a fortnight before he presented himself at the Hospital. Had been first attacked with pain and swelling of the left leg, but at the time of his admission was suffering from considerable anasarca of both legs as high as the knees. Heart sounds normal; respiration puerile and harsh in the upper part of both lungs, was scarcely heard below the point of the scapula on either side posteriorly or below the fifth rib anteriorly. Crepitation was heard over a very limited portion of the right lung just above the angle of the scapula, but there was neither cough nor expectoration. Pulse quiet, skin cool, tongue clean but injected; appetite good; bowels regular, once a day, but loose; urine sp. gr. 1010, contained a large amount of albumen, but scarcely any casts.

A tumour was found in the abdomen, extending from the right to the left side, so as to occupy both hypochondria. This tumour appeared to be perfectly smooth; was quite free from tenderness; had never been the seat of pain or discomfort; and, indeed, the patient was unaware of its existence until it was discovered during the examination at the Hospital. Chest resonant to the fourth intercostal space. Absolute dulness on percussion from the fourth rib on right and the fifth on left side anteriorly, downwards, to a line drawn about an inch above and parallel to the umbilicus, where there was perfect resonance from side to side. There was a manifest projection of the tumour in the epigastric region, pressing the front of the xyphoid cartilage forwards and upwards. The tumour had a slightly elastic feeling, especially in the projecting portion. The abdomen measured thirty-five and a-half inches just above the umbilicus, and thirty-six and a-half inches midway between the umbilicus and the xyphoid cartilage. Abdomen everywhere resonant, excepting over the tumour, and the resonance, from an inch above the umbilicus downwards, was equally noticeable in the recumbent and in the upright position. No ascitic fluid could be detected on the most careful examination.

During the next two months the anasarca extended upwards to the thighs and lower part of the trunk, but the upper part of the body and the face remained unaffected. Towards the end of this period ascites supervened, the pulse became quickened, the strength of the patient began to fail, and he was admitted into the Hospital on August 19.

August 20.—Girth at umbilicus, 39½ inches; midway between umbilicus and xyphoid cartilage, and also at xyphoid cartilage, 38½ inches. Extent of tumour much as before. There is still a definite projection in the epigastric region, very well defined at upper margin, but less defined than formerly at side and lower margins. On right side near margin of false ribs is an ovoid projection less hard than carcinomatous tubercles usually are, and with a somewhat elastic feeling. There is fluctuation from side to side in lower part of abdomen. Considerable œdema of scrotum, penis, and lower extremities; œdema of back as high as angles of

scapulæ ; crepitation in base of both lungs, respiration harsh and sonorous ; heart-sounds normal ; pulse 100 ; veins of neck, especially left jugular, distended ; abdomen traversed by large veins ; tongue injected, tender, and denuded of epithelium ; bowels open twice daily, rather loose. Urine amber-coloured ; sp. gr., 1012 ; about three pints in twenty-four hours ; albuminous, but less so than prior to admission.

September 23.—Ascites has increased ; girth at umbilicus is now 41 inches ; patient has cough, and expectorates thick transparent mucus containing streaks and sometimes small clots of blood ; complains of sore throat ; fauces and tongue extremely red ; no appetite ; has nausea and retching ; pulse 100 ; bowels and urine as before.

October 6.—Girth at umbilicus forty-three inches. Has constant vomiting and retching, can keep nothing on his stomach ; tongue very red, and covered with slimy mucus ; teeth and lips covered with sordes ; pulse 112 ; bowels loose ; urine, sp. gr. 1010, about a pint and a-half in twenty-four hours ; contains less albumen.

He gradually sank, and died October 12.

Post-mortem Examination.—Body much emaciated ; lower extremities and scrotum very œdematous ; no œdema of trunk or arms ; pleuræ and lungs normal ; peritoneal cavity distended with clear serous fluid. Liver firmly adherent to the diaphragm, and enormously enlarged ; the enlargement affected both sides equally. The lateral lobes were prolonged upwards, pushing up the diaphragm on either side to a level with the upper border of the fourth rib. Projecting somewhat from the centre of the upper surface of the liver was a smooth, round enlargement about three inches in diameter. The surface of the liver elsewhere was somewhat lobulated, but smooth ; the capsule was much thickened. There was a deep hollow in the under surface of the left lobe, in which the enlarged spleen was contained ; and the right kidney was partly embedded in a similar depression in the right lobe. The substance of the liver was very firm, and on section presented a well-marked, glistening, lardaceous appearance. The enlargement on the upper surface did not differ in appearance from the rest of the liver. On the application of iodine the whole organ became deeply coloured. At the surface of the posterior border of the left lobe was a yellow somewhat cheesy mass the size of a small walnut, and near it were several other smaller ones ; here and there in the substance of the liver were portions passing from the surface into the interior of an almost white colour and somewhat fibrous appearance ; these gave the same reaction of colour with iodine as the rest of the liver. The glands in the transverse fissure and small omentum were large, firm, and, on section, presented a lardaceous appearance ; they also became deeply coloured on the application of iodine. The liver weighed 11 lbs. 8½ oz. ; it measured from anterior to posterior border on each side 12 inches, along the anterior border 10 inches, and in depth 5 inches. The spleen measured 7 inches from above downwards, and weighed 17½ oz ; its substance was of a dark colour, and rather soft, not presenting to the eye an amyloid character, and at first gave no characteristic reaction with iodine, but on examining with the microscope pieces which had been lying for some hours in a glycerine solution of iodine the smaller arteries were found deeply coloured and their walls thickened. Some of the cells of the pulp were also coloured and enlarged, others had their normal aspect. The kidneys were both very much enlarged, capsules non-adherent, surfaces smooth and pale ; on section the organs were found very firm, the cortices much increased in depth and of a glistening waxy appearance ; on applying tincture of iodine, the malpighian corpuscles and the small vessels became deeply coloured, there was also some general colouring of the substance of the cortex. Right kidney weighed 11 oz. ; left kidney 12 oz. Stomach and intestines normal.

ST. GEORGE'S HOSPITAL.

CASES OF CONTINUED FEVER EXHIBITING SOMEWHAT UNUSUAL PHENOMENA—SPINAL SYMPTOMS—CLINICAL REMARKS.

(Under the care of Dr. OGLE.)

During the autumn of last year many cases of "fever" were admitted into St. George's Hospital ; and during the space of the week beginning October 19 more cases of this disease were admitted than had been brought in for several years previously in the same period of time.

The following cases were treated by Dr. Ogle, and to him we are indebted for the details and interesting remarks on their peculiarities. The cases are very important in many ways :—

The patients were mostly from Chelsea or the neighbourhood, and reminded one very strongly of what used to be admitted in former years under the name of "spotted fever." It was, in many cases, very difficult to decide whether they should be termed typhus or typhoïd, the "rash" on the skin being so undetermined and irregular, both in character and mode and time of appearance. For the most part the surface of the skin was noticeable as being very rough, owing to enlarged papillæ. In several of the cases the urine contained a considerable amount of albumen, and in some this fact, coupled with the occurrence of "head symptoms" of a certain kind, rendered it difficult for some time to be quite certain that the case was not one of disease of the kidney, with accompanying cerebral symptoms. In one instance, that of a woman, Anne G., aged 23, this was pre-eminently the case, and rendered more so, perhaps, from the comparatively and persistently low temperature of the surface of the limbs and trunk of the body, and from the alleged fact that before the beginning of her feverishness she had been delirious for nearly two weeks, and for three weeks had suffered from defective memory, owing, as it was said, to her having been frightened by a man-servant at the house where she was a housemaid. In her case the urine contained traces of blood as well as albumen, much lithate of soda, and a few faint granular casts of renal tubes.

After her admission a certain degree of vomiting was experienced. The pupils of the eyes were, however, not noticed as being affected, and she answered questions rationally up to two days before death. At no time was any pain complained of.

On close inquiry, it turned out that in the immediate neighbourhood of the house where she had lived several drains had been opened shortly before her illness, to the annoyance of the inhabitants. Before death the evacuations were passed involuntarily, but there never was decided diarrhœa ; there was also considerable tympanitis.

On post-mortem examination, it was found that there was no disease of the brain or of the lungs, but manifest congestion of the kidneys, and obvious ulceration of the lining of the small intestines.

But the peculiarity which Dr. Ogle noticed especially on reviewing the entire list of fever cases which came under his care was the frequency of the occurrence of what are termed spinal symptoms, as contradistinguished from cerebral symptoms. This was in very many cases manifested quite at the commencement of the case by the existence of intense pain at the lower part of the back, very much reminding one of the complaint so often made by patients in the early stages of small-pox. It was in several cases declared by the great sensitiveness of the skin of the body, which was perfectly hyperæsthetic. This was so much the case in one woman, Susannah J., aged 28 (admitted on the ninth day of the fever), who was throughout remarkably deaf, and who had been much neglected, that she could not bear to be touched in any part of the front of the chest ; so that Dr. Ogle had the greatest difficulty in stethoscoping her. She was also remarkable for extreme pains in the legs, which were quite free from swelling, etc., in any part ; and she had a conspicuous red line along the gums. She quite recovered. In another patient, a girl, aged about 19, the illness had begun with such acute pains about the knees and ankles that she was sent into the Hospital by a Medical man as suffering from acute rheumatic fever. In a boy, Augustus F., aged 15, the pain for several days was acute in the middle of the dorsal region, especially on pressure ; the other parts of the spine, and also the flanks, were quite free from pain. This boy always for many days complained of feeling giddiness in the head whenever he closed the eyes voluntarily.

In one man from Westminster, Thomas S., aged 40, who died four days after admission, and who had been much neglected, having well-marked maculæ in the skin, there was, when first taken in, so much irregular spasmodic movement of the limb that he was thought at first sight to be suffering from choreic symptoms. In his case the urine contained much albumen.

But the case in which most of all the spinal symptoms were developed was that of Anne W., aged 18, from Chelsea, a short, fair, and well-made girl, who, eight days after admission, complained much of pain over the region of the bladder, although at that time her aspect and pulse were much improving. Two days later she could not be kept quiet, and sat up picking the bedclothes, and often trying to get out of bed. In the evening the head was noticed as being drawn back in a singular way ; and on the day after, the muscles of the neck were remarkably rigid, and the head was so far and so

firmly drawn back that breathing and swallowing were very greatly interfered with. Still the picking of the bedclothes went on. During this time the whole surface of the skin was exceedingly sensitive to the touch. She died three days after the extreme restlessness and the tetanic state of the muscles set in; but unfortunately post-mortem examination could not be obtained. This woman lost a brother and some other relation by fever about the same time; but in them there was no manifestation of the spasmodic state of the muscles.

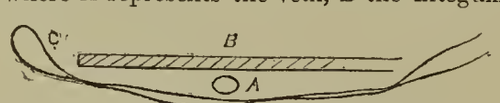
In almost all the fever cases alluded to, Dr. Ogle began with wine from the first, and trusted chiefly to it and to salines with an excess of the sesquicarbonate of ammonia, and to ice applied in bladders to the head. In one or two cases he tried Dr. Graves' plan of applying warm applications to the head, but found this was not appreciated by the patient as were cold applications. During the very week following the admission of these cases of fever, in which derangement of spinal functions was so conspicuous, the work of Dr. Fritz on the spinal symptoms observed in typhoïd fever came into Dr. Ogle's hands fortuitously.(a) In this work the author enumerates the numerous symptoms indicative of derangement of the spinal cord and medulla oblongata, especially in epidemic attacks, observed in this disease, among others mentioning rigidity of the muscles of the neck and such as might be termed tetanic. These spinal symptoms he has encountered among young women and infants and anæmic people, and describes them as generally continuing to the middle or end of the first week. After death but little alteration in the spinal cord can be recognised. The prognosis is always serious. The work is divided into eight chapters, and on the whole treats of its subject very completely.

As indicative of the severity of the epidemic at Chelsea at the time of the year in which Dr. Ogle's cases occurred, we may mention that one of the patients, who died with pneumonia on the fourth day after admission, had a brother in the Hospital with fever at the same time as himself, had lost his mother with the same, and had had one sister, also his brother's wife, and one of his own children all down with fever, but they had recovered.

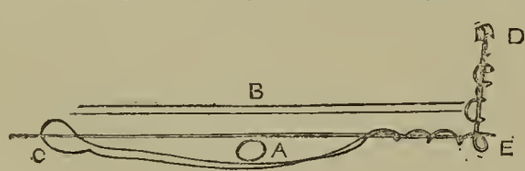
KING'S COLLEGE HOSPITAL.

A new and ingenious method of subcutaneous ligature of varicose veins has lately been introduced at this Hospital by Mr. John Wood, by which a regulated degree of pressure may be applied to the vessel under operation.

The method of proceeding is as follows:—A portion of the integument with the vein to be tied is pinched up in the fingers, and an ordinary needle armed with a thin wire suture is passed under the vein, and the needle then withdrawn, leaving a loop of wire in the wound, as in the following diagram, where *A* represents the vein, *B* the integument, and



C the wire. The integument is again pinched up, this time leaving out the vein, and one of the rectangular pins, used by Mr. Wood in his hernia operations, only with a straight point, passed in over the vein through the passage of the first needle and through the loop of wire—thus, where D repre-



sents the hernia needle. The wire is then pulled tight by its free extremity, and twisted round the end of the needle. Then, by rotating the needle by means of its arm (D E), it is evident that the vein must be occluded by the mutual pressure of the needle and the wire, and that consequently any required degree of pressure may be brought to bear upon it by rotation of the arm (D E). The point of the needle is then cut off.

The advantages of this operation are, besides the fact of being able to regulate the pressure, the ease with which the needle and wire may be withdrawn, which is not the case with the twisted suture in common use, as it often sticks so tightly as to cause great irritation; for this can be withdrawn by merely untwisting the wire and pulling out the needle. Also an equal amount of pressure is applied to both sides of the vein, and there is less irritation than in the twisted-suture operation.

Several cases have been under treatment lately, among which we may mention the case of a man who had his internal saphena tied at one of the London Hospitals, and he came to King's College Hospital with the vein pervious. A month afterwards Mr. Wood tied the vein by this method, and it was occluded in a short time (about three weeks); and there have been others equally successful.

(a) "Etude Clinique sur divers symptomes spinaux observés dans la Fièvre Typhoïde (Médaille d'Or)." Paris. 1864. Pp. 164.

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Medical Times and Gazette.

SATURDAY, JANUARY 14.

THE NEW INDIAN MEDICAL WARRANT.

We publish to-day in our columns a letter from "An Indian Surgeon" on the new Indian Medical Warrant, and we confess to a feeling of disappointment as to its tenor, as we had hoped that Sir Charles Wood's new scheme would have been found to remedy fully the injustices under which the Indian Medical officers have so long laboured; but we fear that a spirit of discontent, generated by the persistence through years of disregard in official quarters to real grievances, has become chronic in the Indian service, and that time alone will effect "a perfect cure." It would be far beyond our limits to analyse the document *in extenso*: we shall therefore content ourselves, in the first place, with entering a caveat against the opinions advanced in it being those held by the service at large: as far, at least, as we have been able to ascertain, by communication with other Indian Medical Officers at present at home; and in the second place we shall offer a few remarks on certain passages which appear to us to call for special comment.

The "Indian Surgeon" first complains of the right reserved by Government of making alterations in rules and regulations of the service. When, it may be asked, was it otherwise? Certainly not under the old Company. Has our correspondent been long enough in the service to remember the time when the Court of Directors instituted an organic change in the term of service of its Medical officers by substituting a system of pensions according to length of service, in place of that for rank, which had previously been in force? Would he have a service like the laws of the Medes and Persians, which altereth not? No such thing as a "covenant," to use the expression in its integrity, has ever existed between Government and its Medical officers; the rules and regulations of the service always have been, and always must remain, subject to such alterations as "the powers that be" may from time to time deem advisable. On this point we cannot admit that there is valid cause for complaint.

In connection with this point, our correspondent complains that the services of a Medical officer may legally be dispensed

with at a moment's notice. True; but the same objection applied to the Court of Directors, who, when occasion required, exercised this right without scruple. The "Indian Surgeon" may, perhaps, remember, not many years since, an instance of the services of a Medical officer of the Madras Establishment being summarily dispensed with, he having been guilty of an act which, though not cognisable by a court-martial, was clearly derogatory to his character as an officer and a gentleman. A man entering the service need not be under the slightest apprehension as to this power being exercised, so long as he conducts himself with even ordinary propriety. Pressure from without, to say nothing of a sense of justice, will always prevent any injurious operation of this right.

Urgent complaint is made of the withdrawal of the charge of European troops. This, it must be admitted, is a hardship, but it was a necessary consequence of the transfer of the whole of the European troops to the British force. The Medical officers of the latter service would have had a legitimate grievance had these corps been left in charge of the local Indian Service,—a wholly separate service under the new constitution of things. It is only the *military* European charges which are withdrawn; all the civil and other European charges at the Presidencies remain intact.

Again, complaints are urged on the score that the pay of Surgeons-Major of twenty years', and Surgeons of fifteen years', standing at full batta stations is reduced, the former to the extent of £5 12s., and the latter £2 10s. per month; but the fact is ignored that these self-same grades at half-batta stations receive, under the new Warrant, an increase per month of £14 16s. and £12 6s. respectively. We cite this example particularly to illustrate the spirit in which we conceive the whole letter to have been written. Why should the unfavourable side alone have been held up, the favourable points being either ignored altogether, or passed over with a slighting remark?

We are surprised to find complaint made with regard to the Deputy-Inspectorships (the real prizes of the service) being conferred on merit by selection, in place of the old system of seniority, under which any dolt, whose sole recommendation perhaps was that his bodily health and animal spirits had enabled him to resist climatorial influences, was placed over his superiors in every respect excepting the accidental one of having a few years', or few months' perhaps, longer service. We have always been told that the seniority system was one of the evils of the Indian Service; talent, energy, and other good qualifications being regarded as subordinate to length of residence in India, and we believe that the change in this system, if carried out in its integrity, will exercise a beneficial influence instead of a prejudicial one, as anticipated by our correspondent.

With regard to the abolition of the Medical Funds, we have, in a former number, expressed our opinion that the step was injudicious. At the same time, we may remark that these funds have long since become little else than insurance offices, and on the increased rate of pay under the new Warrant, without deduction for these funds, the prudent Medical officer may obtain very nearly as great, if not greater, advantages by effecting an insurance in some of the many good mutual insurance companies now existing in all the large presidency towns of India. Still, we agree with our correspondent in thinking the abolition of these funds a mistake, to say the least of it.

We are at a loss to understand the complaint with regard to the abolition of Staff salaries, as by Section 27 of the Warrant of November 7th the said Staff allowances are distinctly and specifically admitted.

We could offer many other remarks on other parts of the "Indian Surgeon's" letter, but we forbear for the present. We trust that we have said enough to show that some of his statements at least must be received *cum grano salis*, and that, whilst he has magnified the evils, he has not given due weight to the good points of the new Warrant.

MODERN SYPHILOGRAPHERS.—No. V.

THE NON-CONFORMABLE TYPE OF CASES OF SYPHILITIC DISEASE.

In the more mixed, varied, and anomalous forms we can generally draw trustworthy conclusions if we make our diagnosis from a consideration of the whole of the symptoms, instead of resting it upon the presence or absence of any one of them.

"The initial lesion in constitutional syphilis is a sore, indurated as a rule, generally solitary, involving only a part of the thickness of the tissue upon which it is seated, with sloping and not abrupt perpendicular edges, indolent and chronic in its nature, yielding a scanty discharge, serous or epithelio-purulent rather than purulent, not auto-inoculable, following a longer period of incubation than the non-infecting sore, and attended with an induration of multiple glands, symmetrically placed, and without tendency upon their part to suppurate."

This is commonly followed, within three months, by some one or more of those manifestations of constitutional disease which we have before enumerated, provided no specific treatment has been pursued and the patient has not been labouring under another general disease. We will now consider those cases which are not conformable to this general law.

Induration of the chancre, as we have said already, has been made too much of. Its *positive* evidence is reliable, but the *negative* not so.

Among the poor, the dissipated, and military classes the sources of infection may be manifold, and on this account a combination or co-existence of venereal diseases must often be present. There is no valid reason why a man should not contract a gonorrhœa, chancroid, and syphilis at the same time, or at different times within very short intervals. In practice this is found to be the case:—A man is suffering perhaps from multiple, soft auto-inoculable sores with or without an acute bubo in one groin, and, as these sores heal, one of them takes on a definite and specific induration, and the inguinal glands become indurated in a chain on one side, with an abscess and some indurated glands on the other—or no induration may appear in the sores, but it may affect the cicatrix, or the inguinal glands only—or there may be a solitary and very superficial erosion, inflamed and discharging pus, and induration may appear subsequently beneath this, or the sore may very quickly heal, and the inguinal glands enlarge subsequently. Again, the physiological properties of tissue modify the morbid process, as we perceive when the syphilitic virus falls upon the mucous membrane covering vascular and spongy tissues, as the glans penis of the male, and the vulva of the female, in whom the typical indurated chancre is relatively very rare; or, again, a soft sore (chancroid), involving the areolar tissue, may be attended with a large amount of peripheral swelling and hardness from the amount of effusion attending the inflammatory action, and so it will simulate an indurated chancre; or the induration proper to the chancre may be present in, but concealed by this inflammatory effusion. Now, these are not mere refinements—no spurious varieties which depend upon a love of hair-splitting; but they are drawn from actual observation. Can we explain them, and can we reconcile the great differences which exist between the observations of equally accurate and truthful inquirers? We think modern syphilography has gone a great way to doing so.

It is allowed on all hands that the induration is very varied in its degree, duration, and time of appearance; and by many of the best syphilographers (Bassereau and Sigmund in particular) it is confessed, that induration is not *proper* and *essential* to *every* true *chancre*, and that constitutional infection may be manifested where the primary lesion has been an erosion of so trifling a kind as to have escaped detection, and to have left no trace of cicatrix; but in these cases the state of the inguinal glands will be the test, for *there* will the swelling and induration almost invariably be found. How are we to explain the occurrence of syphilitic manifestations after sores which appear to possess the characters and conform to the

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type of soft sores? In the first place, we must eliminate all those cases wherein syphilitic phenomena appear *consecutive* to the healing of a soft, non-infecting sore, but are not the *product of it*. For example, a man contracts a true syphilitic lesion (chancre) in January, which heals; and in February, say, he contracts multiple soft sores, during the treatment for which the manifestations of the infection engendered by the first, appear. But there is no great improbability in the assumption, that the fluids from a prostitute may be the vehicle of more than one virus; and if these fluids fall upon an abraded mucous membrane, *there* will the primary lesion be situated.

Let us suppose—what is in the highest degree probable—that a previously syphilised female labours under the soft ulcers (chancroid), then, she may give the two diseases to one person at the same time; and in this way ulcers may appear within a few days, which pursue the course of soft sores until near their termination, when one of them (or a fresh abrasion in their neighbourhood) assumes the characters of the true syphilitic sore, at the date at which the virus should manifest itself—viz., from one to four weeks after contagion. By this twofold infection two separate affections may occur, and pursue their usual courses in close proximity one to another, or they may even occupy the same locality.

Suppose, further, that an abrasion on the male organ is inoculated with the *pus* of a true chancre, it may be that we get a bastard form of sore—inflamed, pus discharging erosion merely—which will, in time, assume specific anatomical characters. The condition, as well as the kind of the fluids, which are the vehicles of the virus, appear to exercise some influence upon the form and character of the lesions they beget; thus, inoculation with the products of secondary lesions or with the blood of a syphilitic patient, is generally preceded by a rather longer incubation, before the appearance of the papule which becomes a raised tubercle.(a) Mr. Henry Lee has shown that the infecting indurated chancre is not capable of being auto-inoculated, unless it first be made to yield pus by inflammation, when its fluids may give positive results. And, we presume, most Hospital Surgeons have seen a few cases in which the constant contact of a gonorrhœal pus with fissures or abrasions on the prepuce has given rise to irritation, inflammation, or even ulceration of a non-specific character.

The *sores* upon the *external skin of the dorsum of the penis* very frequently prove of the infecting character, although much modified in form; and this fact is becoming generally recognised. An oval, raised, indolent elevation, feeling like a piece of cloth in the tissues; a large erosion with irregular edges and ulcerating in a slow and progressive manner; an inflamed-looking patch with some peripheral hardness, perhaps, and having on its surface a thin, dry, tenacious scab,—these may, one and all, be true chancres and the precursors to general syphilitic manifestations. When these lesions heal, a minute knot of induration, like a millet seed, may be often found in the cicatrix. A brownish discoloration, from pigmental deposit, marks the scar, which tint is, in turn, replaced by a patch of whitish hue.

In these cases, too, we may fail to find the enlargement of the inguinal glands, but, in its stead, a knotted cord-like induration of a lymphatic vessel can sometimes be traced.

Bubocs.—The enlargement and induration of the inguinal glands separately and in a chain are the ordinary concomitants of the true chancre, and it is allowed on all hands that constitutional syphilis does not commonly follow suppurating buboes; though occasionally it does! Now, the number of examples of a double infection (the mixed, twofold, hybrid sores of which we have spoken) witnessed in a given number of cases of all venereal ulcers, corresponds very closely with the number of those exceptional cases in which "secondaries" do follow an open bubo. Mr. Henry Lee's statistics at the Lock Hospital (b) coincide remarkably, he says, with the results of the experimental observations of M. Rollet and Fournier into the subject of this twofold inoculation.

There are, however, other causes for the suppuration of the groin of a syphilitic patient,—1. Conditions of constitution—strumous and lymphatic subjects. 2. Causes of local irritation. In these an *accidental* inflammation and suppuration may affect the lesion of the genitals, and the lymphatics may take up the purulent fluids, become poisoned, and an adenitis of the groin may follow, exactly in the same way as an inflammation of the absorbents may follow an inflamed toe or finger, and an abscess of the axilla or groin ensues. 3. A slight amount of suppuration over an inguinal gland, with a recrudescence (a "breaking out") at the site of the chancre, may coincide with the appearance of secondary manifestations.

By whichever of these modes the abscess takes place, it is an exceptional, *accidental* and not an *essential* phenomenon, and the presence of enlargement and induration in the chancre or the remaining inguinal glands, one or both, will generally suffice to determine the diagnosis.

Secondaries after Gonorrhœa.—Swediaur, Hunter, and Wallace have described such cases, and they do occasionally occur, or, more properly speaking, they seem to occur.

Inoculation does not assist us here, for the soft sore (chancroid) is alone auto-inoculable. In some cases intra-urethral chancre may be seen at or near the meatus, but occasionally no such lesion can be discovered. One of the explanations now offered is, that the vaginal fluid from a constitutionally syphilised woman may have syphilitic properties engrafted upon it, and the syphilitic process may run its course as a part and parcel of the gonorrhœal inflammation, with the exciting cause of which it is associated, the evidence of any induration being lost in the swollen state of the urethral mucous membrane.

The *bubon d'emblée* is extremely rare, and it is allied to those cases in which symptoms of constitutional syphilis have been said to appear after no *observed* primary or initial lesion. These occurrences cannot be determined very positively, because the primary lesion may have been very trifling, and escaped the notice of the patient when it did exist. Still, the doctrine of physiological absorption of Hunter—viz., the direct absorption of a virus without any abrasion or ulcer, may be a fact of rare occurrence. Cases of such are mentioned by Ricord, Diday, Lane, Erichsen, and others, and it certainly does occasionally happen that very puzzling cases turn up in practice, such as Mr. Wilson, for instance, describes. Dr. Durkee, in his able and very practical treatise upon these diseases, has a chapter headed "Secondary Symptoms without Primary;" but the instances he cites are open to the same objections, and the wording should run, "without any *observed* primary symptoms."(c) We think Mr. Ceely proved that vaccine virus long maintained in contact with the healthy skin has, in a few rare instances, been absorbed. Does this never happen on the skin of the penis in persons of dirty habits?

As we have said, the result of experiment is parallel with that of our ordinary observation, that a primary lesion of some sort follows at the point of application of the syphilitic virus. We may leave the doctrine an open question, however, for the

(a) The question occurs here, Does a similar period of incubation always ensue, whatever be the source of the virus and its vehicle? The French Commission, in their report to the Academy of Medicine on the contagiousness of secondary syphilitic lesions, state, that the length of the period of incubation was characteristic. We strongly suspect that the activity of the virus diminishes according as it is obtained from the primary or later lesions, and that the period of incubation will be shorter where the source of contagion has been the pus from an indurated chancre and, possibly, the resulting infection may also be more severe. If we remember aright, M. Diday has advanced something of this kind.

(b) See "Lectures on Syphilis." By Mr. H. Lee. 1863. Churchill.

(c) Of late there has been such an accession of information on the subjects treated of in these papers, and the books have come from so many different quarters—Continental and American—that we dare scarcely venture upon any long analyses and reviews for fear that our readers should imagine we are suffering from a violent attack of "syphilomania." Dr. Durkee's is the work of a practical man evidently, and the subjects are treated in a plain, shrewd manner, and from the author's own point of view. It is not an exhaustive treatise, for some of the doctrines and disputes of modern syphilographers are not entered upon; but the book is a good one, and the therapeutics are laid down with discrimination. Mr. Langston Parker's well-known and very practical treatise [Syphilitic Diseases, Fourth Edition,] contains similar instances.

present. One thing is clear, that the rarity of these occurrences renders its determination of little practical moment.

We have already traced the stages and evolution of the syphilitic phenomena in the human frame, and it remains for us to notice very briefly the deviations from the ordinary course, and see if we can trace the causes of these. Generally, within six or eight weeks after the primary disease, secondary manifestations appear, but to this there are some exceptions.

Mercury, it is conceded by all, influences the regular progression of the disease—for the worse, as some think. The mineral occasionally appears to protract the interval between the chancre lesion and the appearance of the secondaries. That is the general opinion, and it is in accordance with our own experience. Here and there, perhaps, an indurated chancre specifically treated is not followed by any secondary manifestations, within the periods, at least, during which the case has been observed. These are exceptional instances certainly. For better or worse, however, mercury administered for the early initial stage does often modify the subsequent course of the disease. On this subject we shall enlarge hereafter; but let it be remarked that the non-appearance of the *ordinary* syphilitic manifestations is no *certain proof* that a cure has been effected.

We have witnessed cases of this kind:—The chancre spreads, and becomes affected with a slow and persistent, though slight, amount of ulceration; or a chronic ulceration appears at the site of a syphilitic lesion, or an ulcer, wound, open bubo (the latter the product, perhaps, of a later and different process) takes on an indolent and peculiar form of inflammation or ulceration—it may be of the serpiginous character,—and during this localised process either no manifestations or very modified manifestations of the syphilitic infection appear. It cannot be doubted, we think, that the persistence, condition, and character of these ulcerations depend upon the presence of a syphilitic element in the system, and we have come to regard these localised processes as acting on the general course of the disease much in the same way as syphilisation does—viz., by their derivative and depurating effects. Be the explanation what it may, the fact remains, that the usual and general manifestations are often not developed in the ordinary way in such cases.

The presence of other diseased actions.—Upon this head there is a lack of that amount of positive facts which we could desire. That a syphilitic patient may become the subject of one of the exanthemata we have occasionally witnessed. In a few cases, wherein the subject of a primary infecting chancre was attacked with rheumatic fever or variola, the manifestations of secondary syphilis did not appear until the patient was convalescent or had completely recovered.

Whilst upon this subject we must remark upon the curious latency of syphilis in the system. Most Medical writers cite instances of this. In some cases, after very variable but lengthened periods of this latency, syphilitic manifestations may appear coincident with, or consecutive to attacks of other diseases. Whatever tends to lower the general health and affect the nutrition of the body may awaken the slumbering germs of syphilis into activity; and, in this way, other diseased actions may prove the exciting causes of syphilitic manifestations, and modify the character and course of these by the intermixture. We may refer the reader to our remarks upon the pathology of syphilis, and to Dr. Aitken's volumes, for further information on this head. In some few cases the evolution of syphilitic symptoms is very irregular, and the disease does not follow the ordinary stages. Sometimes affections of the periosteum and testicle co-exist with a squamous syphilide; sometimes no "secondary" manifestations seem to appear, but those of the tertiary stage succeed the primary, after a more or less extended interval. In a few rare cases, where mercury has been used, no secondaries are observed, but the patient remains out of health for some time, and constitutional symptoms of the secondary or tertiary type appear or are combined.

The influence of climate has not attracted that attention which it deserved. It has not escaped the notice of Mr. Henry Lee, Mr. Gascoyen, and Dr. Marston. The depression, anæmia, and ill-health engendered by tropical heat, malarial poisons, and climatic agencies render the proper administration of mercury difficult or impossible, as can be readily enough imagined, for syphilis is in itself a most debilitating and blood-lowering poison. The dampness and inclemency of northern climes also exert a baneful influence. Such is the general feeling of our English Surgeons, and we know that syphilitic affections are severe in the north of Europe. Extremes of temperature are, therefore, alike prejudicial. It is not that syphilis is more *frequent* in hot than cold climates, for the reverse is the fact, perhaps; but the manifestations of the disease are more chronic, more mixed with other morbid agencies, and less within the control of remedies.

THE WEEK.

THE MEDICAL TRIAL AT THE HOLBORN WORKHOUSE.

We have before stated that we have no doubt that the Poor-law Commissioners will arrive at a right judgment in the case of Timothy Daly; but we must say that, were we placed in Mr. Norton's position, we should prefer being tried by a properly constituted court of justice, where the rules of evidence would be strictly observed, and not by the irregular process which is now being pursued at the Holborn Workhouse. Until the proceedings are terminated, and the verdict is published, we must reserve our comments. We would only draw attention to the fact that, besides the Commissioner, Mr. Ferrall, another gentleman—a Dr. Carr, of whose real position and authority we know nothing—is constituted an assessor in the case. We have always advocated the appointment of Medical assessors in our Superior Courts of Law, whose duty should be to assist the judge with their counsel on doubtful points of Medical evidence. We have, therefore, not one word to say against the principle involved in the presence of a Medical assessor in Daly's case. We think, however, that such a gentleman should be directly appointed by the Poor-law Commissioners, and that his previous reputation and scientific standing should be such as to insure the entire confidence of the Profession and the public. Dr. Carr may possess all these qualifications, but if so we are unfortunately uninformed as to the fact. That gentleman's idea of what constitutes evidence seems to be rather of a vague character; for we find him asking one of the Medical witnesses how he reconciles certain *facts* with other facts to which he had deposed; as if facts were things of such a nature that they could be altered to suit other facts at pleasure. In reference to Mr. Norton, it appears that his place of dining and mode of spending the evening are circumstances bearing on the manner in which he attended his workhouse patients; for these particulars were extracted from him in cross-examination. The loose character of the proceedings appears to us to be much more in accordance with those of a French court of justice than with the precedents of our English law courts. All sorts of irrelevant matters are introduced, and a large portion of the Medical evidence taken is founded on mere surmise, and should be allowed no real weight in the judgment which is to follow.

FROM ABROAD.—CONTESTED ELECTION AT THE ACADÉMIE DE MÉDECINE—HYPODERMIC INJECTIONS—PHYSICAL INCAPACITY NOT A GROUND FOR NULLITY OF MARRIAGE IN FRANCE.

The election at the Académie de Médecine, which took place last week, was attended by some unusual circumstances. A member of the Section of Veterinary Medicine had to be supplied, and the Section sent in its classed list of candidates—viz., 1, M. Sanson; 2, MM. Colin and Lecoq (*ex æquo*); and 3, MM. Goubaux and Leblanc, jun. (*ex æquo*). As an almost invariable rule, the Academy elects the candidate placed first

on the list by the Section; but on the present occasion it has refused to do so, and has chosen M. Colin, placed second. His position was, however, hotly contested, and was not determined until the ballot had been taken a third time, his final numbers being forty-seven of seventy-two votes present. This decision has given rise to lively discussions and many conjectures, M. Sanson having been rejected, according to some, owing to his intimate connexion with the periodical and critical press, held in bad odour by many of the Academicians, and especially by their Secretary (after the too common manner of secretaries), M. Dubois. Others again, and among these M. Guerin, of the *Gazette Medicale*, a very competent judge, and himself an Academician, attribute the action of the Academy to higher motives, in preferring a man of great scientific reputation to a mere veterinary Practitioner, of however considerable a reputation. M. Colin must be regarded as the man of science *par excellence*, being the author of distinguished works, and a most laborious cultivator of his Profession in its scientific aspects. The Academy had offered for its choice a critical writer, a scientific dignitary in the shape of an Inspector of Veterinary Schools, a *savant*, a Professor of Alfort and a consummate veterinary Practitioner. "The choice of this illustrious body has fallen upon the *savant*—that is, the anatomist, physiologist, zoologist, pathologist, and experimenter; he who has known how to embrace and connect by new ties the different branches of Comparative Medicine. In our opinion it is an act of high justice, and an encouragement to progress." Another writer, M. Brochin, throws out an observation which is not without its applicability to the elections into our own scientific bodies, which are almost invariably made in compliance with the recommendations of councils or committees. Doubtless the best and only course, as a general rule, but one that yet may have its dangers of favouritism and cliquism:—

"This is not," says M. Brochin, "the first time the Academy has revised the recommendations of its Sections. Does this mean that they do not offer all the conditions and guarantees for a suitable appreciation? No one would surely maintain such a paradox, and we should seek in vain elsewhere for a more complete competence. But who will venture to affirm that scientific qualifications always alone weigh in the balance, and that a feeling of partiality never slides in its weight when the appreciation has to be made of the respective merits of *savants*, among whom our daily relations must necessarily create different affections, and give rise to preferences from which we know not how, and cannot always guard ourselves? Similar motives, it will be said, may also sometimes actuate Academical majorities as well as the small number of members who compose the Sections; but while this cannot be denied, it must be admitted that the chances of partiality are diminished by reason of the greater numbers."

M. Georges, at the Paris Society of Practical Medicine, gives an account of numerous experiments he had made of injecting poisonous substances into the cellular tissue, with the view of showing the far greater safety and certainty of the hypodermic method as a means of administering medicinally highly-poisonous substances. He injected quantities of codeine, atropine, and especially strychnine, which would surely cause death in the absence of precautions for preventing the too rapid introduction of the poisons. These injections were practised without danger in the dog's paw, the passage of the poison into the veins being checked by the forcible application of a ligature around the paw. To render the experiment still more striking, he resolved to employ injections of the most dangerous of poisons, curare, and M. Claude Bernard conducted them for him. A solution containing about five centigrammes of curare, and sufficient to kill more than fifty dogs of the size of the one operated upon, was injected into the paw, and in twenty minutes the animal fell on its side. The paw was now firmly tied, and at the end of about twenty minutes the animal arose. Whenever the ligature was loosened he again fell down, sometimes at the end of ten minutes, and sometimes in a shorter period, and in this way it became possible to dose with complete certainty, according to the effect desired to be produced, the quantity of poison to be absorbed. Next day the dog was found on his three paws, only suffering from the swelling caused in the fourth by the injection. The ligature was removed, and he was soon all right. The same experiment performed on another dog was followed by the same results, the animal being caused to fall or rise at the end of five, ten, or fifteen minutes, accordingly as the paw was tied or untied. This dog, however, next morning, on the removal of the ligature, fell down again, all the poison not having had time to become eliminated by the urine, so that it was necessary to reapply the ligature. M. Georges points out the superiority of the endermic method when we have to administer powerful substances, as we may apportion the dose with an exactitude, according to the tolerance of the disease and idiosyncracy of the patient, quite unattainable when administered internally.

In reference to a case of absence of the uterus and vagina related at the same Society, in which marriage had been contracted, M. Legrand du Saulle observed that an opinion prevailed that such a marriage is null and void. This is a complete error, no provision existing in the French code for annulling a marriage on this or other ground. He is of opinion that, however hard this may seem in certain very exceptional cases, it is sound legislation which prohibits impotence and sterility to be regarded as reasons for nullity of marriage. Were such admitted, the most scandalous trials would arise, and all kinds of physical imperfections would be alleged on the part of husbands or wives desirous of separation. Physical impotence once admitted as a plea, nervous impotence would follow, and where to set the limit would be a matter of difficulty. The difficulty of deciding in these cases would be often very great, in the face of a division of opinion and contradictory scientific statements. Up to the end of the seventeenth century a legal tribunal for exploring these cases, termed a *congressus juridicus*, existed, experts being appointed who supervised the copulation of the inculpated parties, and reported upon the results. Such a tribunal could only give rise to scandalous immorality, leading, as it did, to problematical and fraudulent results? According to the Prussian law, the physical impossibility of attaining the legal end of marriage is a ground for divorce; as are, indeed, bodily infirmities which give rise to disgust and repugnance, and which render sexual intercourse well nigh impossible. The judges charged with the duty of interpreting and applying these legal dispositions entertain very unwillingly the demands for the rupture of the matrimonial tie on these grounds; so that during Casper's prolonged and conspicuous career, very few cases of this kind came under his cognizance.

REPORT ON CHEAP WINE.—NO. IX.

(By our Special Empirical Commissioner.)

(Continued from page 18.)

Greek and Hungarian Wines, continued.—Special Use of Greek Wine—Sweet Wines—Cyprus and Visanto—Hungarian Wine—Wine Advertisements—False Philosophy applied to True Wine: "No Life without Brimstone!" etc., etc. (a)

Comparing Greek wines with Bordeaux of equal price, we get much more for our money. There is more *body* in them, using the word body to imply fulness and rotundity of taste, and what satisfies the stomach, and alcoholic strength also, apart from flavour. Persons who might think Bordeaux thin and sour might be satisfied with Mount Hymettus; on the other hand, a person who delights in light Bordeaux might think the Hymettus coarse, unless he got some of the older and more mature kind. Wine flavour, I need scarcely repeat, is a product of time, and time adds greatly to the cost of wine, so that in cheap wine we regard not so much present flavour as firmness and soundness, and capacity of keeping till flavour shall be generated.

(a) *Erratum.*—In my paper on the use of Bordeaux wine in the exanthemata, instead of "mix one *pint* of puro Bordeaux," read "mix one *part* of pure Bordoaux," etc.

It follows that the persons to whom we should recommend Greek wines especially are those who are hardly weaned from brandied wine, and who require something full-bodied. I find the Red Hymettus much relished by a patient in an advanced stage of phthisis, who says he really prefers port, but that it makes him too hot and thirsty, whereas the Hymettus quenches his thirst, and gives him "support" besides. A second patient, who has had a narrow escape from puerperal fever, says it agrees well, and has checked diarrhœa. The former patient can afford what he likes; the latter, if she had not the Greek wine, would have been condemned to South African port. These wines, I repeat, should be chosen by those who want something full and round, and who desire purity and wholesomeness as well as cheapness. At the same time let me say that I have presented some of the older Hymettus, especially the white, to fastidious persons, who find it not only irreproachable for a wine of its class, but having promise of high and peculiar merit.

Of the sweet wines I have not much to say, as they are not a class of wine that suits me. The Visanto is a very full-flavoured wine, of very high specific gravity and little alcoholic strength. The Cyprus is marvellously high-flavoured and sweet, and other wines, as the Lacryma Christi, Calliste, etc., partake of these qualities in a lesser degree. Can a patient digest sugar, and does he require it? If so, these wines, with cake or bread, would make a good light refection. They would suit bridesmaids; possibly nursing mothers, children recovering from illness, etc.

Before going into the subject of the Hungarian wines, which I am glad to know are daily rising in estimation with my Professional brethren and with the public, let me say three words on some of the advertisements and other documents by which their virtues and excellences are heralded. Some Medical men sneer at all *advertisers*, and talk of advertising wine merchants in the same tone in which we might speak of advertising Surgeons. This is absurd. Medicine is a Profession, practised for the good of the community, every member of which diffuses the secrets of his skill amongst his brethren, and relies on their support and his own character and prudence to obtain the *clientelle* which rarely fails a man of merit. But with regard to wine, or books, or watches, or coals, there is no reason and no custom to hinder a man from making known to the world that he has something new to sell, which they would desire to buy so soon as they heard of it. Any one who reflects on the great multiplication of our means of health and enjoyment which these wines give us, will not only thank the men who have advertised new kinds of wine, but would welcome the notice of fresh importations from China or Peru. So I neither object to advertising nor to anything which the wine merchant chooses to say in praise of his wines. If he exaggerates, he is sure to be found out and to disgust his customers; but that is his business. What I complain of is, that whatever is foolish or demi-semi-quackish in these advertisements is sure to be contributed by a Medical pen, and to be based on some of those baseless hypotheses which make every age of physic ridiculous to the succeeding one.

Wine, like every other part of the apparatus of life, teaches the true Physician his constant dependence upon observation, and how little he can venture on *à priori* speculation. It would have been impossible for any one, before experiment, to deduce from the composition of wine anything like the truth with regard to its effects on the human body. Neither is it possible, antecedent to experiment, to fix on any particular ingredient and deduce the qualities of the wine from that.

Yet such, I am sorry to say, is the attempt which some modern iatro-chemists have made. They have beguiled honourable wine merchants, and have bespattered admirable wines with baseless rationalistical pseudo-chemical *commenta*, which concentrate into one example all the errors of fact and of reasoning with which Medical theorists can be reproached.

The principal offender is Dr. W. Kletzinsky, author of a paper on "Wine in its Dietetic Relations, and the Intrinsic Worth of Wines, especially as regards the Quantity of Phosphate they Contain." This paper was originally published in a Medical journal at Vienna, in 1855, and has been translated and reproduced by M. Barthélemy de Szemere, in his otherwise interesting and sensible "Notes on Hungarian Wines."(b)

In this pamphlet we find the following (extraordinary?) specimens of Medical fact and reasoning, which have been accepted as gospel by unsuspicious wine merchants, and have been made the subject of scores of advertisements in all forms:—

"1. Malaga wine, it is said, contains a large quantity of phosphate of ammonia and magnesia. So, we may add, does urine. 2. This phosphate, it is alleged, exercises great nutritive powers on the bones, muscles, and nerves; hence Malaga wine is officially acknowledged to be the wine for convalescents! 3. The quantity of phosphate is the best test of the goodness of wine; better than the extractive or the alcohol! 4. Then follows a table, giving the alleged quantity of phosphoric acid per 1000 in various wines, by which it seems that Tokay has 5, Menes (Hungarian) $4\frac{1}{2}$, Malaga 4, Madeira $3\frac{3}{4}$, Szegszard and Buda (Hungarian), *and Sherry*, each $3\frac{3}{4}$; *Cape* $2\frac{1}{8}$, Château Lafitte 2, and so on in a descending scale. I only give a few extracts, as time and space are too valuable to be wasted. 5thly. Dr. Kletzinsky makes an abrupt jump. Having asserted that the Hungarian wine is rich in *phosphoric acid*, he goes on to describe it as *rich in phosphorus!* Then he indulges in a poetical rhapsody on *the phosphor*, as he calls it:—"Without phosphor no nerve can form itself, which, like a telegraph," etc., etc. "Without phosphor no muscular fibril could weave itself that palpitates," etc., etc. "Without phosphor there would be no unison," etc., etc. Then he announces the startling proposition—

"*No life without phosphor,*"

with which readers of wine advertisements are familiar enough. Then comes a letter from the illustrious Liebig, who is made to say "that *the Hungarian wines have over other wines a particular restorative virtue*, which is to be attributed to the phosphoric acid which they contain."

Now, as members of our Profession have set up all this nonsense, it will not be out of the scope of a Medical journal to knock it down, and to show to the very eminent and honourable wine merchants who quote it that it really is unworthy of their wine and of themselves.

In the first place, the secret attraction of this pseudo-chemical *commentum*, as an advertisement for the public eye, lies in the juggle by which the word *phosphor*, or *phosphorus*, is artfully substituted for *phosphoric acid*, as if it were equivalent or synonymous therewith. When the public read of *phosphorus* in wine, they have a dim vision of something of mysterious virtues, which is alleged to be an element of the brain, and to be burned in the process of thinking, and which is supposed to exist in truffles, new-laid eggs, oysters, and other stimulating eatables, and which may make them shine in the dark as it does itself. They do not know really that phosphorus is just as distinct from a compound of phosphoric acid as a stick of brimstone is from Glauber's salts or plaster-of-Paris. The one a combustible simple body; the other an earthy or saline substance, in which not only no sensible trace of the original element is to be detected, but in which, by virtue of combination, all those original properties are of necessity extinguished.

On this point let us hear Liebig:—

"Many writers maintain that flesh and bread contain phosphorus, that milk and eggs contain a phosphorised fat like brain, and that the origin and consequently the activity of the matter of the brain is connected with this phosphorised fat. Hence no excess of phosphorus can be supposed, for example, to exist in thinkers (because they consume much phosphorus), and it is a certain truth that there is *no thought without phosphorus!* But there is no evidence known to science tending to prove that the food of man and animals contains phosphorus as such, in a form analogous to that in which sulphur occurs in it. No one has ever yet detected phosphorus in any fat of the body, of the brain, or of the food, in any other form than that of *phosphoric acid*."

Thus much about the *phosphor* hypothesis, of which I need say no more, but wait till some one proves the existence of phosphorus in wine in an unoxidised form.

In the next place, as for the hypothesis that the goodness of wine is to be determined neither by the alcohol, nor by the extractive, but by the phosphate, the best commentary on it is furnished by the fact that Cape Wine is put above Château Lafitte, and the best punishment for the author would be to condemn him to drink Cape for his natural life. It is not difficult to account for the phosphate in Cape wine.(c) Further, the various combinations of phosphoric acid with lime, magnesia, soda, etc., are of all bodies the most insipid and unstimulating. They abound in all eatables, on which man can live; they are clearly essential to the composition of

(b) Pamphlet, Paris, E. Brière, 257, Rue Saint Honoré. 1861.

(c) I was at dinner one day, sitting next to the late Archdeacon ——, from the Cape. I asked him the reason of the earthy taste in Cape wine. He said, "My dear sir, if you ever were at the Cape, and were to see the black fellows and their families in the vineyard at the vintage season, and how they make the wine, you would think *earthy* a very mild term indeed to be applied to it."

the mechanical framework of animals and vegetables, whether hard or soft; a man who eats bread or potatoes takes them in largely, and they are always as a matter of necessity in a state of flux, being daily taken in and given out, as common salt is. If further, we examine this wine list, we shall see that it is impossible that the quantity of phosphate can be the secret of the alleged restorative virtues of Malaga or of Tokay. These are wines of which we drink very small quantities, whilst we take copious draughts of the others. A man who drinks a pint of claret, containing the ratio of two of phosphate, would necessarily get more of it than one who drank an eighth of a pint of Tokay with its ratio of five of phosphate. Further, we have not heard what the French and Rhinelanders have to say about the phosphate in their own wines. Depend on it, if the character of their wines were to hang upon a chemical analysis, their patriotic chemists would be sharp-sighted enough to find every needful ingredient in the needful quantity. Moreover, although phosphoric acid and its salts (as of iron) are mild and digestible, like those of vegetable acids, still there is no evidence whatever that they possess any special power of feeding or sustaining the nervous system. I know of cases in which phosphates of all sorts were given abundantly, and the nervous system unaffected. Moreover, I would suggest whether abundance of phosphate might not be dangerous to the nervous system, and cause the accumulation of calcareous particles in the brain. I do not believe it myself, but one hypothesis is as good as another.

Lastly, to use the words of Dr. L. Beale,(d)—"When a long train of theories is constructed, the truth of which entirely depends on the accuracy and correct interpretation of the experimental results from which it starts, it behoves us to examine rigorously into the nature of their foundation." And Dr. Beale clearly can find no solid foundation for any hypothesis of the connexion of phosphates with nervous action.

The other day a wine merchant wrote to me recommending some wine, and saying that he had been assured by an eminent Physician that it had peculiar virtues, and that those virtues depended on a large quantity of sulphur. Certainly life is more dependent on unoxidised sulphur than on unoxidised phosphorus. Chemists have good ground for believing that sulphur is largely taken in certain elements of food, and largely oxidised; and I humbly suggest to any wine merchant who wants a new advertising dodge, to lay emphasis on the fact that his wines contain brimstone, and that there is *No Life without Brimstone*. Such an announcement would be valuable in a certain part of the Britannic isles, and would indicate a very agreeable method of taking a necessary medicine.

My time and your readers' will not have been wasted if I shall have succeeded in disenchanting them of that rationalistic myth of the connexion of salts of phosphoric acid with the nervous system. We must go on with the Hungarian and Austrian wines next week; meanwhile, if we ought to be ashamed of recommending wine because of a hazy notion that it is "rich in phosphates," there is another kind of evidence which is quite trustworthy. A patient who is well off, a good judge of wine, and free to choose what he likes, writes to me that the wine that suits him best is Max Gregor's Hungarian Carlowitz. This is the evidence which the empirical philosopher seeks for, and which, instead of the shifting sands of rationalism, stands on the solid rock of fact.

(To be continued.)

REVIEWS.

A Treatise on Pharmacy, designed as a Text-book for the Student, and as a Guide for the Physician and Pharmaceutist; containing the Officinal and many Unofficinal Formulæ, and numerous Examples of Extemporaneous Prescriptions. By Edward Parrish, Graduate in Pharmacy, etc., etc. Third Edition, with 238 illustrations. Philadelphia: Blanchard and Lea. 1864. 8vo, pp. 848.

This work, as a matter of necessity, contains much that is common to works of its class,—such as the account of the chemical and medical properties of known drugs, and the elements of such branches of natural history as are concerned therewith. Its peculiarity and its value to the English reader will be its suggestiveness, by means of the view which it gives of American pharmacy, drugs, and modes of prescribing. There is no doubt but that the Americans are a singularly ingenious people, possessing great power of creating modifications of mechanical forces; they are also little tied down to routine, fertile in new combinations of old drugs, and possessed of a great magazine of new ones in the almost inexhaustible botanical stores of their broad continent. Hence the English pharmaceutist should possess this book, not merely to know how drugs are manipulated over the water, but likewise what drugs are available. Moreover, the list of drugs in this work is limited only by our knowledge of the three kingdoms of nature, and not by the laws of any Pharmacopœia.

The work begins with an account of implements and processes,—bottles, scales, weights, etc. Next comes galenical pharmacy—that is, an account of every process, and its results, applicable to plants, and every part thereof. This part contains a summary of those numerous vegetable preparations (of which podophyllin is one well-known instance) introduced by the secret manufacturers of drugs and vegetable extracts, who call themselves *eclectics*. Then we have inorganic pharmacy; next organic chemistry in its relations to pharmacy; then extemporaneous pharmacy, including a treatise on prescriptions (with some account of the *language* used in prescriptions, which more than ever induces us to write the *signatura* in English), and on the art of prescribing, with a long list of prescriptions, of all sorts of drugs, in all forms. Any Medical Practitioner who desires to spend an evening profitably may do so in turning over the leaves of Parrish's Pharmacy, and gathering fresh hints and notions on the materia medica. We must add that there is a good deal of information also about perfumery, sweetmeats, and the management and diet of the sick-room.

Elements of Materia Medica; containing the Chemistry and Natural History of Drugs, their Effects, Doses, and Adulterations. By Dr. W. Frazer, Lecturer on Materia Medica to the Carmichael School of Medicine. Second Edition. London: Churchill and Sons. 1864. Pp. 453.

The word edition has come to bear a very different meaning when used in reference to general literature and to that of the natural and allied sciences. For instance, when we talk of a new edition of a history by Macaulay or Hallam, or of a poem by Tennyson, we understand the reproduction of the same work, with no change beyond, perhaps, the addition of a few notes or the alteration of a preface. But the announcement of a new edition of Lyell's Geology or of Graham's Chemistry would convey a very different idea. The advance of the physical sciences is so rapid, that a scientific library, like the organised body, must be constantly in a state of removal and deposition, or in ten or twenty years its materials will be found to have grown *effete* and comparatively useless. In no instance is this more true than in the literature of the sciences from which that of Materia Medica draws its sustenance, and it is only reasonable that growth in the primary trunks should be followed by corresponding vigour and change in the offshoot.

Accordingly, in his preface, Dr. Frazer tells us that "in consequence of the numerous changes which have taken place in Materia Medica," the pages of the work before us have been entirely re-written. In what those changes consist he leaves to be found out by the study of the book itself. In the space of a short review we cannot refer to a tithe of them, but we may indicate some of the heads under which they may be ranged. First, there is the change of nomenclature—partly due to newer, if not more satisfactory, generalisations of the facts of chemistry, and partly due to the whims of the compilers of the new Pharmacopœia. To the former we offer no objection. Pharmaceutical chemistry is only one of the many applications of chemistry to the arts; there is little, if anything, special about it, and its scientific character should be maintained by identifying its terms with those of the parent science. We cannot, however, look equally complacently on the alterations introduced by the committee of the Medical Council. Why *quina* was so bad a term that it was necessary to convert it into *quinia*; why *liquor sodæ chloratæ* was to be preferred to *liquor sodæ chlorinatæ*; or why *tiglii oleum* was discarded for *crotonis oleum* we are at some loss to understand. We can only account for these and other transformations by recollecting that a new Pharmacopœia without an arbitrary alteration of nomenclature might be held to cast a permanent reflection on the ingenuity of its compilers. Another and still more important class of changes may be referred to improvements in chemical processes, and a more exact knowledge of the sources whence drugs are obtained. The general introduction of the process of percolation in the preparation of tinctures, and the improved modes of prepa-

(d) "Urine, Urinary Deposits, etc." London: 1864. P. 187.

ring extracts, may be cited as instances of the former, whilst our more exact, although still imperfect, knowledge of the different species of Cinchona yielding the varieties of bark is one of the latter. A third class of changes comprehends newly discovered remedies. There can be no doubt that within the last ten years valuable additions have been made both to the chemical and botanical divisions of Materia Medica; amongst the former we may instance the introduction of carbolic acid, sulphurous acid, and the sulphites, of the salts of lithia and cerium, and of many new preparations of the metals and alkaloids. For the latter we have chiefly to thank our transatlantic cousins; many of their supposed discoveries, such as that of Sarracenia Purpurea, are doubtless worthless, but it is probably as true that in Veratrum Viride, Podophylline, Leptandrin, and several others, we have obtained useful means of combatting morbid conditions.

Such are some of the heads under which a list of changes in the Materia Medica might be ranged. It is well-deserved praise when we say that they are all faithfully reflected in the work before us. In it Dr. Frazer follows the "natural history arrangement," which is far preferable to any founded on imperfect theories of therapeutic action or abstract physiological views. Thus, the whole of the chemical Materia Medica is ranged under the four heads—Inorganic Substances, Compounds of Cyanogen, Alcoholic and Ethereal Preparations, and Hydrocarbons. The pharmaceutical preparations are placed under the description of each substance. In like manner the vegetable and animal medicinal substances fall under the natural orders from which they are obtained. The work concludes with a supplementary list of agents in which many of the newest additions to the Materia Medica, and some of the older ones which have perhaps undeservedly fallen into disuse, are briefly noticed. The style of the book is just what that of such a treatise should be—perfectly clear and correct, but stripped of everything like redundancy or ornament. The chemical directions and botanical descriptions are thoroughly up to the science of the present day. The only criticisms we have to offer are two. The first, that the doses of some substances and preparations appear to us rather large—an error, by the way, we have had to point out in other works of the same class; the second, that by neglecting to use the symbols ordered in the British Pharmacopœia, and retaining the old Galenical symbols in connexion with the British Pharmacopœia preparations, Dr. Frazer, to his English readers at least, has appeared to make no distinction between the troy and avoirdupois ounce. These, however, are small faults, and cannot be held to detract from the real value of the work, which it is not easy to overrate.

Monographie de l'Erythroxylon Coca. Par L. A. Gosse (de Genève). Bruxelles. 8vo, pp. 144.

Coca, so well known to certain South American tribes from immemorial time, belongs to the same class of agents as tea, coffee, maté, and other substances having a similar action in the body. This action appears to depend on a power they possess in retarding oxygenation of the tissues, hindering their retrograde metamorphosis, as it is sometimes expressed. It is doubtless this property which, in the absence of food, makes them sustaining to the body,—a fact which common experience amply proves. The coca shrub may be seen growing in the tropical part of the Crystal Palace, and its properties have been well explained by the late Professor Johnson in his admirable book, "The Chemistry of Common Life." In the work before us, Dr. Gosse has treated some parts of the subject in an exhaustive manner. He has with great industry culled from all sides a mass of interesting information concerning the history, the culture, and properties of the leaf; but it is no doubt due to want of opportunity that no experiments are detailed as to the effects of coca in his own person or experience. He had at disposal only a small quantity of the leaves, and these by no means fresh. We ourselves having been much interested in the matter found that large doses of a very strong infusion produced very trifling effects, and we are constrained to believe that the leaves lose their virtue either through the effects of the sea voyage, or else from being too long kept. The investigation is, however, well worth pursuing, as there is little doubt of the medicinal value of coca. Meantime we heartily recommend Dr. Gosse's monograph to all those who take an interest in this curious subject.

Briton Medical and General Life Association.—Dr. E. H. Sieveking, Physician to their Royal Highnesses the Prince and Princess of Wales, has been elected a Director of this Association.

GENERAL CORRESPONDENCE.

THE NEW INDIAN MEDICAL WARRANT.

[To the Editor of the Medical Times and Gazette.]

Sir,—You have acted wisely and well in not allowing yourself to be carried away by any exaggerated estimate of the new Indian Medical scheme, and in abstaining from forming an opinion upon its merits until it shall have been subjected to an examination in India. As some time must, however, elapse ere this can occur, I shall, with your permission, offer for the information of the Profession a few remarks upon the documents recently issued by the India Office.

The documents referred to are three in number,—

1. Regulations for the Examination of Candidates for the Appointment of Assistant-Surgeon in Her Majesty's Indian Medical Service.

2. Memorandum regarding the Position of Medical Officers hereafter appointed to Her Majesty's Indian Forces.

3. Despatch from Secretary for India to the Governor-General.—Date November 7, 1864.

Within this current year the Indian Medical Service will have existed under three distinct codes of regulations:—

1. The old constitution, which has been in operation from time immemorial.

2. The scheme of Sir Charles Wood of June 15, which has created so loud an outcry of wrong and injury amongst the Profession in India.

3. The scheme which has just been sent to India by Sir C. Wood in his despatch of November 7; and with this latter code I now propose chiefly to deal.

1. The memorandum commences with this statement,—"The regulations are those in force at the present time. They are subject to any alteration that may be determined on." There is, therefore, now to be no covenant between the India Office and those young Medical men who take service under it, detailing or implying obligations, and creating rights on both parts, and such as existed under the administration of the East India Company. It will thus be now perfectly competent and legal for the Secretary for India to act towards those men who take service under him in this new scheme according to the pleasure of his own will, no one being able to make him afraid. He may legally dispense with the services of any officer at a moment's notice, place him on half pay, or make any possible alteration in the rate of his pay and allowances, position, pension, &c. In fact, all who take Indian service under this condition bind themselves hand and foot to the pleasure or caprice of a Secretary for India—they have no guarantee for anything.

2. The Medical charge of all European troops is henceforth withdrawn from Indian Medical officers. Up to this time there have been under their charge three regiments of European dragoons, four brigades of horse artillery, about fifteen or sixteen battalions of foot artillery, and various scattered companies and detachments. The foregoing charges were considered the prizes of the service, and eagerly desired by all men attached to their Profession and willing to work. For several years after entering the service Assistant-Surgeons were employed with these troops, and they thus acquired most interesting and valuable experience in the diseases of Europeans in India. It was this that mainly made them efficient Medical officers, and of these troops they hoped to assume Medical charge as they advanced in the service. The military duties of Indian Medical officers are now to be restricted entirely to charge of native troops. This is a heavy blow and sore discouragement to the service.

3. The second section of the memorandum refers to grades of Medical officers; these are the same as those in the British army, but minus the Director-Generalship.

4. The third section refers to "pay and allowances when in India;" this I shall endeavour to examine carefully, noting what these are henceforward to be, and what they have been, under the two previous codes, which have both been in operation during the current year.

As regards the administrative division of the Medical Department, the Inspector-General is to receive 2500 rupees per mensem, and the Deputy Inspectors-General 1800 rupees per mensem. I regret I have not at present before me any pay tables showing the exact rate at which these officers have hitherto been paid. I therefore speak open to correction; but I have the strongest impression that the rate for Inspectors is

by several hundreds of rupees per month less than it used to be in Bengal; while that for Deputy-Inspectors seems to have there (*i. e.*, in Bengal) undergone no alteration—in fact, few Medical officers know accurately the pay of these higher grades; the number of those holding them is very small, and, according to Para. 16 of Sir C. Wood's despatch, it is henceforward to be made smaller still.

The Inspectors-General are generally men advanced in years, some who have survived most of their contemporaries. They occupy the position of the old Medical Boards. To what age it is necessary to live in India so as to render the attainment to this dignity and pay possible in the case of a Medical officer, I do not know; but this I know, that the late Governor-General, Lord Dalhousie, when speaking to an acquaintance of my own, of the then Bengal Medical Board, said, "I believe there are some gentlemen in it who must have come out in the time of Warren Hastings."

With reference to the Deputy-Inspectors, I have examined the "India Register" of July, 1864, and I find that the juniors of that grade are in Bengal, Madras, and Bombay, officers of 25—28, and 26 years' service respectively.

Not one man in twenty or thirty, I should say, lives long enough, or is able to remain in India long enough to reach these grades, or, rather, to be selected for them; for, be it remembered, an officer does not succeed to them by seniority; consequently, any hopes of these must be so very slender that they cannot operate as an inducement for any young Medical man to choose an Indian career.

5. I come next to the pay of the executive Medical officers mentioned in the memorandum.

By the Warrant of June 15, which has been, and is being still, so bitterly complained of in India, the pay of a Surgeon-Major on full batta, and of twenty-five years' service, was 1093 rupees per month.

By Warrant of November 7 it is reduced to 1000 rupees per month—in this grade of officers a loss has thus been inflicted of 93 rupees per month.

By June Warrant, as above, the pay of Surgeon-Major of twenty years' service, on full batta, was 1956 rupees per month.

By Warrant of November it is reduced to 1000 rupees; in this grade of officers a loss has thus been inflicted of 56 rupees per month.

By Warrant of June a Surgeon of fifteen years' service, on full batta, was paid 825 rupees per month.

By Warrant of November his pay is reduced to 800 rupees, so officers of this grade now lose 25 rupees per month.

An Assistant-Surgeon of ten years' service had for Medical charge of a corps under the old system 556 rupees per month. He is now to receive 600 rupees per month; such officers therefore now gain 44 rupees per month.

Assistant-Surgeons (in charge) above five years' service, who formerly received 421 rupees per month, are now to receive 600 rupees; these consequently gain 179 rupees per month.

Assistant-Surgeons under five years, who formerly received 421 rupees per month for charge of a corps, are now to receive 450 rupees; these, therefore, gain 29 rupees per month.

It will be observed that in considering the new scale of pay I have taken the employed rates; and this, because the unemployed rates are of little importance. Under the new scheme the Medical Department is to be reduced in numbers, and under its new organisation there will be no occasion for any others than those of charge of native troops or civil stations. Further, the only occasions on which Medical officers are unemployed are the few weeks after they arrive in India, or the few weeks before they leave it; or on those very rare occasions on which they have opportunities of getting leave of absence.

6. Before leaving the subject of pay and allowances in India, I must mention that the great outcry which has been raised against the Warrant of June 15 by the Medical Service, the public, and the unanimous voice of the Indian press, proceeded from the fact that that Warrant withdrew from the Medical Service the staff salaries which they had, like other branches of the service, been in the habit of receiving from time immemorial.

Staff salaries, or certain allowances in addition to the pay of their rank, have always been a distinguishing feature of the Indian service. They were not only distinctly laid down in pay and audit regulations, but while permanently fixed for the staff corps at revised rates, in a general order by the Government of India, date October 13, 1863, another order was issued on October 29 of the same year, which not only gave higher staff salaries than formerly to certain regimental officers, but actually conferred staff salaries on all regimental officers whatsoever. I subjoin extracts in proof:—

Cavalry Regiments—Staff Salary.	Rupees per month.
Commandant . .	700
Second in command .	300
Sen. squadron officer .	210
Jun. do. do. .	180
Adjutant . . .	250
Doing duty officer .	150

Infantry Regiments—Staff Salary.	Rupees per month.
Commandant . .	600
Sen. wing commandant .	270
Jun. do. do. .	230
Adjutant . . .	200
Quartermaster . .	150
Doing duty officer .	100

Every officer, whatever his rank, is entitled to the pay of his rank, and also to the staff salary of the position he fills. For example, the commandant may be a lieutenant-colonel, or a major, or a captain; but whatever he be, he receives, in addition to the pay of that rank, 700 rupees for a cavalry regiment and 600 rupees for an infantry corps: in like manner do all the other officers. Formerly, also, Surgeons in charge of corps received staff salaries of 300 rupees a month; Assistant-Surgeons of upwards of ten years' service, a similar sum; and Assistant-Surgeons under ten years' service, 165 rupees per month. To all Medical officers in charge of European troops, "head money" at the rate of 25 rupees per 100 men was also paid; and for Medical charge of native troops, extra to the charge of the corps to which he was posted, the Medical officer received 12½ rupees per 100 men. By Warrant of June 15 the allowances were entirely abolished, and they have not been restored by Warrant of November. To show how seriously this may affect Medical officers, I shall cite a personal instance. I had occasion for months to afford Medical aid to a native regiment and to a European company of artillery whose lines and Hospital were situated three miles from my own house and Hospital. The whole of the morning was taken up with my own work. In the evening, after visiting my own Hospital, I had to start off for the Hospitals of the native regiment and of the artillery. There I had to prescribe for all the sick, and attend to all the papers, reports, and public documents of each of these two Hospitals. I had thus great extra duty involving much anxiety and responsibility; but I had allowances for this, which I felt to be some equivalent. Now-a-days, however, I should be obliged to perform all this duty, not only without receiving a farthing for it, but most likely I should be considerably out of pocket by it; for when it rained I had to hire a conveyance for the journey. Extra duty is constantly falling on the hands of the Medical officers; and as the distances in cantonments are great in India, much time is often occupied in going from one to the other.

If the complaints which have deluged the Indian and British Medical press since the Warrant of June 15 were true, then whatsoever injury was caused by the abolition of staff salary and head money has not only not been repaired, but it must have been intensified by the Warrant of November, which, in the case of Surgeons-Major and Surgeons, has inflicted a further loss, varying from 93 to 25 rupees per month. In such circumstances, how any person of sound mind could hope (as in para. 47 of the Despatch) "that the result will be at once to diffuse a spirit of satisfaction and contentment" among the officers now in the service, utterly baffles my comprehension.

7. The fourth section of the memorandum refers to furlough; and here matters are left as they were. Most intelligent Medical officers in India have long been of opinion that a furlough ought to be granted after every seven years' residence in a tropical climate, and that such a measure would be beneficial not only to the officer, but to the State; but no furlough is to be given for ten years. Ten years! Let us think of them. What has happened, and what may happen, in ten years anywhere? Let me tell what has happened in India. A very considerable time before I had served ten years in India, of thirteen men of my season, seven were under the sod of India, or had been buried in the depths of its ocean waters. How few can hope to live to claim this furlough!

8. The regulations as to leave on Medical certificate remain as they were.

9. The fifth section refers to furlough pay. This also stands as it was. Officers of the British army serving in India have long been paid according to this scale when they returned to England on furlough or sick leave, and Indian Medical officers were entitled to it for many years before it was given them.

10. The sixth section refers to retiring pensions, and requires to be very carefully scrutinised. In order to clear up the subject, I place in juxtaposition the old and new rates.

Table I.—Old Retiring Pensions.

	Per annum. £ s. d.
After 17 yrs.' service	191 12 6
„ 21 „	250 0 0
„ 25 „	300 0 0
„ 29 „	365 0 0
„ 32 „	500 0 0
„ 35 „	700 0 0

Table II.—New Retiring Pensions.

	Per annum. £ s. d.
After 17 yrs.' service	220 0 0
„ 21 „	292 0 0
„ 24 „	365 0 0
„ 27 „	456 0 0
„ 30 „	550 0 0

For comparison I append two other scales of pension :—

Table III.—Rates of Full Pensions allowed to all Officers of the Indian Army.

Colonel . .	£456 5 0 per annum
Lieut.-Colonel .	365 0 0 „
Major . . .	292 0 0 „
Captain. . .	191 12 6 „
Lieutenant . .	118 12 6 „

Table IV.—Rates of Half-Pay of Medical Officers of British Army after a Full Pay Service of

	30 Years. Per annum. £ s. d.	25 Years. Per annum. £ s. d.	20 Years. Per annum. £ s. d.	15 Years. Per annum. £ s. d.
Inspector-General . .	736 7 6	611 7 6	547 10 0	0 0 0
Deputy-Inspect.-Genl.	465 6 6	410 12 6	383 5 0	0 0 0
Surgeon-Major . .	0 0 0	336 19 6	301 7 6	246 7 6
Surgeon . . .	0 0 0	0 0 0	0 0 0	0 0 0

Here I have first to remark that great complaints were repeatedly made to the East India Company of the utter inadequacy of the pensions which they granted to officers of their Medical service, and the answer given was to this effect that the Medical Department had Retiring Funds to which the Company gave considerable contributions, and its officers would obtain annuities from these upon their retirement, in addition to their pensions. After the Abolition of the East India Company, Sir Charles Wood, as Secretary for India, addressed a despatch to the Governor-General in reference to the Medical Department, No. 53, date London, February 14, 1860. In paragraph 8 of this despatch it is stated that the "subject of retiring pension will be taken up in connexion with the question of reorganisation of the army."

Four years and a-half after the above date the subject appears to have been taken up, and the result is the Scale of Medical Retiring Pensions published in the memorandum under discussion.

Individuals who are accustomed to deal with the business of life will naturally expect that after such a very long period of incubation the matter will have been dealt with according to some principle which people can understand; that a due regard will have been paid to the rates of pension established for Medical officers of the British army, who may pass a great portion of their service in their native land, and also to the period after which these pensions are available; and, above all, to the fact that Sir C. Wood had the responsibility of calculating a rate of pensions for officers who were to earn them in exile in a trying and unfavourable climate, while at the same moment he was abolishing the Medical Retiring Fund, which had been so often cast in the face of their predecessors.

Surely, under these circumstances, one would expect, first of all, that the pensions for Indian Medical officers would at least be made as favourable as those fixed for the Medical officers of the home service; that the period would not be made longer in the home than in the Indian service; and that in respect of the facts, that the officers trying to earn these pensions would be subjected to a greatly increased rate of sickness and mortality, and could never look to any augmentation from the Medical Fund. I say, under these circumstances, one is entitled to expect that the rates of pensions constructed by Sir C. Wood would be very greatly in excess of those granted to the home service, and not only very liberal, but bearing some sort of rational proportion to the circumstances in which officers must be placed.

Now, on this point, facts can speak for themselves; and I ask an attentive examination of the four tables which I have copied above.

Table I. shows the rates prevalent under a system which was being abolished. And let it be borne in mind that the Government expected Medical officers to receive, in addition to these rates, from the several Medical Funds, annuities of £200, £300, or £400 a-year. That the funds did not succeed ultimately in conferring this amount on all is beside the question. They were originally established to accomplish this object, and it pleased the Government to assume that they did so.

Table II. shows the amount of pension which Sir C. Wood has fixed for all officers now in the service, or hereafter entering it; and by contrasting it with the preceding table an estimate of the gain, such as it is, will be seen at once.

Table IV. shows the amount of pension obtainable by Medical officers of the home service, who may never have occasion to see India at all, and many of whom actually accomplish their period of service either within Great Britain or in temperate climates.

As regards this table, the most striking feature is the fact that the period of service fixed in it is actually shorter, and the rates of pensions are immensely higher, than those just fixed, as in Table II, for Indian Medical officers; while every man of common-sense would have expected an exactly opposite result.

It must, therefore, be perfectly evident to all that a great injustice has been inflicted upon the Indian Medical service in this matter of retiring pensions. In the lowest possible view of matters, Indian Medical officers were entitled to as good pensions, and after as short a period, as in the home service, or they were entitled to the pensions of military officers of relative rank, as shown in Table III.—*e.g.*, a Surgeon of seventeen years' service, ranking as a major, is surely at least entitled to Major's pension of £292, as shown in the table; whereas he is only to receive £220. A Surgeon-Major, ranking as Lieutenant-Colonel, is surely entitled to Lieutenant-Colonel's pension of £365; whereas, after twenty-one years' service, or one year after obtaining the relative rank of Lieutenant-Colonel, he is only to receive £292. And be it remembered that the Medical officer cannot enter the army until a more advanced age than the purely military officer; he is further required to serve a longer period. And all this injustice is done in the face of para. 17 of the old retiring regulations, which I quote :—"All other Surgeons and Assistant-Surgeons are permitted to retire from the service on the 'pay of their rank,' on the completion of seventeen years' service in India."

11. I have spoken at much length on the subject of retiring pensions, for in my time they were the principal inducements which attracted Medical men to India; but it has been impossible to separate the matter from the Medical Retiring Funds, which, like the "Military Funds," are abolished by Sir C. Wood's Despatch(a) as regards all Medical officers who shall hereafter enter the Indian service.

Formerly, Assistant-Surgeons proceeding to India were required, by an article of their covenant at the India House, to subscribe to the Medical Retiring Fund or to the Military Fund. In addition to the annuities of which I have already spoken, another great object accomplished by the Medical and Military Funds was a pension payable to widows and children of Medical officers. This also was one of the most important attractions to the Indian services, but it has now been swept away; while it lasted it has enabled India officers to marry, and should they happen to be sensible in those last hours which come to so many of them in India, they are not disquieted by harassing anxieties regarding those who are nearest and dearest to them, for they know that through these funds they have provided means which will carry home their families, and maintain them with very considerable comfort amongst their friends in Great Britain.

Many years ago it was not so. A friend informed me that before the institution of these funds there were very few married officers in India, and when one of them happened to die there was often a very sad scene;—no means were found to send the widow and children home; and then some kind friend went round with the hat, and the brother officers of the deceased raised sufficient funds to pay the passage of the family home to their friends, who, of course, had to support them. In those days also alliances with native women were ordinary events, and from this mainly has sprung the half-caste population of India; and many fear that the abolition of service funds will lead to a repetition of that deplorable practice. Neither the interests of morality nor those of the British nation generally seem to have been well considered in this matter.

Some have talked of "splendid pay," and of prudent men being able to provide for their families under the new scheme. Such speak very unadvisedly, and with much ignorance. Before pay can be pronounced as splendid, we must carefully consider the circumstances in which it is received, and the

(a) Para. 45.

obligations or wants of the individual who receives it;—for instance, the new rates of Indian pay might be very splendid for a single man with no claims upon him, living in lodgings or otherwise in an English city, and who, when required to move, has all those excellent and cheap facilities for accomplishing great distances, which are so common here. In India, however, it is now very different. House-rent and living have risen enormously within the last twenty years; many of the necessaries of life are threefold more expensive than they were. Servants' wages are much higher than they were. Frequent change of station involves the necessity of selling furniture for whatever the native chooses to give; transit over the ground is most expensive, and, on arriving at the new station, furniture and all the requisites for a domestic establishment must be bought at whatever rate the native chooses to ask. If the officer happens to be married, his expenses are immensely increased, and he must lay his account with having to send his wife and children home, the education of the latter, etc.; and it may thus be seen that pay which is very good for service in England may be much the reverse of splendid for service in India; and as I have shown that the new rates of pay are only at certain periods of service better than they were before, the men who find themselves able to save in India will be exceptions amongst their fellows; besides, much of the slight increase of pay where it occurs will be laid hold of as increased donations and subscriptions to military mess and band funds.

12. The seventh section of the memorandum refers to promotion. Assistant-Surgeons are henceforward to be promoted to the rank of Surgeon after twelve years' service. This is no more than it ought to be in the Indian service. Indeed, the late Mr. Alexander, of the Army Medical Department, was anxious to obtain promotion in it after from seven to ten years' service. In the Indian service the period passed before promotion has varied from thirteen to eighteen years within the last twenty years.

13. The eighth section refers to relative rank. I am strongly disposed to pass this subject over, for although I have been an army-Surgeon for many years, neither I myself nor any man I have ever met have been able to discover the least advantage conferred on the Medical service by the insertion of a few paragraphs in a Queen's warrant, declaring that such and such officers have such and such relative rank.

The only consequences which I have as yet seen to flow from relative rank have been demands on the purses of the Doctors declared to possess it; for instance, a Surgeon formerly ranked as a Captain, and paid all his subscriptions, etc., at Captain's rates; but after he was declared to rank as a Major the Paymaster required him to pay a Major's donation and subscription to mess and band funds; and in like manner a Surgeon-Major was required to pay as a Lieutenant-Colonel. It is well known that the senior officer present at mess has an important position with reference to the party present, and if the relative rank of Medical officers was worth anything, he might naturally expect it to go for something there; but not so, even at this social meeting. I shall relate a case in point: a friend of mine happens to be a Surgeon of a regiment of Dragoons, and is required to pay to the mess and band the same subscriptions as the Major of the regiment; still, when dinner has to be announced, or any question comes up about the band playing a little longer, the mess-sergeant looks out for the senior officer present, brushes past the Surgeon (relative major though he be) and often addresses himself to a lieutenant, a boy of two or three years' service. This young gentleman, accordingly, takes the chair at this social gathering, and the Surgeon, a Doctor of Medicine of the first University in the kingdom, is quite a subordinate.

14. The ninth section refers to pensions which are given to Surgeons on account of wounds and injuries received in action, and to the widows and children of Medical officers killed in action. What the precise amount of these pensions may be does not appear here, and we are referred to another warrant on the matter, and this closes the memorandum.

Before concluding I must mention that the *Spectator* of December 10th seems to have been strangely misled in reference to this new scheme, for its editor, in the issue of that date, states that under it "a Surgeon can return home at 50 with a pension of £650 a-year for ever"—how he makes this out I cannot comprehend. A Surgeon on entering the service must be between 22 and 28 years of age: if he have entered at the former age he will have served 28 years on attaining 50; or by the new scale of retiring pensions, quoted in Table II., his pension for 28 years' service is only £456 a-year. In like manner, if he have entered at 28, on reaching the age of 50 he will be entitled to pension for 22 years' service, or £292 per annum.

In conclusion, I have been led to examine in detail the various sections of the memorandum on the position and prospects of the new Medical service for India, as issued by the Secretary of State; and this because the matter is of great importance to the younger members of the Profession, and also because gross misconceptions prevail on the subject. I shall endeavour to summarise the results here.

The great distinguishing features of this new scheme, as compared with the two previous systems which have been in existence in the course of the current year, may be said to be:

1. The entire negation of any guarantee or covenant to all who may take service—their voluntary subjection to any alteration in these conditions of service, which the exercise of an arbitrary will may impose.
2. Passage money paid to India by Government.
3. Entire restriction of Professional duties to Medical charge of native troops, or to the native establishments at civil stations, with the two or three European officials attached.
4. Reduction of the number of the administrative officers, and diminution of the pay of some.
5. Reduction of the pay of all Surgeons-Major and Surgeons, as compared with the full batta rates of the same Warrant.
6. Increased pay of Assistant-Surgeons in charge of troops, as shown in Para 5.
7. The persistence of the withdrawal of their regular staff salary from Medical officers, which was initiated by the same Warrant, while staff salaries in addition to pay of rank are allowed to all officers of every other department of the army.
8. The denial of head money for extra charges, however numerous or responsible, or distant from each other they may be.
9. Retiring pensions at rates much below those allowed to the home Medical service, and only attainable after a much longer period of service in exile in an unhealthy climate.
10. Certainty of promotion after twelve years' service.
11. Entire abolition of the Military and Medical Funds; so that Medical officers have now no provision whatsoever for widows and children, and no allowance on retiring except those meagre and unworthy new pensions.

As regards officers now in the service, I am certain that the result will not be to diffuse at once a spirit of satisfaction and contentment; and if any young Medical men choose to enter it at the coming competitive examination I expect that the results will ultimately be similar to those which were obtained after the old service was thrown open to competition—that is, when these young men shall have been a short time in India, and shall have had opportunities of forming a clear estimate of their position and prospects, such information will be supplied by them to their colleagues and friends as will effectually deter others from following their example; and the spectacle will be again exhibited of more Indian appointments in the market than candidates offering for them—and that this new measure will signally fail to "secure for the future a certain supply of Medical officers of good social position, liberal education, and Professional ability for Her Majesty's service in India." I am, &c. An Indian Surgeon.

EXAMINATION OF YOUNG PHYSICIANS AT ST. MARY'S HOSPITAL.

Letter from Dr. Goddard Rogers.

[To the Editor of the Medical Times and Gazette.]

Sir,—The much-regretted resignation of Dr. T. K. Chambers at St. Mary's Hospital left a vacancy which was filled up by one of the "Physicians to out-patients," as I believe was lately their title. This necessitated preparations for the election of an "Assistant-Physician," the title by which henceforth the out-patient Physicians will be known. The rules of the Hospital relating to the election of fresh members on the staff deserve to be widely circulated.

When a vacancy is declared, it is advertised as at other Hospitals; a Medical Board is summoned, and the candidates are requested to attend. This is in accordance with the practice of similar institutions, but here the resemblance ends. A Medical Board is generally supposed to sit for the purpose of examining diplomas and testimonials, and making a few inquiries of such candidates as can attend as to their age,

previous engagements, etc. At St. Mary's Hospital, by an ill-judged regulation, the Medical Board is compelled to examine every candidate for the office of Assistant-Physician or Surgeon in Medicine or Surgery, in Physiology and Pathology, in Clinical Medicine or Surgery, and, in the case of an Assistant-Surgeon, in Operative Surgery. Two well-known men offered themselves as candidates on the present occasion; one a Lecturer in St. Mary's School, the other a Hospital Assistant-Physician of many years' standing, and a Fellow of the Royal Society. A third candidate was your humble servant. As the choice from the first lay between my two opponents, I merely appeared *pro formâ;* and I hereby desire to express my grateful sense of the extreme kindness with which I was received by the various officers of the Hospital during my brief candidature. I now heartily wish that I had withdrawn from the field before the day of nomination, and retained that self-respect which I feel I have in a measure forfeited by becoming a candidate during the continuance of the above-named regulation. My experience of Hospital elections and the mode in which they are carried is as large as that of most men of my age; and feeling as I do that the same influences prevail at St. Mary's as at other Hospitals, the wonder to me is that three grave and respectable Fellows or Members of the Royal College of Physicians could be found willing to undergo an examination at the hands of men whose status is no whit higher than their own(a), *quoad* the approval of the Censor's Board of their College.

Sir, it was a humiliating spectacle, and one which I hope may never again be witnessed. At the great baize-covered table in the Board-room of the Hospital sat such members of the Medical Examining Board as could be prevailed upon to attend; and the only enlivening feature of the exhibition was the extremely uncomfortable and confused appearance of these gentlemen, "dressed in a little brief authority," and invested with an air of priggishness against their will that would have done honour to Mr. Pecksniff. I have no doubt they devoutly cursed the framers of a rule which seems to be designed for no earthly purpose but to embarrass them. A dreary, solemn silence for the most part reigned; broken occasionally by the subdued and somewhat bashful questioning of the Examiner, or the curt and constrained answer of the examinee.

> "We sometimes thought we could a speech produce—
> Much to the purpose, if our tongues were loose;
> But being tried, it dried upon the lip,
> Faint as a chicken's note that has the pip."

And now, Sir, that this farce has been enacted, what is the gain to St. Mary's Hospital? Is she sure of obtaining the best man, supposing invidious distinctions to be drawn between the three original candidates? Every one possessing a grain of common sense, and the least acquaintance with the machinery put in motion on these occasions, knows that even an archangel with the highest qualifications would be thrust out unless he combined with these the highest interest.

I hope this letter may call attention to the subject, and that an important Hospital and rising School of Medicine may speedily dispense with this pseudo-*concours*, this sham "competitive examination." I am, &c.

G. Goddard Rogers.

Grosvenor-street, W., January 10.

THE CASE OF PRYCE *v.* BOWEN.

Letter from Mr. Edward Lund.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have received a transcript of the shorthand writer's notes of the evidence given by me in the cause of Pryce *v.* Bowen, from which I will make a few extracts to show that some of the wording of the newspaper paragraphs gives an erroneous idea of the exact opinions which I expressed on that occasion.

But before doing so, being aware that exception has been taken—and as I think, on reflection, properly taken—to the answer given by me to question No. 2, viz.:—"I believe you are one of the Surgeons of the Manchester Infirmary—the Royal Infirmary."—Answer, "I am."—I will preface this letter by saying that, inasmuch as I am a Dispensary Surgeon, and not a full Surgeon to the Manchester Royal Infirmary, I am prepared to accept any blame that may attach itself to me for having omitted to mention this distinctive difference.

In the *Liverpool Mercury* it is stated Mr. Lund deposed that "he had heard Mrs. Pryce's description of the way in which her arm was placed, and that if that description was true he was of opinion that it was improperly placed." "The proper position was with the palm uppermost, and it was known amongst Medical men that the reverse position was wrong."

With regard to the latter part of this statement, what actually took place was this:—Having answered the fourth question put to me, in which I was asked if I had heard Mrs. Pryce's description of the treatment said to have been adopted, I was requested by the counsel for the plaintiff to place the bones of an articulated forearm in such a way as that they would be nearest to each other (prone), and then I was asked the next question, viz.:—"Now, assuming it to be true that her arm was placed in the splint as she described, with the back of the hand up, is that the proper way of setting the arm?"—Answer, "No." I was next asked, in the same way, to place the bones so that they should be furthest apart, (supine), and the question was put, "What would be the proper way of placing the arm?" I answered, "The best way of placing the arm would be thus: the fore-arm slightly bent with reference to the arm, and the palm uppermost;" and I made this answer as the direct conclusion or inference from the position in which I had just placed the bones, so as to show them as the furthest apart, for in the next question I was asked, "Is that the regular and well-known way of placing the arm in a simple fracture of the forearm?" and I immediately replied, holding my hand in the usual semi-prone position, "This is the best position in which to place it in a case of simple fracture;" and it is worthy of remark that, in the manuscript copy of the short-hand writer's notes now before me, the transcriber has emphasised the word *this* by placing a line beneath it, as if it were to be printed in italics, to indicate, doubtless, that when I used the word I threw great stress upon it to show that it was *the* position in the treatment of a fractured fore-arm—I being led to show the supine position only in illustration of that condition in which, for anatomical reasons, the bones would be the furthest apart. Then followed these two questions with the answers,—"Is the other way, with the back of the hand up, known among Medical men to be a wrong way?" "Yes, it is a wrong way of placing it." "Would it be wrong practice to leave the arm in this position with the back of the hand up during nine days?" "It would be wrong practice in my opinion."

The error, therefore, which has occurred in the newspaper description would lead those who have read the account to suppose that I said the supine position was the position, *par excellence;* whereas, as soon as I was asked to give "the regular and well-known way" of placing it I showed the semi-prone position.

Another mistake which has arisen from the newspaper description being so freely circulated, has been that it has appeared as if I had stated the bones were absolutely grown together, while this assertion was "denied by Mr. South," in his evidence.

In my written opinion made very shortly after I had examined the arm, I said—"She has no power whatever to turn the hand round so as to change the position of the palm or the back of the hand, although it is possible for another person to move it slightly in either of those directions, which gives her some pain." And when the following questions were put to me in the witness-box, the answers will show that I did not state that the bones were completely united together, but that passive motion could still be permitted:—"Is there something which is not bone which is between these two bones?" "Yes; a strong membrane called the inter-osseon membrane, between the bones." "If that becomes stiffened it prevents them turning one over the other?" "Yes." "Is that the reason why the wrist will not rotate?" "Yes, why she cannot perform this motion (the witness describes by turning his hand round)." "Can she perform this motion?" "She can let it be done for her."

It has been asked, How is it that I did not apply to Dr. Bowen and hear his version of the case before the trial? My answer is, that it did not occur to me to do so, and had I thought of it I should have considered it improper, after giving an opinion on the merits of the case to the solicitor for the plaintiff, to have had any communication with the defendant. I can only repeat how deeply I regret that I did not in the first instance decline to touch the case at all or to give any opinion whatever about it; but I beg to assure yourself

(a) "Every candidate approved by the Censor's Board shall be proposed as qualified to become a Member of the College." Bye-laws of the Royal College of Physicians, chap. xix., section xviii. London, 1862.

and the Profession generally that in my whole conduct in this matter I have erred from a want of judgment rather than from any desire to injure a member of my own Profession.

I am, &c., EDWARD LUND.

Manchester, January 10, 1865.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, JANUARY 3.

Mr. PRESCOTT HEWETT, President, in the Chair.

THE PRESIDENT declared the ballot open at eight o'clock, and appointed Mr. Hinton and Mr. Hulme to act as scrutineers.

The Treasurer's account and the Report of Council were then read.

REPORT OF THE SOCIETY.—SESSION 1863-64.

In summing up the proceedings of the past session the Council of the Pathological Society has much pleasure in being able to continue the tone of congratulation which has now become customary in these reports. It was stated in the Report for last year, that "the Society was at that moment constituted by a larger number of members than at any previous period of its existence;" and it is very gratifying to be able to state that at the present moment the number is even in advance of what it was last year, more new members having joined during the past session than in any other of which a record has been preserved. The receipts of the Society for the year do not show a proportionate advance—in fact, are somewhat less than in the previous year, but this is merely because last year several members availed themselves of the privilege offered to them by the Society of compounding for all future payments by a life subscription, while this year none have done so. This, however, is no permanent disadvantage to the Society, since if it diminishes the present receipts, it increases the future annual income. This annual income it must be allowed is now more wanted than ever. The large rent lately imposed by the Royal Medical and Chirurgical Society for the use of their rooms taxes the resources of this Society to the utmost. Still it has been thought undesirable to move from a situation which is so convenient and so well known to the members; and as a saving has been effected on the cost of the present volume, as compared with the last, the income of the Society has been still adequate to meet its expenditure, and even to leave a slightly increased balance in the treasurer's hands. This saving in the cost of the volume has not, it is hoped, been made at the expense of its value as a collection of pathological facts, but is the result partly of a reduction voluntarily made by the printer (in consequence of change of prices in that trade), but mainly of a diminished expenditure on engravings, in which the 14th volume was considerably in excess of the average. It is very gratifying to the Council to be able to state that the interest felt in the Society's meetings, as testified by the large attendance of its members, and the value of the specimens exhibited, appear to be steadily on the increase. It is also peculiarly pleasant to notice that while the new members of the Society are assuming their full share of the work, the old ones have not fallen off, but that the latest volumes of the *Transactions*, and the latest meetings of the Society, have been enriched by the matured experience of many of those whose contributions were the main source of interest to the earliest. The increasing number of the members of the Society renders some increase necessary in the number of copies of the *Transactions*, and the Council has accordingly sanctioned such an increase. The number now published leaves only a very small margin for purchase by future members and the public, so that several of the volumes are already out of print, and several more must be so in a very short time. A general index to the whole series of the fifteen volumes of *Transactions* has been prepared, and is in course of distribution to the members. A notice prefixed to this volume by the Council will explain the circumstances under which it came into the possession of the Society. The Council have now to call the attention of the Society to the general results of the Treasurer's account. The total receipts of the Society, including a balance from last year of £78 2s. 6½d., amounted to £430 3s. 4½d. Of this sum £27 14s. 1d. resulted from the sale of the *Transactions*—a very large increase on last year, and a testimony to the increased value in which the series is held; £8 5s. 9d. was interest on the Society's funded property, and the remainder, £316 1s., was received by the collector. The total expenses were £343 2s. 3½d., leaving therefore a balance of £87 1s. 1d. to carry forward. These expenses include a sum of £45 3s. for the purchase of stock, £49 7s. 11d. Three per Cent. Consols. The money represents the life subscriptions and composition fees, which it has always been customary to invest. This will make the funded property of the Society £308 11s. 4d. The Council cannot allow the retirement of their Medical Secretary, Dr. Bristowe, to occur without publicly recording their high sense of the valuable services which he has rendered to the Society in that capacity. It would be superfluous to point to the great value and extent of Dr. Bristowe's contributions to the *Transactions*, since they must be well known to all readers of these volumes. The Council indulge the hope that, although they have lost Dr. Bristowe's services as Secretary, the Society may long have the benefit of his co-operation in other offices.

Dr. WILKS moved that the Accounts and the Report be received and entered on the minutes. He adverted to the satisfactory condition of the attendance and of the finances of the Society. He advocated the continuance of the plan hitherto adopted by the Society, of rather devoting the time of the Society to the collection of facts than to the expression of pathological opinions.

Dr. MORRIS TONGUE seconded the motion.

The following specimens were then exhibited:—

Dr. BARLOW brought forward a case of

DISEASE OF THE TRICUSPID VALVE, WITH CURBOSIS OF THE LUNG.

He remarked that Dr. Wilks had pointed out the distinction between this condition of the lung and chronic inflammation. In this case the pathological condition of the lung had been predicated during life. The patient was a navvy, aged 38, who had led a dissolute life, and had a few months before been in St. Thomas's Hospital on account of hæmoptysis, after which he had never been restored to complete health. On his admission into Guy's he had cough and purulent expectoration, with systolic bruit not audible up the aorta. His face displayed much nervous congestion, with patches of skin exhibiting a sort of fibroid change. There was anasarca and slight albuminuria. The diagnosis was made from the long continuance of hæmoptysis in a man in tolerably good general health, with no symptoms of phthisis, and with probable disease of the right side of the heart, combined with the peculiar state of the skin of the face. On post-mortem examination the left side of the heart was found healthy. On the auricular surface of the tricuspid valve were some vegetations and thickening of the curtains of the valve. The state of the lung quite coincided with that usually described as cirrhosis. There was no curbosis of the liver.

Dr. WILKS raised the question as to the existence and as to the recognisability of bruit from disease of the tricuspid valve. Dr. Addison had taught that disease of this valve produced no bruit.

Dr. QUAIN stated that he entertained no doubt of the possibility of recognising disease of this valve. He referred to three cases in which this had been done in his experience.

Mr. J. HUTCHINSON exhibited a specimen of

DISEASE OF THE BRAIN, OF A TUBERCULAR NATURE, CONNECTED WITH LOSS OF SPEECH.

The patient, a male adult, had suffered amputation for caries of the tarsus, and was afterwards admitted for disease of the sacro-iliac symphysis. Suddenly one day he was observed to be unable or unwilling to speak, which was at first referred to to deception. There was no loss of intellect or power; but soon after he lost control over the sphincters, and other brain symptoms came on. The power of speech was never recovered (except that he sometimes enunciated the single syllable "Can't") for the three weeks he lived. After death a small mass of crude tubercle was found near the end of the posterior horn of the *right* lateral ventricle, and some thickening of the arachnoid. There were evident symptoms of inflammation extending up the *left* fissure of Sylvius, with softening around it. Mr. Hutchinson observed that it is this part of the brain which has lately been asserted by M. Broca and Dr. Hughlings Jackson to be connected with the function of language.

Dr. J. POLLOCK showed a case of

HYDATID CAVITY OF THE LIVER OPENING INTO THE LUNG.

The interest of the case lay in the fact that the disease

appeared to be in process of cure till this was interrupted by circumstances which might be called accidental. The patient, a lad aged 19, was admitted into King's College Hospital for cough and pain on the right side. He had had an attack of jaundice in St. Bartholomew's Hospital four months previously. On admission, the right side of the abdomen was found enlarged, and this enlargement was afterwards much increased. He frequently expectorated very large quantities of sputa, and these were often examined for the hooklets of echinococcus, but without success. After this copious expectoration, the bulging disappeared, and he was soon afterwards discharged convalescent, but was soon re-admitted with shivering, severe pain in the abdomen, and collapse. He died soon afterwards. On post-mortem examination, recent peritonitis was found. The liver and right lung were intimately adherent. There was tubercle in the bronchial glands, but on no other part of the lung. There was a large cavity filled with hydatids of irregular shape communicating between the liver and lung; the cavity in the liver was very small compared to that in the lung. Between the liver and gall-bladder was an abscess about the size of an orange which had burst into the peritoneum, and this had been the proximate cause of death, and had interrupted what had apparently been the commencement of the spontaneous cure of the disease. The gall-bladder was very small, and closely contracted on several gall-stones. A small part of the liver was in a state of incipient suppuration. No claws of echinocci were found on any part.

Mr. B. Squire introduced a case of

FAVUS.

The result of the ballot was then announced by the scrutineers.

Mr. Curling proposed that the thanks of the Society be offered to the President of the Society on his retirement from office, and to the Vice-Presidents and other members of the Council who are now retiring from office.

This was seconded by Dr. Greenhow, and unanimously agreed to.

The late President (Mr. Hewett) acknowledged the compliment, and presented to the Society the index to the fifteen volumes of the *Transactions* now published, which had been recently prepared, and is now in course of distribution to the members.

MEDICAL NEWS.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, January 5, 1865:—

William Porter Somerset, Claydon, Bucks; Albert Meeres, Haddenham, Bucks; Albert Octavius Haslewood, Darlington, Durham; Frederick Le Fevre Milburn, Aldringham, near Saxmundham; Henry Willson, 393, Strand.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Blandford, G. Fielding, M.B., M.R.C.P., has been appointed Lecturer on Lunacy at St. George's Hospital.

Bottle, Alexander, M.D. Edin., has been appointed House-Surgeon to the London Surgical Home for Diseases of Women.

Brunton, William R, M.R.C.S. Eng., has been appointed Medical Officer of Health for Redditch.

Davidson, J., M.B., has been appointed Resident Medical Officer to the Banffshire District Lunatic Asylum, Banff.

Finegan, James, M.D. St. And., has been elected one of the Medical Officers for the Parish of Liverpool.

Hughes, R., M R.C.S. Eng., has been elected House-Surgeon to the South Staffordshire General Hospital, Wolverhampton.

Jones, C. Handfield, M.B., F.R.C.P., has been elected Physician to St. Mary's Hospital.

Kough, J. O'Brien, M.R.C.S. Eng., has been elected Surgeon to the South Staffordshire General Hospital, Wolverhampton.

Miller, John N., M.B. Lond., has been appointed Physician's Assistant at the South Staffordshire General Hospital, Wolverhampton.

Pow r, William H., M.R.C.S. Eng., has been appointed House-Surgeon to the Royal Albert Hospital, Devonport.

Valpy, William H., L.F.P.S. Glasg, has been appointed Colonial Surgeon for her Majesty's Settlements in the Falkland Islands.

Watson, Patrick H., M D. Edin., has been appointed Acting Surgeon to Chalmers' Hospital, Edinburgh.

DEATHS.

Abbott, Charles Thompson, M.A., M.B., T.C.D., M.R.C.S. Eng., Surgeon 39th Regiment, at Aldershot, on January 2, aged 35.

Ayerst, Thomas, M.D. Aberd., at Rolvenden, Kent, on November 30.

Collingwood, James W., M.D., at Bishopwearmouth, Sunderland, on December 20, aged 65.

Dawson, H, M.R.C.S. Eng., at Islington, N., formerly of Maldon, Essex, on December 12, aged 69.

Dawson, John A., M.R C.S. Eng., at Newcastle-on-Tyne, on December 19, aged 32.

Evans, David P., M.R.C.S. Eng., formerly of Fronfelen, Machynlleth, on December 20, aged 76.

Fawcett, James E., M.R.C.S.E., R.N., Surgeon H.M.S. *Racehorse*, at the Bay of Lung Mun, Chefoo Cape, China, on November 4.

Flynn, T. P., L.K.Q C.P.I., Staff Assistant-Surgeon Army, at Jamaica, on November 19, aged 27.

Grant, George A., Assistant-Surgeon Royal Artillery, killed by a fall from his horse, on October 21, at Umritsur, Punjab, East Indies, aged 28.

Pickop, James, L.S.A., at King-street, Blackburn, Lancashire, on December 20, aged 72

Rowland, Henry M., L.R.C.P.L., at Derby-road, Bootle, Liverpool, on December 21, aged 31.

Presentation of a Testimonial. — On Tuesday, January 10, a handsome testimonial, value £150, was presented to Dr. Stainthorpe, of Hexham, by a number of his fellow townsmen and patients. The testimonial consisted of a silver tea and coffee service, a gold watch and appendages, a purse of gold, and a gold bracelet for Mrs. Stainthorpe. The plate bore the following inscription:—"Presented to Dr. Stainthorpe, M.D., M.R.C.S. Eng., etc., together with a gold watch and appendages and a purse of gold, by his numerous friends in Hexham, Hexhamshire, etc., to mark their appreciation of his ready and courteous attention in fulfilling the duties of his Profession, and as an expression of their appreciation of his worth." The presentation was made at a public dinner, at which the Rev. W. Sisson presided.

Memorial to the late Mr. Smyly.—Opening of the "Smyly" Ward.—On Thursday, the 5th inst., a very interesting ceremony took place in the Meath Hospital and County Dublin Infirmary, when his Excellency the Lord Lieutenant of Ireland, accompanied by Lady Wodehouse, the Right Honourable the Lord Mayor of Dublin, his Grace the Archbishop of Dublin, the Lord Chancellor of Ireland, and a large number of the friends and admirers of the late Mr. Smyly, met together for the purpose of formally opening a children's ward, lately erected by public subscription as a fitting memorial of that eminent Surgeon and benevolent Christian. Dr. Stokes, as senior Physician to the Hospital, having conducted the Lord Lieutenant and Lady Wodehouse to their seats, addressed his Excellency upon the object of the meeting, quoting the statements of various writers as to the rate of infantile mortality, and advocating the allocation of wards in general Hospitals to the diseases of children rather than the erection of special Hospitals for their treatment. The Lord Lieutenant, in an able speech, while he hesitated to differ from so high an authority as Dr. Stokes, was, on the principle of the division of labour, rather in favour of the establishment of special Hospitals, but accepted the allocation of children's wards in general Hospitals as a good beginning. The report of the Committee of Subscribers was read by Dr. Maurice Collis, to whose untiring exertions the marked success of the undertaking was mainly due. The Lord Mayor, the Archbishop of Dublin, the Archdeacon of Dublin (Dr. Lee), and others took part in the proceedings, which passed off most satisfactorily; nor can there be a second opinion as to the appropriateness of the form which the memorial to the late excellent senior Surgeon of the Meath Hospital has assumed.

The Late Mr. J. E. Fawcett, R.N.—James Edward Fawcett, R.N., Surgeon to Her Majesty's ship *Racehorse*, which was wrecked on the evening of November 4, of last year, was born at Woodhouse, in Leeds, in April, 1834, and received his early education at Mr. Hiley's, and the Grammar School, Leeds. In 1849 he joined the Leeds School of Medicine, being also an assistant at the Leeds Dispensary. He took out his diploma in the Royal College of Surgeons, London, in August, 1855, and in October of the same year he was commissioned as Assistant-Surgeon to the *Waterloo*, then lying at Sheerness. In the summer of 1856 he was appointed to the *Acorn*, in which he sailed for China, and served until 1859, when he was appointed to the *Chesapeake*, then the flag-ship on the China station. He was present at the taking of Canton, the battle of Fatshan, and at both attacks on the Peiho Forts, after the latter of which he was raised to the rank of full Surgeon by Admiral

Hope, in January, 1861, and was confirmed in that rank on his return home in December, 1861. In the many actions he was concerned in he was distinguished for his coolness and courage in the midst of danger and in the performance of arduous duties, especially after the Peiho engagement in 1859, when, after exposure in three different gunboats during the day, he remained throughout the night attending to the sick and wounded with a perseverance and fortitude under difficulties which could hardly be excelled. In May, 1862, he was commissioned to the *Racchorse*, and sailed in August for Japan, where he arrived in time to take part in the engagement against the forts at Kagosima. The *Racehorse* has not been engaged in action since, and was on her way from Shanghae to Chefoo Cape when the melancholy accident occurred which caused the death of so many brave men. Mr. Fawcett's death will be lamented by all who knew him, as he was not only a good officer and a skilful Surgeon, but a good Christian and a gentleman.—*Leeds Mercury.*

Fossil Remains.—In a letter addressed to the Academy of Sciences, M. Van Beneden gives an account of certain human remains discovered by him in a grotto situated in the valley of the Lesse. These remains, consisting of nearly complete skeletons, he considers as having been buried there by the waters during some great cataclysm. The grotto is situated at forty metres above the level of the Lesse. All the bones are dispersed in the mass of earth, the long bones always in a horizontal position. A skull in perfect preservation was found under a stone embedded in stalagmites. This skull was half filled with stones not much smaller than the occipital foramen, through which they had penetrated. In front of the cranium there was an omoplate, clavicles, ribs, long bones, vertebræ of children and adults. Bones were found firmly wedged between stones, so as to leave no intermediate space. Such effects, the author thinks, could only have been produced by water. In the midst of a solid bed composed of stones there was another cranium, the parietal bone of which was fractured. The bones situated where water could penetrate during the winter were either reduced to atoms or would fall to dust on being touched; the others were in a perfect state of preservaaion. These human bones were found together with those of bears (but not of the *Ursus Spelæus*, being rather nearer to the present species), of oxen, horses, reindeer, beavers, several beasts of prey, birds, fish (trout and pike), helices, and the *Unio Batava*, which still lives, together with helices, in the immediate vicinity. Mixed up with these bones there were flints of the most primitive form, bits of coal, calcined bones, looking as if they had just come out of the fire, and fragments of very old pottery. There were also some of the antlers of the reindeer, with marks upon them evidently made with human hands, but not forming any particular design. The ground where these remains were found presented no signs of having been disturbed, and there was no communication from without with the grotto except by the entrance only. The skulls above alluded to denoted a well-developed human race.—*Galignani's Messenger.*

Beef at Threepence a Pound.—Since the publication of our paragraph on the introduction to this country of the jerked beef of South America, we have received a great number of letters containing inquiries from persons desirous of turning the facts to practical account. The names of the merchants comprising the commission for the introduction of the beef will be found, with much other information, in a pamphlet on the subject published by Hedderwick and Son, of Glasgow. The wholesale agents are Messrs. James Gordon and Co., 11, Orange-court, Liverpool, and Messrs. Steel, of 5, Dixon-street, Glasgow. It is sent out in cases of one hundredweight. We may repeat that the "jerked" beef is prepared from the choicest parts of the animal, and, while it is not expected to supersede the use of fresh meat, it is believed that no greater boon has been lately offered to the under-fed classes of Great Britain. The following directions for cooking the beef have been published by authority of the commission: Steep the beef for three or four hours, or wash it well in hot water. 1st. Cut it in small pieces, about an inch square; simmer it by the fire for one and a half hours, add potatoes, pepper, and onions, and again cook slowly until ready. It will then be found a very good Irish stew. 2nd. Mince in the form of mince collops; cook it slowly, and when ready mix it up with mashed potatoes. It may then be put in a dish and browned in the oven. 3rd. Cut into pieces, and after simmering an hour and a half add turnips, carrots, or other vegetables, such as used in a haricot. 4th. It will also make very good pea-soup, and is also used in first-class hotels for giving a delightful flavour to all kinds of soup, particularly to kidney and other similar classes. In short, a good housewife will find a hundred ways of making it available and agreeable. 5th. It can be used as mince collops without potatoes; and a flitch is sometimes taken, rolled up and spiced in the form of a beef ham, which must be cooked slowly.—*Times.*

Anaphrodisia Resulting from the Prolonged Employment of Arsenic.—M. Charcot relates two cases in confirmation of a statement made long since by M. Rayer, that the prolonged use of arsenical preparations is sometimes followed by paralysis of the genetic functions. In M. Charcot's cases these had been taken in large and long-continued doses for the relief of obstinate cutaneous diseases, and the anaphrodisia which resulted was very well marked.—*Bull. de Thérap.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. Maybury.—We cannot open our pages to the controversy between this gentleman and the *Lancet.*

Mr. M. S.—A Review of the London Hospital Reports shall appear very shortly.

An Anxious Parent.—The list shall be published as soon as received from the College of Preceptors, by which body the examination was conducted.

An Irish Student should write to the Secretary of the College respecting the extraordinary statement made by our contemporary. He will find that, although a graduate in Medicine, he will have to undergo precisely the same examination as without the degree.

Errata.—In announcing the appointment of three Demonstrators of Anatomy at St. Bartholomew's, we gave the name of a Mr. Turner We are informed, however, that there is no gentleman of that name connected with the Hospital or School. The names of the three Demonstrators are,—William Baker, F.R.C.S. (not M.R.C.S., as we previously stated), J. B. Vernon, F.R.C.S., and Alfred Willett, F.R.C.S. —In the remarks on the Blister Treatment of Acute Rheumatism, page 11, in the third paragraph, *for* "applied to prevent flow of serum," *read* "applied to promote flow of serum."

Consanguineous Marriages.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—"X" has invited discussion on a very interesting subject, and I regret that I had not collected sufficient facts to enable me to make more remarks in my last letter, but this I shall hope to do in a future one, as it is a subject I have had in my mind for some time, and have, therefore, left my eyes and ears open to see and hear all I could on it. The rough conclusions I arrive at are, that these marriages are not hurtful or injurious. But, in spite of all that science may say, or "warm debates" either, cousins will marry, if they have a mind to. Some justify themselves by quoting Numbers, chapter xxxvi., verses 10 and 11; and who is to blame them?

I am, &c., A. R.

Early Retirement in the Medical Branches of the Public Service.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The Committee of the College being now engaged in inquiring into the condition of the Army and Navy Medical Services, it is to be hoped that the Profession will not be disappointed when their report appears. The task will be of some difficulty, as there are many interests to be reconciled and anomalies to be removed. The welfare of the army and navy is to be made consistent with the dignity, honour, and welfare of the Medical Profession. The discipline and well-being of the services are to be consistent with the Professional and social position of the Medical officer. Every attempt to form a plan for the reconciling of these in some measure, opposed branches of the public service will only be attended by failure, unless established upon the basis of early retirement. The Medical officers of the army and navy are in the exact situation of the man between the two stools, who came to the ground It is to be feared the Medical Inspectors and Deputy-Inspectors do not represent the feelings, wishes, or interests of the body of Medical officers of both services. Any semblance of rank without the authority or privileges is the possession of the shadow without the substance. It is always considered as absurd to be querulous about a feather or stripe, but when persons have to pass a number of years—the most valuable of their lives—in the society of others, with whom the possession of such slight distinctions causes the difference of respect or contempt, these are more to be desired than can be imagined by persons having a choice of varied society. The Medical officer in the Royal Navy is confined to his ship, and (whatever his rank may be) cannot go on shore without asking leave of the commanding officer, who may be a midshipman or a carpenter. The exile, confinement, and servitude may all be borne, if there be a probability in a few years of its being terminated. The anomaly, however, is, the retirement is quicker in every branch of the naval service than it is with the Medical officers; and with the Army Medical officer the difficulty of obtaining even sick leave is very great, and not in proportion to the other officers.

The argument that on an early retirement the best men would leave is fallacious, as it has been proved in India that men do not retire because they have the option of doing so.

Medical officers, both of the army and navy, should be allowed to retire, after seven years, on a third of their full pay; after fourteen years, on the half of their full pay; and after twenty years, on the full pay of their rank. The Government would then be able to place incompetent persons on permanent retirement ("the shelf"), and the Medical officers themselves would have the satisfaction, under all disagreeable circumstances, to lay the unction to their souls—I can go if I like.

I am, &c. Medicus.

Chloroform Accidents.—How to Avoid Them.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It is useful to say that of the two deaths from chloroform at Exeter, in last week's journal, one is a very old case, that has been commented on rather often; the other is a new case. There are, unfortunately, two other deaths to record this week, new cases: one at Leeds, with inquest, etc., which will probably be published shortly—a gentleman, who took chloroform himself (a most dangerous practice); the other, or fourth case, was not very dissimilar, and occurred in the "City."

It would be useful to say, too, that the 109 cases in the Medico-Chirurgical Society's Report are all old cases, and only about half of the real number that has been collected, and on which were founded some deductions that I see are now everywhere adopted in Germany and France.

All the four present cases, and 90 per cent. of the elaborate cases in the report of the Medico-Chirurgical Society's Committee, are remarkable all for a few things in common. First, that the doses of chloroform were very small; next, that the electricity is always used in exactly the wrong manner, due to the insufficient hypothesis that the death is from "cardiac syncope;" next, that there are twice, if not two and a-half times, as many males die as females, and few or no children; next, that the operations were trivial, or the death occurred before the operation was commenced at all, but never in the deep collapse or sinking of such an operation as ovariotomy, amputation of the thigh, resection of knee, etc., where one would *à priori*, on the cardiac syncope theory, expect death or fainting fits; next, complex apparatus, like Snow's or the modern balloons, increase rather than diminish the number of deaths.

I would like, in conclusion, to say a word or two as to the usefulness of collecting such cases, and the vital necessity of a sound hypothesis to explain them.

If you will excuse referring so much to figures and cases collected from all directions, I would wish to direct the reader's attention to a new Dictionary of Medicine and Surgery just published in Paris, this year (1865), where M. Giraldès gives a full and masterly analysis of the books and theories of Snow, Simpson, Black, Richardson, Nelaton, Lallemand, and Perin; Jackson, Erichsen, Arnott, Holmes, Longmore, and a dozen other well-known writers on anæsthetics. Nor does he omit the abstract of the report of the Committee in Berners-street, which he had read in your journal many months ago. M. Giraldès criticises Snow's views severely; he shows how singularly behind the time the other weekly journals are; but in the *Medical Times* he has followed our figures, and these singular deductions just enumerated. He objects much to Snow, ridicules the experiments on animals of Harley, Richardson, the views of "Holmes's Surgery," etc., and says, as his final verdict, "La theorie avancée par H—— qui regarde les accidents chloroformiques comme produits par une veritable apnée repond beaucoup mieux aux phenomenes observés chez l'homme, et explique d'une maniere plus satisfaisante le cas de mort subite;" that this theory agrees with all he sees in Paris; that idiosyncrasy and tetanic spasm of muscles cause death of Hospital patients by this apnea: that "cardiac syncope," Marshall Hall's "ready method," electricity to the heart, not to the phrenic nerves, and other superstitions, help to increase the deaths; that as Andral or the barber who bled Count Cavour have only 40 or 50 per cent. of deaths from pneumonia by the lancet, but Hughes Bennett only 5 without it, yet as Arabs we still go on in our stereotyped errors: book after book copying the old fallacy, electricity always tried in the wrong way, etc. He does full credit to the Silvester method rather than the Marshall Hall one. He believes over 200 deaths have occurred from chloroform, chiefly due to such errors and dishonest one-sided views of the facts under discussion.

I am, &c.,

Sackville-street, January 9. Charles Kidd, M.D.

Dr. Vogt's Lectures on Man.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will any of your "Anthropological" readers inform us from what sources Dr. Vogt has obtained his information as to the external *physique* of the negro? With the truly unequivocal exception of Dr. Hunt's *brochure* on "the Negro's Place in Nature," it has not been my fortune to read a more glaring exhibition of either ignorance or misrepresentation (wilful or otherwise) than is given in the seventh lecture of Dr. Vogt's work. This is not the place, of course, to give a detailed criticism (with its accompanying extracts) of these lectures, but yet, with your permission, I may shortly adduce sufficient proof of what I have now said. He tells us that "most negroes can, without stooping, reach with the finger's end the region above the knee-cap." That "the shoulders are narrower and less strong than in the white. There is a certain resemblance in the form of the neck to that of the gorilla." He says the neck has "a curvature" like the "bull's neck," and that this is the reason why the negro carries his burden on his head; that the "belly is relaxed and pendulous;" that the arms are less rotund, etc., and that he "(the negro) rarely stands quite upright, the knees are usually bent, . . hands and feet are long, narrow, and flat." The author then summarises by adding that "most of these external characteristics remind us irresistibly of the ape," affording "a glimpse of the ape beneath the human envelope." Further on we are told "that we are struck by the fact that the S-shaped curve of the vertebral column is less distinct in the negro than in the white, the column approaching in its arrangement that of the ape;" and that "the dimensions of the small pelvis through which the head of the child must pass are considerably smaller in the negro." He states that the several measurements of the extremities show "a decided approach to the animal type,"—the ape, and that the arm is nearly of the same thickness throughout. I shall not extend these quotations, but will simply ask again, Where has Dr. Vogt got his information? He admits he has never seen a new-born negro child; one is forced to ask, after reading this caricature of the negro's outward form, whether he has seen half a dozen adult negroes in his life? Even some of those measurements he gives from Burmeister are opposed to his assertions in the text; and from a long residence among negroes in the West Indies and Africa, I unhesitatingly pronounce such a description as we have given us in this lecture as ludicrously false in its more significant parts. Let any one with the necessary personal knowledge or information derived from reliable sources just compare these statements with the men and women on a West Indian estate, with the Kroomen of Cape Palmas, or the Foolahs, Eboes, and other tribes as purely negroes as the Congoes, and a feeling of surprise will be excited that a man of Carl Vogt's position should allow himself to send forth such statements under the authority of his name. The truth seems to be that "the similousness in the negro" was a foregone conclusion, and the description to be given must needs be made to square with it; for a candid and well-founded exposition of the reality could never be made to support such a conclusion. I have only to add that our author's statements, original and quoted, as to the mental characteristics, moral and religious especially, of the negro are as true to the reality as are those I have thus shortly examined. I am, &c.

Hanley, January 10. J. F.

COMMUNICATIONS have been received from—

Mr. E. Bellamy; Mr. W. Stedman; Harveian Society; Mr. Edward Lund; Royal Institution; Dr. M. T. Sadler; Dr. C. Kidd; Mr. J. Hutchinson; Dr. H. Weber; A. R; Dr. Hunter; Mr. Lumley Earle; Apothecaries' Hall; Mr Messent; Anthropological Society; Mr. Gaffney; Mr. J. Bruce; Mr. George H. Case; Mr. W. Clarke; Mr. John H. Wright.

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 7, 1864.

BIRTHS.

Births of Boys, 1043; Girls, 1016; Total, 2059.
Average of 10 corresponding weeks, 1855-64, 1868·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	828	832	1660
Average of the ten years 1855-64	703·6	712·1	1415·7
Average corrected to increased population..	..	..	1558
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	..	14	2	3	1	5	1
North ..	618,210	8	13	15	5	16	11	5
Central ..	378,058	6	7	6	..	12	8	5
East ..	571,158	..	4	12	1	14	22	2
South ..	773,175	5	11	21	6	11	20	3
Total ..	2,803,989	19	49	56	15	54	66	16

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·785 in.
Mean temperature	36·7
Highest point of thermometer	49·2
Lowest point of thermometer	19·0
Mean dew-point temperature	32·0
General direction of wind	S.W.
Whole amount of rain in the week	0·23 in.

APPOINTMENTS FOR THE WEEK.

January 14. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

16. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

17. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Anthropological Society of London, 8 p.m. W. T. Pritchard, Esq., F.R.G.S., F.A.S.L., "Notes on Certain Anthropologic Matters connected with the South Sea Islanders." Edward Lund, Esq., F.R.C.S E. (communicated by Dr. F. Royston Fairbank, F.A.S.L.), "On the Discovery of Syphilis in a Monkey (*Macacus Sinicus*). E. Sellon, Esq., "On the Linga Puja, or Phallic Worship of India."

Pathological Society, 8 p.m. Meeting.

Royal Institution, 3 p.m. Prof. Tyndall, "On Electricity."

18. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

19. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Harveian Society of London, 8 p.m. Dr. H. C. Stewart, "On the Diagnosis of Embolia affecting the Great Vessels of the Heart, with Cases."

Royal Institution, 3 p.m. Prof. Tyndall, "On Electricity."

20. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

Royal Institution, 8 p.m. Prof. Tyndall, "On Combustion by Invisibl Rays."

ORIGINAL LECTURES.

LECTURES ON CHEMICAL AND MECHANICAL DISEASES AND THEIR RELATIONSHIP.

By H. BENCE JONES, A.M., M.D., F.R.S.

Lecture I.

ON DISEASES OF SUBOXIDATION—DIABETES.

I have chosen diabetes for my first lecture, because, among all the diseases to which mankind is liable, it is the best example of a purely chemical derangement of health.

In slight or in severe cases, even from first to last, mechanical symptoms or complications rarely occur. Loss of nutrition and loss of power through the whole course of the disease bear a direct relation to the loss of saccharine fuel, and when the complaint proves fatal, no change of structure is found; no evidence of any disordered chemical action remains. Atrophy alone shows that the nutrition of the body has become more and more feeble.

Throughout its course the disease seems as though it might be cured at any moment, provided some change could be made in the chemical actions on which the production of the sugar depends.

There appears to be only one link wanting to make the healthy chain of action complete; if this could be supplied the disease would cease to exist; the sugar would disappear from the urine, and the symptoms of the complaint would be gone. What, then, is the nature of the disease? To understand it I must go back to physiological chemistry.

Very many substances are included in the term sugar. Though closely related, they have chemical and optical differences. The three great optical divisions of sugars are—Convertible, polarising to the right—these are cane sugars. 2. Inverted, polarising to the left—these are fruit sugars. And, 3. Unconvertible, polarising to the right—these are glucose and diabetic sugars. The chemical differences are best seen in the following table:—

Crystallised cane sugar	$C_{24}H_{22}O_{22}$
Combined cane sugar	$C_{24}H_{18}O_{18}$
Grape sugar, crystallised	$C_{24}H_{28}O_{28}$
Grape sugar, in combination	$C_{24}H_{21}O_{21}$
Melitose, from Eucalyptus mannifera	$C_{24}H_{24}O_{24}$
Eucalyne	$C_{24}H_{24}O_{24}$
Melezitose	$C_{24}H_{22}O_{22}$
Sorbin	$C_6H_6O_6$
Sugar from secale, cornutum mycose	$C_{24}H_{26}O_{26}$
Caramel	$C_{24}H_{18}O_{18}$
Mannite	$C_{12}H_{14}O_{12}$
Dulcose	$C_{12}H_{14}O_{12}$
Erythromannite	$C_8H_{10}O_8$
Pinite	$C_{24}H_{24}O_{20}$
Quercite	$C_{24}H_{24}O_{20}$

In addition to these there are saccharine substances of animal origin, of which the best known are—

Milk sugar, crystallised	$C_{24}H_{24}O_{24}$	
Milk sugar, in combination	$C_{24}H_{19}O_{19}$	
Glycogen	$C_{24}H_{20}O_{20}$	Bernard's saccharine substance from the liver.
Inosite	$C_{24}H_{24}O_{24}$	Scherer's sugar from the heart and other muscles.

All these different saccharine substances are not able to pass as glucose into the urine; but they are all capable of being oxidised in the blood and textures into carbonic acid and water, whilst giving heat or motion, or other energy, to the body.

Each grain of starch that is taken as food, when acted on by the saliva or pancreatic fluid, is converted into sugar, and becomes a source of fuel or power and ultimately passes out of the body as carbonic acid and water.

In diabetes the starch is still changed into sugar; but in the circulation and in the extravascular or parenchymatous structures the further change is partly or wholly stopped; more or less of the sugar remains as sugar, part reaches the kidneys and is thrown out in the urine, part exists in the structures unchanged; and thus the system is deprived of one part of that conversion of latent into active force on which the nutrition and power of the organs depends.

In the body or out of the body, when once a series of chemical action is set up, the series tends to become continuous; it propagates itself, unless a change of conditions occurs. For example, grape juice will remain as grape juice, if kept from the action of other substances. Under well-known conditions it will ferment, and continue fermenting, as long as sugar, and ferment, and the proper temperature are present. If the conditions are slightly varied, variations in the products will be observed. The series of actions will not pass rapidly from grape juice to alcohol, to vinegar, or to putrefaction; but according to the conditions one action or another action will be set up or will continue as long as that action is possible.

In health and in diabetes the sugar is subjected to different conditions. In health the chemical changes are propagated and continued to their full extent; whilst in diabetes the conditions necessary for perfect change are wholly or partly wanting. These conditions, on which the changes depend, are chiefly three. 1st. The proper temperature; 2nd. The presence of a not immoderate quantity of sugar; 3rd. The presence and activity of a ferment.

On each of these conditions a few words are necessary.

First, the internal temperature of the body, under all circumstances, is subject to so small a variation, that at present there is no proof that such a reduction can occur as can check the chemical actions in the human body, though under certain circumstances small animals can be exposed to cold so that sugar may be made to appear in the urine.—*Proceedings of the Royal Society, December* 15, 1864.

Secondly, by the most careful investigation, I have satisfied myself that Professor Brücke is right in saying that healthy urine contains sugar—that is, the amount of sugar derived from the food, or from the changes going on in the textures, is at all times more than can be entirely changed in the circulation and in the tissues. If, then, a considerable amount more is thrown into the circulation, some of it will pass out in the urine. Thus an injection of sugar into the rectum when absorbed causes temporary diabetes; so, also, large quantities of sugar, fruit, and farinaceous food tend to produce diabetes. Thus, also, if Bernard's amyloid or glycogenic substance were produced in excess in the liver, diabetes would result.

Thirdly, the ferment, the prime cause of change, has not been yet insulated. Whether it be the albuminous substance of the saliva or pancreatic fluid, or some other of the many albuminous substances in the blood, it requires for its action heat, the presence of alkali, and an undisturbed circulation of the changing fluid.

With regard to the effect of alkalies, something will be said when I speak of the treatment of diabetes; but concerning the influence of unobstructed chemical action some remarkable physiological experiments must be here mentioned, because they not only furnish the most striking illustrations of the relations of mechanical to chemical disease, but because they also help to account for the effect of sudden mental shocks and nervous disturbances, which do so much harm to the diabetic patient.

Bernard made the great discovery that the mechanical injury of the floor of the fourth ventricle alters the chemical actions going on in the body so as to cause sugar in excess to appear in the urine. This is a most remarkable demonstration of the relation which subsists between mechanical and chemical actions in the living body.

M. Schiff, in his "Untersuchung uber Zuckerbildung" (1859) states that this diabetes results from injury of the vaso-motor nerves of the abdominal organs which arise from the thalami optici and the crura cerebri—*partent des couches optique et des pedoncules cérébraux;* and he also shows that by injury of other parts of the nervous system temporary or permanent diabetes is produced.

Thus cutting the posterior roots of the nerves arising from the cervical portion of the cord, leaving the anterior roots untouched, causes temporary appearance of sugar (irritative

diabetes); whilst by division of the anterior roots on a level with or above the fourth cervical vertebra, permanent (or paralytic) diabetes results. These injuries, he says, cause an irritation or a paralysis of the vaso-motor nerves. The vessels of the liver become dilated and distended; and as a consequence there is an excessive secretion of sugar by the liver.

The permanent diabetes may be thus occasioned; but it is far more probable that the temporary diabetes is owing to the mechanical injury of the nervous system so affecting the vessels that the chemical changes are interrupted. The same phenomenon is seen in every fermentation. The chemical action is temporarily stopped when the fermenting fluid is disturbed by any sudden change.

These conditions of change may in diabetes be affected singly or all simultaneously. When the affection reaches to the extent of stopping the chemical change in the vegetable or animal sugar in the body, diabetes, intermittent or permanent, is the result.

That the disease is only a little way distant from health is shown by the existence of sugar in the urine in the healthy state; so that a small quantity of sugar in the urine is no proof of disease; and here, as elsewhere, there is no defined limit where health ends and disease begins.

Diabetes is the arrest of a healthy state; an increased quantity of sugar appearing in the urine, because the actions that constitute health are stopped.

In perhaps half the cases of diabetes the arrest of change in the food-sugar constitutes the complaint. This is proved by the fact that when a strict antifarinaceous diet is observed the abnormal amount of sugar ceases, and the patient is well as long as he keeps to the strict diet. When this fact was published in 1806 by Dupeytren and Thenard, they used these words:—"Que le traitment qui consiste surtout dans un régime purement animal a le même degré d'efficacité que le quinquina dans lês fièvres intermittants."—*Annales de Chemie*, vol. 59, p. 45.

But it was soon found that cases occurred in which a strictly antifarinaceous diet, consisting of animal food and water, did not stop the sugar in the urine. For days and weeks not a grain of vegetable starch or sugar may be taken as food, and yet sugar in excess will exist in the urine. Whence does this sugar come? It must either be taken in the animal food or it must be produced in the body.

Previous to Bernard's discoveries, this production of sugar when no vegetable food was taken admitted of no explanation. Now, the discovery of the amyloid substance in the liver, and of inosite in the muscles, lungs, brain, and other organs, gives a full solution of the difficulty. In the chemical changes going on in the body, animal starch is formed in the liver, and in other organs as in the prostate gland, and sugar in the muscles; not, as in vegetables, by the fixation of carbon and the decomposition of water by the action of light, but more probably by the gradual splitting up of the higher organic compounds of the different organs whilst performing their functions.

The good effect of an antifarinaceous diet in some cases, and its want of effect in others, marks the two great divisions of the disease—the two stages of diabetes. In the first stage vegetable sugar alone ceases to go through the healthy chemical changes, whilst the animal sugar is entirely changed; in the second stage, animal sugar as well as vegetable sugar are more or less unchanged. It may be concluded that animal sugar is more readily changed than vegetable sugar; and when in diabetes an antifarinaceous diet has no marked effect, then the conditions of change of the sugar in the body are furthest from the healthy state.

There is sufficient evidence that diabetes does not always progress from one stage to the other. The disease may halt anywhere in its progress, and remain stationary for years, or get better or worse. A gentleman has consulted me for the last four years occasionally; he is now 57. When I last saw him the specific gravity of the urine was 1020, about three pints in twenty-four hours, containing about four grains of sugar to the ounce. He had been diabetic for twenty-nine years, during which time he married, and has now healthy children grown up. When he takes care about his diet, the sugar and symptoms vanish, but when careless, the symptoms return, and the sugar can be found in the urine.

Diabetes, then, in its mildest or first form, is the loss of power to change the sugar of the food; in its more advanced or more intense form, it is the loss of power to change the sugar produced in the organs and textures of the body, as well as in the food. The changes in the animal as well as vegetable sugar are arrested.

On the Means of Detecting Diabetes.

The first and readiest means of detecting diabetes is to boil about a drachm of urine and a drachm of liq. potassæ for two or three minutes in a long test-tube. The colour of the urine after boiling should be compared with an equal quantity of urine mixed with as much water in another test-tube. In well-marked cases the boiled urine becomes darker than the darkest sherry. If the colour is only slightly changed, then the same quantity of urine should be mixed with two drops of a saturated solution of sulphate of copper and a drachm or more of liq. potassæ, and then boiled. Reduction of the copper rapidly takes place if much sugar is present; or half-an-ounce of urine should be boiled with ten grains of slaked lime. If none of these tests give a decided reaction, the amount of sugar in the urine may be considered scarcely beyond the quantity that exists in health. Before asserting that no tendency to the disease is present, it is well to repeat these tests with urine made about two or three hours after a farinaceous meal.

A gentleman was sent to me from the country for diabetes. His Medical man had found the sugar, and had put him on an anti-farinaceous diet. When he came to me the colouration and reduction, on testing the urine, were not perceptible. A portion of this urine was sent back with the patient, and the Medical man was surprised to find that the sugar was gone. When the patient returned to farinaceous diet the sugar reappeared in the urine.

On the Difficulties and Fallacies of the Tests for Sugar.

Regarding the presence or absence of very small quantities of sugar, positive and negative doubts may arise. Appearances may be observed resembling sugar when no sugar is present, and substances may hinder the reactions taking place when sugar exists.

When there is more than a grain of sugar in the ounce of urine, little difficulty occurs in finding it. When less is present, the organic matters in the urine hinder the reactions, and it becomes necessary to separate the sugar from other substances before the tests are used.

In a paper in the *Quarterly Journal of the Chemical Society*, vol. xiv., p. 27, "On the Detection of Sugar in Healthy Urine," you will find experiments on the value of the different processes for determining the presence and quantity of small quantities of sugar in the urine. In doubtful cases, by following Brucke's process, no case of diabetes can be overlooked.

There remains, then, the opposite error that may arise from the use of the sugar tests. Sugar may be thought to be present when the colouration or reduction may be caused by some other substance.

Long-continued boiling of the urine, even without alkali, causes the colour to become darker. The longer the boiling is continued the darker the colour becomes. Alkalies and heat together always have some darkening effect on the healthy colouring matter of the urine when exposed to the air.

When accidental colouring matters are present—as, for example, rhubarb or senna—alkali, without heat, gives a deep colour to the urine.

On this account, the test of colouration ought never to be trusted to alone. Reduction of the oxide of copper must occur if sugar is present; but substances may be present with the sugar, as muriate of ammonia, 1 grain to $\frac{1}{200}$th grain sugar; or urea in great excess, 1 gr. urea $\frac{4}{1000}$th gr. sugar; and these substances may hinder the reduction of the copper; or substances may be present when no abnormal sugar is in the urine, which may reduce the oxide of copper and lead to great errors.

In the Medico-Chirurgical *Transactions* for 1843, vol. 26, p. 211, in a paper on the detection of sugar in diabetic blood, I mention that uric acid will reduce the oxide of copper.

Tartaric acid also, under certain circumstances, will reduce the oxide of copper.

A Physician sent me some urine of a supposed diabetic patient, asking me to determine the amount of sugar. I told him I found no sugar present. He gave me an analysis in which the sugar was determined to the second decimal place. I took the urine I had examined to the analyst, and asked him to repeat his test. For convenience he had made a Winchester quart of Fehling's standard solution, and on testing the urine, reduction occurred to an immense extent; and the analyst thought I was wrong, until I heated his standard solution without adding any urine to it. Then the tartaric acid reduced the oxide of copper just as if sugar had been present.

These examples, and more might be given, of the reducing action of other substances than sugar are quite sufficient to show that no dependence can be placed on the reduction test alone. It would be just as wrong to assert that all reduction proves the presence of uric acid as to say that it alone indicates sugar.

On the Quantitative Tests for Sugar.

A practical eye can make an approximation to the amount of sugar by the colour produced by potass or lime, as a practised hand can tell nearly the weight contained in it; but thus no accurate results can be obtained.

The quickest and easiest method is to fix the amount of sugar by Soleil's saccharimeter. The decoloration by animal charcoal or acetate of lead causes a loss of sugar, because a portion is always retained with the colouring matter (see *Quarterly Journal of Chemical Society*, vol. 14, p. 28); but by using as little decoloriser as possible, this instrument gives accurate results; whilst for rapidity, and ease, and beauty, it far surpasses any other process.

Fehling's standard copper solution is easily, quickly, and accurately useful. I have already shown the necessity for testing the test.

The fermentation test requires considerable care, much time, and a good balance. At page 27, vol. 14, of the *Quarterly Journal of the Chemical Society*, you will find a comparison of these different processes.

Lastly, the specific gravity has by some persons been used as a means of determining the amount of sugar in diabetic urine.

Formulæ are given in books for calculating the sugar from the gravity of the urine. These tables might give an approximation to the truth if diabetic urine was a solution of sugar in distilled water; but there are very many other substances with the sugar, and these all vary as well as the sugar, and they all affect the gravity of the urine, and render all the formulæ worthless. To convince you of this I have made the following table from ten cases of diabetes. The amount of sugar present in an ounce of urine was determined by the saccharimeter. The specific gravity was determined by a first-rate balance.

Sugar to the ounce of urine. Grains.	Specific gravity.	Sugar to the ounce of urine. Grains.	Specific gravity.
1	1030.8 1029.5	18	1048.6
2	1009.2 1025.6 1031.2	19	1031 1037.8
4	1028.5 1029.6	20	1033.0 1037.8 1039.0 1042
5	1013.8 1014.4 1027.8 1029.6	21	1032.8
6	1034.4	23	1033.4
7	1029.4 1033 1035.4	24	1032.0 1035.0 1035.4 1036.8 1043.4 1044.4 1045.4
8	1027.3		
10	1029.2 1031.0	25	1030.0 1033.9 1044.8 1045.8
12	1024.5		
13	1033.4 1043.4 1045.0 1045.4 1045.4	26	1034.6 1037.8
		27	1037.6
		29	1041.2
14	1023.2	30	1035.4 1040 1042
15	1028.5 1030.1		
16	1032.4 1034.0 1034.8 1035.0	33	1033.4 1040.5
		34	1044.0
17	1025.6 1030.2 1035.4	37	1039.4 1043.4

The want of any correspondence between the amount of sugar and the specific gravity is very striking. Thus, 13 grs. to the ounce have a higher specific gravity than 37 grs. to the ounce. 24 grs. to the ounce in six different specimens give widely different specific gravities, proving that no dependence must be placed on any tables for calculating the sugar.

Or the following table from the urine of a single patient, aged 21. The analyses were made between February and November by Mr. Kemp, of Edinburgh:—

Specific gravity.	Quantity of sugar per ounce urine. Grains.	Specific gravity.	Quantity of sugar per ounce urine. Grains.
1023	2.2	1031	14 5
1025	2.1	1032	17.5
1026	4.0	1033	6.0
1027	0.7 4.5 4.5	1034	8.0
1028	14.5	1035	10.0
1029	3.3 2.5 3.	1036	5.5
1030	3.6 7.2	1038	7.5

Here is another case, with greater variations in the specific gravity. The sugar was determined by the saccharimeter:—

Specific gravity.	Quantity of sugar per ounce urine. Grains.	Specific gravity.	Quantity of sugar per ounce urine. Grains.
1013.8	5	1034.0	16
1014.4	5	1035.4	7 17
1023.2	14	1037.5	19 20
1025.6	2	1038.3	3
1028.5	4	1039.0	20
1029.6	4	1043.4	13
1030.0	15	1044.4	24
1031.0	10	1044.8	25
1031.2	2	1045.0	13
1032.2	24	1045.4	13
1032.4	16	1045.8	25
1033.4	13	1048.6	18

What are the Symptoms of the Disease?

In slight cases there are literally no symptoms at all. In the Medico-Chirurgical *Transactions*, vol. 36, p. 424, you will find this case: A gentleman, aged 63, in 1847 consulted Dr. Watson, who wrote me this note. "He calls himself well, and seems eminently so. Stout, fat, and ruddy; eats and drinks heartily and indiscriminately, and has no dyspepsia. Perspires copiously. Makes much urine, and often by day and by night, and has done so these forty years. Says his pulse occasionally intermits, and has long done so. I found it steady and at 80 in the minute. His father died of diseased heart at 77. My patient had some bronchial trouble last winter. Had lately some redness of the toe for a day or two. Comes to me that I may see what he is when well, as he means to put himself under my charge whenever he is ill." He had noticed some floating substance (not sand) in his urine, and was curious to know what it might be. I found the urine had specific gravity 1032·0, and it contained slight but decided evidence of sugar. In a year and a-half another examination found more sugar, and four years after that I found three grains, and on another occasion five grains of sugar to the ounce. There were no other symptoms of diabetes.

Usually the sugar acts as a diuretic and causes thirst, whilst the appetite is often voracious; but although much is eaten the strength and flesh rapidly fall off.

A girl, aged 18, was in St. George's Hospital April, 1852, who said she eat a two-pound loaf at each meal, and that she drank a pail and half of water daily. She passed twelve pints of urine in twenty-four hours, and rapidly grew thin and weak.

A labourer, aged 32, when admitted, told me his water ebbed and flowed. The greatest flow, he said, was seven gallons, the ebb five pints.

With regard to the loss of flesh take the following statements:—

A gentleman, aged 62, at the beginning of the disease lost two stone in three months.

Another, aged 37, in August, 1852, lost fourteen pounds in five days, passing two gallons of urine, sp. gr. 1050, daily.

A Physician, aged 72, told me that in four or five months he had lost forty pounds weight, but he regained most of his loss.

The following is the best example I can give you of the symptoms in an acute case:—

On the 15th of September, 1852, I was requested to see a gentleman, about 35 years of age, who six weeks previously was quite well, and shooting in Scotland, where he drank freely of whisky and took excessive exercise. He at that time passed a considerable quantity of urine, which he attributed to the whisky, and yet he was advised to consult me when he returned to London. So that he must have had some doubts about the cause of the excessive secretion.

When he came back he was depressed, and had great trouble with his bowels. He, however, after staying from his occupation for some days returned to it, and was getting better when he was attacked by great constipation of the bowels, much weakness, dry tongue, and soreness of the throat.

I saw him in bed: he could at first hardly speak, from apparently nervous anxiety and dryness of the mouth. There was no soreness of the throat to be seen. The tongue was quite clean. The pulse 110, and very feeble. The skin harsh and dry. He was not very much emaciated. The urine was clear, not above two pints. He had had a very confined motion, which he said burnt his inside in passing. He had a very unquiet night. The pupils were natural. The

head quite clear, and after some time he spoke in a good voice, and complained only of weakness. I examined the lungs and heart, and they were all quite healthy. I could find nothing wrong with the abdomen: it was rather hard and retracted. He did not complain of thirst, and could eat nothing. I had some trouble to persuade him he was far more anxious about himself than he ought to be, and that he was doing himself harm by it. I urged him to take jelly and brandy, and said that I would see him again after I had examined the urine.

On my way home I remarked to his Medical man that possibly it was a case of acute diabetes, and that if so he would die.

On examining the urine it had specific gravity 1030, and contained sugar.

The following morning I went to his Medical man to tell him he had diabetes: he said, "I was coming to you to tell you he is dying."

I saw him at half-past twelve on the 16th of September, perfectly comatose, and I tried in vain turpentine injections and blistering with ammonia. He died in about an hour.

The prognosis in diabetes depends chiefly on the nature of the attack, and on the constitution and age of the patient.

It is very difficult to decide upon the severity of an attack, because the disease does not usually proceed at a uniform rate. At one time the chemical change of the vegetable and animal sugar seems almost entirely stopped. Sugar, thirst, thinness, and weakness increase rapidly. After a time a reaction occurs. The sugar may almost or altogether disappear from the urine. The symptoms may pass away, and some part or all of the flesh and strength lost may be regained. Anywhere in the course of the complaint such a halt may occur, and the disease may stop for months or years. In some rare cases even the worst possible diet appears not to affect the progress of the complaint. Sufficient chemical change goes on to supply the heat and the force of the body, and sufficient nutrition takes place to keep the organs healthy. In this condition scarcely any exertion of physical or mental power is possible. It is sufficient work to live, but with care life may so last for years.

The increase of urine, of debility, and of emaciation in any fixed period may be taken as indices of the severity of the attack during that time, but not at any other, for the disease may become more or less severe; so that the future cannot be surely known from the past.

The goodness or badness of the constitution as regards diabetes usually may be estimated by the family disposition and by the weight of the patient. That a mode of chemical action should be propagated from parent to child, or that many children of the same family should lose the power of changing sugar into carbonic acid and water are examples of the law that like begets like. This law is so universal that in this instance as in other instances it is apt to be used as a solution when it is only a cloak for a difficulty. The transmission of peculiar features, habits, and dispositions is just as inexplicable as the inheritance of imperfect chemical change of sugar in the human body.

A shoemaker, aged 51, was in St. George's Hospital, having suffered from diabetes for four years. He had two daughters, one 12 the other 5. The eldest was healthy; the youngest was admitted with diabetes, having been ill about six months. She died before her father.

I was asked about a suspected diabetes in a boy whose sister had died when she was 7 years old, after being ill two years with diabetes. Another sister died of the disease when 4½ years old, after one year's illness; and a brother died when 15, after three years' illness. Post-mortem examination showed no tubercular disease in any of the three children.

If, then, there is a family history of diabetes, the constitutional worth of the patient may be estimated by inquiring into the intensity of the disease in other members of the family; for sometimes only a very slight disposition to diabetes is inherited.

I have attended three brothers, all clergymen, the eldest died aged 74; the second is now 68, and the youngest is a year or two younger. All of them have had intermittent attacks of diabetes. In the eldest I found sugar in the urine thirteen years before his death. In the second, sugar was found by Dr. Prout sixteen years ago, and he is now in good health, with sugar occasionally, not constantly, in the urine. In the youngest I found sugar eight or nine years ago, and he is now, I believe, in good health. This instance shows that occasionally the inherited disposition may induce only a very slight form of diabetes. Great accumulation of fat is also an inheritance in some respects allied to diabetes. Obesity may depend on an arrest of oxidation of fatty matter, and Dr. Prout long since remarked the tendency of fat people to diabetes. The increased liability is compensated by the mildness of the attack. The store of oleaginous fuel seems to counteract the waste, and sustain the force of the body, and the greater the accumulation of fat, the less the loss of the saccharine food appears to be felt. On the contrary, very thin people, having no supply of oleaginous food in reserve, are unable long to endure the continuous loss of the saccharine fuel, on which half the force of the mainspring of the body depends.

If, then, the patient is fat and the family history is good, the constitution may be considered most fitted to resist or to recover from an attack of diabetes.

Lastly, in the prognosis, the age of the patient must be taken into account. In the eighteenth volume of the *Med.-Chir. Trans.*, page 421, I have stated that in twenty-nine cases of diabetes eleven were above 60, and six above 70; and of these eleven all but one had the disease so slightly that it could hardly be known by the general symptoms. The diabetes of old age is rarely severe, but exceptions do occur, and at page 428 I have given a case in St. George's, aged 74: thirteen pints of water in twenty-four hours were passed, and in four months the disease was fatal.

The age of the youngest diabetic patient I have known was three years and a-half. The specific gravity of the urine was 1037. No sugar was in the urine on October 31, but it was found on December 14. The patient lived not quite one year. The sister was five years old when the sugar was first found. The highest specific gravity of the urine was 1043. She lived twenty months.

Hence, a very thin and very young child, in whose family severe diabetes is known, who is rapidly losing strength and weight, passing much water, is the worst possible case of diabetes; whilst an old, stout man, in whose family no diabetes, or very slight diabetes, is known, who loses no strength or weight, and passes but little more than two pints of water, may almost be considered as having no disease at all.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CASE OF OVARIAN GESTATION.

By G. H. CASE, M.R.C.S.

On Friday last my father received a warrant from the coroner to make a post-mortem examination of the body of a woman who had died under the following circumstances:—Her husband took an order from the relieving officer to the parochial Surgeon to see his wife, and stated that she was ill, complaining of pain in the belly. The Surgeon told him he was just then going out, and that he would see her next morning, at the same time giving him some medicine for her. About half an hour afterwards she died.

On examination the body was well nourished, and there were no bruises or other marks visible. On opening the abdomen the whole cavity was full of blood. On removing the coagula, a fœtus, contained within its membranes, and floating in the liq. amnii, was seen lying on the intestines. We found that it had been contained in the right ovary, which had burst and allowed its escape. The placenta was still partially attached to the cyst, and on separating it completely a mass of decolorised fibrin, about the size of an egg and surrounded by coagula, lay between it and the cyst wall. The fœtus was a male, well formed, and about five months advanced. The left ovary was healthy; the uterus was enlarged to about the size of a closed fist, and lined by a thickened and congested decidua.

The following account of the symptoms was given in evidence to the jury:—Between eight and nine o'clock in the morning the woman complained of pain in the abdomen; this pain continued all day, and on her husband's return from work she asked him to "fetch a Doctor." He went to the Surgeon between seven and eight in the evening. Shortly after this she became much worse, vomited, and was then laid down on the bed, exclaimed "Oh, my back, my back!" fainted, and died. She was forty-two years of age, and had had one child three years ago. She supposed herself six months pregnant, and during the day some bloody discharge and coagula passed from the vagina.

It is clear that the rupture of the cyst could only have taken place just before death, but I think it probable that the pain she suffered during the day might have been caused by the partial separation of the placenta. That this detachment took place during life was evidenced by the mass of fibrin.

This case shows the desirability of a post-mortem examination in all cases of sudden death where an inquest is considered necessary. In this instance, the coroner did not intend to order an examination of the body till pressed to do so by the Practitioner to whom the Medical order had been taken. Then the cause of death would not have been known, and the jury, in all probability, would have reprimanded the Surgeon for not attending at once, under the impression that her life might have been saved by prompt attention.

Fareham, Hants.

SPONTANEOUS COAGULATION OF URINE.

By A. W. STOCKS,
Surgeon to the Salford Hospital.

J. W., AGED 27, warehouseman, married; sanguine temperament; has a fine soft transparent skin; has had gonorrhœa and iritis; never had syphilis; otherwise well. About nine years ago had a dry scaly eruption over the whole body, desquamating in large patches. The nails became corrugated and thickened by a deposit like plaster of Paris under them. Had sulphur-baths twice a-week, and recovered in about three months.

July 6, 1862.—Has a severely itching eruption like urticaria over the whole body, most intensely on the back of the hands and perineum, extending from the latter situation up the groins and down the inside of the thighs. The skin on the palms of the hands is hard and dry, cracking at each flexure, and there exudes from each crack a thin watery fluid. He had warm and Turkish baths, which greatly aggravated his distress.

August 12.—As the symptoms now seemed to divide themselves into two classes, viz., those connected with the skin and those connected with the urinary organs, I have arranged them accordingly.

The eruption on the skin is now vesicular, discharging a thin, straw-coloured fluid, which, drying up, covers the whole body with scales, most severely on the extremities, comparatively little on the trunk. When these are removed the skin is seen, red, thin, tender, and covered with small papules, and a thin fluid exudes rapidly, which, drying again, forms scales. The palms of the hands and soles of the feet are covered with the thick cuticle, with a pulpy feeling underneath, and when pressed upon there exudes a large quantity of milky fluid from the cracks at each flexure. The skin of the sole of the feet came off *en masse*. This process was repeated during the attack. All the nails came off, and were replaced by brittle masses, thickened as if by a layer of plaster of Paris underneath, and corrugated like an oyster-shell; they gradually became healthy. All the hair fell off. The mucous membrane of the mouth is red and tender. The conjunctivæ are reddened, and the eyelids constantly adhere. From each ear exudes a thick, yellowish discharge, which, gradually becoming thinner, at last ceased. There was numbness and pain in the fingers and toes, which were useless for three months; and though the fingers are much better, the numbness and pain in the toes continue even now, but more moderately. There was intense itching at first, but that gradually disappeared.

This state of matters continued from August until the middle of December, being most intense in October; and during this period the following symptoms were observed connected with the bladder, etc.:—

There is great pain over the kidneys, in the perineum, and about the anus, the passage of fæces aggravating the latter much. There is no tenderness in the prostate. There is continuous oozing of urine, with frequent and painful micturition, about half an ounce of urine passing at each attempt. Masses, about the thickness of an ordinary lead pencil, one inch to one and a-half inch long, very like pieces of tripe, were pulled from the urethra three or four times a day for a week. The urine itself is clear, highly albuminous, and when allowed to stand in a vessel coagulated spontaneously into yellow transparent masses, exactly like half melted calf's-foot jelly, floating in the fluid part of the urine—about half the urine being solid and half liquid. These masses again became fluid in about twenty-four hours, leaving floating in the urine thin cobwebby films. This continued about two weeks, the spontaneous coagulation ceasing, but the albuminuria continuing.

Under the microscope ($\frac{1}{4}$-inch), the white masses appeared to consist of wavy lines interlacing each other in all directions, and in great abundance, entangling numerous epithelial scales, and pus and blood corpuscles.

The yellow jelly-like masses had the same appearance, except that the wavy lines were far apart: in the former case the lines covered the whole of the field thickly; in the latter, only three or four lines appeared, the interstices being filled apparently with clear urine.

The cobwebby films appeared to be the fibres of the last fallen together, the fluid part having exuded. There were no fibrinous casts of the uriniferous tubes to be found.

These symptoms continued for a similar period to those of the skin, but the above peculiar appearances were seen only during October, when the skin disease was at its height; and at the present time the urine is slightly albuminous, containing a few pus corpuscles. The micturition is very frequent, and there is occasional severe heavy pain in the perineum increased by exposure to cold.

The treatment consisted of infusions of pareira brava, uva ursi, triticum repens, opiates, diaphoretics, and belladonna suppositories, but the greatest relief followed the exhibition of Tr. ferri sesquichloridi in drachm doses thrice a day, with generous diet, and the irritation of the skin was much allayed by the use of a lotion composed of a drachm of sesquicarbonate of soda dissolved in a quart of water.

Although the symptoms seemed to divide themselves into two classes, I am inclined to think that they arose from one disease—namely, an inflammatory eczema attacking both skin and mucous membranes, and that as fibrinous exudations were poured from the skin, in like manner fibrin was poured out of the mucous membrane of the bladder sufficient to produce the appearances related above.

I have failed to discover a case of a similar nature in any of the works which I have consulted, and should be glad to hear of any case that would throw some light on this, to me, most interesting one.

6, Crescent, Salford.

INSANE PAUPERS.—The annual return of insane paupers in England and Wales at the beginning of the year has been issued. The return is made up to January 1, 1864, and includes all but a few parishes rendering no account. The total number of paupers in receipt of relief on that day was little over a million—a considerable decrease (of above 130,000) as compared with January 1, 1863; but the number of insane paupers had increased, and amounted to 37,576, of whom 27,590 were lunatics and 9986 idiots. Thus, the pauperism ascribable to insanity, which was 3·17 per cent. of the whole pauperism on January 1, 1863, was as much as 3·7 per cent. on January 1, 1864. In every 100 insane paupers, 44 were males and 56 females. The distribution of pauper insanity appears to be very unequal. Thus, at the date of this return, London had among its 103,468 paupers as many as 5859 insane; the south-western counties had among their larger total of 108,628 paupers only 8705 insane. So, also, in the eastern counties among their 80,771 paupers there were but 2456 insane, and in Wales also only 2432 out of a total of 79,841; but stepping across the Welsh border into the west-midland counties (including Stafford, Warwick, Worcester, and Gloucester), we have 4887 insane, double the last two numbers, among the not so greatly increased total of 104,894 paupers. Of the 37,576 insane paupers, the number in county or borough lunatic asylums had risen to 20,257; the number in workhouses was still as large as 9608.

THE LIVERPOOL NORTHERN HOSPITAL AND ITS MEDICAL OFFICERS.—At the annual meeting of supporters of the Liverpool Northern Hospital the report was read by Mr. Charles Inman. It stated that "in reference to the action brought by a person in the employment of the corporation, named Hodge, against the hon. Medical officers, in which the plaintiff had been nonsuited and condemned in the payment of costs, it appeared that he had been quite unable to meet that liability; and as it would otherwise fall upon the hon. Medical officers, the committee had thought it only right that the charity should bear the cost, which made an extraordinary item in the expenditure of £120." We think the committee have set a worthy example to charities whose Medical officers are unhappily placed in similar circumstances.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. GEORGE'S HOSPITAL.

TABULATED REPORT OF THIRTEEN DEATHS FROM PYÆMIA OF THE YEAR 1864—JAN. 1 TO DEC. 31.

(For these notes we are indebted to Mr. PICK, Surgical Registrar.)

No.	Name and Age.	Disease or Injury.	Operation (if any) and Date.	Date of Commencement of Symptoms.	Remarks.
1	John W., 29; admitted Feb. 8	Fracture of right leg and left ankle	..	First rigor Feb. 25, 17 days after	He fell from a scaffold. Admitted with compound fracture of right leg, the wound being an inch long, and the end of the bone sticking out of the wound. Also, fracture of left tibia into ankle-joint. Rigors and sweating, followed by drowsy stupor and icteric tinging of skin; his pupils were contracted, and he was delirious at night. On the 26th he complained of pain in both shoulders and knees, and these joints became swollen; he had also slight hæmoptysis. He died March 3. Post-mortem.—Lungs congested in patches, and contained two small pyæmic deposits. Pus in pelvic cavity, and two sloughy abscesses in liver. Both knee-joints full of pus.
2	Elizabeth G., 43; admitted Feb. 28	Wound of finger	..	Day of admission first rigor	Was a midwife, and had attended a fatal Midwifery case on 22nd, having at the time a small wound on finger. Tongue red and dry; pulse quick and weak; countenance anxious. On March 1 her left ankle became painful and swollen, and she had another rigor. She became delirious, and died March 6. Post-mortem.—Near the apex of the left ventricle of heart was a small, round patch of discoloration on the surface, which covered a little circumscribed patch of a yellowish colour in the muscular substance. This was supposed to be a very early stage of pyæmic deposit. Lungs congested. The femoral and iliac veins on the left side were filled with coagulum. The arm was not examined.
3	Thomas D., 50; admitted Jan. 6	Pus in knee-joint; ulceration of cartilages	Amputation of thigh Feb. 26	March 15 .	Shivering and profuse sweating day and night. Stump sloughy; great amount of unhealthy discharge. On March 18, pain in belly, followed by delirium and death on March 25. Post-mortem.—Buff-coloured consolidation of lungs. The femoral vein contained a softened-down, buff-coloured coagulum. There was a large abscess in the abdomen in front of the psoas muscle, communicating with diseased bone upon the neck of the acetabulum by a funnel-shaped tube passing through the great sciatic notch.
4	Sarah T., 40; admitted March 23. (From Med. Reg. notes)	Delivery at full period (three weeks before admission)	..	March 18 .	On admission, right hand red and swollen; pulse low and weak; tongue raw; much wasted; anxious countenance. Died March 30. Post-mortem.—Right wrist contained pus; left knee a quantity of serous fluid. Iliac veins and vena cava natural.
5	William W., admitted June 8. (From Med. Reg. notes)	Spontaneous (?)	..	May 29 . .	Admitted in a state of great prostration, he stated that ten days before he had been attacked by rigors; since then he had had repeated attacks and profuse sweating. On admission, pulse was full and soft; skin hot and sweating; tongue dry and furred; intellect quite clear. He died from exhaustion on June 13. Post-mortem.—Lungs infiltrated with serum. On the surface of the heart were several extravasations of blood under the pericardium; these were found to cover deposits of soft, purulent lymph in the muscular substance. The right knee-joint was full of creamy pus, and there was a small quantity of semi-purulent fluid in right elbow and both shoulders. A small pyæmic deposit in kidney.
6	Thos. W., 30; admitted Oct. 22	Wound of hand on 18th	..	First rigor Oct 21	Was admitted with pyæmia; great pain in chest, and difficulty in breathing; bloody expectoration and constant cough; abscess at seat of wound; arm swollen, and covered with purplish streaks. Died on 23rd. Post-mortem.—None. Treated with sulphite of soda and stimulants.
7	Edw. S., 59; admitted Oct. 20	Compound fracture of leg	..	First rigor Oct. 28	He had also a large scalp wound, which was attacked with erysipelas; he had repeated rigors and profuse sweating; pulse very quick and weak; muttering delirium. Died Nov. 3. No post-mortem. Treated with sesquichloride of iron and stimulants.
8	Olivia Ann W., 13; admitted Aug. 31	Disease of hip; dislocation on the dorsum ilii	Excision, Oct. 27	First rigor Nov. 3	Suffered great pain after the operation, and had two attacks of secondary hæmorrhage; wound became very sloughy; had repeated rigors; the face became jaundiced; pulse extremely quick and weak; constant sickness and restlessness. Bark. ammonia, wine, and brandy. Died Nov. 9. No post-mortem,
9	Geo. P., 30; admitted Sept. 28	Fistula in ano	Division of sphincter, Oct. 10	First rigor Nov. 5	After the operation he went on well, though the wound refused to heal till Nov. 5, when he had a severe rigor, and there was a slight erysipelatous blush around wound. From this date he had daily rigors, constant sickness, followed by low, muttering delirium, and he died Nov. 12. Treated with brandy, bark, and ammonia. Post-mortem.—Pus in left pleural cavity; circumscribed abscesses in both lungs; large quantities of pus in peritoneum, smeared over the intestines; several abscesses in liver; the iliac veins and venæ cavæ healthy.

No.	Name and Age.	Disease or Injury.	Operation (if any) and Date.	Date of Commencement of Symptoms.	Remarks.
10	William H., 55; admitted Oct. 27	Strangulated hernia (?)	Exploratory operations, Oct. 29	First rigor Nov. 6	This patient had a tumour in the scrotum and most of the symptoms of strangulated hernia. An exploratory operation was performed, and an old hernia sac opened. His symptoms were relieved till November 6, when he had a severe rigor. The following day he had pain and swelling in left shoulder. He had constant rigors, cold sweats; tongue red and raw; pulse very quick; hiccough, and rapid emaciation. Treated by brandy, bark, and ammonia. Died November 12. No post-mortem.
11	George B., 64; admitted Nov. 15	Compound fracture	..	First rigor Dec. 1	The wound became very sloughy, and abscesses formed up the leg. Daily rigors. Constant sickness. Inability to take his nourishment. Death on December 7. Treated with brandy, bark, and ammonia. No post-mortem.
12	Sarah D., 29; admitted Nov. 16	Necrosis of tibia	..	First rigor Nov. 30	Admitted in a low, hectic state, with large abscesses in leg; the whole length of tibia became exposed and bathed in pus. She had frequent rigors and profuse sweating, followed by cough and purulent expectoration, mixed with blood. Treated with bark, wine, and ammonia. Died December 17. Post-mortem.—Abscesses in lungs.
13	Anna C., 22; admitted Nov. 25	Abscess of breasts from suckling	..	First rigor Dec. 12	She had intense pain in belly, anxious countenance, rigors, furred tongue, and quick pulse. Two days before death she had great dyspnœa. Treated with bark and chloric ether, wine, brandy, and opium. Died December 20. Post-mortem.—Pus in pleuro and peritoneal cavity.

GUY'S HOSPITAL.

CASE OF HYDROPHOBIA—DEATH—AUTOPSY.

(Under the care of Dr. OWEN REES.)

For the notes of the following extremely rare and interesting case we are indebted to Mr. Wootton Bushell.

Hydrophobia is a disease so very rare, that, Dr. Wilks says, this is only the second case admitted into Guy's since his connexion with the Hospital. One little circumstance mentioned to us by Dr. Wilks is not alluded to in the report. It is sometimes said of persons affected by hydrophobia that they "barked like a dog." It is generally believed that this statement is due entirely to the bystander's imagination. Now it seems that in this case the patient did occasionally make a strange explosive noise, which, although not like the bark of a dog, yet resembled it enough to account for the origin of the popular notion alluded to. The bite was several weeks before the symptoms set in. In the other case Dr. Wilks had seen the bite was several *years* before the actual outbreak. That case was a well-marked one, but the interval was so long that it is hard to believe the hydrophobia to have been connected with a wound inflicted at a time so very distant.

George R., aged 13, admitted into Guy's Hospital under Dr. Rees, January 16, 1865. Has always been a healthy boy; father and mother, and numerous brothers and sisters, alive and well.

On December 18, twenty-nine days ago, as he was returning home from school, he was bitten in the upper lip by a large dog. This dog was then under treatment for madness, but had got loose in some way. The dog subsequently bit a little girl slightly in the hand, and was immediately afterwards killed by a butcher with an axe. The boy went to a Surgeon's at Greenwich directly he had been bitten, and within a quarter of an hour the edges of the wound were pared and adapted by pins and strapping, as in the operation for hare-lip. The pins were removed in nine days, and very soon afterwards the wound was healed. The mother says that he had severe rigors just before the pins were removed; they came on twice a-day, and lasted about a quarter of an hour.

The boy was in his usual health after the wound healed, and, according to the mother, even sharper and quicker than previously.

On Thursday afternoon, January 12, however, he began to complain of headache and lassitude and stiffness of the face, which commenced in the right side (where the scar is), and afterwards extended to the left. He slept well that night.

On the following day he still had more or less headache, and the stiffness of the face continued.

On Friday night he was restlesss.

On Saturday he was about the same, but began to lose his appetite, which up to that day had been very good. In the afternoon, however, he went out shopping with his mother. He was very restless that night.

On Sunday morning at breakfast he first felt a difficulty in swallowing liquids, and had a spasm when trying to drink his tea, and stiffness of the neck came on. He swallowed a teaspoonful of gruel on Sunday with difficulty, but has taken nothing to eat or drink since.

On Sunday night he was very restless, and did not sleep at all. At 2 o'clock in the morning he asked for a draught of cold water, but could not swallow, as the attempt brought on a spasm. He was again offered drink, but could not take any, although thirsty.

State on Admission at 12 *o'clock on Monday Morning.*—He has an anxious, frightened expression of countenance. The intellect is quite clear, and he answers questions intelligibly, although unwillingly, because talking seems to bring on spasm of the cervical muscles. He had a convulsive attack when first placed in bed, owing to the draught caused by throwing a blanket over him. The scar on the right side of the upper lip is like that after the operation for hare-lip, with the marks of the pins on either side. He says that there has been no pain, itching, nor numbness in the part, and there is no evident inflammation nor swelling. He complains of pain in the neck and face, but there is no spasm when in bed. The breathing is very peculiar, accompanied by sighing; respirations 14 to 16, laboured. Pulse 92 to 98, irregular.

When a glass of wine was brought he declared that he could not take any, but when pressed he raised the cup to his lips with a determined air, and succeeded in swallowing a little with much difficulty; but immediately spasm of the cervical and thoracic muscles came on with a general convulsive fit. He then fell back into the bed exhausted and panting for breath. When asked some time after to take more he refused, and seemed almost to have a spasmodic attack at the thought of it.

2 p.m.—Continues in the same condition. Has had no more spasms. On trying again to drink some wine, he succeeded in swallowing about half a teaspoonful, but with much distress, and a spasm came on immediately afterwards. Respiration variable—14 to 18. Pulse very irregular, varying from 88 to 102 in a few moments. Dr. Rees ordered him to be kept as quiet as possible, and curtains to be placed round the bed to keep off draughts.

℞. Quinæ Disulph. gr. vj.; acid. sulph. dil. ♏ x.; vin. rubri, aquæ ää ʒj. fiat; enema 2 dis horis. As much port wine as possible; but only to be given at intervals of three hours.

4 p.m.—Pulse 98, irregular. Respiration 16, sighing and irregular. Complains of stiffness of the right arm. Injection at 4.30, retained. Refused to take wine.

5 p.m.—The pulse 104, irregular. Respiration as before. He complains of pain in both arms, coming on with the paroxysms, which are slight, the respiratory muscles being chiefly affected. They begin with a slight cough, followed by rigidity of the cervical muscles, and quick, sighing respirations.

6 p.m.—A spoonful of wine was administered, followed by the usual convulsions, and also by paroxysms of pain in the

legs as well as in the arms. The pain went off in a few seconds.

7 p.m.—Pulse 104; respiration 14. Has had two or three slight spasms during the hour. Complained of the light, and asked to have the gas turned down. He then for the first time wanted to spit, and with difficulty spat up a little thin mucus. Injection given and retained.

8 p.m.—Has been starting up in bed with a sensation of choking; complains of aching pain in the epigastrium. He asked for cold water. Some wine was brought in a mug; he held it for a moment, and then asked for a spoon; this he thrust into his mouth with a determined effort, but immediately spat out the wine, saying that he could not swallow. This was followed by spasm. Complained of the light of the fire, and curtains were put up. The spasms are frequent, more severe, and excited by any noise. The injection was repeated; but he passed it directly afterwards with some urine, the first since admission. Pulse 100, weaker; resp. 22.

10 p.m.—The spasms having become more frequent and severe, attempts were made to administer chloroform, but these caused violent spasms and a burning sensation, as of mustard, in the throat. He threw himself out of bed during one severe spasm. Another injection given, c. tr. opii. mxxx.

11 p.m.—Has had several spasms during the last hour, shrieking out apparently in great pain, and trembling all over. Is becoming strange in his manner.

Tuesday, 12·15 a.m.—Has been somewhat quieter. Asked for bread and butter, and swallowed a little without any spasm. He then asked for drink; but the sight of fluid caused a spasm, which was increased when he tried to drink. He said that his "throat was stuffed up." Asked the gentleman attending "to breathe away from him."

1 a.m.—After a good deal of trouble, we administered another injection (with opium). Before this he had continuous attacks of spasm, passing rapidly from one to another for eighteen minutes; after which he seemed quite exhausted, and panted for breath. He wanders in his mind.

2 a.m.—Quieter; has only had two or three spasms since the last injection.

3 a.m.—For the past forty-five minutes has been in a state of constantly recurring spasms. At the onset of a severe spasm he springs up in bed; then puts his hands furiously to his throat, as if to tear something away; the head is thrown violently back, the mouth open, and the eyeballs protruded; then he makes several expiratory efforts, sometimes with a shrill screaming cry, the head is thrown violently from side to side, and the hands tossed wildly about, beating his chest and striking anything that is near; the spasm generally ending by the expectoration of a viscid mucus, which recently has been tinged with blood. The passage of the enema tube caused a spasm, but the injection was retained. Pulse 114; respirations very irregular, and so interrupted by the spasms that they cannot be counted.

3·35 a.m.—Spasms continue, but, perhaps, somewhat less frequently. He has much trouble with viscid mucus, putting up his hands to tear it away from his mouth during the spasms. He asked for drink, and when wine was given him he took two or three spoonfuls hastily, just managing to swallow them before a spasm came on. He then asked for bread and butter, and ate some, though several times he was interrupted by spasms; before finishing it, however, a severe spasm came on, and he vomited the whole into his hands, and threw the vomit to the other side of the room. Respirations taken between the spasms 32 per minute.

4·15 a.m.—Is in a state of almost constant agitation, throwing himself about in the most frantic manner. Skin so irritable that the least touch throws him into a spasm. Says he is hungry, but that trying to eat brings on a violent spasm. He keeps jumping out of bed and crawling about the floor and under the bed. Mind wandering very much.

5 a.m.—Spasms continue very severe. He rolls about the bed, throwing his arms and legs about most violently. Vomits and spits a large quantity of a thin matter mixed plentifully with blood. Is wildly delirious.

6 a.m.—Has become so excessively violent that he is kept in bed with the utmost difficulty. Fights and struggles most violently, screaming, shouting, and spitting in all directions.

7 a.m.—The violence of the struggling is abating, and the delirium now assumes a playful character; he tosses his arms about in a choreic manner; keeps coughing and hawking up a viscid bloody mucus. An enema had been administered at 6·30, which before was quite impossible. Respirations laborious, and accompanied by a peculiar cry; pulse very irregular, and so weak as hardly to be felt, 150 to 180.

7·45 a.m.—Quieter, but still rolls about in the bed, and tosses his limbs. Intellect somewhat clearer, but still wandering. Answers questions intelligibly. When asked if he was thirsty, he said that he should like something to drink, and on wine being offered, he swallowed a mouthful pretty well with coughing and some spasm, and then asked for more, drinking altogether from two to three ounces, with very little general spasm only of the pharyngeal muscles. The mouth is filled with an adhesive frothy mucus, which he cannot spit up. Respiration less laboured; pulse somewhat stronger—114 to 120.

8·15.—Seems exhausted; going into a state of low muttering delirium, with twitching of the limbs. An enema was administered before 8 without any apparent effect.

8·25.—Is becoming insensible; pulse imperceptible; extremities cold. Died at 8·30 very quietly, apparently from syncope.

A post-mortem examination was made by Dr. Wilks, but nothing was seen, with the exception of redness of the back of the tongue and fauces, and some injection of the larynx and upper part of the trachea. Nothing was seen on a superficial view of the brain and cord, but the pons, medulla oblongata, and spinal cord are in the hands of Mr. Durham for careful microscopical examination. As these parts will require to be hardened by chromic acid before sections can be made, some time must elapse before we can give the results of Mr. Durham's researches.

KING'S COLLEGE HOSPITAL.

EXCISION OF PORTION OF THE SCAPULA FOR TUMOUR.

(Under the care of Mr. FERGUSSON.)

An interesting case of tumour of the scapula, for which excision of the greater part of the bone was necessary, was performed on Saturday last by Mr. Fergusson. The patient, a girl of 19 years of age, stated that the tumour had been growing to its present size for about four years, causing her pain of a continuous gnawing character. The tumour appeared to occupy the whole of the dorsum of the scapula, was hard, though elastic in parts, and the skin was freely moveable over it. The joint seemed unaffected.

The patient was placed under the influence of chloroform, and Mr. Fergusson commenced his operation by first making an incision into the tumour vertically in order to discover its nature. Finding it to be connected with the bone only, he next made an incision parallel to the spine of the scapula, joining the first incision near the acromion process, thus making a V shaped flap; next by dissecting up the integument he exposed the whole tumour. He then sawed through the bone just below the spine, and dissected the mass from the underlying muscles. Several fragments of bone were clipped away with the forceps, as they seemed affected.

The tumour was of the fibrous variety, about the size of a cocoa-nut, and was probably recurrent. It had caused absorption of the scapula from its pressure, and in the tumour were spiculæ of bone. It extended forwards to the ventral aspect.

There was very little hæmorrhage, three or four small vessels requiring ligature. The wound was brought together by sutures, and a pad placed over it and bandaged on.

Up to the present time (January 16) the patient has been doing well. We shall give further particulars of the progress of this interesting case.

At the next meeting of the Metropolitan Association of Medical Officers of Health, on January 21, Dr. Letheby will show the means of testing the illuminating power and chemical quality of coal-gas, and the circumstances which affect the result; with experimental illustrations. The engineers of the various metropolitan gas companies will be invited to be present.

Illness of M. Malgaigne.—This eminent French Surgeon, who has just been elected President of the Academy of Medicine, while endeavouring to fulfil the duties of his office, although in bad health, on the occasion of the discussion on M. Depaul's report on vaccinal syphilis, was observed to fall into a state of stupor. The meeting of the Academy was broken up, and its President conveyed home, and we are glad to hear that he afterwards rallied considerably.

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Medical Times and Gazette.

SATURDAY, JANUARY 21.

THE CASE OF TIMOTHY DALY.

A free press, like most other good things, is not an unmixed blessing. It has its inconveniences and, even in England, its abuses. In America we all know that this freedom has long ago degenerated into licentiousness, and that the most profitable qualifications for the *litterateur* are plenty of imaginative faculty and a proportionate contempt for truth. We are far too patriotic to allow any similarity between ourselves and our Transatlantic neighbours in this particular; but we are forced to confess that the liberty of which we are so proud occasionally permits grievous wrongs to be done under its sanction. Take, for example, the case at the Holborn Workhouse, which has occupied the attention of all England during the past fortnight. How many of the non-professional readers of the *Times* were there, fourteen days ago, who were not convinced that Mr. Norton was either a monster of inhumanity or at least a most incapable and negligent person, regardless of the welfare of his patients, reckless of their sufferings, indifferent to their deaths, and careful about nothing except to save himself trouble and the guardians expense? These opinions were founded primarily on certain *ex parte* letters which were published in the *Times* newspaper; they were supported by the verdict of a coroner's jury, the members of which, before they entered on the inquiry, could hardly help being prejudiced by the statements they had read; and they culminated when a sensation leader from a weekly paper, imputing to Mr. Norton crimes of the deepest Professional dye, received the sanction of the leading journal by being reproduced in its columns. Now that a full and searching inquiry has taken place into the whole matter, that evidence from every available source has been obtained, and that everything which can possibly be urged against the treatment Daly received has been allowed its full weight, the thunder of Jupiter sinks to the lowest growl, the *Times* meekly acknowledges that no individual appears to have been to blame, and contents itself with attacking the system of workhouse Hospital management. But, we ask, does this retraction really remove the stain which has been thrown on the Professional character of the Medical officer? Will one half the public who have read the former assertions believe the latter; or will they not rather conclude that a fresh varnish has been given to the facts, and that, in the elegant phraseology of Mr. Lowne, the evidence has been "squared?" We leave it to every one of our readers who have had any experience of the charity, generosity, and fairness which generally actuate people in forming their opinions to answer these questions.

To the Medical Profession it is difficult to over-estimate the importance of this case. Two questions are involved in it which have been treated by the general press as if they were convertible, carrying the same signification, and incapable of any but one and the same answer. The first is—Did Mr. Norton, of the Union Workhouse, neglect his duty in the case of Daly? The second—Did Daly die from exhaustion produced by bed-sores? These inquiries have been regarded as so far synonymous that an answer to the second in the affirmative has been everywhere written and talked of as involving an affirmative reply to the first. The Profession know full well that under the most careful attendance and skilful nursing bad forms of bed-sores will occasionally occur; but this is not the doctrine which has been promulgated to the public; the result is, that an attempt has been made to throw upon a Medical officer a responsibility which, if generally admitted, would prevent any reasonable man from undertaking the conduct of any serious case of illness. Who would practise the Profession of Medicine, were public censure to be meted out, not in proportion to the care bestowed and the merit of the treatment pursued, but in proportion to the amount of attendant success?

It has, however, been asserted that Mr. Norton *did* neglect his duty in the case of Daly, and the assertion has been supported by a reference to the statements said to have been made by the patient whilst lying in, and after his dismissal from the Workhouse Infirmary. That there may be no mistake on this point, we shall recapitulate the facts in evidence which bear on Mr. Norton's treatment—facts sworn to by eye-witnesses, and not the hearsay evidence of Irish lodging-house keepers and *dilettanti* potato dealers. In the first place it was clearly established that Mr. Norton saw Daly every day, with two or three exceptions, during his six weeks' residence in the Infirmary. This does not rest merely on Mr. Norton's statement, but is proved by the evidence of the nurse and wardman. As soon as Mr. Norton learned that bed-sores were beginning to form on Daly, he examined him, and repeated his examination every two or three days whilst he was under his care. This, also, does not rest on Mr. Norton's unsupported statement, but is corroborated by the nurse and the wardman. With regard to the medicines ordered, Mr. Norton asserts that he placed Daly, when first admitted, on the alkaline plan of treatment, administering bicarbonate of potass, and, in addition, he gave Dover's powder and mild aperients. When a typhoid condition supervened, however, he changed the medicines for carbonate of ammonia and bitters. Throughout the treatment Daly was ordered a supporting diet,—meat, beef-tea, milk—two pints daily,—and from two to four ounces of wine, in addition to from half a pint to a pint and a-half of beer. This evidence given by Mr. Norton is entirely supported by that of the master and the attendants. It is, moreover, confirmed by the unpaid Roman Catholic priest who visited Daly on four or five occasions during his stay in the Workhouse Infirmary, and to whom Daly never once complained of neglect or ill-treatment, and who bore most important evidence as to the generally excellent hygienic condition of the ward in which Daly was placed, and which he asserted contrasted most favourably with the state of Hospital wards he had visited both in Ireland and on the Continent. With regard to the local treatment of the bed-sores, it appears that when they were first observed the nurse, without consulting Mr. Norton, applied Fuller's earth; that afterwards, when Mr. Norton became aware of their existence, he ordered poultices of linseed meal, which were afterwards changed for poultices of linseed meal and beer grounds; and Mr. Norton also asserts that he ordered the use of a disinfecting fluid. The use of Fuller's earth as a desiccant and absorbent is such a stereotyped practice with nurses, and it is so harmless, and in some cases so effective withal, that it may pass without challenge. Fuller's earth is, as our readers well know, a fine powder, free from grit, composed chiefly of silicate of alumina with a proportion of magnesium and iron. Altogether, before continuity had become broken, we cannot conceive that the soft absorbent powder could have been productive of anything but good, and even afterwards it is difficult to

suppose that it could have done harm. The propriety of poulticing Daly's sloughing wounds seems to have been acknowledged on all hands. He was poulticed by Mr. Norton; he was poulticed by Mr. Lowne; and finally by Dr. Andrew in St. Bartholomew's Hospital. The choice of a disinfectant need not detain us. Mr. Lowne preferred charcoal poultice; Mr. Norton, fermenting poultices of beer grounds, analogous to the *Cataplasma Fermenti* of the British Pharmacopœia. The beer-ground poultice is a very old disinfectant application. It is quoted from the Pharmacopœia of Guy's Hospital by Pereira, and it may be supposed to possess all the virtues of any other form of fermenting poultice evolving carbonic acid. With regard to it, as well as to the Fuller's earth, it must be remembered that neither remedy is less efficient because it is popular or because it is cheap.

It seems—on the authority of Dr. Goodfellow, of the Middlesex Hospital, we state it—to be an open question whether water beds or air cushions are useful in the treatment in these cases. For ourselves, we can only say that we believe them to be most valuable adjuncts. But be this as it may, we have ascertained by inquiry that there were none at Mr. Norton's disposal, and we know enough of the nature of Boards of Guardians to be well assured that any request by a Medical officer for these expensive appliances would have had scant chance of being listened to.

One point more. It was endeavoured to be shown by Mr. Lewis, the attorney who appeared for Mrs. Daly and the "committee of gentlemen," that it was Mr. Norton's duty to examine Daly's sores on each visit, and even to apply the poultices himself. With regard to this, we can only say that a daily examination, necessitating as it would the turning a heavy patient agonised with acute rheumatism on his side, in addition to the changes necessitated by nursing, would have been as inhuman as unnecessary. Such a proceeding could not have been productive of good that would not have been more than counterbalanced by the suffering inflicted, and we have no hesitation in saying that few Hospital Physicians or Surgeons in London would have felt bound to its performance.

We have thus summed up Mr. Norton's treatment in this case, and we leave it to our readers to judge whether it was not sufficient for the Surgical and Medical management of the patient, and was not such as might reasonably be expected to conduce to a favourable result. We believe that with the one exception of not having personally entered the notes of Daly's diet and treatment in the Infirmary books, he has come out of this inquiry with unblemished official character. That the case was an unfortunate one we do not deny, but it must be remembered that a patient in a Workhouse Infirmary is not, and cannot be, surrounded by all the appliances of the rich, all the luxuries of the sick room. It is not reasonable to expect that the poor should be better off in illness than the persons who are taxed to support them; and how many rate-payers are there in the Holborn district who would not be able to afford the luxury of a water bed at the cost of £14, and even the daily attendance of a Doctor, were they unfortunate enough to be in Daly's situation?

It is, however, high time that we turn to the second question, which we maintain is entirely apart from the first. Was Daly's death occasioned by exhaustion consequent on bed-sores? On this we have the direct affirmative testimony of Dr. Andrew, who made the post-mortem examination. Dr. Andrew's report of this examination we publish elsewhere. It will there be seen that besides the bed-sores there were other and grave sources of danger in Daly's case. The man had recent pericarditis and endocarditis, pleurisy, and œdema of both lungs. These conditions taken together with the signs of partial asphyxia he exhibited when taken into the Hospital,—the blue lips and difficult respiration, might point to a concurrent cause of death, but in the face of Dr. Andrew's direct testimony we do not advance such an opinion. The occurrence and progress of the bed-sores remains, therefore, to be accounted for. In the first place, Daly was a heavy, emaciated man. He told Mr. Lathbury, who first saw him, that he had been suffering from rheumatism for some time, but had gone to his work as long as he could. He was, therefore, suffering from a blood disease. He had had no proper nursing, and for three days before his admission to the workhouse no proper nourishment. When admitted he was in a filthy condition, and is said to have been very weak. He perspired so profusely that it was necessary to change his bedclothes every day. Three weeks after his admission he fell into a typhoid state; his tongue became dry, and sordes collected on his gums and teeth. It is not improbable that sudden loss of the high meat and beer diet to which, as a navvy, he had been accustomed, and the substitution of the more varied and less stimulating diet of the Workhouse Infirmary, might have been prejudicial to him, but the diet which he first received would probably not have differed much from what would have been prescribed for him in any Hospital in the kingdom. It must be remembered, also, that during the eight days which elapsed between his removal from the workhouse and his admission to St. Bartholomew's we have no certain information as to the amount of food and stimulants given him. Mr. Lowne trusted entirely to the occupants of the Irish lodging-house in this matter. Their evidence given at the Coroner's inquest and at the Holborn Workhouse is somewhat contradictory. The only meat which, at the inquest, he was stated to have had was two mutton chops on the two first days. He had neither wine nor beef-tea, nor broth every day, and he was, moreover, placed in an attic eleven feet square and seven feet high, with a shelving roof, in a low lodging-house, where the proprietor and his wife and son attended him, and, it seems, spent their chief time, night and day, in the room. Under these circumstances we think it more than probable that the bed sores, instead of getting better, became rapidly worse after Daly left the Infirmary, despite Mr. Lowne's Peruvian balsam, charcoal, and ten grain doses of bark.

There are two or three other points we had marked for notice in this case. We have already ventured to criticise Mr. Lowne's evidence before the coroner as evincing but little consideration for the Professional character of a brother Practitioner, and as not giving due weight to the probable difficulties of the case. That gentleman, in his evidence at the Holborn Workhouse, stated that it was not his custom to avail himself of the assistance of his colleagues, the Physicians and Surgeons of the Farringdon Dispensary, in cases requiring more than ordinary discrimination and attention; but remarkably enough he appears to have had a strong faith in the Medical knowledge and talents of the Honorary Secretary or the Institution, who is by profession, we believe, a potato dealer. Without disputing either the benevolent intentions or the scientific acquirements of the latter gentleman, even as exemplified in the examination of numerous patients and the diagnosis of female complaints to which he deposed, we cannot but think that some of the excellent staff of the Farringdon Dispensary would have afforded Mr. Lowne all the assistance, and even a better corroborative opinion, than his friend the Honorary Secretary. For the rest, we are quite ready to accept Mr. Lowne's statement that he was actuated by no feeling against Mr. Norton, and that his motives throughout were entirely and purely benevolent.

There is another point which, in justice to Mr. Norton, we are bound to notice. It is, that he had applied, on his first taking office, for the appointment of paid nurses to the Infirmary, and his application had been refused. Such a result would not encourage him to make fresh demands on the generosity of the Guardians. We cannot criticise at length the arrangements of the Poor-law Board for the care of the sick poor of this country. We need only observe that to expect that compulsory shall equal voluntary schemes of benevolence, either in excellence or completeness, is to look for too much from human nature in general, and from that of Boards in particular. Hundreds will be willingly subscribed to Hospitals by people who grumble at the parish

rates, and regard the collector in the light of a natural enemy.

There is one other inquiry which forces itself on our notice. How came it that Daly, a man earning from 3s. 9d. to 4s. a-day, or, in round figures, £60 a-year, and whose wife was receiving board, lodging, perquisites, and £14 a-year as housemaid at a City hotel, emolument which may be safely estimated at £40 per annum, or between them an annual sum of £100, who had no children, who paid no assessed or parochial taxes, who was in reality far better off than many a struggling rate-payer, should come on the parish for relief on the third day of his illness? The improvidence of the Irish labourer is proverbial, but is it not fostered by the indiscriminate manner in which parish relief is granted?

A CLINICAL LECTURE INVERTED.

We are familiar enough with clinical lectures in which Physicians and Surgeons tell us what they think of their patients; but it is rare to meet with a patient who tells the public what he thinks of his Doctors. This has now been done by Mr. Arnold J. Cooley,(a) who appears to be a *litterateur* by profession, and to possess a considerable amount of information on Medical topics. He has besides just that amount of *egoisme*, and of keenness of observation, which prompts a man to record his own sensations and observations minutely, and to consider few things as trifles which affect himself. His book is well worth reading as a narrative of Hospital practice and management, as seen from a patient's point of view, and it will furnish some useful hints to the managing bodies.

The author had long been living in seclusion, and injuring his health by literary labour and anxiety, when early one morning in January, "after a hasty breakfast"—with "injured health and shattered nerves"—he set off from Chiswick for London. There he seems to have been harrassed with tedious and disappointing calls; and, returning home, as it seems, fasting, he was knocked down by the pole of an omnibus, and—which most likely a stronger man with a cool head would have avoided—cruelly trampled on by the horses. He was soon taken to the Charing-cross Hospital, and put to bed in the accident ward, with severe laceration of the scalp, one ear almost torn off, fracture of the right collar bone, and some severe injury of one leg and ankle. From this moment to that of his leaving the Hospital, he gives a vivid and most minute history of his thoughts, sensations, and sufferings; of his despondency by day, and delirium by night; of his dietary, treatment, and visitors: of all that went on in his own mind, and in the wards around him, which may well make any one thank the Almighty for preservation from similar calamities.

The accident was painful enough, but the mere physical suffering seemed to have been mastered by the bewilderment and prostration of mind and body which accompanied it. Real agony seems to have begun with the waking next morning. The bandages seemed to compress the throat and chest as in an iron vice; the right arm was benumbed by pressure; the injured leg horribly painful,—not so much, be it observed, from the injury as from its being covered with cold-water dressing, and laid on a piece of oil-cloth; so that it felt as if frozen on a bed of cold iron or marble. In fact, he speaks most vividly of the sufferings occasioned by ice and other cold applications in himself and others, and of the shifting of position resorted to in order to escape them. Most practical men find out whether the temperature of local applications is such as to be grateful to the patient or not, as it seldom can be the case that what is very painful is beneficial. Whether the inquiry were omitted, or why the patient did not complain in the present instance, does not appear.

Then followed an attack of erysipelas, so early as the fourth day. Certainly the patient was predisposed, if any one ever was, to take such a complication; and he passes over with considerable delicacy the fact that a patient had died of erysipelas in the same bed eight or ten days before. Out of the 240 pages of which the work consists, fully 100 are devoted to the *ægri somnia* and delirious imaginings which the author-patient experienced during the acute stage of this terrible disease. Altogether, they seem to have been an agreeable diversion rather than otherwise, and we must say that whilst doing justice to the fulness with which they are recorded, we skip a great many pages uncut in order to reach the account of the still greater miseries of a slow and painful convalescence.

Considering the poor man's condition and disease, it will be palpable that stimulants and nourishment were the "sheet-anchors." Beef-tea, eggs, and brandy were, therefore, ordered to be fully administered, and were supplied by the Hospital; but it is clear that when Surgeons, and especially young House-Surgeons, talk of a "liberal allowance" of these things, they have little notion of the actual quantities required. For instance, the House-Surgeon assured our patient's wife, who wished to add to her husband's allowance, that he had ordered the largest quantity that was "safe or desirable;" and this was only four or five eggs per day. The instincts of the patient and his wife turned out, however, to be far better guides than the House-Surgeon's notions of what was safe or desirable; for the good woman brought six or seven more of the largest eggs she could procure, and administered one every hour, and without this it seems clear the patient would have sunk. But what becomes of poor creatures who have no such wife to visit them? A good hint is evidently to be got here.

On more than one occasion the patient brought his knowledge of Surgical appliances into collision with the recommendations of the Surgeons, and seems to intimate that the Hospital *armamentarium* was scantily supplied with various kinds of splints. His statements on this point, however, may be taken with some qualification, and are by no means proofs that he knew what was best.

Every Hospital patient cannot be so sensitive or so keenly alive to the nature of a joke as Mr. Cooley, but the fact that he suffered considerable annoyance from various attempts at jocularity is worth bearing in mind. Patients may be amused if possible, but any jokes founded on their own state or sufferings will probably give pain.

The patient seems to have been keenly alive to the clinical remarks made by the Surgeon on the nature of suppuration under the scalp, as well as to the touch of the "score or more of eager fingers tapping and manipulating the tumour." The Surgeon pointed out that "in such a well-defined case as the present one, all attempts to produce absorption or dispersion failed. The only remedy was bold incisions completely through the scalp with the knife; and that *on his next visit* this must be done, as further delay would be dangerous." The same day that the head was opened, eight ounces of gin were substituted for wine and brandy, a change which was not relished.

The observations on the duties and qualifications of nurses are sensible, and show the importance of making it worth the while of respectable and intelligent women to take the situation. The author nearly lost his life from secondary hæmorrhage one night, which the nurse on duty did not notice. It would have been just the same in a private house unless the accident had been foreseen, and the nurse specially enjoined to watch; but then a nurse who understands secondary hæmorrhage could hardly be set to scrub a floor. One night nurse to fifty patients is not enough.

The dispensing department comes under the author's criticism, and with justice, if, as he says, "putrid infusion of calumba, with lumps of green mould floating in it," was served up for quinine mixture. But the culinary department is spoken of with great praise; and one of the few cheerful passages in this very dismal book relates to the comfort derived from "full diet" during convalescence.

The writer gives the history of some few of his fellow-

(a) Two Months in a London Hospital: its Inner Life and Scenes. A Personal Narrative. By Arnold J. Cooley, author of "Cyclopædia of Receipts," "Dictionary of the English Language," "Latin Grammar," etc. London: Groombridge. 1865. Pp. 240.

patients, including that of a youth whom he affirms to have bled to death after the removal of a small tumour from the neck—(a case of which we should be glad to have an authentic version), and of another youth who broke his thigh because, as Mr. Cooley intimates with a sort of pious savagery, he broke the "Sabbath." If this youth belonged to the sect of Muscular Christians, he might fairly retort on Mr. Cooley as a man who got nearly trampled to death becaue he broke the laws of food, air, and exercise which the Creator has ordained as necessary for the preservation of health.

On the subject of large or small wards in an Hospital, Mr. Cooley speaks with a conscious air of superiority. After saying that it has been much disputed of late years, he adds :—

"I fear that many of the disputants were practically unacquainted with either of them; and that none of them spoke on the subject from knowledge acquired by actual residence as a patient in an Hospital. The utter desolation of a ward containing two, three, or even four beds, is horrible. There is no privacy. Every act is commented on; everything disagreeable is doubly perceptible. In a large open ward it is very different. There each patient sees one or more like himself, and all feeling of diffidence is lost. He can meet with some others to mix and talk with; something to engage his attention, and to pass away the time; and, more than all, fellow patients who will be very ready to assist him, and at least one nurse always within call. The reverse of all this is the case in a very small ward. I have known patients beg as a favour to be removed to a small ward, but who will in a few days have begged still harder to be allowed to return to their former one. It appears to me that a ward of from twelve to fifteen beds is the most comfortable and convenient; one with less than ten, or more than eighteen beds, is objectionable."

One thing is palpable from Mr. Cooley's book, and that is that the moral atmosphere of the Hospital, and the kindness and attention shown to the patients by all about them, from the Surgeons downwards, deserved all commendation. If he objects to cold lotions, and to rough pressure, he does not say that even he complained of them at the time; and the author of a "Cyclopædia" may perhaps be pardoned for exhibiting his knowledge of French and American apparatus for fractures—but, be this as it may, the picture which he gives of Hospital life is an encouraging one, and he certainly has added a new book on a new subject to our popular literature.

THE WEEK.

ROYAL MEDICAL BENEVOLENT COLLEGE.

In another part of our columns will be found a report of the proceedings at the Extraordinary General Meeting of the Governors of the Royal Medical Benevolent College, held on the 12th inst. The alterations in some of the bye-laws of the College proposed by the Council, and adopted at that meeting by the Governors, are of extreme importance, and we shall comment fully upon them next week; at present we must content ourselves with heartily congratulating the Council on having at last hit on a scheme which satisfies their scruples as to the reading of the Act of Incorporation of the College, and at the same time promises to restore to some extent the benefits which it was originally intended to extend to the "less fortunate members" of our Profession; and thus heals the dissension which has for so long prevailed among the Governors and supporters of that institution. The Profession at large is greatly indebted to those Governors who have so long and earnestly pressed upon the Council the claims of their less fortunate brethren, and to no one more than to Mr. Cattlin, without whose energy and perseverance, we believe, success never would have been attained; and it is only justice to these gentlemen—"the dissentient Governors"—to say that, while they have never ceased to dispute the policy and management of the Council, they have also never ceased to work for the support and welfare of the College. If the "Exhibition and Scholarship Fund" is but fairly supported, and the plan for providing for the admission of lay scholars to the College is carried out, the whole school will be immensely improved and benefited, and an admirable education will be provided for a considerable number of the sons of hardworking and struggling Medical men at the charge of only £30 a-year—a boon the value of which it would be impossible to over-estimate. Mr. Cattlin has, we believe, already provided the funds for the admission of the first real Exhibitioner of the College; let other gentlemen show only a tithe of his earnestness and energy in the matter, and the "Exhibition and Scholarship Fund" will soon be a great fact.

SALARIES OF POOR-LAW MEDICAL OFFICERS.

We are glad to observe that Mr. Symonds, the Medical officer of the Ormskirk Union, has been granted an addition of £20 to his annual salary. The payments to Union Medical officers are a disgrace to the modern Poor-law system. They offer the strongest inducements to negligence, or at least to a perfunctory discharge of duties. Look at the case of the Holborn Union Infirmary, where the Medical officer sees and prescribes, and dispenses at his own expense, for forty patients a-day. His salary is £100 a-year, which, when £20 is deducted for drugs, leaves the magnificent sum of £80, or, on an average, 1¼d. is paid for each patient seen. We are convinced that Mr. Norton does his duty to the sick under his charge; but what is to be expected as the natural and almost inevitable effect on a public body of men of such niggard treatment? In the speech of Dr. Ashton, made before the Ormskirk Board of Guardians, in proposing an increase of Mr. Symonds' salary, he proved to the Board that they had been paying Mr. Symonds less than artisans receive for their daily labour. Let the public act fairly by the Medical officers whom they employ to attend the poor. They are always ready to receive complaints against them, and they seize with greedy avidity on the details of an unfortunate case. But neither the press nor Parliament, although frequently appealed to, have attempted to redress one of the most crying grievances to which any class in this country is subjected.

FROM ABROAD.—TRANSMISSION OF SYPHILIS BY VACCINATION.

A discussion has arisen at the French Academy of Medicine having for its object to consider whether a report of a most mischievous character should be presented to the Government on the part of this learned body. To the Academy is intrusted the duty of performing gratuitous vaccination in Paris, and encouraging by rewards its practice throughout the country, and it makes an annual report to the Minister as to the manner in which the duty is performed. This report is prepared by the Director of Vaccination, and is usually agreed to as a matter of course. This year, M. Depaul, the present Director, appended to the usual administrative report what he termed a scientific portion, in which he represents to the Minister that the transmission of syphilis by vaccination is a well-ascertained fact, calling for special precautions. When the report was read to the Academy, the usual formal sanction was at once, and most properly, denied to this portion of it; and its future consideration and discussion, under the title of "Project of a Report," was determined upon. In his projected report, M. Depaul adduces no new cases in proof of his statement, but merely refers to those which have been before the public during the last few years; and he labours with all the ingenuity of a special pleader to reconcile the numerous discrepancies there present and to apologise for the shortcomings of the corroborative evidence. He also makes a somewhat severe attack on M. Ricord for the obstinacy with which he so long adhered to the Hunterian doctrines, this being, in the reporter's opinion, a chief cause why the reality of "vaccinal syphilis" has not long since been admitted. After all, M. Depaul admits, even in his own view of the case, and with all the extreme latitude he exhibits in his reception of ill-authenticated facts, that the occurrence of "vaccinal syphilis" is excessively rare, only some thirty or forty cases being recorded,

notwithstanding the millions of vaccinations which are constantly taking place; nor is he aware, amidst the two or three thousand annual vaccinations performed by the Academy, that such an occurrence has ever been suspected.

For the prevention of this propagation of syphilis by vaccination, M. Depaul has little novel to suggest. The chief point is, he says, to take our supply of lymph from none but pure sources; and he thinks that the danger of contamination is much lessened by taking lymph from infants only after they have passed the second or third month, symptoms of hereditary syphilis usually manifesting themselves long before this period. The vacciniferous infant should also be diligently inspected from hand to foot, and the antecedents of its parents inquired into. Although M. Depaul thinks that the statement which has been made, that it is not the lymph but the blood which is the agent of transmission are doubtful, he thinks that care should be taken to take lymph quite unmixed with blood. He thinks, also, the needle is a preferable instrument to the lancet, as a smaller quantity of fluid is introduced, and the chances of infection are diminished. Of direct vaccination from the cow as a means of protection he does not think highly; for not only is there no certitude that this animal is refractory to syphilitic affection, and may not become itself the subject of other diseases liable to be transmitted to man, but there would be great difficulty in carrying the procedure out in all but very populous places. After thus doing no little to shake confidence in vaccination, M. Depaul terminates his report to the Minister in these words:—"It must not be inferred from these words and unfortunate cases now brought under your notice that vaccination has ceased to be, in the eyes of the Academy, one of the greatest discoveries with which Medicine has enriched the world. It is more than ever convinced that the propagation of this precious method should be encouraged; and it will have attained its end if, while dissipating some illusions, it succeeds in impressing upon Practitioners that the practice of vaccination must be accompanied with the minutest precautions." Fine words these; but how little likely to have effect after the alarm has been sounded, that the poison of syphilis may be lurking in the innocent-looking vaccine pustule; and, as M. Ricord observed in his crushing reply, what a time to spread unfounded reports of the dangers of vaccination when variola has everywhere of late exhibited proofs of regenerated virulenee, and is indeed the true enemy to be contended with. M. Leudet, of Rouen, states that in the course of a few months, of 1,600 cases of variola occurring in that city, 130 have died. And at such a crisis the doctrine of "vaccinal syphilis" is to be transferred from the regions of scientific discussion to those of official life and general publicity! If the facts were all well and clearly demonstrated, the utility of their propagation in that mode is more than questionable; but how destitute many of them are of authenticity, or even probability, M. Ricord amply shows. One of the cases, upon which great reliance has been placed, has been since proved, through the industry of Dr. Pacchiotti, to have been the subject of syphilis prior to being vaccinated. M. Guerin observes, in face of the great mortality due still to variola:—

"So far from placing vaccination in suspicion of a complicity with syphilis, it would be far better to extend its application, and purify it in the eyes of the public of the accusations which have been made against it. We must not forget that M. Depaul formerly, in a moment of revolutionary vertigo, advocated the reintroduction of inoculation, which would indeed have been to introduce the wolf into the sheepfold. Now he seeks to sow fear and distrust, which is scarcely better, when vaccination needs all its credit, and when even all the truth may not be safely spoken. We agree with M. Ricord that we are not enough enlightened in this matter, and that it is dangerous, under the pretext of a love of progress and scientific severity, to exaggerate the bearing of this small number of cases of 'vaccinal syphilis.' No one can suppose that such prudent reserve could act as an impediment to progress; for, in truth, the attention of vaccinators cannot be too forcibly drawn to the possibility, however rare this may be, of vaccine lymph becoming contaminated by the poison of syphilis; not in order to prematurely alarm the public, but to teach Practitioners how to better recognise and appreciate facts, and especially inducing them to seek for the means of preventing or remedying this deplorable complication. In this direction lies true progress, and good service may be rendered in place of discrediting and bringing into question the benefits of Jenner's discovery."

DR. ANDREW'S REPORT OF POST-MORTEM EXAMINATION OF TIMOTHY DALY.

(From the Shorthand Writer's Notes.)

Ward John. Timothy Daly, aged 29, navigator, died December 25, 11·30 a.m. Examined December 27. Exhaustion from bed sores.

Body emaciated; right lower extremity extremely œdematous; several red blotches over left tibia, similar ones on the right forearm and hand; one on the trunk immediately over the right nipple. Large sores over the trochanters, that over the right $3\frac{3}{4} \times 2\frac{3}{4}$, but the integument is undermined for a distance varying from one to two inches, and a probe can be passed down the outer aspect of the thigh for seven inches, the trochanter and top of the thigh bone being denuded for a distance of full three inches. Over the left trochanter is a similar sore $3\frac{1}{2}$ by $2\frac{1}{2}$ inches, its edges also undermined, and the top of the femur exposed for four inches. A superficial sore on the lower part of the sacrum, not exposing the bone.

Thorax.—Pericardium, a few adhesions easily breaking down at the base and at the posterior surface of the right ventricle, the subjacent membrane vascular. The outer surface of the pericardium is also slightly adherent by recent lymph to the inner aspect of the right lung.

Heart.—13 oz. Proportions of cavities apparently natural. All the cavities contain moderately firm clots; on the right side the valves are natural, but on the aortic valves at their points of junction and along their lines of attachment are fibrous nodules, and their lunated margins are also thickened and opaque. The endocardium in the left ventricle appears also somewhat opaque, and there is slight thickening of the free edge of the mitral valve. Aorta healthy. Pleura—No adhesions in either, except on the lower lobe of the right lung, where there is a little reeent lymph with a few ecchymoses.

Lungs.—No tubercle detected in either. Left œdematous, especially in the lower lobe. Right very œdematous, their tissue greatly softened, but no part sinks in water.

Trachea and Bronchi.—A little viscid mucus; their membrane not congested.

Bronchial Glands slightly enlarged; soft, but not much congested.

Pulmonary Artery natural.

Liver.—4lb. 10 oz.; a little pale. Gall bladder contains a little thin bile.

Supra-renal Capsules appear natural.

Kidneys.—Left, $6\frac{1}{4}$ oz.; right, $5\frac{1}{2}$ oz. Capsules separate naturally; on section a little pale.

Ureters.—Both natural, but the left is rather smaller than the right.

Bladder contains some inspissated urine.

Stomach contains a considerable quantity of curdled milk.

Intestines appear natural throughout.

Large dark clots are pulled out from each femoral vein.

Head.—Pia mater somewhat congested, but the brain appears natural throughout.

Back.—Great œdema of cellular tissue in lumbar region.

Dorsal Muscles well developed.

Spinal Cord apparently a little softened throughout, but no change of colour.

THE COLLEGE LECTURES.—Professor Huxley, F.R.S., will commence his course of twenty-four lectures on the Mammalia on Monday, February 6, and will be followed by Professor Fergusson. The lecture days are now Mondays, Wednesdays, and Fridays.

THE LATE MR. GUTHRIE.—At the anniversary meeting of the Paris Surgical Society an oration upon our distinguished military Surgeon Guthrie, as Foreign Associate of the Society, was delivered by M. Legouest, himself holding the foremost position in the French army.

REVIEWS.

A System of Surgery, Theoretical and Practical, in Treatises by various Authors. Edited by T. Holmes, M.A. Cantab., etc. Vol. IV. London: Longman and Co. 1864. Pp. 1079.

The fourth and concluding volume of this work fully maintains the reputation of its predecessors. The authors of the several essays of which it is made up are judiciously selected, as will appear to any one acquainted with the favourite studies of the gentlemen whose names are appended to the monographs. For whatever may be said in disparagement of *specialities*, we all of us have some one or more branches of Surgery or Surgical art in which we somehow feel a higher interest than we do in others, and to the cultivation of which we devote our time and labour more zealously, and with greater pleasure to ourselves. The duty and interest of an editor of such a work as this would be, while taking care that all his contributors were men of broad and comprehensive minds, to avail himself to the fullest extent of the advantages that the bias of each towards his favourite topic would be likely to confer.

The essay with which the volume opens is written by Mr. S. J. A. Salter, of Guy's Hospital. It is upon the "Surgical Diseases connected with the Teeth," and includes the subjects of alveolar abscess, painful and difficult eruption of the wisdom teeth, tumours of the gum and tooth pulp, abscess of the antrum, dentigerous cysts, alveolar and maxillary necrosis from phosphorus, hæmorrhage after extraction of teeth, and the application of obturators and false palates in cleft palate, etc. All these are subjects of great importance. The author dwells very fully upon the subject of impaction of the lower wisdom teeth from misdirection, and upon the very serious results which sometimes follow, especially when the crown takes a forward, and especially a forward and outward direction. When the impaction is severe and not likely to be remedied by time, and when evil results are imminent, it is clear that either the offending tooth must be extracted or the second molar must be removed; and although, as a general rule, the former step is to be preferred, yet when the second molar is carious or necrosed, or the wisdom tooth cannot be reached on account of the rigidity of the spasm of the masseter, the second molar should be extracted, even if sound. Mr. Salter thinks that when this has been done, and the wisdom tooth has consequently attained an improved position, so as to be habitually used in mastication, as the second molar normally is, it is less liable to caries. Another excellent section is that on abscess of the antrum. The author alludes to that remarkable condition of the cavity to which Mr. Cattlin directed attention three or four years ago, in which, by a septum of bone projecting from its wall, a complete pocket may be produced, within which an adventitious body, such as the fang of a tooth, may be concealed; which, although undiscoverable by the ordinary methods of exploration, may, nevertheless, be producing an immensity of mischief in the antrum. In speaking of hæmorrhage after the extraction of teeth, while recommending the lint-plug saturated with turpentine or tannin as the best local application, Mr. Salter very properly dwells upon the necessity of viewing these serious hæmorrhages as indications of constitutional vice, and of the importance of adopting a corresponding general treatment. We regret that any considerations arising out of the necessity for preliminary discussion of physical questions, and especially out of limitation of space, deprived the possessors of this volume of the benefit which would have resulted from a brief discussion of the principal topics connected with Dentistry proper. It will necessarily be that these volumes will take the place of a host of separate treatises in the case of emigrating Surgeons and Practitioners in remote localities, and we submit to Mr. Holmes that the subject is one of sufficient importance to these classes of readers to warrant the devotion of some pages to it in a future edition. The bulk of the volume would not be very greatly increased, while its usefulness would, for Dentist-Surgeons are not to be met with everywhere, while the need for the practice of the art of dentistry is tolerably universal. A village or colonial Surgeon should be as capable of stopping a tooth as of extracting one successfully, and should be a judge of the condition under which the one operation or the other is to be preferred.

The section on "Diphtheria and Croup" is written by Dr. Barclay, of St. George's. In the former disease he condemns as "meddlesome" the activity with which some Practitioners apply caustics and astringents several times a day to the throat. We agree with him in his opinion that what is requisite is not an escharotic, but simply an astringent application, and that whatever benefit is to be hoped from this kind of topical medication is to be gained from weak and not from strong applications. The following extract embodies his views upon the benefits to be anticipated from tracheotomy:—"It may be assumed, then, first of all, with tolerable confidence that when the general symptoms indicate that the attack is comparatively mild, while the danger of suffocation is imminent, tracheotomy does give a chance of life in cases otherwise all but hopeless, and that it certainly does give prompt and certain relief to the suffering immediately caused by dyspnœa, than which nothing is harder to bear. But no Surgeon ought to undertake the operation, even in such circumstances, without fully explaining that relief, and relief only, from impending suffocation is its object. Secondly, when the dyspnœa is less intense, it becomes a question whether the relief to the breathing may not help forward the process of cure which Nature is working out; or it may rather be said whether the existing amount of dyspnœa does not materially hinder the recovery, and render it more uncertain. The French Surgeons are disposed to answer in the affirmative; and the opinion is shared by many among ourselves; but the practice is clearly not one that can be urged as necessary in the present state of our knowledge. Thirdly, in many severe forms of the disease, we may well pause before recommending the operation, because it is no longer a question of the possible saving of life, but one merely of giving temporary relief. The patient is in a condition most unfavourable for the operation; and, even setting aside the chances of an immediately fatal result, the fact of the operation having been performed is very apt to tell unfavourably on the issue."—p. 71.

Mr. Pollock, of St. George's, contributes the section relating to "Diseases of the Mouth and Alimentary Canal." Thirty pages nearly are most usefully occupied by discussing the very important subject of "Intestinal Obstruction," and it is illustrated by reference to cases. We are somewhat astonished, however, that no reference whatever is made to the labours of Dr. Brinton, the most philosophic contributor to the knowledge which we possess of this most difficult subject.

The subject of "Diseases of the Rectum" is taken by Mr. H. Smith. He dwells at some length upon the use of nitric acid in the treatment of internal hæmorrhoids, as originally recommended by Dr. Houston, of Dublin. He tells us that after a large experience of its use he has never witnessed anything like dangerous results, while its grand advantage in these busy days is that it is not necessary to confine our patient to his bed after applying the remedy.

An excellent treatise on "Hernia," extending over 100 pages, many of them closely printed, is contributed by Mr. Birkett, of Guy's, whose name will be sufficient to satisfy the reader that it is all that can possibly be desired.

The next hundred pages are occupied by Mr. Henry Thompson in an essay upon "The Surgery of the Male Urinary Organs,"—kidney, bladder, prostate, and urethra. There can be no necessity for us to tell what he has to say upon this subject, nor to dilate upon the rich store of experience on which he can draw for the benefit of his readers. His views upon all practical matters also are already well known. The subjects of "Urinary Calculi and Lithotomy" are treated by Mr. A. Poland, and "Lithotrity" by Mr. C. Hawkins. He is opposed to the employment of chloroform in this operation on several grounds—first, because the operation is not a painful one, and the operator who does not use chloroform is better able to ascertain to what extent the patient is able to bear the operation at each time; and, secondly, because the bladder does not retain the water so well when chloroform is employed. Still sometimes it is absolutely necessary, and Mr. Hawkins relates two cases in point.

Then follows a section upon the "Surgical Diseases of Women," written by Mr. J. Hutchinson, of the London Hospital. In discussing the treatment of "ovarian dropsies" he considers *seriatim* the several Surgical remedies that have been employed for their cure—repeated tappings, the several schemes for obliteration of the cyst cavity by compression after paracentesis, the establishment of fistulous channels, the exhibition of mercury, and the injection of the cysts with iodine, and lastly, the practice of complete extirpation of the tumour. Speaking of iodine injection, he says, "we must bear in mind that the dangers consequent on a mistake in the differential diagnosis between ascites and ovarian disease are much greater if iodine be injected than if ovariotomy be

attempted. Such mistakes have occurred: and it is precisely in the cases most suitable (were the diagnosis correct) for injection treatment—those, namely, of thin-walled single cysts—that the mistake is most likely to happen. Then, again, if the tumour be multilocular, it is exceedingly probable that the secondary cysts will be irritated by the inflammatory processes set up in the larger one. Even when the chief cyst has to all appearance been permanently obliterated, the Surgeon can never feel confident that there may not be others left behind it, which, sooner or later, will enlarge. To these drawbacks we must add, that even in the most suitable case it is quite possible that the patient may be poisoned by the iodine, or may sink under the attack of cyst inflammation which follows its use," p. 525. Mr. Hutchinson holds that the verdict of the Profession at large in favour of ovariotomy as a radical cure has been given, and that the operation does not now need any defence. He gives a succinct account of the customary method of performing it, discusses the still debated questions which relate to the mode of performing it, and gives excellent rules for after treatment. In replying to the question "Why has ovariotomy been appreciated more highly of late years than formerly?" he says, "The new method of keeping the end of the pedicle outside the abdomen is, I believe, the chief improvement of recent times. No doubt something has been done in the introduction of more cautious after treatment, especially in the comparative disuse of opium. But the chief amongst the reasons of the advance of ovariotomy in general favour is, *that it has been largely and openly tried*," p. 532. Mr. Hutchinson's account of the operation is the best we have yet seen in any systematic work on Surgery that has yet come under our notice.

"Diseases of the Male Organs of Generation" is written by Dr. Humphrey, of Addenbrooke's Hospital. Not by any means the least important topic he discusses is what he calls "functional disorders of the testicle," embracing a series of subjects respecting which the Practitioner should not only have the clearest views, but which demand from him in practice the exercise of a sound judgment and much discretion. This class of troubles, too, has Medico-legal as well as Surgical bearings, and is treated by the writer in a manner in every respect most commendable. We allude here more especially to his remarks upon "impotence" and the questions which are sometimes put to Medical men by their bachelor patients as to their fitness or unfitness for matrimony. He says, "The question of impotence, with its contingent—the unadvisability of matrimony—is one on which it is difficult to write, inasmuch as there is not much very definite to be written. In deciding it, it is usually necessary to allow a considerable margin for the nervousness of the patient. A quiescent state of the organs, consequent on long control over the passions, is not to be regarded as an obstacle, because they may be roused into activity when appropriate circumstances arise; and after a long continuance and frequent repetition of nocturnal emissions the organs usually retain sufficient vigour to admit of improvement under the influence of matrimony. It has happened to me often to be consulted on this subject; and I have very rarely felt it necessary to give a discouraging opinion. In the case of one gentleman, who from early life had been subject to very frequent emissions, who had long ceased to have erections or desire, and whom a variety of treatment, including cauterisations of the urethra, conducted by different persons, had failed to give relief, my advice was that he should remain a bachelor. Very soon afterwards he married, and had a family. It has been recommended that in doubtful cases the *experimentum* should be made *in corpore vili*. This appears to me to be useless, as well as wrong; for the experiment thus made as a test is no real test, and, as might be expected, has ended in disappointment. I know a gentleman, in every respect, I believe, well qualified to be a husband, and at one time anxious to be so, who has been prevented from marrying by the failure in this test, to which he most reluctantly and needlessly assented, in deference to the advice of an eminent Surgeon whom he consulted. The indications derivable from external appearances are of little value, and suspicions based upon them have repeatedly proved to be groundless. There are certain obvious disqualifications, such as imperfect formation or diseased condition of the necessary organs, and an entire absence of erections or desire. When such disqualifications exist, matrimony is rarely contemplated. When they are absent the Surgeon is seldom justified in giving an unfavourable verdict, the instances being few in which, by judicious treatment, the patient may not be fitted for matrimony. To the encouragement to matrimony it is well to add the hint, that though, for various reasons, the rite may not be at first consummated, yet that in all probability it will be so before long. This may prevent unnecessary disappointment or despair. I have known premature separation carried out—indeed, hurried on, by the Medical man, when there is reason to think that a little encouragement and patience might have resulted in a happy union."—P. 607.

The chapter on gonorrhœa is the joint production of Mr. Henry Lee and Dr. Marston. The author of that part which relates to the treatment of the affection objects to the use of strong solutions as injections, in what is known as the "abortive" treatment, preferring the weaker solutions repeated every three or four hours. The chapter is a summary of the most advanced knowledge of the pathology, etiology, and management of this disease.

Diseases of the breast, as might almost have been anticipated, fell to the lot of Mr. J. Birkett. After some preliminary remarks on the anatomy of the breast, general diagnosis, and general therapeia in its diseases, the author proceeds to discuss his subject under five divisions, viz.:—1. Morbid conditions of the tissues composing the breast; 2. New growths forming tumours, the elements of which, more or less, resemble those composing the gland; 3. New growths composed of elements foreign to the normal tissues of the body; 4, Diseases of the nipple, areola, sinuses, and sebaceous glands; and, 5, Diseases of the male mammilla.

"Diseases of the Thyroid Gland" is written by Mr. Holmes Coote, who says all that appears necessary upon the subject, and, so far as we can see, omits to notice no European contribution of importance to our knowledge of the chronic enlargements to which the thyroid gland is liable.

The next ninety pages are occupied by "Diseases of the Skin," the "general and constitutional affection" being partly written by Dr. Jenner and partly by Dr. Hillier; "the local and surgical affections of the skin and its appendages, as corns, warts," etc., being written by Mr. T. Smith. The arrangement of skin diseases adopted (and we are happy to see that the writers have had the good sense not to add a new one) is that of Willan, modified by the abstraction of certain members from his classes to constitute a class of "Parasitici." There is a great deal of matter in these ninety pages, inasmuch as they are closely printed in a small type.

Finally, there is an Appendix. First comes a treatise by Mr. Holmes, Mr. Brodhurst, and Mr. Shaw, on the "Surgical Diseases of Childhood." There are some admirable remarks, introductory to the subject, upon operations in childhood, and upon the special dangers to which children are exposed from shock and hæmorrhage. "The main principle to be borne in mind in operations on children seems to be this, that children bear the loss of blood, and all other causes of sudden shock, worse than adults, but bear protracted suppuration and long confinement to bed better, and are far less liable to the secondary complications of wounds. . . Our first care in operations on children must be to avoid shock. Hæmorrhage is the chief cause of shock where anæsthetics are used; but when this is not the case, pain, terror, and struggling are also most efficient causes of prostration. and more especially in protracted operations. . . Of the serious effects which may follow upon the shock, pain, and struggling of an operation, even when there is no hæmorrhage, the following example lately occurred to me:—A twin child, a few weeks old, was brought to me for advice as to a congenital tumour of the orbit, which had pushed out and ruptured the globe of the eye. In consequence of the rapid growth of the swelling, life could not long be maintained unless the disease was removed; yet the child was so exceedingly puny, emaciated, and feeble that it was obvious the least injury might prove fatal, much more so serious a proceeding as removing a tumour which filled the whole orbit, and projected a good deal on to the face. Having placed the risks of the operation fairly before the mother, I proceeded to remove the tumour without administering chloroform. The operation was finished without much blood having been lost, but then the child passed into an alarming state of syncope. Restoratives were at hand, and when by stimulation with ammonia, wet sponges dashed on to the face and throat, and artificial respiration, the process of swallowing had been regained, a little wine and brandy could be given, and the child seemed restored to life. But she soon relapsed, and appeared again to be dead,—in fact, was pronounced dead by some of those who were standing about. Artificial respiration roused her for the time; then the galvanic battery was brought into play, and applied to the chest

with marked benefit, stimulants being also constantly administered. But for three-quarters of an hour the child's life was in the most extreme danger, and as soon as the galvanism was suspended, syncope recurred. At the end of that period she recovered permanently from this alarming condition."—P. 800. With this are some excellent remarks upon the administration of anæsthetics to children. The writer says:—"It does not appear that there are any limitations to the use of anæsthetics in childhood. I have administered them at the earliest periods of life, and believe that, with proper care, operations are safer with them than without them, even in the most exhausted and puny infants."—P. 801.

The next section in the Appendix is on Surgical Fever, comprising the pathology and treatment of hectic and traumatic fever, and the treatment of cases after operation. It is by Mr. J. Croft. Dr. Harley contributes an essay upon Apnœa; Mr. Busk upon Parasites, and also on Venomous Insects and Reptiles. The final chapters are on "Surgical Diagnosis and Regional Surgery," by Mr. Holmes; "On Hospitals," by the veteran Sir Ranald Martin; and on "Surgical Instruments and Apparatus," by Mr. Holmes Coote and Mr. Wordsworth. All of these are admirable essays.

We congratulate Mr. Holmes on the successful issue of this grand and spirited undertaking.

FOREIGN CORRESPONDENCE.

GERMANY.

Berlin, December 28.

The question whether, after an injury to a nerve, its two extremities may unite again by first intention, with simultaneous rapid recovery of function, has recently attracted the attention of Continental physiologists and Physicians in a marked manner. Not only have hecatombs of dogs and rabbits been sacrificed on the altar of science for the purpose of settling the question, but there have been several Surgical cases of unusual interest under observation which have thrown considerable light upon the point at issue. One of these cases recently occurred at Paris, under the care of M. Nélaton, and was reported in the Société de Chirurgie by M. Honel. A patient was operated upon by Nélaton for a neuroma in the course of the median nerve, and a piece of the nerve, about an inch long, had to be excised. Both extremities of the nerve were then united by metallic sutures. As early as the following day, Nélaton observed some movements of the thumb and return of sensation in those parts of the skin animated by the median nerve. On the second day after operation these phenomena were quite distinct, and a week afterwards both motion and sensation were so far re-established that there could be no longer any doubt about the nerve having been quite restored to its natural condition. Most of the members of the Société de Chirurgie declared this to be impossible. Messrs. Broca and Verneuil asserted that either the observation of the case had been faulty, or the diagnosis must have been wrong from the first. There was no case on record at all similar to the one just mentioned, and physiology, as well as observations at the bedside, plainly proved that regeneration of nerves was exceedingly slow, and protracted over months and even years.

A few days after this discussion had taken place, M. Laugier related an analogous case which had just occurred in his wards in the Hôtel Dieu, at a meeting of the Academy of Sciences. The case was one of injury to the forearm, both the radial and ulnar arteries, the palmaris longus et brevis muscles, some bundles of the flexor sublimis and the median nerve being torn asunder in a transverse direction. When the patient was brought into the Hospital, hæmorrhage was so considerable that the House-Surgeon at once tied both arteries, and united the flaps of the skin by sutures. When M. Laugier saw the patient sensation was entirely gone in the whole extent of surface animated by the median nerve, viz., the palmar surface of the thumb, first and second fingers, and the radial side of the third finger; and partly gone in the skin animated by the radial nerve, viz., the index and the inferior part of the dorsal surface of the second finger; only two-thirds of the transverse diameter of the radial nerve having been torn asunder, opposition of the thumb was impossible. M. Laugier thereupon reopened the wound, and found the lower end of the median nerve free just above the annular ligament; the upper end was not visible, and for the purpose of finding it, he incised the flap to the length of about three inches, and after section of the flexor sublimis muscle, the upper end of the median nerve came to light. Laugier now united both ends of the nerve by a silk suture. The pain and fever after this operation were not more severe than they might have been after the original injury. On the evening of the same day sensibility appeared to a certain extent restored, but it was still very obtuse. The next day, however, it was much more distinct, although there was still some difference in the parts animated by the median and ulnar nerves respectively. Opposition of the thumb was easy. On the second and third days the patient was not yet able to feel pain or to distinguish heat from cold. On the fourth day the sensation of temperature had returned. M. Laugier was of opinion that the rapidity of recovery of nervous function in this case, when compared with the experiments made on animals, was partly due to a different operative proceeding, and partly to the perfect immobility of his patient; and he drew the following conclusions from the case:—

1. If after the section of a nerve, its two ends are united by suture, sensation and motion of the parts animated by the nerve may to a great extent be restored within a few hours.
2. The recovery of function is altogether rapid.
3. It is successive—that is, tactile sensation and motion return before the sensation of pain and temperature.
4. The nerve-suture causes neither particular pain nor other symptoms of a severe nature.
5. It therefore appears necessary to receive the suture of large nerves as a legitimate Surgical operation.

This first report was followed by a second, made thirty-six days after the operation, and which is to the following effect:—On the twelfth day the ligature came away, and symptoms of severe neuritis set in, viz., lancinating pains in the thumb, first, and second finger. At the same time, there was numbness in these fingers, and considerable decrease of the sensibility previously regained. The symptoms of neuritis disappeared after five or six days, and there was then gradual recovery of sensibility, although at the time of the report this was still in a somewhat unsatisfactory condition. The Academy has charged a committee, consisting of MM. Flourens, Andral, Velpeau, and Bernard, with the examination of the patient in question; and this is so much the more to be commended as the account M. Laugier has given is in several respects very loose, and his examination does not seem to have been made with that degree of caution which ought to be employed under such circumstances.

The most recent physiological experiments on this subject have been undertaken by Drs. Eulenburg and Landois, of Greifswald, who operated on all kinds of nerves—viz., motor, sentient, vaso-motor, and inhibitory—in dogs and rabbits. The general results at which these gentlemen have arrived are as follows:—If nerves are divided and afterwards united by suture, there is no tendency to healing by first intention, even if the coaptation of the ends has been most careful and aided by immobility of the limb, etc. On the contrary, there are invariably signs of interrupted conduction at the locality of the suture and lost function of the peripheral end of the nerve; that is, we observe loss of motion and of electric contractility of the muscles if motor nerves have been divided and re-united. In the case of sentient nerves there is loss of sensation; in that of vaso-motor nerves there is increase of temperature, profound disturbance of nutrition, and even gangrene; and in inhibitory nerves, loss of inhibitory influence. All these symptoms remain unchanged within the next days and weeks. The microscopical examination shows the same results, there being within the first few days after the operation fatty degeneration of the peripheral end of the nerve, just as after section without subsequent union. On the other hand, the fibres of the central end remain comparatively unchanged. The cylinder axis takes part in the degeneration. It is true that, on adding collodium, it becomes visible at the peripheral end, but its width is very unequal, and occasionally it is quite interrupted; while such changes have never been observed in the central end. The operation of nerve-suture causes, in many cases, a more or less extensive neuritis and peri-neuritis, which may even give rise to suppuration and metastatic abscesses in the lungs, and it is therefore by no means devoid of danger. It thus appears that M. Laugier's proposal of adopting nerve-suture as a legitimate operation ought to be rejected,—an opinion in which most Surgeons will probably coincide.

The treatment of disease by subcutaneous injections of medicines has now for several years been universally adopted

on the Continent for cases where there were objections to the ordinary administration of remedies, and, on the whole, with excellent results. I will to-day give you a few somewhat unusual instances in which this proceeding has been resorted to. Thus, M. Frémineau has cured a case of amaurosis of the left eye by the subcutaneous injection of a solution of the sulphate of strychnia. The case was that of a boy, aged 15, who was, on the third day of a severe typhoid fever, with predominant cerebral symptoms, affected by weakness of the left eye, which, after five days, passed into complete amaurosis. Within a fortnight he was convalescent, but the amaurosis persisted. He was not able to distinguish between light and shade, the pupil was very much dilated, and was not acted upon by light; but the ophthalmoscopic examination did not show anything abnormal. The right eye was quite healthy, and there were no symptoms of cerebral disturbance. After two months the general health was quite re-established, but the sight remained lost. M. Frémineau then made an injection of a solution of 20 centigrammes (3 grains) of sulphate of strychnia in 20 grammes (about 5 drachms) of water on the left half of the forehead, along the course of the frontal nerve. The first time he injected four drops, then twelve, then twenty, and twice thirty drops. After the second operation the patient began to see objects, but they appeared to him so small and distant as if seen through an inverted opera-glass. At the same time there was double vision. These anomalies disappeared after the third and fourth injection, and after the fifth vision was as perfect in the left eye as in the right, the iris having regained its contractility, and the left pupil being of quite the same size and condition as the right.

Another somewhat analogous case occurred under the care of Dr. Sæmann, of Königsberg. The patient, although being 80 years of age, was in good general health, with the only exception of profuse bleeding of the nose, of which he occasionally suffered, and for which a local application of the liquor ferri sesquichloridi was resorted to. One evening, having been quite well for some time before, he suddenly became totally blind; he could neither perceive objects nor distinguish between lights and shade. There were no other morbid symptoms, neither headache, nor febrile excitement, nor paralysis. A venesection of eight ounces was ordered, together with application of ice to the forehead and the eyes, and atropine was applied to the eyes in order to facilitate the ophthalmoscopic examination. A purgative of senna and sulphate of soda was also given, and perfect quiet enjoined. The pupils dilated very little, in spite of four successive applications of atropine. The examination by the ophthalmoscope did not show anything abnormal; the optic nerve appeared to be in good condition, and there was not a trace of extravasation or effusion within the eye. Six leeches were applied to the forehead the next day, but produced as little effect as all the other remedial measures which had previously been resorted to. A week after the commencement of the affection Dr. Saemann injected twelve drops of a solution of a grain of nitrate of strychnia in an ounce of water (equal to one-fortieth of a grain), in the region of the left supraorbital nerve. Scarcely two minutes had elapsed when the patient exclaimed,—"Good God! I suddenly see much clearer, I see the church steeple, the trees, I see the leaves moving." The patient was, in fact, able to distinguish large objects with the right eye as well as the left, but no small objects. Vision remained in this condition until the evening of the same day, but was again much worse on the following morning, so that the patient could only very faintly distinguish the outlines of large objects. Another injection of one-thirtieth of a grain of the nitrate of strychnia was then made, which had the same almost immediate effect as the former. The injections were now repeated six times successively, the whole quantity of strychnia injected amounting to two-thirds of a grain. At the end of the treatment, the patient could read his newspaper and play a game of cards.

The following case occurred in the practice of Dr. Friedreich, of Heidelberg:—A woman, aged 19, suffering from general *malaise* and a tumour which was of the size of a fowl's egg, scarcely moveable, of ovoid shape, and situated in a line with Poupart's ligament. It could be easily reached from the vagina, was exceedingly sensitive to pressure, had a smooth surface, and felt very firm. The external os was somewhat opened, the vaginal portion shortened and swollen; there was also a considerable muco-purulent discharge from the vagina. On pressing the left mamma a few drops of a greyish liquid came out, but there was no colouration in the areola and the linea alba. Two weeks afterwards a fresh examination was made, and it then appeared that the tumour had increased in size, the uterus being slightly displaced anteriorly. The uterus-sound could be made to penetrate with ease three lines beyond the knob, and was easily moveable in the cavity of the womb. On simultaneously pressing the tumour the motion was communicated to the sound. The patient continued feverish the whole time. Professor Friedreich, from these symptoms, diagnosed the existence of extra-uterine gravidity, and as the pain in the neighbourhood, and the increased growth of the tumour made him fear that rupture might take place, he determined on the injection of morphia into the tumour from the vagina, in order to kill the fœtus. Pravaz's syringe was for this purpose so modified as to resemble an uterus-sound in size and shape. After the first injection of one-tenth of a grain, the pain diminished very much. On the second day, one-seventh of a grain was injected, after which the fever became less. Two days afterwards the tumour had become smaller, and one-sixth of a grain was then injected. The tumour was after this no longer sensitive to pressure, and became smaller still. A fourth injection of one-sixth of a grain was made, after which the fever ceased entirely. The surface of the tumour had gradually become rugged, and it was then only as large as a walnut. Two months afterwards the catamenia returned and the patient was discharged, she being then in perfect health.

GENERAL CORRESPONDENCE.

THE INDIAN MEDICAL SERVICE.

LETTER FROM DR. F. BOWEN.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have read over the letter from "An Indian Surgeon" on the new Indian Medical Warrant and your remarks at pages 38 and 39 of this day's issue. The letter of this Medical officer is fairly and truthfully given, and I am sure you will allow me to say, in reference to your remarks on page 39,—"We are at a loss to understand the complaint with regard to the abolition of staff salaries, as by sec. 27 of the Warrant of November 7 the said staff allowances are distinctly and specifically admitted,"—that the truth of the matter lies here. This 27th section simply refers to staff allowances for Medical charge of divisional and brigade staff. The former gives 100 rupees per mensem, the latter 30 rupees only. The 300 rupees per mensem usually allowed for the charge of a European regiment is no longer given.

I am, &c.

62, Upper Berkeley-street, W. F. BOWEN.

PRYCE *v.* BOWEN.

LETTER FROM MR. BRANSTON NASH.

[To the Editor of the Medical Times and Gazette.]

SIR,—I am instructed by the Medical officers of this Infirmary to forward the enclosed correspondence, and to request the favour of your publishing the same.

I am, &c.,

BRANSTON NASH, House-Surgeon.

The Royal Infirmary, Liverpool, January 7, 1865.

Dear Sir,—Complying with the instructions of my colleagues, I beg to transmit to you the accompanying document.

I am, dear Sir, your faithful servant,

J. VOSE.

To the Chairman of the Medical Board of the Manchester Royal Infirmary.

"Liverpool Royal Infirmary, December 14, 1864.

"At a meeting of the honorary Physicians and Surgeons of the Liverpool Royal Infirmary, held on Saturday, the 24th of December, 1864, it was resolved:—

"'That the attention of the honorary Medical officers of the Manchester Royal Infirmary be called to the cause "Pryce *v.* Bowen," tried at the Liverpool Assizes, before Mr. Justice Blackburn, on Thursday last, the 22nd instant. From a perusal of the evidence given upon that occasion, it will be observed that a gentleman of education and of experience, who holds the office of Surgeon to one of the Hospitals in this district, had an action brought against him for alleged unskilful treatment of a broken arm.

"'The plaintiff's solicitors, after vainly endeavouring to procure Medical evidence against the defendant from the Profession in Liverpool, turned their attention elsewhere, and succeeded in obtaining the services of Mr. Lund, who declared himself at the trial to be "a Surgeon of the Manchester Royal Infirmary," and who gave evidence for the plaintiff, which evidence, the Medical officers of the Liverpool Royal Infirmary submit, was not to be expected from a member of the Profession who holds the appointment of Surgeon to the Manchester Royal Infirmary.

"'Signed on behalf of the meeting,
"James Vose, M.D.,
Fellow of the Royal College of Physicians, Chairman.

"'P.S.—A copy of the *Liverpool Mercury* containing an account of the trial is herewith enclosed.

"'To the Chairman of the Medical Board of the Manchester Royal Infirmary.'"

"Manchester Royal Infirmary and Dispensary,
January 5th, 1865.

"Sir,—In reply to your communication of the 24th ult., to the Medical Committee of this Hospital, I am directed to inform you that Mr. Lund is not a Surgeon to the Manchester Royal Infirmary; but Mr. Lund is one of the Dispensary Surgeons; and, inasmuch as Mr. Lund is not a member of the Medical Committee, this Board must decline entering into the consideration of Mr. Lund's conduct in his capacity as a private Surgeon.

"I have the honour to be, Sir, yours obediently,
"George Reed, M.D., Resident Medical Officer.

"To the Chairman of the Medical Committee,
Liverpool Royal Infirmary."

THE TREATMENT OF MALARIOUS FEVERS.

Letter from Dr. Macpherson.

[To the Editor of the Medical Times and Gazette.]

Sir,—My attention has been directed to a series of papers "On Malarious Fevers," by Deputy Inspector-General E. Hare, which have been appearing in your columns. They seem to be mainly a reproduction of his former papers, and of the report of the Royal Medical Board in 1851, or what was called the experiment at the General Hospital.

More than a dozen years ago, while combating many of his views, I acknowledged that Mr. Hare's enthusiastic, though indiscriminating advocacy of the use of quinine had given a great impulse in Bengal to the use of an invaluable remedy. I have no intention of entering on any fresh examination of his latest views on the theory or practice, but I observe that he incorporates in his paper many of the numerical returns of the report by the Medical Board, already alluded to, and on them I must say a few words.

To those which refer to the General Hospital, and to H.M. 70th Regiment, I took exception in a pamphlet published in 1852, now become one of the curiosities of Medical statistics, but of which I have a few spare copies, which are much at your service, or at that of any one who is interested in the subject.

Being practically the head of the General Hospital, I took it on myself—not without risk to my prosperity in the service in venturing to throw discredit on the report of my superiors—to show, by a detailed analysis of the returns referring to that institution, that owing to the loose and careless way in which the experiment had been conducted and the inaccuracy of the figures, they were valueless for statistical purposes.

With regard to the returns for H.M. 70th Regiment, I had only the means of showing that they bore on their face the evidence of some great mistake, but the Surgeon of the regiment, Dr. Harvey, who died soon after, wrote officially to the Medical Board denying the correctness of the returns; and Assistant-Surgeon Bassam, since also dead, when leaving India placed in my hands the detailed proof of their mistakes, in case it should be required.

But it never was wanted. Neither the Medical Board nor Mr. Hare, so far as I have ever heard, made any reply to our public impugnment of the accuracy of their numerical statements.

The subject had grown old and stale, and I had hoped never to have had to refer to it again; but it is only fair that your readers should be made acquainted with the fact that the value and the accuracy of the returns now resuscitated was openly denied from the date of their publication.

I am, &c.
John Macpherson, M.D., Surgeon-Major H.M.I. Army, formerly 1st Assistant, General Hospital, Calcutta.

35, Curzon-street, Mayfair, January 18.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 10.

Mr. Partridge, F.R.S., President, in the Chair.

A paper by Mr. Furneaux Jordan was read,

ON ECZEMA OF THE EYELIDS, CONJUNCTIVA, AND CORNEA.

Many observers, and especially writers on the diseases of the skin, have considered ophthalmia tarsi to be simply eczema of the lids. Dr. Mackenzie has pointed out that scrofulous, or, as he terms it, phlyctenular ophthalmia, is frequently associated with eruptions on the skin. It is the object of this paper to show that not only ophthalmia tarsi is eczema of the lids, but that granular lids, a peculiar swelling of the sub-integumental connective tissue of the lids, lippitudo, strumous ophthalmia, certain forms of simple or catarrhal ophthalmia, keratitis and strumous keratitis, and certain ulcers on the cornea, are merely varieties of eczematous disease. Cases of extreme, firm, indolent, pale or pinkish swelling of the lids occur occasionally, the only cause of which is eczema of the margins of the lids. The eczema may be very slight, or it may pass away quickly, and leave only the swelling behind. Unchecked eczema of the eyelids terminates in lippitudo, just as persistent and progressive eczema of the cornea produces pannus. Both these conditions are analogous to the eczematously red, swollen, and moist condition of the skin which may persist for an indefinite period. Eczema of the conjunctiva presents many important features. The so-called strumous ophthalmia may be regarded as chronic eczema. The several stages of pimple, vesicle, ulcer, or thickened patch, admit of indisputable demonstration. In acute eczema of the conjunctiva, there is for a few days a uniform scarlet colour; then a crowd of vesicles, which soon pass away, and leave an irregular or patchy redness—each patch, however ill-defined, having a redder, thicker, and possibly ulcerated centre. These cases have a slight muco-purulent discharge, and are always tedious. If treated as eczema, they speedily recover. The so-called keratitis, or strumous keratitis, is eczema of the cornea. When vesicles, white patches (necessarily white because of the anatomical structure of the cornea), or ulcers occur on the cornea in conjunction with vesicles on the conjunctiva, the term "scrofulous ophthalmia" is commonly used. If the same pimples (necessarily flat), vesicles, patches, or ulcers occur on the cornea alone, especially near its centre, the term keratitis is applied, notwithstanding the symptoms are similar, and notwithstanding that there is usually, if it be carefully sought for, evidence of eczema of the lids or face, or ears or scalp. The characters of eczema of the cornea are quite as typical as they are of eczema elsewhere. The several varieties of eczema of the cornea, conjunctiva, and lids are combined in a great variety of modes. They are much more frequently combined than not, and very frequently indeed associated with cutaneous eczema in its favourite localities. Eczema is often limited to sites as small as the cornea. The treatment should be directed to eczema. Its chief features are non-stimulating diet and alkaline medicines, with a little iron added in most cases. If the lids are affected, as also in pannus, lippitudo, and granular lids, a little of any of the "eczema ointments" may be used, with the customary attention to details; if much photophobia, a little morphia may be given in the morning.

The President said he supposed the author's communication was intended to show that many cases of strumous ophthalmia were really eczema, and that this was proved by the fact that there was in such cases eczema elsewhere.

The Author said the President had correctly apprehended the purport of his paper. It might seem strange to say that such diseases as pannus, keratitis, etc., were in reality eczema; but, from the arguments he had stated in the paper, he believed that conclusion was warranted.

Mr. Barwell had no doubt but that any new view of so common a disease would be considered important; but he thought the Author had taken too many cases into the grasp of one hand. He (Mr. Barwell) could not think that granular lids and strumous ophthalmia belonged to the same category. He thought the Author had not sufficiently distinguished herpetic eruptions from eczema. He was surprised to find the Author describing a long treatment by alkalies and iron for a disease like phlyctenular ophthalmia. He considered the disease to be herpetic, and that the photophobia attendant on it might be relieved by treatment in twelve hours. As for the connexion of certain ocular affections with eczema, they might arise from similar general conditions of the system, and alkalies might be of use. Yet he should not be inclined to treat phlyctenular ophthalmia on the slow method recommended by the Author.

The President hoped that before long the time would come when Ophthalmic Surgery would be free from the frightful nomenclature which did not afflict other branches of Surgery.

[We have received the following in reference to the discussion on this paper:—]

"Birmingham, January 13.

"Sir,—Had time permitted, I intended to say in reply to Mr. Barwell that the tendency of the best authorities on skin diseases is to reduce their number, and that many skin diseases which formerly had separate and distinct names are now recognised as varieties merely of eczema. The eruptions on the cheek which accompany certain forms of ophthalmic disease are certainly eczematous, and frequently precede the ocular lesions. "I am, &c. "Furneaux Jordan."

A paper (communicated by Mr. John Birkett, Hon. Sec.), by M. P. H. Desvignes,

ON THE SUBCUTANEOUS INJECTION OF QUININE FOR THE CURE OF AGUE AND OTHER MARSH FEVERS,

was then read. The author had had large opportunities of testing the value of this remedy in the intermittent fevers which were so common in the district of Tuscany called the "Maremma." The use of quinine and arsenic, in the usual manner, having repeatedly failed, he resolved to try the subcutaneous injection of solutions of quinine. The solution he employed was a grain and a-half in fifteen drops of water, acidulated with a drop of dilute nitric acid. With this he successfully cured several hundred cases.

Dr. Webster was glad to hear of a new method of giving quinine, but he doubted whether it would be so efficacious as giving it by the mouth. He was interested in observing that the author got his experience whilst a railway was making. Dr. Webster observed that at Birchweller, near Strasburg, while a railway was constructing in its vicinity, fever proved very frequent. In this commune, having about 1500 inhabitants, two-thirds at least became attacked chiefly by intermittents, although such diseases had rarely occurred previously. Further, he would mention that when the Southern Railway of Portugal, leading towards Spain, was being made, during the autumn of his visit to that country, an authority stated that among upwards of 5000 labourers there employed nearly 1500 were suffering from fever, and often of a severe type; the cases were mostly agues, which malady, however, frequently prevailed in these districts during hot weather and in autumn. Analogous results are likewise apt to occur when digging canals, in consequence of the newly-turned up earth then exposed to atmospheric action. Hence the making of railways and canals, especially in countries where fevers otherwise prevail, are dangerous employments. He (Dr. Webster) would also allude to the Maremma, which extended along the coast from south of Leghorn towards the Papal States. This was a most dangerous district, where the very worst forms of fevers often devastated its residents, and even more severely than in the Pontine marshes. Therefore, should the treatment mentioned by the Author always prove so efficacious as had been stated, great, indeed, would be the boon thereby conferred on suffering humanity. Fevers from malaria, every person well knew, were very common throughout many parts of Italy, as he (Dr. Webster) could assert from personal experience, having been attacked after simply passing through an unhealthy district—namely, that adjoining the Lake of Bracciano, on the road from Rome to Florence. This was a most pestiferous place during hot summer and autumnal weather. Although travelling by the mail courier without stopping at any place, yet having unfortunately slept for some hours in the night time, when malaria always acts more powerfully than if the person were awake, he (Dr. Webster) was attacked by fever. He, however, suffered less severely than another Medical gentleman, who, with his family, had left Rome the same day, and was also going towards Tuscany. Having much money in his carriage, and fearing attacks from robbers, who were then infesting that road, he would not risk travelling during a dark night, but preferred sleeping in some miserable Italian "Albergaccio," whereby he and several of his party took the fever, and died.

In reply to the President, Dr. Webster said that cases of ague had occurred in making railways near London.

Mr. C. H. Moore said that twelve years ago he had under his care a patient who had periodical attacks of inflammation of the knee-joint. The joint inflamed for two and a-half days, and then gradually subsided. Punctually on the ninth day it re-inflamed. It had begun eighteen years before he saw the patient, and eight years after an attack of ague. At first it occurred every thirty days. After a time she married, and then during pregnancy she had no attacks. Quinine did no good. The only case at all like this that he could find on record were three cases of periodical sickness, published in the *Transactions* of the old Medical Society of London. In two of these there was a connection with ague, and two were cured by arsenic. On Tuesday last Mr. Moore said he admitted into the Middlesex Hospital a girl, aged 21, who told him that she had attacks of inflammation of the right knee every twelve days, and that she had thus suffered three months. He was now waiting to see if an attack would come on at the time mentioned by the patient. In a case like this he should feel inclined to adopt the injection plan, and to inject the solution near the joint at the time of the attack. He inclined to think that this would be better than giving remedies internally in the interval.

Mr. Charles Hunter said that he had no doubt the subcutaneous injection of quinine would answer the expectations of the last speaker, if properly and carefully tried. In an economical point of view, he considered this mode of administration highly valuable, and alluded to the experience of Dr. Moore, of Bombay, who had found four or five grains by injection equal to five or six times that quantity by the mouth. Mr. Hunter could fully corroborate this advantage of the cellular administration, from a large experience with other alkaloids, especially atrogeni and morphia. Another advantage was, the quicker effect than by stomachic administration, the symptoms being often manifested in five minutes. A third advantage was, that quinine could be given this way for a certainty; whereas frequently the stomach is not in a state to absorb the medicine. Mr. Hunter protested against the way in which M. Desvignes injected the fluid. He considered a lancet quite unnecessary, and stated that if the perforated needle were used, and the fluid more concentrated, none of the local evils mentioned in M. Desvignes' paper need or ought to result.

Dr. Sanderson said the practical importance of the subject of the paper was undoubted, especially at a time when the country poor were suffering from the dearness of quinine. From the parsimony of the poor-law authorities, Medical men were obliged to provide expensive medicines, so that although most could agree that quinine was the better remedy for ague, arsenic was often used instead. Again, if smaller quantities were required when injected, the plan would be a great boon. It seemed clear that if it cured the "pernicious" agues of Italy it would be of at least equal value in the milder cases in this country. He imagined that the cheapness of this plan was its great advantage, as he supposed the author did not conceive it to be of greater therapeutical value than the giving of larger doses by the mouth.

Dr. A. P. Stewart said that in the wards of M. Chomel he saw quinine used endermically in cases in which it was rejected by the stomach. The great objection to it was the great pain it caused. He (Dr. Stewart) asked if there was no pain after the injection of concentrated solution—no accidents? He had seen considerable depression of the system in nervous patients after the injection of morphia. He wished to know the truth on both sides. In regard to the general subject of the cheapness of these alkalies, people seemed to forget (Dr. Stewart said) that there was a cheap drug, which was quite as effectual as quinine, viz., cinchonine. It was slightly weaker—four grains of quinine being equal to five of cinchonine. In 1850 he had under his care at the Middlesex Hospital many cases of periodical affections. He therefore prescribed so much quinine that he was asked by the Hospital authorities to give it up, on account of the great expense. At this time he began to use the liquid

extract of bark prepared by Mr. Bullock. Although this preparation was made from the liquor remaining after the extraction of all the usual alkaloids, it was very efficacious. Ten minims was a sufficient dose in ague. It was then generally used in the Hospital, and is still used. It was (Dr. Stewart said) an exceedingly cheap preparation.

Dr. Althaus had listened with pleasure to M. Desvignes' paper, as it well illustrated the value of a mode of treating disease which was in many instances far superior to the ordinary administration of remedies. He was quite disposed to believe in the great success which had attended the Author's operations, as he had himself successfully treated by the same means a very obstinate case of intermittent fever, which had resisted the internal use of quinine and arsenic. He had altogether much faith in hypodermic injections, and had found that, amongst others, the effects of strychnia thus used were far greater and more rapidly brought about than if given in the ordinary way. He had injected the nitrate of strychnia in a variety of paralytic affections, and had never seen any unpleasant effects follow its use. Morphia was very beneficial, especially in certain forms of neuralgia, but was liable to produce general symptoms of narcotism, which might appear alarming, although no real harm was done. This was even more the case with atropine. He had never seen inflammatory action or sloughing following the injections, and believed the use of lint and other applications to the place where the puncture was made to be unnecessary.

Mr. Birkett (Hon. Sec.) said that the Author (who was not present) had great difficulty in getting a proper instrument for injecting. It was very likely, then, he (Mr Birkett) would suggest that the lancet was necessary from the clumsiness of the syringe. As to the cheapness of quinine in practice amongst the poor, Mr. Birkett said that he had noticed in one of the poor-law books at the investigation of the case of Timothy Daly an order to the effect that expensive medicines, such as quinine, must be supplied by the guardians.

A Fellow said that this order had not been confirmed by the Poor-law Board.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

An extraordinary general meeting of the governors of this College was held on Thursday, January 12, at the premises in Soho-square, Dr. Babington, V.P., in the chair, to discuss certain resolutions proposed by the Council as to the election of a President, and the cancelling Bye-laws 2, 12, and 23, and substituting new ones in their stead. The advertisement convening the meeting having been read by the Secretary,

Mr. Propert said the first business they had to transact was the election of a President. They had to regret the retirement from that office of one of the best of men, whose exertions had given so much satisfaction, and who upon all occasions had proved himself a friend of the institution; he need scarcely say he referred to the Right Hon. Lord Chelmsford. The fact was that his Lordship's time was so much occupied in the House of Lords that he himself expressed an earnest desire to be released from the office, because he felt he could not conscientiously discharge the duties of President. He (Mr. Propert) then determined to look about him, and the first man he called upon was a nobleman of great distinction and a member of her Majesty's Government—he applied to Earl Granville, who was President of the London University. The noble Earl told him he recollected this College, and would let him (Mr. Propert) know his determination by letter. The noble Earl wrote him to this effect:—"If you really think I can be of any use to your institution, I shall be happy to accept the office of President." The hon. gentleman then proposed Earl Granville, K.G., as President.

Francis Hird, Esq., seconded the motion, which was carried with acclamation.

Francis Hird, Esq., then proposed that Bye-laws 2, 12, and 23 should be rescinded, and that the following Bye-laws be substituted, and stated his willingness to adopt the verbal alterations which appear in italics:—

"Proposed New Bye-laws.

"*II. The School.*

"The school is intended for the education of boys between the ages of eight and nineteen, none being above fifteen years old on admission. Two hundred or more of such boys shall reside in the College; forty of them shall be foundation scholars, and the remainder may either be exhibitioners *or other pupils* (the sons of members of the Medical Profession), or the sons of gentlemen not in the Medical Profession; but boys of the latter class shall be admitted only when there are vacancies not required for the sons of Medical men.

"The foundation scholars shall be educated, boarded, clothed, and maintained by the College, except during the school vacations. The exhibitioners shall be the sons of some of the less fortunate members of the Medical Profession, and shall be admitted by the Council in such numbers and under such regulations as the Council may from time to time determine. They shall pay *not more than* £30 a-year each for education, board, lodging, and washing, without any extra charge for the use of books or school materials. *Other pupils, the sons of Medical men*, shall pay £40 a-year each for the like advantages. *Pupils* not the sons of Medical men shall be admitted on such terms as shall be from time to time fixed by the Council, and any profit which may arise from their admission shall be added to the Exhibition and Scholarship Fund.

"Every boy entering the College after Easter Term, 1865, except the foundation scholars, the Surrey Society's scholars, and the exhibitioners, shall pay to the Exhibition and Scholarship Fund an entrance fee of two guineas, and (after his first year) a fee of seven shillings a term.

"All payments shall be made in advance at the commencement of each term.

"*XXII. Exhibition and Scholarship Fund.*

"The Exhibition and Scholarship Fund shall be formed from the fees and profits assigned to it by the 2nd and 23rd bye-laws, and from subscriptions, donations, and bequests, specially made to it.

"Governors of the College only, who shall contribute one guinea annually, or ten guineas as a life donation to *this* fund, *or shall collect twenty guineas for it*, shall be entitled to an additional vote at the elections of pensioners and foundation scholars for every such subscription, donation, *or collection.*

"The exhibitions shall be of the value of *not less than* £10 a-year each.

"Donors or collectors of £50, if paid at one time, and executors paying a legacy of £100, to *this* fund, *or such other sums as the Council may from time to time determine*, shall be entitled to present *one boy* duly qualified to become *an* exhibitioner to an exhibition of *not less than* £10 a-year, tenable for five years or any shorter period during which such boy shall remain in the school, provided that in every case the nominee be approved by the Council, and be not more than fourteen years old on admission. Such donation, collection or bequest shall not give any additional right of voting in respect thereof.

"The scholarships shall also be of the value of *not less than* £10 a year each, and shall be open to the competition of the whole school, under such regulations as the Council may from time to time determine.

"Two-thirds of *this* fund shall be appropriated to exhibitions and one-third to scholarships.

"*XXIII. Day Scholars.*

"The day *pupils*, who shall not necessarily be the sons of Medical men, shall be admitted by the head master. They shall pay £12 a year each, if the sons of Medical men, and £15 a year each, if not the sons of Medical men, for education, inclusive of the use of books and school materials. They shall also pay two guineas entrance fee, and (after their first year) a fee of seven shillings a term, to the Exhibition and Scholarship Fund; to which fund any profit arising from their admission shall likewise be applied.

"In addition to the above, the sons of pensioners may be admitted by the Council as day *pupils*, on such terms as the Council may from time to time determine."

He (Mr. Hird) said every one in the room was probably aware that many governors had desired that £30 a year should be the maximum charge made for the education of the sons of the less fortunate members of the Profession, but the Act of Incorporation prohibited any portion of the funds of the College being used for that purpose, and it had been estimated that the prime cost of each boy was £40 a year. The Council had for the past two years been endeavouring to carry out the desired object, and from time to time had appointed sub-committees to consider and report upon the subject. After much discussion, the Council had determined to recommend the plan embodied in the proposed new Bye-Laws for adoption by the governors, and he believed, if adopted, it would increase the usefulness of the school and give general satisfaction. Mr. Hird fully

explained *seriatim* the object of the various changes proposed, and stated that the entrance fee and annual payments of the pupils to the "Exhibition and Scholarship Fund" was upon the principle that the rich should contribute to the poor. He could find nothing in the Act of Parliament to prohibit the proposed alteration of the laws, but he was bound to tell the meeting that there were two prizes, one of which was given specially to the exhibitioners of the College by Mr. Watts, a gentleman now deceased, and the other by Mr. Brand, who was living, and who, no doubt, would generously adopt the views of the Council. As a substitute for the Watts' prize, the new Bye-Laws created several scholarships, which would be open for competition to the whole school, and he hoped they would receive the unanimous approval of the meeting.

Mr. Cattlin said he had peculiar pleasure in seconding the proposition which had been so ably and fully explained by Mr. Hird, because he believed it to be a gracious concession to the opinions of a large body of governors, who had for a long time advocated the change which the Council had proposed; and he believed a majority of the present Council were now anxious to provide for all the requirements of our needy Profession. He (Mr. Cattlin) had attentively listened to the arguments and explanations which Mr. Hird had brought forward in support of the new bye-laws, and he was glad to say there was only one point upon which he differed, and only one matter which seemed to require additional explanation. The point upon which he differed was upon the construction of the 38th clause of the Act of Incorporation. Mr. Hird had stated "that the Act of Parliament prohibited any portion of the funds of the College being used for the purpose of reducing the charge for exhibitioners to £30;" whereas, the present Attorney-General (Sir Roundell Palmer) had given a very decided opinion to the contrary. The most that could fairly be said upon this vexed question was that great lawyers and good friends of the College had differed widely upon the subject. However, he (Mr. Cattlin) would be greatly wanting in discretion if, at a peace meeting, as this was intended to be, he did more than allude to the subject. The matter which seemed to require additional explanation was the application of the Scholarship Fund. It was true, as Mr. Hird had stated, that the richer scholars contributed an entrance fee of two guineas, and an annual subscription of one guinea, while the poorer were exempted from those contributions; but it ought to have been stated that in return for this the richer received one-third of the subscriptions, donations, and bequests, and also one-third of the profits of lay and day scholars, which would more than equalise the respective advantages of the two classes. He (Mr. Cattlin) considered the proposition to admit lay scholars was the main feature of the whole scheme. Class education was a sort of epidemic poison, and it was a moral impossibility that boys of the same class should associate together from year to year without contracting a certain amount of mental contamination. If a special Building Fund could be established to provide for the admission of 100 lay scholars at a charge of £55 a-year each, a moral benefit would be conferred upon the Medical scholars, and no less a sum than £1500 annually, in the shape of profit, would be contributed to the "Exhibitioners and Scholarship Fund." Having taken great interest in this matter, he (Mr. Cattlin) was sorry to know that some governors now present had not strict confidence in the intentions of the Council; but, without wishing to flatter that body, he not only believed the new bye-laws, if adopted, would be fully and fairly carried out, but he further believed the members of Council would be the largest contributors to the Exhibition and Scholarship Fund. The time of day at which the meetings were held was so valuable in his branch of the Profession, and his health not being sufficiently strong for public work, on these grounds he should be obliged to resign his seat upon the Council; but he felt confident that good faith would not be broken. Every governor in the room was freely at liberty to raise objections to the plan now proposed by the Council; but he hoped no one would do so without substituting some improvement which would rather enlarge than diminish the benefits intended to be conferred upon the less fortunate members of the Profession.

Mr. Tayler, of Kennington, inquired what arrangements would be made for the admission of the proposed "exhibitioners?" He had heard it was intended to admit them by competition, and he wished to know whether the examination would be regulated by the ages of the candidates?

Mr. Hird replied that a sub-committee of the Council would be appointed, to whom a confidential communication as to the circumstances of the candidates would be made, and that the examinations would be regulated by age, as Mr. Tayler had suggested.

Dr. Webster, of Dulwich, expressed his entire approbation of the measure now proposed by the Council, which he described as a "healing" one; and concluded some very appropriate and congratulatory observations upon it by saying that it should have his cordial support.

Mr. Harrison said, that as a Governor of the College from its first foundation, he had watched its progress with great interest, although he had never yet interfered with the management of its affairs; and that, fully approving of the principle of the scheme proposed by the Council, as one likely to allay those internal dissensions which had unhappily existed among its supporters for some time past, he had attended the meeting for the purpose of giving it all the support he could; but prepared, nevertheless, to move the verbal amendments upon it which had been brought under their notice by Mr. Hird, had this been necessary—as he believed them to be improvements upon, and yet in keeping with the principles of the proposed new bye-laws as originally advertised by the Council. He was glad, however, that Mr. Hird, acting as the representative of the Council, had expressed his willingness to adopt these verbal alterations, as it would be much more agreeable to him (Mr. Harrison), and he thought could not be otherwise than more agreeable to the Council, that they should be proposed and carried (if carried at all) as coming from the Council, than as amendments upon their proposition. He believed that, to accomplish this in order, it was necessary that some one should move that the verbal alterations be incorporated with the proposed new bye-laws as originally advertised, and he now rose for that purpose. He added that, at that late hour of the evening, and in the temper in which the meeting seemed to be, he would not detain it by entering at any length into the grounds on which he was prepared to support the propositions before it, but would content himself with saying (as Dr. Webster and others had done) that he fully and cordially approved of them, as proposed to be altered; and that he believed, if carried, that they would not only prove "a healing measure," as had been said, but that, if taken up and acted upon cordially and zealously, they would be calculated also to give a new impetus to the further success of the College.

This proposition being seconded by Mr. Bradley, was put, and carried unanimously.

The original propositions from the Council, as thus amended, were then put, and also carried unanimously.

Mr. Propert proposed, and Mr. Jonson seconded a vote of thanks to the Chairman, who gracefully acknowledged the compliment, and congratulated the meeting upon the good feeling which had characterised its proceedings.

GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

SCOTTISH BRANCH.

Physicians' Hall, Edinburgh, January 13, 1865.

Sederunt.

Mr. Syme, *Chairman.*	Dr. Allen Thomson.
Dr. Fleming.	Dr. Christison.
Dr. Alexander Wood.	Dr. Andrew Wood.

Dr. William Robertson, *Registrar.*

1. The Minutes of last meeting were read and confirmed.

2. The subject of the proposed Amendments of the Medical Act was resumed, and the following resolutions were agreed to:—

"The Branch Council for Scotland having, in terms of the remit made to them by the General Medical Council, considered carefully the subject of the amendment of 'The Medical Acts,' particularly with reference to Clauses xx., xxxi, and xl., of 'The Medical Act 1858,' 21 and 22 Vict. cap. 90,—Resolve, that any Act for amending the Medical Act should be restricted to specific clauses, whereby the following objects may be carried out:—

(1.) "To confer on the Medical Council definite powers to issue to the various licensing bodies regulations on the subjects of preliminary and professional education and examination.

(2.) "To amend Clause xl., so as to render it more efficient than it has hitherto been, for enabling the public to distinguish between qualified and unqualified Practitioners, and for preventing unqualified Practitioners from assuming Medical titles to which they have no right."

In order to carry out the first of these objects, the Branch Council recommend clauses to the following effect —

"That it shall be lawful for the General Medical Council from time to time to issue to the various licensing bodies such regulations respecting the preliminary and professional education and examination of persons desirous of obtaining any of the qualifications mentioned in Schedule (A to 'the Medical Act,' as may appear to the Council fitted to secure, on the part of such persons, the requisite knowledge and skill for the efficient practice of their Profession.

"That all such regulations as shall have been passed by a majority of two-thirds of the General Council shall be obligatory on all Universities, Colleges, and other bodies enumerated in Schedule (A) to the Medical Act of 1858.

"That, in the event of any of the said bodies not conforming to such regulations, it shall be lawful for the General Council, if they see fit, to intimate to the said body that it has not conformed to such regulations; and to direct that, in the event of the said body not conforming within six months after such intimation, the qualification granted by such body, after the lapse of the said period of six months, shall not be registered.

"That it shall be lawful for any body in regard to which such direction shall have been given, to appeal to the Privy Council, who shall have power, if they see cause, to disallow the direction of the Medical Council.

"That it shall be lawful for the General Council to restore any right to registration which may have been suspended by them, when they shall be satisfied that their regulations have been conformed to."

In order to carry out the second of these objects, the Branch Council recommend a clause to the following effect:—

"It shall not be lawful for any person, unless registered under this Act, to practise any branch of the Profession, taking or using the name or title of a Physician, Doctor of Medicine, Licentiate in Medicine or Surgery, Master in Surgery, Bachelor of Medicine, Doctor, Surgeon, Medical Practitioner, or General Practitioner, or Surgeon-Apothecary, or Licentiate or Practitioner in Midwifery, or Professor of Medicine, or Professor of Surgery, or any other Medical or Surgical title; and every unregistered person so offending shall, upon summary conviction for such offence, forfeit or pay a sum not exceeding twenty pounds."

It was resolved—

3. "That the Scottish Branch Council having considered the propriety of amending Clause xxxi. of the Medical Act, are of opinion that what is objectionable in it would be obviated were the combination and co-operation of the licensing bodies, as provided for by Clause xix, encouraged or even made obligatory, so that facilities may be given to Medical students for acquiring the complete or double qualification without having to pass repeated examinations on the same subjects, which is at once irksome and unnecessary; and, in order that the public may be best provided with General Practitioners who have been educated and tested in every branch of the Profession, as well Physic as Surgery."

It was resolved—

4. "That the Branch Council consider that it is highly expedient that a Bill for amending the Medical Acts should be prepared and submitted to the Home Secretary within two months from the present time, so that it may be possible to have it introduced into Parliament, and passed into a law during the ensuing session of Parliament."

5. The Registrar laid on the table the Registers of Medical Students which had been transmitted to him by the various licensing bodies in Scotland.

In laying these returns before the Branch Council, the Registrar intimated that, from the number of blanks occurring in them, it was impossible for him to comply with the 4th regulation of the General Medical Council, and to frame an accurate register of Medical students.

The Branch Council resolve to report this to the General Medical Council as an illustration of the necessity which exists for enabling the Council to issue regulations of a compulsory character.

6. The Treasurer's annual accounts, with Auditors' report thereon, likewise the Treasurer's statement of gross receipts during the past year, were read, approved, and ordered to be printed with the Minutes.

Account, Charge and Discharge, of Treasurer's Intromissions with the Funds of the Scottish Branch of General Medical Council, from January 5, 1864, to January 5, 1865.

Charge.				Discharge.			
In Consols, as formerly stated.	£1907	10	0	Balance, cash due to Registrar, as per Account of Jan. 5, 1864	£6	2	0
In Bank, on January 5, 1864, at credit of Scottish Branch Council.	1032	8	4	Postages and receipt-stamps	3	3	0
7 Registration Fees at £2	14	0	0	Messengers and petty expenses	0	11	2
162 do. do. at £5	810	0	0	Fees paid in error by, and returned to, Dr. M'Innes	4	15	0
14 additional do. at 5s.	3	10	0	Additional fee paid by Dr. M'Innes and transferred to English Branch Council	0	5	0
Dividend, January, 1864, on £2000 Consols	22	2	6	Stationery (Waterston).	0	17	6
Dividend, July, 1864, on do.	29	5	0	Printing (Constable)	7	0	0
Interest, allowed by Bank of Scotland, on Account of 1863	19	11	2	Fees and travelling expenses of Branch Councillors to Jan. 5, 1865	59	17	0
				Registrar's salary and office rent to Nov. 11, 1864	210	0	0
				Remitted, on Account of General Council, with Bank Commission	570	14	8
				In Consols, as formerly stated.	1907	10	0
				In Bank on January 5, 1865 at credit of Scottish Branch Council.	1040	13	10
				Balance, being cash in Registrar's hands, on January 5, 1865	33	17	10
Sum of Charge	£3845	7	0	Sum of Discharge	£3845	7	0

Edinburgh, January 11, 1865.—The undersigned have this day examined the above account, and find it accurately stated and duly vouched. There is a balance of Thirty-three Pounds Seventeen Shillings and Tenpence in the Registrar's hands.

Andrew Wood, Alex. Wood, } Auditors.

Statement by Treasurers of Scottish Branch of General Medical Council of Gross Receipts from January 5, 1864, to January 5, 1865.

7 Registration Fees at £2	£14	0	0
162 do. at £5	810	0	0
14 Additional Fees at 5s.	3	10	0
Dividend, January, 1864, on £2000 Consols	29	2	6
Do. July, 1864, on do.	29	5	0
Interest allowed by Bank of Scotland on Account of 1863	19	11	2
Gross receipts of Scottish Branch Council	£905	8	8

James Syme, R. Christison, } Treasurers.

MEDICAL NEWS.

Royal College of Surgeons.—The following members of the College having been elected "Fellows" at previous meetings of the Council, were admitted as such on the 12th inst., viz.:—

Messrs. Henry Sterry, J.P., Paragon, Southwark, diploma of membership dated January 2, 1824; William Blathwayte, Louth, Lincolnshire, September 27, 1832; Abraham Wolff, Gower-street, December 16, 1839; James Nance, Eccleshall, October 16, 1840; and John Kilner, Bury St. Edmunds, April 12, 1843.

The following gentlemen have just passed the Preliminary Examination in Arts, etc., viz.:—

Messrs. T. B. Archer, A. J. Bell, C. H. Bird, S. B Brooks, F. W. R. Burgess, G. E. E. Borroughs, J. J. Conybeare, C. A. Carter, H. P. Deacon, B. Daymon, H. E. Dixon, G. A. Eldred, R. Favell, A. A. Gillitlie, T. Gurney, A. S. Groves, R. Humphreys, W. Hardman, E. J. Hart, F. W. Hamlin, T. W. Hubbard, A. Jukes, H. H. Jeffreys, J. W. Ley, F. O. Lovell, G. J. Llewellin, T. L. Lack, F. W. Laslett, T. H. Lovegrove, F. H. Laking, W. H. Mann, J. H. More, C. Mead, A. C. Newman, T. W. Norbury, S. E. Owen, E. Perkins, F. Pestivee, R. F. Phibbs, C. H. W. Parkinson, R. H. Pritchard, C. W. Pratt, W. Rosser, R. Riches, A. Risden, H. J. Rope, W. J. Rae, S. J. Rowlands, R. Steele, E. Snell, F. A. A. Smith, T. Strafford, W. H. Staveley, C. H. S. Stevens, F. E. Taylor, B. Thorp, A. R. Ticehurst, H. C. Turner, E. Walford, F. White, G. Willis, and W. B. Wood.

The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 17th inst., and when eligible will be admitted to the Pass Examination:—

Edward Scott Jones, Charles Arthur Bush, Edward England Phillips, John Lawrence, and William Powell Keall, Students of the Bristol School; Henry Bowden Lyle, Edwin James Fairland, William Evatt Wright, Frederick Everard Hunt, and James Thorne, of Guy's Hospital; Herbert Ridley, Alfred Wilson, and William Anderson, of the Newcastle School; Thomas Nathaniel Twigge, John Parks, and Richard Strange Hall, of the Manchester School: Edwin Charles Garnsey and Joseph Channing Pearce, of University College; Charles Thomas Ennals and Henry Sissmore Shaw, of the Middlesex Hospital; Ferdinand Albert Purcell and Arundel Hill Cotter, of Cork; David Roberts Pughe and Charles Iliffe, of the Birmingham School; Walter James Leckie, Westminster Hospital; Thomas Soars Johnson, Charing-cross Hospital; Frederic Richard Fisher, of St. George's Hospital; Edward William Adrien, of Dublin.

The following passed on the 18th inst.:—

Josiah Paull, Ernest Thomas Raimbach Evans, John Yeomanson, and John Arnold, Students of St. Bartholomew's Hospital; William Cook Hewby, Edward Butler Ruttledge, William Wiles, and Robert Walter Ceeley, of the London Hospital; George William Mansley, Christopher Haynes Jenner Hogg, and William Edward Green, of Birmingham; Mark Antony Kilroy, William Gosselin, and Evan Elias Williams, of Dublin; Nelson Albert Hilder, and Henry Goldsworthy Shorter, of Guy's; Thomas Edward Stafford and Charles George Edmonds, of St. Thomas's Hospital; Frederick Mainzer Charles Beechey, of St. Mary's Hospital; Henry Tonnon Staples, of King's College; Charles Henry Hines, of University College; John Thomas Morgan, of St. George's Hospital; John Jefferson, of Belfast; Frederick William Binns, of Leeds: James Algernon Temple, of Quebec.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, January 12, 1865:—

George Clements, Middlesex Hospital; George Henry Eccles, 7, Felix-terrace, Islington; Reuben Zacchæus Miller, Louth Lodge, Richmond; John Hughes Williams, Holyhead.

As an Assistant:—

Job Haddock, 27, Bridge-street, Rancorn.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Barclay, John, M.D., has been appointed one of the Medical Officers of the Banff Dispensary.

Eagles, W., M.R.C.S. Eng., has been elected House-Surgeon to the Bolton Infirmary and Dispensary.

Ferguson, George, M.B. Lond., has been appointed Resident Surgical Officer to the General Hospital, Birmingham.

May, A. S., M.R.C.S. Eng., has been elected Apothecary and Secretary to the Chelsea, Brompton, and Belgrave Dispensary, Sloane-square.

Nolan, James J., L.R.C.S.I., has been elected Medical Officer to the Workhouse of the Ballina Union, Co. Mayo.

Oliphant, J., M.D., has been elected Assistant House-Surgeon to the Chester General Infirmary.

Reid, K., M.D., has been elected Resident Surgeon to the Birmingham Lying-in Hospital and Dispensary for Diseases of Women and Children.

Stewart, James, M.D. Glasg., has been appointed Physician to the Glasgow Royal Infirmary.

DEATHS.

Baikie, Dr., at the residence of Charles Heddle, Esq., Sierra Leone, aged about 40, on December 12, 1864, Dr. Baikie, Surgeon, Royal Navy, the well-known African traveller, a native of Kirkwall, Orkney, and son of Commander Baikie, R.N., Kirkwall. Dr. Baikie, after travelling for six years in the interior of Africa, and after having established a native colony some distance from the confluence of the Niger, returned to Lagos on October 21 in her Majesty's ship *Investigator*, which had been up the Niger 400 miles on a cruise. Dr. Baikie's remains were interred with military honours.

Black, John, L.F.P.S. Glasg., at Macfarlane-street, Glasgow, on January 8.

Brown, William Henry, F.R.C.S. Eng., at 2, Cornwall-terrace, Belmont, Lee, Kent, on January 13, aged 56.

Fogarty, Frederick W., M.D., at Elm Bank, Mary Church, Devon, on January 15, formerly of Percy-circus, London.

Grant, Peter, L.R.C.S. Edin., of Seamont-place, Aberdeen, on December 7, aged 44.

Holden, Robert, L.R.C.S. Edin., R.N., at Arbroath, Forfarshire, on January 3.

Johnson, George, M.R.C.S. Eng., at St. Andrew's-street, Cambridge, on January 7.

Loughnan, Jeremiah, M.D. Glasg., at Listowel, Ireland, on January 2, aged 52.

Paton, James F., M.D. Glasg., at Greenock, N.B., on December 25.

Sprague, John H., M.R.C.S. Eng., at Bedminster Down, Bristol, on January 5.

Sweetnam, Michael, L.S.A., at St. John-street, Clerkenwell, on December 11.

Tyman, John, M.D., at Florence-street, Glasgow, on December 25.

Williams, W. R., M.R.C.S. Eng., at Bangor-street, Carnarvon, on January 3, aged 31.

Williamson, Henry George, M.D. Edin., of Holmes Chapel, Cheshire, at Nantwich, on January 10, aged 25.

Birth of a French Princess.—On Friday Her Royal Highness the Duchess de Chartres gave birth to a daughter, the first great grandchild of the last French King born in this country. The event took place at Ham-common, near Richmond, in the presence of Dr. W. O. Priestly and Dr. de Mussey. The news was immediately telegraphed to Queen Victoria, at Osborne, and to Queen Amelie, at Claremont.

Collegiate Elections.—The claims of the provincial Fellows of the Royal College of Surgeons to vote by proxy papers for vacant seats in the Council Chamber, have again been brought before the Council of the College by the President and members of the British Association, who complain of "the general dissatisfaction of the Fellows and Members of the College at the mode of electing the Council, and requesting that the Council will be pleased to obtain a new or supplemental charter, in order to render it lawful for the election of councillors to be conducted by means of voting papers, which may be filled up by non-resident electors after some such plan as that prescribed for the Universities of Oxford and Cambridge in their elections of Members of Parliament." The Council of the College of Surgeons having re-considered the application at its last meeting, saw no reason to alter its opinion upon the subject, as communicated to the British Medical Association in November, 1863.

Presentation from the Queen to Dr. Cass.—On New Year's Day, Dr. Cass, of Cowes, received, through the hands of Sir Charles B. Phipps, a massive and magnificent silver inkstand, "As a memorial from the Queen of her Majesty's appreciation of his skill and attention during the many years he has attended in his Professional capacity at Osborne." Dr. Cass, who has long been held in very high esteem at Cowes, has been the Medical attendant upon the Royal Family and household at Osborne, for nearly twenty years, but finding of late that his sight had become so seriously impaired as to threaten absolute blindness, he felt constrained (though still in the prime and vigour of his life) to resign his appointment at Osborne, and to withdraw altogether from the Profession in which he had established a high and well-earned reputation. This circumstance has been a matter of universal regret throughout the whole of the wide district over which Dr. Cass's practice extended; but among the many expressions of sympathy which have reached him from all quarters none have been so warm, and none, of course, so deeply gratifying, as those which have been conveyed to him from the Queen. "Her Majesty," says Sir Charles Phipps, in the letter which accompanied the costly memorial, "hears with great regret that she shall no longer be able to avail herself of your valuable Medical services, and the Queen still more laments the sad cause which has thus forced you to abandon your Profession at an age when your usefulness should be greatest." Again, Sir Charles says, "I am directed to express Her Majesty's sincere sympathy for the affliction which has obliged you to discontinue your valuable services." These are queenly words, and well calculated to convey to Dr. Cass the highest solace he can possibly receive under the calamity which has fallen as a fatal blight upon his Professional career, and marred the fairest hopes and promise of an honourable and laborious life.

The Queen's College.—Quarterly Meeting of Professors.—The quarterly meeting of the Professors to the Queen's College was held in the library of the College, at five o'clock yesterday afternoon, Mr. Sands Cox in the chair. The other Professors present were—Messrs. Postgate, Clay, and Suckling, and Dr. Hinds. The minutes having been read, Professor Postgate said that he and Dr. Hinds had had an interview with the Earl of Lichfield, in accordance with the wishes of the last quarterly meeting, to ascertain what was being done with reference to the affairs of the College. His Lordship stated that he had communicated with the Charity Commissioners, and he had received from them a letter stating that the affairs of the College were in the hands of the Attorney General, and would soon be in the Court of Chancery, and that that Court would take the charters and the trust deeds and other documents, and come to some practical settlement of the College difficulties. His lordship spoke very hopefully of the prospects of the College.—The Chairman asked whether any reference was made by Lord Lichfield to the connection between the College and the Hospital.—Professor Postgate said that had not been the subject of special remark.—Professor Suckling said the Hospital had materially suffered by its separation from the College. It had now only about three students, instead of sixteen, and twenty, and thirty, which were the number formerly.—Dr. Hinds said Lord Lichfield said, in reference to the Hospital, that nothing could or would be done by the Lord Chancellor without direct communication with him. His Lordship appeared to be of the same opinion as the Professors with reference to the Hospital.—Professor Suckling: It appears to me that the Hospital is under a very much greater monopoly than when it was in connection with the College. Its patronage—the men who regulate and guide it—is not so noble as that under which it flourished whilst connected with the College.—A vote of thanks was then passed to the Chairman, and the meeting separated.—*Birmingham Daily Gazette*, January 11.

The annual meeting of the Odontological Society was held on Monday evening, the 9th inst, Edwin Saunders, Esq., President, in the chair. Contributions to the Museum were announced from Messrs. Hepburn, Lord, and Statham. Mr. Hulme mentioned a case in which a lady had her three front teeth attacked by tartar, and could be readily removed and replaced. The curious point was that, although remaining in that state about seven years, the presence of the teeth had preserved the gum from being absorbed. The President then read the balance-sheet and the report of the Audit Committee. It showed an excess of expenditure over receipts of £7 4s. 1d. for the past year. The total balance in the hands of the Treasurer was £539 4s. 6d. The report of the Library Committee showed an addition of 102 volumes during the past year. Fourteen non-resident, four resident, and one corresponding member had been elected, making a total of 302 members. The following officers were then elected to serve during the present year:—*President*—Thos. A. Rogers, Esq. *Vice-Presidents*—(Resident:) W. A. N. Cattlin, W. Imrie, W. Perkins, G. A. Ibbetson, and James Parkinson, Esqrs. (Non-Resident:) W. K. Bridgman, Esq., Norwich; S. Tibbs, Esq., Cheltenham; Dr. Roberts, Edinburgh; J. R. H. Moore, Esq., Dublin. *Treasurer*—Arnold Rogers, Esq. *Librarian* J. B. Fletcher, Esq. *Honorary Secretaries*—A. Coleman, C. Vasey, and J. Underwood, Esqrs. *Councillors*—(Resident:) T. Sheffield, C. J. Fox, H. T. Kempson, R. T. Hulme, G. Owen, A. Hill, S. Cartwright, E. J. Winterbottom, J. Saunders, F. Weiss, and N. Stevenson, Esqrs. (Non-Resident:) C. D. Rogers, Esq., Newbury; S. L. Rymer, Esq., Croydon; E. P. Parkinson, Brighton; W. Hunt. Esq., Yeovil; T. A. Baker, Esq., Dublin; and T. R. M. English, Esq., Birmingham. The retiring President gave his address, glancing at the events of the past year, and paying a warm tribute of respect to the late Samuel Cartwright, their first President. A vote of thanks to the President was proposed

by Mr. S. L. Rymer, and carried by acclamation. Votes of thanks were also proposed to the Treasurer, Secretaries, Librarian, and Curator of the Museum. The Society then adjourned.

THE ELECTION OF CORONER FOR LEOMINSTER.—Dr. Kemp has addressed the following letter to the electors of the Leominster district:—"Gentlemen,—In the local journals of the last fortnight I have submitted to your notice a few lines, preparatory to a further explanation of the reason why a comparative stranger should venture to address you on the subject of the vacant coronership. I was, during that time, unprepared to enter more specifically into the essential points of the case, the details of which had yet to be sought for. Still, the principle on which I proceeded was sufficiently clear:—That, *cæteris paribus*, a person who had been engaged for years in the higher departments of organic chemistry, whose researches are as well known in Germany and France as in his own country; those researches, at the same time, involving the application of the laws of Medical jurisprudence, had fully as high a claim to your support as a candidate who takes his stand upon mere local circumstances; and you will immediately see that, allowing this latter claim, the parish beadle of Leominster would be as fitting a candidate as any other, and probably cost the county a much smaller sum than that which you now offer. The tribunal to which the final appeal in this case must, constitutionally, be made is peculiar in many respects: it is a fixed one, has no elasticity, and is utterly unsuited to a progressive state of society. Time was when poisons of the subtlest nature were passed about to *savans* in morsels, as cabinet specimens; these are now manufactured by the ton, handled in the daily occupation of thousands, and toyed with by children. Time was, when dangerous gases, which are now employed in nightly exhibitions, were produced in test tubes, and, even thus, astonished large audiences. Time was, when explosive compounds were treated with respectful caution; whilst now the momentary loss of a batch of lives through careless handling may, perhaps, elicit a sigh, but excites no extraordinary emotion. What is our deduction from these facts? Wherever vast progress is made in scientific discovery, and profitably employed for the public good, evil is also at work, and human life becomes endangered proportionately; for its protection, therefore, a higher order of intelligence, education, and practical science is demanded to meet the exigencies of the case. The Prussian and French codes provide for this altered state of things to a great extent; and a time must come when the Legislature will see the necessity of requiring specific and practical knowledge of Medical Jurisprudence, with its cognate sciences, in those to whom fortune, life, and fame are in a great measure confided, as Coroners of our country. I have offered you acknowledged qualifications without the smallest amount of local interest; but here, local interests must necessarily override the merits of the case. To follow up the matter, then, under such circumstances, would involve the employment of a complicated and costly machinery, generally reserved for elections of another kind; indeed, I could not undertake a personal canvass of a numerous and scattered constituency without other objects in view than the occupancy of the office in question. Trusting that your future Coroner may be gifted with all those qualifications, and supported by all that influence necessary for the conscientious performance of his responsible duties, I am, Gentlemen, your obedient servant, GEORGE KEMP, M.D. Cantab., Fellow of the Cambridge Philosophical Society, Hereford, December 27, 1864."

ANTHROPOLOGICAL SOCIETY OF LONDON.—At a meeting of this Society, on January 17, J. F. Collingwood, Esq., Vice-President, in the chair, ten new members were elected. The following papers were read:—1. E. Sellon, Esq., "On the Linga Puja, or Phallic Worship of India." 2. W. T. Pritchard, Esq., F.R.G.S., F.A.S.L., "Notes on Certain Anthropological Matters connected with the South Sea Islanders." 3. Edward Lund, Esq., F.R.C.S.E., "On the Occurrence of Syphilis in a Monkey," communicated by Dr. F. Royston Fairbank, Loc. Sec. A.S.L. "To Frederick Royston Fairbank, Esq., Local Secretary to the Anthropological Society of London, etc., etc. Manchester, June 13, 1864. Dear Sir,—The only remarks I have to make in sending you these specimens of diseased bone from a monkey, for exhibition at the next meeting of the Anthropological Society of London, will refer to the manner in which I became possessed of them, and the inferences which I think may be drawn from the appearances which they present. Some months since, a person, who is in the habit of preparing skeletons of animals, stuffing birds, etc., for museums, called upon me to say that he had the skeleton of a monkey which had died of syphilis, and that the state of the bones indicated the constitutional effects of that disease, and that I might have the skeleton, or the greater part of it, if I liked. He further stated that the penis of the animal had been almost entirely destroyed by ulceration, that the hair had fallen off in patches from several parts of the body, and that the frontal bone, as well as some of the long bones, were completely carious. On inquiry at the Zoological Gardens at Belle Vue, near Manchester, where the animal had died, I learned from the man who for many years had had charge of the monkeys, that it was quite a generally believed opinion that these animals are occasionally the subject of syphilis, or of some disease attended by ulceration of the genital organs, and propagated by sexual intercourse. He pointed out to me, in the same collection as the one in which the male animal had died, a female monkey which he said was so affected; and as far as I could observe, the vulva was surrounded by several rather large condylomatous growths, attended by an abundant sero-purulent discharge. The cage in which these animals were placed was rather small in proportion to the number of inmates, and other cages and dens being in close proximity to it, the ventilation was imperfect, and the general arrangements not such as to conduce to the health and constitutional vigour of the animals. Now it is well known that animals, such as monkeys, when kept in menageries, are very liable to die from strumous disease, especially from tubercular pulmonary consumption, and we have here in this particular instance an illustration of how far cohabitation under circumstances unfavourable to health may engender a cachectic state in which the genital organs are diseased, and that this condition may be regarded as the first step in a degeneration which, by frequent repetition, would at last culminate in true syphilis. I am aware that a theory has been promulgated, that struma in infancy and early youth is but syphilis diluted through many generations, manifesting itself in a distant offspring; but this assertion has not, to my knowledge, been sufficiently supported by observation as to be in any way accepted. Syphilis and struma are both cachexiæ, both are due in some way to defective nutrition or to imperfect vital power, and always aggravated by the persistence of those external conditions which are at variance with the laws of health. It would seem, therefore, as if animals pent up in small cages, and cohabiting promiscuously together, as monkeys are so prone to do, might form in the vitiated secretions of their genital organs a *materies morbi* communicable among themselves, capable of absorption, and, by poisoning the general system, of impairing the nutrition of the skin, the bones, and other structures. I do not say that a poison similar to that of syphilis can always be so produced, but I think the circumstances here briefly narrated will suggest the idea that the essence of such a disease as syphilis was originally developed through these agents, and that it would be more likely to have occurred among the closely-packed members of large communities, whether of animal or of human beings, than among the denizens of the forest or the plain, or the untutored specimens of savage life. I send you with this five of the long bones of the creature, the lower jaw and the skull, but the latter, as you will perceive, has been very clumsily mended with putty or some other cement; and if these specimens should be considered worthy of a place in the Museum of the Society, I shall have great pleasure in presenting them for that purpose.—Believe me to be, dear Sir, very truly yours, EDWARD LUND, F.R.C.S.E., Lecturer on Anatomy, etc., etc." The subject of the above report was a "Chinese bonnet monkey," *Macacus Sinicus*.—F. R. F.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Lionel Beale's "Remarks upon Dr. Benee Jones's Preface to Lectures on Chemical and Mechanical Diseases" shall appear next week.

A Subscriber.—Being registered as a Surgeon, he could recover according to his registered qualification.

Mr. H. P. Chandler.—The Children's Hospital, the Infirmary for Scrofulous Children at Margate, and the Home for Cripples.

M. P.—Dr. Freind was elected Member of Parliament for Launceston, Cornwall, and, on suspicion of working for the restoration of the Stuart family, was committed to the Tower

Ovariotomist.—Dame Mary Page, wife of Sir Gregory Page, Bart., was tapped sixty-six times in sixty-seven months, and had 240 gallons of water taken away. Dr. Mead was the first who introduced the bandage after the operation.

Dr. Mapother.—It is perfectly possible for a work to show great ability in its construction, and yet to have great faults in plan or purpose. The physiological work in question is doubtless very convenient to gentlemen preparing for examination; it may serve to refresh the memories of those who have learned already from broader and deeper sources, but it is not a good book for the educated public, nor yet for students beginning their career.

The Daly Case.—The office of sitting in judgment on one's brethren (though, it will be said, one daily exercised by the press) is exceedingly difficult, and it behoves those who, like ourselves, constitute themselves guardians of the privileges of Medical men, to see that no precedent is set which is liable to abuse. Trial by a jury of equals, every one of whom may be challenged, or by a judge of known position and responsibility, who can be removed for abuse of power, are the models. We have every respect for the Medical assessor to Mr. Farnall, but possibly every Poor-law Commissioner might not choose so good an adviser.

The Bedroom Spray Fountain.—It is well worth our readers' while to examine an ingenious little instrument, costing a shilling, which we have seen at Messrs. Piesse's, in New Bond-street, and at Rew's, Regent-street, and other chemists'. It consists of two glass tubes, meeting at a right angle. By blowing through one, a vacuum is created over the mouth of the other, which causes an upward current through it. If the latter be immersed in any perfumed solution, it is capable of raising it so that it may be dispersed in a fine vapour throughout the apartment. We recommend the instrument or toy, call it which you please, not only in order to perfume the apartments, but to illustrate the phenomena of the barometer, watersponts, etc. Could not some clever fellow apply the principle to smoky chimneys, and to ventilation generally?

Erratum.—In the article in our last number, entitled "The Medical Trial at the Holborn Workhouse," *for* "Mr. Ferrall," *read* "Mr. Farnall."

Pryce *v.* Bowen.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—By inserting the following names of additional subscribers to the "Bowen" Fund, you will oblige Yours, &c.,

H. D. Scholefield, M.D., &c., Treasurer.

14, Hamilton-square, January 17.

Dr. Vale, £1 1s.; Dr. Purdon, £1 1s.; Dr. Selwood, £1 1s.; Dr. Skinner, £2 2s.; Dr. Dobie, £1 1s.; Dr. Fenton, £1 1s; Dr. Higgins, £5; J. Pennington, Esq., 10s. 6d.; James Rowlands, £1 1s.; E. Parker, £1 1s.; J. W. Foulkes (chemist), £5; John Green (chemist), 10s. 6d.

Report on Cheap Wine.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I am sorry not to be able to continue this Report this week. Meanwhile, in acknowledgment of several correspondents, let me say—*A Dry Man's* capital story as to the use of Tokay in hysteria shall not be forgotten.

Acidity of Wine.—Correspondents who write on this are referred to Bence Jones's translation of Mulder on "Chemistry of Wine." Also to Sutton's "Manual of Volumetric Analysis," and to Griffin's chemical works, published in Bunhill-row, London. Messrs. Griffin supply standard solutions of soda, etc., with burettes and finely graduated glasses for estimating the quantity of standard solution of soda of known strength required to saturate the acid in a measured quantity of wine.

The table of Lowitz, for finding the quantity of alcohol in spirits of various density at different temperatures, is to be found in "Turner's Chemistry," Organic part. Fownes's table is in Brande and Taylor's "Manual of Chemistry."

Beta writes thus:—"Since the writing of these valuable articles I have tried Bordeaux in erysipelas, when otherwise I would have given port and brandy, and I was delighted with the result, and so was my patient. The attack could not well have been more severe; it was in a delicate lad, and extended over the whole body, and was attended with vesications"

The address of the Beaujolais Wine Company is 10, Pall-mall East, and 23, Rood-lane, E.C. I am, &c.

Your Commissioner.

The Treatment of Varicose Veins.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As a subscriber to your journal from its commencement, will you allow me to make an observation relative to the treatment of varicose veins? In your number of Saturday last, under the head of "King's College Hospital," page 38, I see there is a method practised of subcutaneous ligature on a new plan. It may have advantages over the ordinary ligature of a pin thrust under the vein, and then a thread twisted from right to left so as to secure the vein; but I have a great dread of applying ligatures in these cases, having seen so many fatal cases in the Paris Hospitals thirty years ago from the practice. One Surgeon, now Professor de Clinique, I saw in one week apply the ligature in the way I have described to three patients, all of which cases proved fatal. In the first case, death ensued on the third day; the second, about the same time; and the third, in forty-eight hours On a fourth case presenting itself, I remonstrated on what I believed would have been equally unfortunate, when nothing more for that time was done. I have seen the practice on other occasions terminate quite as unhappily; therefore, let Surgeons be very careful they do not fall in with the same misfortune.

I believe varicose veins can be frequently cured by a much more simple process. I know I have succeeded in former days by a treatment an old cobbler (in a Norman village where I resided years ago, and which I accidentally stumbled upon) gave me. It consists of a saturated solution of alum and sulphate of copper, equal parts; compresses kept constantly applied to the veins. In twenty-four hours the veins become inflamed and hard; and the result was a cure. I have given you this in a rough and slovenly manner for you to make what use of you please—not from any wish to throw discredit upon Mr. John Wood's treatment, but merely to put him and other Surgeons on their guard. I remember that fine old Surgeon, my friend Marjolin, used to say forty years ago, "Be careful how you make a wound, even with a pin. Remember there is no such thing as a small Surgical operation: all are alike attended with risk."

A. B.

COMMUNICATIONS have been received from—

Dr. C. Kidd; Mr. W. Carr; Dr. E. D. Mapother; Apothecaries' Hall; Mr. Chandler; Messrs. Reid; Dr. John Whitmore; Mr. B. Nash; Odontological Society; Ethnological Society of London; Royal Institution; Dr. H. D. Scholfield; Royal Medical and Chirurgical Society; A Subscriber; Anthropological Society; The Manager of the Beaujolais Wine Company; Dr. Fotherby; Medical Society of London; Another Indian Surgeon; Dr. John Macpherson; G. H.; Mr. J. C. Gell; M. W. Zehender.

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 14, 1864.

BIRTHS.

Births of Boys, 1035; Girls, 967; Total, 2002.
Average of 10 corresponding weeks, 1855-64, 1830·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	856	813	1669
Average of the ten years 1855-64	743·6	759·3	1502·9
Average corrected to increased population..	..	..	1653
Deaths of people above 90	..	..	9

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	3	8	12	..	9	10	1
North ..	618,210	5	15	15	3	20	27	3
Central ..	378,058	4	6	3	1	10	8	2
East ..	571,158	1	9	12	1	20	16	4
South ..	773,175	3	10	13	2	14	16	3
Total ..	2,803,989	16	48	55	7	73	77	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·290 in.
Mean temperature	42·8
Highest point of thermometer	50·2
Lowest point of thermometer	32·0
Mean dew-point temperature	39·1
General direction of wind	S.W.
Whole amount of rain in the week	1·13 in.

APPOINTMENTS FOR THE WEEK.

January 21. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

Metropolitan Association of Medical Officers of Health, 7½ p.m., Meeting.

Royal Institution, 3 p.m. Prof. Marshall, "On the Nervous System in Man and Animals."

23. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

Medical Society of London, 8 p.m. Dr. James Jones, "Inflammation as an Exciting Cause of Tuberculosis."

24. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Ethnological Society of London, 8 p.m. Mr. Wallace, "On Civilisation in North Celebes." Professor Busk, F.R.S., "On Human Remains from Gibraltar."

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Dobell, "On the Natural History of 'Winter Cough.'" Mr. T. Longmore, "On Osteomyelitis consequent on Gun-shot Wounds."

Royal Institution, 3 p.m. Prof. Tyndall, "On Electricity."

25. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

Hunterian Society (Council Meeting, 7 p.m.), 8 p.m. Mr. Bryant, "On Some Cases of Herpes-Zoster Passing the Median Line."

26. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Royal Institution, 3 p.m. Prof. Tyndall, "On Electricity."

27. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

Royal Institution, 8 p.m. General Sir Henry Rawlinson, "On the Results of Cuneiform Discovery to the Present Time."

MESSRS. CURTIS & Co.

Were the largest Exhibitors of Pharmaceutic Preparations at the International Exhibition of 1862, in conjunction with the Pharmaceutical Society, which obtained the Prize Medal.

In returning their grateful acknowledgments for the many encouragements bestowed upon them during a period of twenty years, Messrs. CURTIS & CO. beg to assure their numerous customers that every endeavour to maintain their reputation will be made on their part which industry and a due regard to the progress of Pharmacy alone can sustain. Among the numerous specialties recently introduced, the following are the most prominent, and bear Medical testimony as to their curative properties :—

GRANULAR EFFERVESCING CARBONATE of IRON.
GRANULAR ,, ,, of LITHIA.
GRANULAR ,, CITRATE of CINCHONINE.
GRANULAR ,, ,, of CINCHONINE and IRON.
GRANULAR ,, ,, of IRON.
GRANULAR ,, ,, of IRON & QUININE.
GRANULAR ,, ,, of LITHIA.
GRANULAR ,, ,, of MAGNESIA.
GRANULAR ,, ,, of POTASH.
GRANULAR ,, MAGNESIAN APERIENT.
GRANULAR ,, CITROTARTRATE of SODA.
GRANULAR ,, SEIDLITZ POWDER.
GRANULAR ,, GINGER BEER.
GRANULAR ,, LEMONADE.
GRANULAR WILLOW CHARCOAL.
SYRUP SUPERPHOSPHATE of IRON.
SYRUP ,, of IRON and QUININE.
*SYRUP SUPERPHOSPHATE of IRON, QUININE, and STRYCHNINE.

This Syrup has been extensively prescribed for the last four years, by an eminent Surgeon, with very marked success.

(Originated by Curtis and Co.)

* *Composition of Syrup.* { Two grains of Iron, one grain of Quinine, and the 32nd part of a grain of Strychnine in each fluid drachm.

SYRUP of SENNA, P.B.
CONCENTRATED ESSENCE of ACTÆA RACEMOSA.
,, ,, of ERGOT (AMMONIATED).
,, ,, of SUMBUL.
FLUID EXTRACT of MALE FERN, P.B.
,, of OPIUM, P.B.
,, of PAREIRA, P.B.
,, of SARSAPARILLA, P.B.
,, of SARRACENIA PURPUREA (VEL LIQUOR).
,, of TRITICUM REPENS (VEL LIQUOR).
TINCT. of HEMLOCK FRUIT, P.B.
,, of LARCH BARK.
,, of PRUNUS VIRGIN.
,, of SAVIN, P.B.
,, of SENEKA, P.B.
,, of STRAMONIUM, P.B.
,, of VERATRUM VIRIDE.
FUCUS VESICULOSUS (Extract and Powder).

SUCCUS ACONITI.	SUCCUS DIGITALIS.
,, BELLADONNÆ.	,, HYOSCYAM.
,, CONII, P.B.	,, LACTUCÆ.
,, COTYLEDON.	,, SCOPARII, P.B.

LIQUOR SECALIS CORNUTI.—(Recognised Preparation.)

THE PRICE OF THE LIQUOR IS REDUCED TO 10s. PER POUND.

Exhibited at the "Obstetrical Society of London," by the President, June 1st, 1859.—Vide "The Lancet," July 11th, 1859.

University College Hospital, Oct. 28th, 1858.
I have much pleasure in stating that, after numerous trials under Dr. Murphy's direction, I have found the Liquor Secalis, as prepared by Mr. Curtis, to *far exceed* all other preparations of the kind.—HENRY HEMSTED, M.R.C.S.

Reigate, Feb. 2nd, 1862.
Gentlemen,—I have used your Liquor Secalis Cornuti for a considerable time, in a rather extended practice, and I am quite satisfied of its efficiency, and can recommend it with confidence to any of my Professional friends.
Messrs. Curtis and Co. Yours truly, JOHN SISSON STEELE.

January 21st, 1862.
Gentlemen,—I have great pleasure in testifying to the value of your Liquor Secalis Cornuti. I have used it extensively in obstetrical practice, and have found it to be exactly similar in effects to ergot itself, and to be of the relative strength announced by you. Since I first used it I never think of recurring to the tinctures formerly in use, or to the ergot itself.
Yours, &c., EDWARD NICHOLSON, M.R.C.S., F.C.S.,
Late Resident-Accoucheur to St. Mary's Hospital,
Messrs. Curtis. Paddington.

Clarendon-square, Feb. 4th, 1862.
I am constantly in the habit of using Messrs. Curtis and Co.'s Liquor Secalis Cornuti, and invariably find it give satisfaction.
JOHN WRENTMORE, M.R.C.S.

3, Jeffrey's-terrace, Kentish-town-road, Dec. 28th, 1861.
Having for some time prescribed the Liquor Secalis prepared by Messrs. Curtis, of Baker-street, and having on all occasions found its action to be most speedy and certain, I have much pleasure in bearing testimony to ts efficacy in all those cases in which the drug itself has a beneficial effect.
H. G. KNAGGS, M.D.

15, Wimpole-street, Cavendish-square, May 8th, 1862.
Gentlemen,—The Liquor Secalis I had of you some time since has succeeded so admirably that I am induced to give my opinion in writing, and you are at liberty to make any use of my name you may think proper.
I remain, Gentlemen, yours faithfully,
Messrs. Curtis and Co. J. WHITMORE.

49, Welbeck-street, May 12th, 1862.
Messrs. Curtis and Co.'s Liquor Secalis Cornuti, in my opinion, possesses all the virtues of the ergot itself. G. BIRD, M.D.

CURTIS & CO.'S INHALER.

Recommended by Dr. QUAIN *and others.*

This INHALER, invented by CURTIS & Co., CHEMISTS, 48, BAKER-STREET, LONDON, W., is in extensive favour with the Profession. To be had at the Manufactory, and of all Chemists and Surgical Instrument Makers in the United Kingdom.

Vide "Med. Times and Gaz.," Dec. 14th, 1861; "Dublin Med. Press," Jan. 29th, 1862; "British Association Journal," Feb. 22nd, 1862.

COMPOSITION OF **PASMA.**

Silica	30
Magnesiæ Oxyd... ..	12
Aluminiæ Oxyd. ..	6
Ferri Prot-Oxyd. ..	3
Amylum Oryzæ	50

PASMA, or HEALING POWDER,

The REMEDY for EXCORIATIONS, BURNS, ULCERS, and ERUPTIONS; also a PROPHYLACTIC of ABRASIONS in DELICATE, TENDER, and IRRITABLE SKINS. For the NURSERY this POWDER will be found INVALUABLE.

This preparation, during many years, has been submitted to the test of Professional experience, and is now confidently introduced to the Medical public as possessing Healing Properties *of a most marked and rapid character*, and on that account as meriting publicity and a place in every Hospital and Surgery.

PLASMA, or PASMA cum GLYCERINÂ,

ORIGINATED BY CURTIS & CO.

48, BAKER-STREET, LONDON, W.

ORIGINAL LECTURES.

LECTURES ON
CHEMICAL AND MECHANICAL DISEASES AND THEIR RELATIONSHIP.

By H. BENCE JONES, A.M., M.D., F.R.S.

Lecture I.
ON DISEASES OF SUBOXIDATION—DIABETES.

(Continued from page 58.)

On the Complications that occur in Diabetes.

There is no special complication belonging to diabetes, unless it be cataract. Generally it may be said that all the accidents of the disease are not owing to the diabetes, but to the debility which that diabetes produces. Thus, imperfect nutrition of the skin occurs, as in lepra, boils, carbuncles, mortification; or imperfect nutrition of the mucus membrane, as in irritations of all the mucous surfaces; or imperfect nutrition in the basement membranes or parenchyma of organs, as in phthisis.

Usually diabetic patients are exempt, in consequence of debility, from acute inflammations, and from stone and dropsy on account of the diuretic action of the sugar.

The experiments of Drs. Kunde, Mitchell, and Richardson on the production of cataract artificially by loading the blood with sugar furnish the most perfect demonstration of a chemical condition of the blood producing a mechanical alteration of the structure of the lens. In the early part of this lecture I dwelt on the reverse relation of chemical to mechanical disease—that is, on the injuries of the nervous system causing diabetes, and in this formation of cataract we have diabetes producing a mechanical complaint; and this complication occurs in nature so frequently that the connection has been observed by many Physicians.

Although only one direct complication of diabetes exists, yet the debility induced by the saccharine diathesis gives rise to many other diseases. It must, however, be remembered that debility arising from any other cause will give rise to exactly the same complaints.

The following remarkable cases will bring before you one of the frequent terminations of diabetes. A young lady, aged 19, passing four quarts of urine, specific gravity 1048, had probably been diabetic for twelve months. She gradually was growing weaker, when a sudden prostration of strength took place. After stertorous breathing for three hours, she became conscious, remained so for ten or twelve hours, again became comatose, and in twelve more hours she died.

A man, aged 36, came to me from Reading. He passed eight or ten pints of urine, specific gravity 1030, containing twenty-five grains of sugar to the ounce. He spoke of being able to walk two miles. On his return the same day from London, he passed a very restless night, and in the morning his breath was hurried; his pulse very quick and very weak. There was great inclination to stupor, though when aroused he was quite clear. He gradually became comatose, and died in thirty-six hours from his return home.

A gentleman came from Vichy in a very debilitated state. He had been three years under my care. His appetite was very small, and his emaciation and weakness very great. By great quiet he was regaining strength, when he was suddenly seized with nausea, and vomited once in the evening. He passed a very restless night, with retching and extreme debility. I went early in the morning to him, and found him comatose; and within twenty-four hours of the first sickness he died insensible.

A young lady, aged 15, with urine specific gravity 1055, came eighty miles for advice, and returned the day after. "The journey prostrated her to the most frightful degree." "She was unable to help herself in the least." During this extreme illness the diabetic symptoms disappeared. By no test could sugar be found. After a few days of the greatest danger, she gradually improved; the urine became five pints in twenty-four hours, sp. gr. 1041. Six months afterwards the specific gravity was 1022. Sugar was present, but the general symptoms were better.

In other weakening diseases the same attacks of prostration occur, and are often fatal. I went into the country to see a gentleman, about 45, who for some years had been my patient with dyspepsia and wasting; and perhaps latterly he may have had miliary tubercles in the lungs, I found him drinking port wine after dinner; hardly able with help to put on his coat when I had taken it off to examine his lungs. He was fearfully emaciated, but able to walk a few minutes in the air daily. Seeing his weakness, I examined him with the least possible fatigue. A few hours after I left him he complained of excessive feeling of debility. He gradually became comatose, and died in twelve hours after my visit.

Almost every month, at St. George's Hospital, during my admission week, I was able to trace the fatal effect of even very short journeys in very low states of different diseases.

The next consequence of extreme debility produced by diabetes that must be noticed is the deposit of tubercles. Phthisis has been considered as one of the necessary results of diabetes, but this is very far from the truth. When the nutrition of the body is feeble, tubercles are always ready to form, and every cause of feeble nutrition, not diabetes alone, produces a tendency to tubercular disease. Thus phthisis is not a secondary, but a tertiary result of diabetes. The imperfect nutrition produced by the sugar in the blood and extra-vascular tissues is the root of the evil. Among the rich, who can afford every strengthening food, phthisis is comparatively a rare ending of diabetes. Still, it occurs sufficiently often to prove how helpless medicine is to promote the nutrition of the body when the nutriment itself becomes a poison.

Another consequence of the feeble nutrition of the body is degeneration of the kidneys. Bright's disease may doubtless precede diabetes, although I have never seen this sequence. The reverse very frequently occurs; in the progress of the diabetes at varying times traces of albumen may be found, and gradually with great fluctuations the albumen increases, and ultimately the two complaints modify one another, so that I am accustomed to think sometimes that it is better to have these two diseases together than either of them separately. The increased flow of urine produced by the diuretic action of the sugar compensates for the imperfect filtration effected by the diseased cortical structure of the kidneys; and for years I have watched the diabetes stationary or lessening, or occasionally disappearing, whilst the Bright's disease slowly increases and causes its secondary or tertiary symptoms which gradually destroy the patient.

On the Treatment of Diabetes.

Almost every substance in every Pharmacopœia has been tried as a specific for diabetes; but hitherto no remedy has been found to have a constant effect in stopping the sugar from appearing in the urine.

This by no means renders it impossible or improbable that some substance may be discovered which may be able to effect a perfect cure of this functional disorder.

Meanwhile the effect of diet is far beyond that of any known remedy.

An antifarinaceous, or, in other words, an antisaccharine diet will remove the sugar from the urine, and stop all the symptoms of the complaint in all those cases in which the power of consuming the animal sugar remains unaffected.

Even when the consumption of the animal sugar is imperfect or impossible, an antisaccharine diet will lessen the thirst, the flow of water, the dryness of the mouth, and even the constipation, and check, though it may not stop, the waste.

The simplest formula for the diet may be thus stated. All animal produce, including fish, flesh, fowl, game, eggs, cream, and meat soup should be taken; and all vegetable food that contains starch, dextrin, and sugar should be avoided.

As generally it is of the utmost importance to shun the forbidden food, I shall dwell upon it first.

The vegetable substances that contain most starch, dextrin, and sugar are rice, maize, arrowroot, sago, potatoes, oatmeal, peas, beans, bread, biscuit, toast, maccaroni, vermicelli, and all confectionery.

Fruits are even worse than vegetables. Apricots, plums, peaches, cherries, pears, gooseberries, are nearly as bad, and some worse, than rice and maize. Stout, porter, and ale, cider, port, Madeira, champagne, and sherry are more or less highly saccharine; cocoa and chocolate contain near 20 per cent. of starch and dextrin naturally, and more is often added.

The harm of each of these substances may be determined by the amount of starch, dextrin, and sugar they contain.

The following table, in which the fruits and farinaceous vegetables are taken as perfectly dry, will answer many questions regarding the diet of a diabetic patient :—

	Amount of Starch, Dextrin, or Sugar.
Ripe dry Apricots . .	about 93 per cent.
,, Plums. . .	,, 92 ,,
,, Peaches . .	,, 86 ,,
,, Cherries . .	,, 85 ,,
,, Pears . . .	,, 84 ,,
,, Figs . . .	,, 79 ,,
,, Gooseberries .	,, 37 ,,
Dry Rice	,, 90 ,,
,, Maize	,, 88 ,,
,, Arrowroot . . .	,, 77 ,,
,, Potatoes . . .	,, 76 ,,
,, Oatmeal . . .	,, 70 ,,
,, Peas	,, 67 ,,
,, Beans	,, 67 ,,
,, Bread	,, 61 ,,
,, Milk	,, 21 ,,

Stout . .	about 45 to 64 grs. of sugar per ounce
Porter. .	,, 23 ,, 40 ,, ,,
Ale . .	,, 12 ,, 45 ,, ,,
Sweet cider.	,, 18 ,, 44 ,, ,,
Port . .	,, 16 ,, 34 ,, ,,
Madeira .	,, 6 ,, 66 ,, ,,
Champagne.	,, 6 ,, 28 ,, ,,
Sherry .	,, 0 ,, 12 ,, ,,

If dry rice contains 90 per cent. of starch, dextrin, and sugar, and potatoes contain 76 per cent. of starch and dextrin, and if all the starch and dextrin pass off in the urine as ugar, it is evident that to forbid potatoes and to allow instead an equal quantity of rice is simply ordering the quantity of sugar from this source in the urine to be increased 14 per cent., thus adding to the thirst and waste. Or if half-a-pint of port wine is forbidden eontaining from 128 to 272 grs. of sugar, and if a pint of porter or stout is ordered which contains from 368 to 960 grs. of sugar, it is clear that the quantity of sugar in the urine will thus be increased from half-an-ounce to an ounce and a-half daily.

Before passing to the best diabetic diet, there are two substances—bread and milk—which require to be further mentioned here.

Ordinary bread contains water, salts, starch, dextrin, sugar, and gluten.

If the salts, starch, dextrin, and sugar are washed away, the gluten remains, which, in a chemical point of view, is as unobjectionable as meat.

In making the different kinds of gluten bread this washing is more or less perfectly performed.

In the following analysis the water, starch, dextrin, and sugar were determined, the residue or difference was taken as gluten :—

	Water.	Starch and Dextrin.	Sugar.	Gluten.	
Ordinary bread .	36	40	1	23	per cent.
Aerated bread .	37	42	2	19	,,
Gluten bread from Toulouse . .	2	16 to 44	0	82 to 54	,,
Dried bread . .	2	60	1	37	,,

The best washed gluten bread contains less starch than bran cakes or any brown bread ; Dr. Pavey's almond bread is free from all starch, but the almond flour must be well washed to remove the sugar and dextrin, of which ten per cent. are present.

Badly-washed gluten may be made into dry bread containing bulk for bulk more starch than ordinary undried bread ; thus an excess of gluten bread may keep up the amount of sugar in the urine, and prevent an improvement in the symptoms.

With regard to milk, one hundred parts may be taken to contain three parts of lactine, or about half-an-ounce of lactine exists in a pint of milk. If all of this animal sugar was incapable of being consumed in the system, milk would be nearly as injurious as an equal quantity of many wines, and the best sweet ale ; but experiment shows that this sugar is often partly or entirely consumed.

A diabetic patient lived upon butchers' meat alone for two days. The quantity of urine passed was forty ounces the first, and forty-two ounces the second day ; specific gravity, 1029·0. No trace of sugar could be found. He then took milk for two days ; the first day eighty-eight ounces, the second day ninety-nine ounces. The urine was forty-five and a-half ounces the first day ; specific gravity, 1024·1 : and the second day sixty-nine ounces ; specific gravity, 1011·9. Sixty-seven grains only of sugar were passed the first day, and twenty-three the second day.

At a more advanced period of the disease, when strictly animal diet did not cause the sugar to disappear from the urine, milk alone was again taken.

The first day 138 ounces of milk were drank ; the urine was 61 ounces ; specific gravity, 1030·5. The second day 88 ounces of milk were taken ; the urine was 34½ ounces ; specific gravity, 1027·8. The quantity of sugar in the urine was 854 grains the first day, and 414 grains the second day. At this time, on animal diet alone, one day 280 grains of sugar were passed, and the next day 600 grains.

Thus milk is more or less injurious according to the stage of the complaint. When animal sugar can be consumed milk is comparatively harmless.

In the advanced stages of the complaint curds or sour milk, with the acid nearly neutralised by potass, soda, or ammonia, would be as unobjectionable as gluten bread.

The following *carté* of the dishes suitable for diabetic patients is given by Professor Bouchardat to those who consult him ; and with a few alterations I consider it as much superior to any table I could draw up as French is to English cookery.

ENUMERATION OF THE DISHES SUITABLE FOR DIABETICS, ACCORDING TO THE OPINIONS PUBLISHED BY M. LE PROFESSOR BOUCHARDAT IN HIS "MEMOIR ON DIABETES." PARIS, 1859.

Important Remarks.

The farina of wheat and every kind of flour made from cereals or leguminous vegetables—in short, all farina must form no part of any sauce ; also raspings of bread. The farina of Martin, or the powder of gluten bread of Durand, or more simply the yolks of eggs, butter, or cream, must be used instead.

Sugar, caramel, carrots, onions, turnips are also forbidden.

All leguminous vegetables must be washed repeatedly, and, if possible, they should first be well dried and chopped up small.

Rochelle salt may be substituted with advantage for common salt in the seasoning of food.

The dishes marked with a query are only fit for some patients. The urine should be analysed after their use. (They should not be taken without express permission.)

Bread.

Sliees of gluten bread of Durand of Toulouse.
The same heated in an oven.
The same made of bran.
Various kinds of bread prepared with Martin's gluten farina when gluten bread is not to be had.

Soups.

Consomme without bread.
Broth without bread.
Cabbage soup.
Leek soup.
Poached egg soup.
Bisque soup without bread or flour.
Game soup.
Broth with cheese and olive oil.
Semolina soup. The semolina made from the gluten of Durand.
Vermieelli soup. The vermicelli made from the gluten of Martin.
New paste soup from the gluten of Durand.
Soup made from granulated gluten of Martin.
Soup with butter and semolina of the gluten of Durand.
Soup with butter and the pure gluten of Martin.
Soup with olive oil, garlic, sage, with semolina of gluten, or with pure granulated gluten.
Yolks of eggs and cream may be added to these four last soups.

Hors d'Œuvre, Warm.

Fresh eggs, sausages, cabbage sausages, sour kraut sausages, truffled sausages.
Pickled pork with cabbage, also with sour kraut. These should be washed in much water and well dried.
Pigs' feet à la Sainte Menehould, (?) or stuffed with truffles (?).
Black pudding. Ham. Ham and spinach.
Roast pork. Pork cutlets, fresh, simply dressed, or with mustard sauce, or with sauce piquante.

Forced meat balls of Troyes (?).

Fresh herrings with butter, or with sauce piquante. Dried herrings.

Fresh sardines. Fried oysters. Oysters dressed in the shell.

Black beetles with butter, garlic, and other herbs.

Hors d'Œuvre, Cold.

Oysters, white, English, Ostend, Marennes, and pickled.

Butter.

Pickled mackerel. Anchovy salad. Sardines pickled in oil. Salt herring with olive oil.

Olives. Stuffed olives. Artichokes with pepper.

Half slice of melon (???).

Ham salted or dried. Bayonne ham with jelly.

Lyons or Arles sausages. Bologna sausages. Troyes sausages.

Tongue. Wild boar's head. Prawns, Caviar. Lobster. Craw fish. Crabs.

All butchers' meat or pork smoked or salted with nitre and salt agree very well. They should have the salt removed by water, and be served in dry slices with olive oil or fines herbes.

Beef.

Boiled beef; with marrow; with cabbages; with well-washed sour kraut; with sauce piquante; with vinegar.

Beef-steak; with water-cresses; with beans; with anchovy butter; with Parmesan cheese; with cauliflower; with spinach; with chicory.

Roast beef; with the same things.

Fillet saute dans sa glace; with olives; with anchovy butter; with dry Madeira; with truffles; with pickle sauce, à la Bearnaise.

Minced beef with piquante sauce, or ribs of beef with the same.

Slices of palates of beef. Tongue with sauce piquante. Strasburg beef.

Lambs.

Larded lamb. Lamb sweetbread with truffles. Lamb chops.

Lamb with asparagus points; with spinach; with chicory.

Fricasee of lamb with mushrooms, without flour. The same with truffles.

Leg of lamb. Breast of lamb with aromatic herbs.

Mutton.

Leg of mutton. Mutton chops. Cutlets with mushrooms or truffles; with crumbs of semolina of Durand; with chicory; with spinach; with beans; with asparagus tops, à la Provençale.

Fillet of mutton pickled like a kid.

Small fillets grilled.

Kidneys on the skewer, or dressed with Malaga.

Breast of mutton with chicory.

Lambs' feet "à la poulette," without common flour.(?)

Veal.

Sweetbread larded with gravy; with chicory; à la financiere with truffles; à la poulette (butter, yolks of eggs without farina).

Mesentery of the calf in oil (very good).

Fricandau in gravy, or with chicory, or spinach, or lettuce, or French beans, or asparagus tops.

Calves' ears, plain.

Calves' head, plain or as mock-turtle.(?)

Calves' brains, with butter, or à la poulette, or fried with gluten flour.

Tongue in paper.

Cutlets in paper or grilled plainly; with truffles or mushrooms; with ham; with asparagus tops, chicory, or lettuce.

Veal kidneys. Omelette of veal kidneys.

Cold veal with jelly.

Entrees of Poultry.

Fowl or capon with coarse salt; with jelly; with oysters; with Tarragon; with broth or fricaseed with gluten flour; "à la tartare;" with truffles or mushrooms; with lettuce.

Chicken salad.(?) Mayonaise of chicken.(?)

Capon or duck with olives. Slices of goose with olives.

Pigeon à la crepaudine, with Durand's semola.

Gelantine of poultry.

Entrées of Pastry.

All these dishes should be prepared with gluten flour instead of ordinary flour, the best butter, and very fresh eggs.

Vol au vent of poultry; of sweetbread with truffles or mushrooms(?); of salmon turbot or codfish.

Petit pâtes with gravy; with ham, lobster, prawns, and oysters.

Entrées of Game.

Partridges in cabbage, or en salmis.

Fillet of partridges with truffles.

Woodcocks en salmis, or with truffles.

Snipes en salmis. Wild duck and larks en salmis. Larks with bread crumbs.

Larks "en caisse," also quails. Quails with lettuce. Teal en salmis.

Fillet of venison with peppered sauce, or with mushrooms.

Venison cutlet with truffles. Haunch of venison with sauce piquante.

Partridge salad. Purée of game with poached eggs.

Hashed hare.

Eggs.

Eggs stirred up. Eggs with Parmesan cheese, broiled with asparagus tips, or with truffles.

Poached eggs, with butter, with gravy or chicory, with spinach.

Omelette aux fines herbes, with truffles, with ham or sausage, with kidneys, with different kinds of cheese.

Omelette with hashed game.

Fried Fish.

In frying, ordinary flour should be replaced by gluten flour.

Fillets of sole. Plain sole. Whiting. Gudgeon. Smelts. Carp.

Fried oysters. Carp's roe. All fried fish. Fried legs of frogs. Fried crabs' tails.

Entrées of Fish.

Pike with caper sauce or oil.

Barbel "au bleu" with caper sauce or oil.

Trout. Barbel. Chub. Perch. Tench. Chub roasted with butter and herbs.

Dabs with caper sauce or oil. Turbot with capers or oil, with crumbs of semolina of Durand.

Turbot with lobster or oyster sauce. Salmon with capers or oil, with lobster or oyster sauce.

Salmon trout with capers or oil. Mayonnaise of salmon.

Sole aux fines herbes and au gratin with Durand's semolina. Sole matelotte Normande.(?)

Fillets of sole en mayonaise. Whiting with white wine and fines herbes. Fillets of whiting au gratin.

Mackerel à la maitre d'hotel. Smelts au gratin with Durand's semolina, and aux fines herbes.

Matelotte of carps or eel. Carp "au bleu," or with oil.

Eel à la tartare, or à la poulette. Mackerel roe en matelottes.

Herring with butter, or oil, or mustard sauce.

Cod fish à la maitre d'hotel, or à la Provençale, or with oil.

Ray with butter or caper sauce. Sea eel with oil or butter. Brill. Cod with oil or butter.

Mussels à la poulette or pickled. Frogs. Lobster salad. Crabs. Prawns; or beetles' or crab sausages.

All the sauces should be prepared with butter and the yolks of eggs, without flour or with gluten flour.

Salads.

Plenty of oil should be used and little vinegar, or it may be replaced by wine.

Lettuce with or without eggs. Romaine. Escarole. Chicory. Monks' beard.

Corn salad. "Scorsonere."

Watercresses. Celery (?). Green haricots. Cauliflower alone or with eggs.

Roasts.

Fillet of beef larded or roasted. Fillet of horse. Loin of pork.

Leg of mutton or lamb. Roast veal. Venison. Fowl or capon roasted.

Roast pigeon, duck, goose, turkey. Truffled turkey or capon.

Pheasant. Red or grey partridge truffled. Ortolan. Quail. Ruddock.

Snipe. Woodcocks. Thrush. Quails. Golden plover. Teal. Bec figues.

Several of these dishes may be garnished with watercresses, or chicory, or lettuce, or mushrooms, or bread of Durand's gluten in place of bread crumbs. Slices of gluten bread may be soaked in olive oil.

Entrémets of Pastry and other things to take the Place of Confectionery.

Gluten cake made as follows:—Something more than three-quarters of a pint of water; three and a quarter ounces of very fresh butter; a sufficient quantity of salt or bicarbonate of soda are mixed and made to boil; remove it from the fire,

and add rather more than eight ounces of flour of gluten; mix it well; beat it well on the fire to obtain a stiff paste; withdraw it from the fire, and let it cool for five minutes; then add, stirring violently, three very fresh eggs; divide into little cakes the thickness of the finger and the size of a plate; bake them in a slow oven for about half an hour.

Pancakes au gluten with Martin's flour and goose grease, or with semolina of Durand.

Wafers with flour of gluten or semolina.

Rum or Kerch jelly, or coffee jelly without sugar. Rum omelette without sugar with a little gluten flour.

Vanille omelette without sugar.

Light pastry answers very well with gluten flour, but sugar must be replaced by salt. In some cases the liquid part of the best honey, from which the solid injurious part has been removed, may be taken.

Gluten bread made with gluten flour. Take two pounds and a quarter of gluten flour; fresh yeast the size of a filbert, mixed with a little cold water; two pinches of kitchen salt; hot water at 96° F. (35° C.) to 104° F. (40° C.), in quantity sufficient to make a thin paste, which is to be put in a pan powdered with gluten flour or bran, and then kept in a warm place until it has raised. This may take from an hour to two hours, according to the heat. Then divide this paste, using gluten flour, into little rolls, which are to be baked like ordinary bread. When there is constipation one quarter the amount of bran may be added to the gluten flour.

Entremets of Vegetables.

Artichokes with butter; same without flour, or with oil; or à la Barigoule; or fried, or à l'Italienne; or à la Lyonnaise, without flour.

Cauliflower with sauce, either oil or gravy; au gratin, with Durand's semolina; with Parmesan.

Cabbages with butter or oil. Brussels sprouts with butter and oil. Lettuce with gravy or cream.

Asparagus with same or oil. Mushrooms with gluten semolina. "Salsifis" with sauce or gravy.

"Cardons" with gravy or marrow. "Morilles à la poulette." Truffles with Madeira or à l'Italienne.

Cucumbers well washed, or à la Béchamel with gravy or marrow. Celery with gravy, well washed.

Carrots cut very small, washed with much water, with gravy of meat.

All these vegetables should be washed by making them boil with the greatest possible quantity of salt water and drying them well.

Sweet vegetables, such as radishes, onions, turnips, may be used if they are cut very small and boiled with much water, and then well dried.

Coffee—Tea.

Mocha, slightly roasted, made with cold water without sugar. The same with cream, rum, brandy, and Kirsch.

Bourbon and Martinique coffee without sugar.

Pekoe tea à pointes blanches without sugar. Souchong.

Cream, rum, brandy, Kirsch may be added to the tea instead of sugar.

Petals of orange flowers, make like tea, without sugar.

Dessert.

Cream cheese without sugar. Neufchatel cheese, "bondon raffiné."

Cheese de Brie, d'Epounessés, or Auvergne, or Mont d'Or, or Gruyere, or Dutch, or Rochfort, or Pont Lévêque, or Chester, or Parmesan, or Stilton, or Silton, or Strakeno.

All should be dried, and without sugar.

In very rare cases, strawberries (?), peaches (?), raspberries (??), gooseberries (??), cherries (??), may be taken without sugar, either preserved by Appert's process or in brandy.

Fresh almonds, nuts, walnuts, young green walnuts in salt water without vinegar; the same dried.

Raw apples (??) and pears (??) may rarely, if ever, be taken.

Liqueurs.

Eau de vie de Cognac, de Marc. Kirschwasser. Jamaica rum.

Alcohol of Garus, diluted with orange-flower water, without sugar. Gin without sugar. Absinthe without sugar.

Wines.

Red.	*White.*
Avallon-Tonnerre.	Madeira.
Mâcon.	Marsala.
Beaune.	Chablis.
Côte Saint Jacques.	Pouilli.
Pomard—Nuit, old.	Girolles.
Chambertin—Clos Vougeot.	Nauchévre.
Châinette.	Mont Rachet.
Romanée.	Grave.
Hermitage.	Sauterne.
Bordeaux.	Côte Rôtie.
Médoc.	Hermitage.
Château Larose.	Sherry.
Saint Julien.	Rhine (?).
Château Lafitte.	
Cahors—old.	

The following general statement regarding the amount of sugar in wine and beer may be useful:—

	Amount of sugar in an ounce of fluid. Grains.		Grains.
In Sherry the sugar varied from	4	to	18
Port ,, ,,	16	to	34
Madeira ,, ,,	6	to	20
Malmsey Madeira ,, ,,	56	to	66
Tokay ,, ,,	74		
Samos ,, ,,	88		
Paxarete ,, ,,	94		
Cyprus ,, ,,	102		
Champagne ,, ,,	6	to	28
Sweet Cider ,, ,,	18	to	44
Bitter Ale ,, ,,	12	to	130
Porter ,, ,,	23	to	40
Stout ,, ,,	45	to	64

The fluids examined may be arranged in the following order, commencing with those which contain no sugar, and ending with the most saccharine:—

Geneva, Rum, Whiskey, Claret, Burgundy, Rhine, Moselle. These have no sugar. Brandy, Sherry, Madeira, Champagne, Port, Cider, Porter, Stout, Malmsey, Ale, Tokay, Samos, Paxarete, Cyprus.

(To be continued.

ORIGINAL COMMUNICATIONS.

REMARKS UPON

CERTAIN VIEWS RECENTLY ADVOCATED BY DR. BENCE JONES

IN A "PREFACE" TO LECTURES ON CHEMICAL AND MECHANICAL DISEASES.

By LIONEL S. BEALE, M.B., F.R.S.

There are few branches of inquiry more likely to advance Medicine than the study and investigation of first principles. We all desire to learn what actually occurs in the process we call nutrition, what really goes on in diseased nutrition, inflammation, etc.; how matters become oxidised, —in short, in what particulars the changes occurring in healthy and diseased living things resemble those going on in the external world, and in what they differ from them. We want to be taught what, in the present state of science, should be understood by the word "life." Is "life" but a modified form of heat and motion, or some power quite distinct from physical or chemical force? or is "life" made up of physical and chemical actions, and actions distinct from these (vital actions)? Again, does the "life" of one of the higher animals comprise phenomena distinct in their essential nature from those which make up the "life" of a monad? Do the vital actions going on in the latter approach more nearly to the phenomena occurring in the inorganic world than the actions which constitute the "life" of the former? Never were such questions more intensely interesting than at this present time,—never could they have been investigated with greater hope of success.

In considering a problem so vast and so difficult of solution, it would seem most natural to begin with the lowest, simplest living things, and advance from these to the consideration of the higher and more complex,— to inquire what goes on during the life of a monad or a microscopic fungus, or a single cell of one of the tissues—and then attempt the discussion of more complex changes. Instead of proceeding thus, however, many who express most positive opinions upon these difficult questions discourse upon the nature of the phenomena going on in the entire organism of man himself in his fully developed state. The inquiry is prefaced by some reference to force, and the constancy of its amount in the universe. Systems, and suns,

and worlds, and steam-engines, and mills, and wheels, and springs, and telegraphs, and furnaces are then referred to. The student has been told over and over again that in plants and animals the same forces are at work as in the inorganic world, and that the investigation of the laws of the indestructibility and correlation of force will explain much concerning the nature of "life;" while his attention is not drawn to the phenomena peculiar to living things which receive no explanation whatever from what is yet known of physical and chemical laws; and hence in the present day many are led to believe that the identity of *vital* and physical actions has been fully and completely established, although such an inference is not justified by any scientific observations or discoveries yet made.

In an interesting "preface" to some lectures on "chemical and mechanical diseases," published in the *Medical Times and Gazette* for January 7, 1865, Dr. Bence Jones makes some statements with reference to the changes going on in living beings to which I would draw the attention of Physicians and Physiologists. The following chemical and mechanical doctrines, expressed or implied in this paper, seem to me open to objection:—*By oxidation "used organs" are made soluble or volatile, to facilitate their removal from the body. Heat acts by dilating the capillaries, and thus permitting freer circulation. Cold acts by constricting the capillaries. The solid parts of the food increase chemical action in the stomach. Nutrition is a great chemical process. Nutrition and oxidation are always taking place in each particle of the human body during life.*

Dr. Bence Jones also remarks that,—*We are just ceasing to regard the nervous force as the origin of all the power in the body. We have ceased to look on the human machine as a creator of vital force.* I would ask, When was the nervous *force* regarded as the origin of all the power in the body, and the human machine as a *creator* of vital force?

I shall venture to offer a few observations upon some of the views entertained by Dr. Bence Jones, feeling sure that he, and indeed every one who enters upon an examination of the first principles of medicine, desires that every theory propounded should be subjected to the most careful investigation. Moreover, there are no questions better adapted for free discussion than some of those upon which Dr. Bence Jones offers opinions; and in certain instances he speaks so very confidently that I feel sure he would be pleased with criticism at the hands of those who have studied the same questions from a somewhat different point of view.

With regard to "the two great *chemical processes* of oxidation and nutrition," which are "*always* taking place in *each particle* of the human body during life," and which constitute the mainspring of those forces which are summed up in the word "life," I venture to remark:—

1. That nutrition cannot properly be termed a chemical process since the term "nutrition" implies much more than either physical or chemical change, or both, while there is no known chemical process or action which resembles the process of nutrition, as it occurs in things which "live."

2. Are oxidation and nutrition always taking place in each particle of the human body during life? There are tissues in the body which are never nourished and never oxidised after their formation is complete. Were it not stated in two distinct places, I should have doubted if Dr. Bence Jones really intended to say "each particle." I cannot conceive a statement less justified by what is known of the changes going on in living beings than the assertion that "oxidation and nutrition are always taking place in each particle of the human body during life." Every single texture of every living thing consists of matter in two distinct states, in which changes of a totally different kind are going on. I doubt if we can obtain from any organism a single piece of structure of any kind measuring $\frac{1}{500}$th of an inch in every direction which exhibits uniformity of structure and composition, or consists of particles all undergoing the same sort of changes. Take even a single epithelial cell; its outer part is dry, and hard, and passive, and dead; its innermost portion is soft, and diffluent, and active, and living. The latter alone is the seat of *vital* actions.

What is to be understood by a "particle" of the human body? If the tissues were composed of matter exhibiting the same character throughout, a "particle" might mean a small piece, of no very great size or definite form; if of a number of bodies like stones or pebbles, or bricks as in a wall, "particle" might mean one of these, and each might be said to consist of smaller "particles;" but the tissues are not so constituted. If "particle" stands for what is usually called "cell," such particle is not of the same character throughout, and is certainly not always undergoing the processes of oxidation or nutrition. If by "particle" is meant a smaller portion of one of these "cells," there will be in many tissues a number of particles differing in almost every character which can be assigned to them. Some capable of being the seat of nutritive operations and of most wonderful and perhaps rapid changes (vital), having nothing in common with mere physical and chemical actions; others so passive that they may retain their general character and composition for centuries, and, although capable of being altered by external conditions, have no power of assimilation or increase of their own. Every tissue and every cell is composed of two different kinds of matter, and the particles constituting each possess very different properties. Does "particle of the human body" refer to a particle of tissue or fluid, or a particle of "nucleus," ("proto-plasmic," or living matter)?" I would ask Dr. Bence Jones to state what he wishes the reader to understand by the term "particle of the human body."

3. "Nutrition and oxidation," two great chemical actions, "which constitute the *mainspring* of those forces which are summed up in the word 'life.'" By this I conclude Dr. Bence Jones intends to express the opinion that the forces which constitute "life" depend upon, or spring from or are the result of, the two chemical processes of oxidation and nutrition. Now, a thing must "live" *before* it can be nourished. The process of nutrition presupposes the existence of something *alive* to be nourished. Many lower beings, and many living cells from man himself, may "live" without nutrition or oxidation *always* going on; nay, it would, I think, be far nearer the truth to say that oxidation was opposed to vital forces rather than in part their mainspring. At any rate, there are beings to which, according to Pasteur, oxygen seems to act as a poison. "Life" may undoubtedly exist without either nutrition or oxidation always going on. Matter must surely not only live, but die before it can be oxidised in the body. Unless oxidation invariably precedes the manifestation of vital actions, it is difficult to understand how these can depend upon oxidation. Now, the developmental period is not remarkable for the activity of oxidation, although it is very remarkable for the activity of vital action. The doctrine that "chemical actions" constitute the "mainspring" "of those forces which are summed up in the word 'life,'" is a doctrine which is not supported by evidence, and in other communications I shall endeavour to show that chemical actions cannot form the mainspring of the "*vital* forces."

To say "that the resemblance of inflammation to ordinary combustion has long been recognised" is to assert a proposition with which, I venture to think, very few physiologists and pathologists in the present day would agree. Had I been asked, I should certainly have answered that the notion of the resemblance of inflammation to ordinary combustion had long been abandoned. In what points, I would ask, does inflammation resemble ordinary combustion? It seems to me that there are few processes more unlike, except in name, than inflammation and combustion, and if any one form of inflammation be selected for discussion, I am quite ready to support this view.

"We are beginning now to see that fevers bear the same relation to inflammations that fermentations do to combustions." Fermentation takes place through the agency of living beings alone, or, in other words, living things are necessary to what we call "fermentation;" but what is the relation of living things to "combustions"? Fever and inflammation, and fermentation are peculiar to living organisms, and cannot occur except in connexion with living organisms. Combustion, however, is opposed to, and destroys that which lives. It remains, therefore, for Dr. Bence Jones to show the relation to which he refers. I am not certain that I interpret properly the following sentence, so that it is but fair that I should forbear to criticise the statements it contains until the author has had an opportunity of defining his meaning more precisely:—"Thus oxidation depends on the nutrition of the blood-globules, the heart, and the blood-vessels which admit of the diffusion of the oxygen and the fuel into each portion of the extravascular structures; whilst nutrition depends on oxidation directly by transformation of force, and indirectly by the heat causing a relaxation of the vessels, and thus permitting an increased flow of nutritive substances to the parts."

ON THE NATURE AND TREATMENT OF CHOLERA IN THE COLLAPSED STATE.

By HENRY GREENWOOD, M.D. St. And., M.R.C.P. Lond.

In the laws of cholera it is stated:—"At the first appearance of the epidemic in 1832, and for many subsequent years, it was a subject completely shrouded in mystery; its nature was not understood, its movements were a riddle, and its proper treatment, even amongst the most scientific and experienced, was unknown." This statement is literally true, and the explanation is to be found in the fact that the attention of Medical men was diverted from a calm consideration of the phenomena of the disease to a wild search for an immediate remedy.

A review of the symptoms ought soon to have convinced any dispassionate inquirer that no remedy was applicable to the condition of collapse—that is to say, that no medicine administered to a person in that state was capable of removing it.

But the inquiry which would have led to this unsatisfactory result was also capable of affording important suggestions, and on them might have been founded a rational mode of treating cholera in the collapsed state.

I will just give the symptoms of cholera in the collapsed state, as described by Mr. Moss, of Windsor, "in words of terrible precision," to be found in a popular and highly valuable article on cholera, contained in the "British Almanack" of 1849:—

"It is characterised by vertigo, great prostration of strength, severe cramps in the legs or abdominal muscles, with loud and violent vomiting of large quantities of a thin gruel-like fluid, devoid of smell; at the same time forcible and most profuse ejections from the bowels of a precisely similar fluid, in such astonishing quantities as to show that all the watery portions of the blood are being drained off; the body becomes colder than an ordinary corpse, and often as pulseless; and the countenance far more cadaverous and ghastly than that of death under any other form of disease. The eyes are deeply sunk in their sockets, which are perfectly hollow from the abstraction of their natural fluids; the voice is a tremulous croak, or sunk to a deep sepulchral whisper; the breath strikes your cheek like the air from an icehouse; and the tongue feels like the touch of a frog. Different parts of the body assume a leaden hue, owing to the thick and stagnant blood of the cutaneous vessels shining through the attenuated skin, which is as cold and clammy as in the approach of death from low fever. When a vein is opened in the arm, the blood will rarely flow, and, on being squeezed out, has the appearance and consistence of treacle; add to this that the thirst is insatiable and restlessness extreme, and you will have a faithful portrait of a disease which none can fail to recognise or mistake for any other." A sense of heat and intolerance of heavy clothing must not be omitted.

Such are the phenomena which characterise the state of collapse, and a moderate consideration of them will very distinctly point out the cause of that state, and, at the same time, the hopelessness of finding a remedy.

The facts prove satisfactorily that the state of collapse is occasioned by the blood being so drained of its fluid portion as to be greatly diminished in quantity, and at the same time rendered incapable of free circulation by the thickened state to which it is reduced by that drain; so that there is not only an effect equivalent to that produced by large sanguineous depletion, but also another, arising from the difficulty of circulation in consequence of the inspissated condition of the blood remaining.

The state of a person in the collapsed stage of cholera is analogous to one who has lost a very large quantity of blood, with the additional evil that the blood remaining is unfit for circulation from want of sufficient fluidity. So that whilst in the case of sanguineous depletion reaction may be safely restored as quickly as possible by means of stimulants, in the condition of collapse it cannot be so without considerable danger, until sufficient time has been allowed for the absorption of fluid into the system to fit the blood for circulation.

The state in some degree resembles that of the frost-bitten limb, for though the causes differ the effect is nearly the same.

The condition in both cases is one of low vitality with suspended circulation, occasioned in one by the application of cold, in the other by the thickened state of the blood, and in both cases reaction may be encouraged by suitable means, but cannot safely be forced. Experience tends to confirm these views. The necessity of restoring the fluidity of the blood was recognised in 1849, and various means were adopted to effect this first condition of reaction. Transfusion was employed, and various forms of fluid were injected into the veins, but although early reaction was thus obtained, the cases ended fatally. On the other hand, it now and then happened that a person in an extreme state of collapse, who had been left to die quietly, after every means to induce reaction had been tried in vain, spontaneously revived, and eventually recovered, thus proving that the natural powers are capable of producing reaction, even under the most hopeless circumstances, and suggesting that the state of collapse, however dangerous in itself, is yet favourable to absorption, and therefore to eventual restoration of the circulation.

Having endeavoured to establish some principles of treatment, I will now attempt their application.

The necessity of restoring to a certain degree the fluidity of the blood before a beneficial reaction can be established, as suggested by the cause of collapse, would lead us to encourage absorption by every means in our power. There are indications, moreover, in the state of collapse to assist us in applying the most appropriate means. The excessive thirst, for which cold fluid, and especially cold water, is earnestly coveted, suggests a free supply of fluid, and as cold water is most agreeable to the sufferer, so it will also be found a very important agent in relieving the existing condition. Another indication is afforded by the great heat complained of, even during the coldest state of collapse, accompanied by intolerance of heavy clothing. This seems to indicate that fresh air and light covering are very likely to assist the absorption of fluid, and concur with the cold water in bringing about the gradual change required in the condition of the blood.

The general treatment that I would recommend in cases of cholera in the collapsed state consists in preserving the patient carefully in a recumbent position, allowing no exertion that can be avoided, and providing for the removal of all discharges without disturbance; in admitting the air freely, covering the bed lightly, and satisfying the thirst by giving cold water in small quantities at a time, frequently repeated; in avoiding all stimulants, whether external or internal, heat and friction especially included, and applying cloths wrung out of cold water to the parts affected by cramps instead of rubbing them.

It will be found that whilst by these means a great deal of annoyance is saved to the patient, and a great deal of trouble to the attendants, the probability of a favourable reaction is considerably increased. The only medicine I would recommend is a grain of calomel every hour until reaction is established. When reaction does take place and the patient rallies, the case must be treated as one of low fever, stimulants, however, being avoided until the period of dangerous congestion is passed, nourishment being supplied in the meantime principally by the use of animal broths in small quantities, at intervals of from two to three hours.

Besides the complete state of collapse of which I have been speaking, there occurred frequently in the attacks of 1832, 1833, and 1848, 1849, a state of incomplete collapse of a much less dangerous nature. It was characterised by great prostration and some of the symptoms of complete collapse, but the circulation was never suspended, though very depressed. This state was readily amenable to treatment, and after the early part of the attack in 1848, 1849, I saw no patient sink under it. The general treatment was as before directed; the Medical modified to suit the less dangerous condition of the sufferer. Thus the grain of calomel was administered only every four hours, followed by a tablespoonful of simple saline mixture until a proper reaction was established.

It is necessary to distinguish these two states, or rather degrees, of collapse, as by confounding them a much larger number of recoveries from cholera in the collapsed state appear to have occurred than really took place, and the varying degrees of success recorded by Medical men can be reconciled only in this way.

It is a melancholy fact, but in accordance with general experience, that of any given number of persons in the state of complete collapse a large proportion will die in that state, and of those who rally a considerable portion will sink during the period of reaction.

Thus, according to my own experience, of twelve persons in that condition six will die, and of the six who rally two will sink during the period of reaction, leaving only four, or one-third, who eventually recover.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

CASE OF MALIGNANT DISEASE OF THE ORBIT—CLINICAL REMARKS.

(Under the care of Mr. HAYNES WALTON.)

Malignant disease in the orbit is sufficiently rare to the mass of men in practice, to render the report of a case of the kind interesting, and even instructive, especially when we are able to report with it remarks by one so long engaged in ophthalmology as Mr. Walton. A single case is reported because there is, Mr. Walton says, so little variety in the symptoms objectively, or subjectively, as not to require several to illustrate the nature of the affection. The commencement, the course, and the termination are, he thinks, much alike in all; if there be any obscurity in the diagnosis in the first instance, it is shown alike by every example.

A female 40 years old was sent to Mr. Walton at the Hospital several months ago, with the eyeball a little prominent; there was no other symptom whatever. The orbital muscles acted in their full integrity, sight was perfect, and there was no pain. The duration of the disease, whatever it might be, was short. From this, the first interview, Mr. Walton expressed a suspicion of the existence of soft cancer, because of the apparent suddenness of the symptoms to the patient, which indicated quick growth, and the healthy state of the front of the orbital walls, as far as they could be felt, which showed that the protruding cause was behind, the position at which soft cancer is usually first detected, and because that form of malignant affection is more common there than any solid or cystic growth. The displacement of the eyes increased rapidly, still there was nothing more to substantiate the diagnosis, and yet Mr. Walton believed in the correctness of his opinion. In five months, when the eyeball was almost out of the orbit, and pushed below the natural level, a swelling, conveying the idea of a fluctuating tumour, was to be felt in the upper part of the orbit.

In consultation it was determined to make an exploratory incision into the supposed fluctuating mass, and this was done; no fluid escaped, but some of the orbital fat which had been thrust forward protruded and was cut off. The incision healed rapidly, but this trivial operation produced a still more rapid increase of the ocular protrusion, and now the orbit appeared filled with an elastic mass, which might be felt from any part of its circumference. Later than this, a large tumour covered by very attenuated and vascular integuments at the apex was jutting out of the upper portion of the orbit, and even now there was no pain, and there yet remained enough sight for the discernment of large objects. The general health was, however, much impaired, and the face presented the pale and peculiar look that so often accompanies the later stages of cancer. The patient left the Hospital because she was asked if she would submit to an operation, should it be thought advisable. She said that she would not be touched any more so long as she could see.

The two points which Mr. Walton selected for comment were the diagnosis and the treatment.

Respecting the first, he pointed out that when malignant tumours have a deep-seated orbital origin there is no peculiarity in the physical changes that they produce in the orbit, orbital appendages, or eyes, by which they can be at first distinguished from simple tumours in the same situation. That in some instances the rate of progress, or other peculiarities in any given case, may, however, produce the suspicion of malignancy at an early period; and when the tumour has approached the surface, or when the constitutional effects of the disease have become developed, the diagnosis is easy. On the other hand, we may have a tumour which, neither in its progress, early or late, nor in its appearance after extirpation, resembles any of the ordinary forms of cancer, but which recurs repeatedly, assuming at each recurrence a more decidedly malignant character till it destroys life,—this is the recurrent fibroid.

He mentioned that, except in one other instance, all the cases of soft cancer that he had seen made their external appearance at the inner side of the orbit. The eyeball has been more or less thrust aside, and sometimes forwards. Also that the characteristic of malignancy has, at a later stage, been manifested in the immobility of the tumour, and that the fixedness is more to be relied on for the nature of the disease, when the growth admits of examination, than any other symptom; and if disregarded, the absence of pain and the apparent health of a patient are apt to lead to a wrong diagnosis. This holds good when the cancer is dense to the touch, or of less firmness; only when there is a degree of softness that causes a feeling of fluctuation, may the ultimate attachment be more or less marked, or not easily made out, and the nature rendered very obscure. The sense of fluctuation was marked here.

As regards the treatment in an undoubted example of orbital encephaloid, he thought that Surgical interference was, as a rule, injudicious. In every case in which he had operated, or had been present when others have operated, it had either been impossible to clear the orbit without scooping the bones, or a portion of the cancer has passed out of reach through some of the orbital apertures. In no case, therefore, could the disease be said to have been removed. He proceeded to say that scarcely any one now-a-days would undertake to remove soft cancer with the idea of effecting a cure, for hardly is any fact better known than that the patient would soon die of the disease, in spite of all operative measures, and that when every particle of the diseased structure was not eradicated, as was impossible here, but, on the contrary, cut into, and when every stroke of the knife passing through the diseased parts opened up channels by which the cancerous germs are conveyed directly into the circulation, the patient's condition is rendered infinitely worse. He thought, however, that in such cases, after having made the patient fully aware of the danger of his position, and having explained that our interference is not with the hope of effecting a permanent cure, but merely with the view of averting impending death, it will be proper to deviate from the general principle, and to excise the tumour, removing at the same time the whole of the contents of the orbit, should it be judged expedient to do so.

KING'S COLLEGE HOSPITAL.

CONGENITAL CLEFT PALATE—CLOSURE OF THE FISSURE BY OPERATION.

(Under the care of Mr. FRANCIS MASON.)

In reference to this case Mr. Mason said that in introducing the stitches he had acted upon the advice, so often given by Mr. Fergusson, of not approximating the margin too closely, for should there be any subsequent swelling of the parts there would be sure to be a drag on the stitches, and sloughing would be apt to occur. In this case there was a space of a quarter of an inch between the edges of the wound in the situation of the front stitch; nevertheless, as the result showed, there was perfect adhesion at that part.

M. H., aged 17, was admitted into the Hospital, under the care of Mr. Mason, on August 29, 1864, with a congenital cleft palate, the fissure extending through the soft, and through nearly an inch of the hard palate. The patient was a strumous-looking girl, but enjoyed good health. She had had no hare-lip.

August 30.—Mr. Mason proceeded to close the fissure in the soft palate, adopting the method recommended and practised by Mr. Fergusson; three silk threads were introduced. The patient was ordered a generous liquid diet, and strictly enjoined not to speak.

September 2 (third day after the operation).—The stitches were removed, and union of soft palate found perfect. There remained, however, a small opening, about one-sixth of an inch in size, in the hard palate.

14th.—The parts having become quite firm, she was discharged to go into the country, and requested to return at a future time to have the hard palate closed.

BIRMINGHAM GENERAL HOSPITAL.

CASES OF CHOREA—CLINICAL REMARKS.

(Under the care of Dr. RUSSELL.)

Chorea shows well the danger there is in thinking of a disease as one of a nosological division. Although in one sense a disease of the nervous system, its frequent association with rheumatism shows that it would be a great error to work at it as a nervous affection only. What its precise association with

rheumatism may be is a question very much disputed. Some think that the rheumatic "poison," be it what it may, produces chorea by its direct effect on the nervous centres; others, as the late Dr. Kirkes, that the association is indirect—with organic disease of the valves of the heart. There is certainly very frequently a mitral murmur in chorea, but as to the interpretation of this murmur there are various and contradictory opinions. Dr. Walshe thinks it is frequently due to irregular action of the muscular apparatus of the valves. Other Physicians think that it is frequently due to organic disease of the valves themselves. According to the late Dr. Kirkes, vegetations are invariably found on the valves at post-mortem examinations of patients who have died of chorea. We have frequently heard Dr. Wilks and Dr. Andrew make the same remark. But admitting that the connexion is, as Dr. Kirkes believed, between valvular disease and chorea, and not directly between rheumatism and chorea, we have difficulties in explaining the manner of the connexion. The association of some other diseases of the nervous system—hemiplegia, for instance—with valvular diseases is, as Dr. Kirkes first pointed out, by embolism. It is possible that a similar explanation may hold good as regards chorea. Yet chorea, even when strictly unilateral, cannot be due to plugging of any main trunk, like the middle cerebral, or there would be actual paralysis. Dr. Kirkes believed that the direct causes of the motor phenomena of chorea were partly the circulation of morbid blood in the brain, and partly the temporary obstruction of the minute capillaries by fibrinous particles. Dr. Hughlings Jackson has suggested that the cause may be obliteration of the small branches supplying convolutions near the corpus striatum. It seems certain that there are convolutions in this region which have to do with guiding the muscles of articulation; and it may be reasonably supposed that there are others for corresponding actions of the muscles of the limbs.

The following cases of chorea, with remarks, by Dr. Russell, are valuable additions to the clinical history of chorea. It is most important to complete the clinical history of this disease, as it has wide bearings on the pathology of the nervous system:—

The first case is of interest by showing in a typical manner the presence of two factors, both of which are frequently in combined operation in producing the disease, viz., a depressed (paretic) condition of the nervous centres and remote irritation in the shape of valvular or other disease of the heart. This union of causes was especially insisted upon by Dr. Kirkes (*Medical Times and Gazette*, June 20, 1863) as very influential in producing chorea.

In this patient the cardiac affection, which was undoubtedly in part, if not wholly, connected with the preceding rheumatic fever, was closely connected with the outbreak of the chorea. On the other hand, the occupation of the patient, the protracted exposure to muscular effort day by day in a young and growing boy, and the obvious evidence of fatigue which his history affords, conjoined with his attenuated frame, afforded ample testimony to the existence of great exhaustion of cerebral and spinal power. To such exhaustion the highly emotional character of the boy fitly answered, and probably his sudden death must be in great part attributed to the same cause. In the post-mortem examination, although the pale softening of the nervous centres—noticed by Dr. Kirkes as observed in all the fatal cases of chorea examined by himself, and in a large number of those recorded by others—was not present; yet the emaciated condition of the brain, as shown by its separated convolutions and by the increase in the sub-arachnoid fluid, and also the empty state of the minute arteries of the brain and cord, fully answer to the same description of disease.

Chorea—Recent Peri- and Endo-carditis—Death by Fainting.

J. B., aged 14, a messenger of the Electric Telegraph Company. He was sometimes occupied for twelve hours, as a day's work, and suffered much from fatigue. He would come home quite fagged. He had, besides, a poor appetite for meat. He has been very much exposed to wet and cold, not only in his occupation, but also in consequence of very defective accommodation provided for the boys at head-quarters. His father is very rheumatic, and when a boy had chorea.

The patient had his first attack of rheumatic fever, after exposure, in September last. During the fever his side was blistered, and his doctor said that his heart was inflamed. He was confined to bed for a fortnight, and three days after he got up the chorea commenced. The movement at first affected the left side of the body; but whilst in the Hospital each side of the body seemed affected to an equal degree. He was much emaciated, exceedingly emotional, but very quick and intelligent.

The choreic movements at his admission, four days after the commencement of the attack, were very severe and general, implicating the muscles of the face and eyeballs, and at times rendering articulation unintelligible. In the chest the physical signs indicated the disease in the heart discovered after death, though Dr. Russell was not then aware of its full extent.

His amendment after his admission was very rapid, and for the first week was effected without the aid of medicine, the treatment being confined to rest in bed and nutritious diet; subsequently he took zinc, and then steel and cod-liver oil.

Unfortunately, he was sent too early to the Convalescent Institution, whence he returned with effusion into his chest and increase of the movements. He was confined to bed; but one evening he got up to go to the water-closet, and in returning fell forwards on his face, and was taken up dead.

Autopsy Sixty Hours after Death.—Considerable emaciation; general fluidity of the blood. The large veins of the pia mater were full of blood; a spot of ecchymosis, about the size of a sixpenny piece, existed on the left hemisphere. A considerable quantity of sub-arachnoid fluid lay over the surface of the brain, and the sulci between the cerebral convolutions were much increased in width. The vessels at the base of the brain were perfectly healthy, their branches quite pervious. The grey matter of the convolutions, Dr. Russell thought, was rather pale. Every part of the brain was beautifully healthy in structure; the edges of the sections were sharp, and not a particle of cerebral tissue adhered to the scalpel.

The tissue of the cord was equally firm and healthy. Dr. Russell examined by the microscope the spinal cord and one corpus striatum, and says:—"So far as my means of investigation extended, these organs were perfectly healthy, with one exception; that in each there was marked deficiency of blood in the minute vessels; the contrast in this particular between them and the corpus striatum of an old hemiplegic patient which I had examined the night before was most striking."

The heart presented the remains of recent pericarditis, in an universally adherent pericardium. The left ventricle was, besides, greatly dilated, and hypertrophied to a corresponding degree. A thin layer of lymph lay upon the lining of the left auricle, and the mitral valve was thickened and puckered at the edge. The pulmonary artery was perfectly free. The other organs were healthy.

A portion of the history of another case of chorea is added by way of contrast to the preceding, as it illustrates the operation of a cause which acted directly and solely upon the brain. Severe mental emotion, in the shape of fright, induced in a child constitutionally feeble, sufficed to bring on the disease almost immediately; the rheumatic and cardiac element being entirely wanting.

Chorea from Fright—Heart Healthy.

A. W., aged 7, a feeble child of a family apparently consumptive, but quite free from rheumatic tendency, has never suffered from rheumatism, unless some pain in his joints, which is relieved by rubbing, is to be referred to that disease. Ten months ago the child was taken to see his dead mother; he was impressed by the sight, but not mischievously. Two days after he was locked up in a dark room by a servant girl from noon till eight in the evening. His screams at last aroused the neighbours, and he was taken out through the window. Next morning, at breakfast, the boy looked ill; he shook in every limb, and was not able to hold his cup. This was the commencement of the chorea, from which he had never fairly recovered. His sleep was disturbed after the fright; he was afraid to go to bed in the dark, and screamed in his sleep. At the same time he lost his appetite, and his spirits were depressed. His memory also became impaired: "he seemed to lose his recollection of his learning," and "he gets very forgetful," and learns with difficulty. In all these particulars he has undergone a complete change.

The choreic movements have been confined to the right side. His articulation has never been affected. He is a very small-made child, with dark hair and eyes, thin, and delicate. Repeated examination fails in discovering any abnormity connected with the heart, save feebleness of impulse according with the general weakness of his body.

It may, however, happen that mental influence and cardiac disease may co-exist in the same subject. Of this the following case is an example. There can, however, be no hesitation

in assigning the alarm as the immediate cause of the chorea. The disease of the heart may not improbably date from the attack of scarlet fever in childhood, and doubtless co-operated with the other unfavourable influences noticed in the history to depress the power of the nervous centres.

Chorea after Fright—Mitral Disease of the Heart.

A. P., aged 17. Her family history and her own are quite free from rheumatic tendency, but her father was insane. She had scarlet fever when very young, but has never suffered from short breath until quite lately. She has been much confined at a very sedentary occupation, and has lived very badly: she looks dirty and ill cared for. Six months before Dr. Russell saw her she was on the water with a pleasure party, when the boat filled, and she was in danger of drowning.

The alarm effected an entire change in her mental condition; she became extremely nervous and timid; at times she has been hysterical, and "awfully passionate." Her nights have been unquiet, she dreamt vividly, and was deeply impressed by her dreams; one night she became persuaded that her sister's child was dead, and was with difficulty persuaded of the groundlessness of her fears. She has even been quite "wild." In all these respects her character has become quite unlike what it was before the accident. Her intellectual faculties, however, have remained entire.

Her aunt cannot fix the exact date of the commencement of the chorea; she never worked after one week from the date of the fright, but it was a month before she had Medical attendance: she was then declared to be suffering from St. Vitus's dance. On closer questioning, however, it was ascertained that a week after the fright she was obliged to leave off work because she could neither thread nor use her needle; she drew out the thread as fast as she put it in, or twisted it about.

The left side of the body was chiefly affected, the lips and tongue inclusive, so that articulation was impaired.

On examining her chest, a soft systolic bellows sound was heard at the apex of the heart; no bruit was present in the course of the aorta.

She perfectly recovered in seven weeks under morphia, tonics, and cod liver oil: her sleep also became sound. It is to be particularly observed that the bellows sound underwent no change after the cessation of the chorea.

THE LONDON HOSPITAL.

INVOLUNTARY EJACULATIONS FOLLOWING FRIGHT—SUBSEQUENTLY CHOREA.

(Under the care of Dr. HUGHLINGS JACKSON.)

THERE seems to be nothing more certain than that fright is often followed by chorea. The history is frequently too definite to leave it doubtful that there is some relation. For instance, a child at the London Hospital had chorea soon after seeing a man in an exhibition eat a live rat; another soon after her mother fell downstairs. In a third, the following case, there were circumstances which rendered it quite certain that fright had much to do with developing certain quasi-mental symptoms in a patient who a year later had chorea. Yet it is scarcely likely that fright can be considered as a sole cause. It could not, one would think, produce chorea nearly limited to one side of the body, as it is now and then. The probability is, that there is some previous enfeebled condition of the nervous system which renders it liable to suffer from undue excitement. At all events, fright produces chorea most frequently in those who have had rheumatism or who have valvular disease. What the condition of the nervous tissue in chorea is we have little evidence. Dr. Russell's examination was nearly negative in its results. Perhaps a minute examination of nervous tissue on Lockhart Clarke's plan might show some change in this motor tract or convolutions near it. So far as we know this has not yet been done. The recent researches of Dr. Beale lead us to hope that many obscure points in cerebral pathology will be at length cleared up. Now that he has succeeded in *working with* a fiftieth (*sic*) of an inch, we may hope to discover what the disease of apparently healthy tissue in such diseases as chorea is.

A boy, 13 years of age, was admitted on August 16 for twitching of the face. Five or six years before he had been frightened by a man shouting the word "bloody" after him. For three days and nights he kept saying this word continually, and for three weeks he said it very frequently. Ever since he has had the habit of ejaculating it occasionally. A year afterwards he had an attack of chorea, which chiefly affected the right side.

When Dr. Jackson saw him, there was merely a little twitching of the face on each side, and as this had continued for several years treatment was not likely to do much for it. There was no bruit, and he had not had rheumatic fever; he had, however, had scarlet fever some time before the fright. He seemed in good health and looked intelligent, but his mother said that his temper was very bad, and that he would frequently swear. It was then suggested that perhaps he used the word "bloody" in that way, but she replied that he said it when quite calm, and that not unfrequently he ejaculated it in church, to the manifest surprise of those sitting near him. He had another trick, more curious still. He would frequently blow out the candle. He was very fond of reading, and yet sometimes he would suddenly blow out his own candle, much to his annoyance.

In this instance quasi-mental acts were performed without the intervention of the patient's will, even when he was apparently quite conscious. They look like reflex actions, though what the exciting cause is it would be difficult to say. Some patients who cannot talk (who cannot *say* anything)—in cases of loss of speech with hemiplegia on the right side—sometimes swear; but it must be observed that, as a rule, their ejaculations are involuntary, like the boy's just mentioned. In these cases, however, there is nearly always an exciting cause, as anger or surprise. But although the patients swear when vexed, they cannot repeat the oaths when calm. Perhaps some Physicians would class the boy's ejaculations in the same general category with the uncontrollable impulses we sometimes meet with in cases of epilepsy. In the latter, however, there is, Dr. Jackson says, so far as he has observed, more or less unconsciousness. Yet it is possible that this may be but a question of degree. Besides, the important thing is to determine the relation of these morbid quasi-mental actions to healthy mental processes, and not to label them, or the diseases with which they occur, with nosological names. Moreover, to determine their nature, it is a matter of great moment, as a first step, to study exactly the more purely physical symptoms with which they occur, and in each case on its own merits, without particular reference to established groups of disease. Now, it is in some classes of cases of disease of the nervous system hard to say where obviously motor symptoms end and where the purely mental ones begin. Thus there is (in cases of hemiplegia on the right side) every gradation betwixt, on the one hand, a total loss of the power to express ideas, or a loss of knowledge of the relations of words to things, and, on the other, apparently scarcely more than a peculiar motor defect in talking—an ataxy of articulation. And sometimes in the same case we find that the patient makes mistakes in words, and also articulates badly. In the case the subject of these remarks there are (1) involuntary ejaculations, (2) involuntary and yet complete actions, and (3) local spasm or twitching of muscles. We may, perhaps, find all shades, degrees, and analogies betwixt obvious and coarse motor reflex actions, and disorder of what Dr. Laycock has described as the reflex function of the brain. We may thus analyse with some success, from the study of phenomena which are superficial and simple, more hidden and intricate mental conditions.

AUSTRIAN BATHS.—The Bohemian baths occupy the first rank, and chief among these is *Carlsbad*. During the season of 1863, it was frequented by 10,589 persons, 2777 of these being natives and 7812 foreigners. Among these last there were 3650 Prussians, 1200 Russians, more than 500 Poles, and 250 Swedes and Norwegians. At *Toplitz-Schonau* there were 8700 visitors, 2598 natives and 6122 foreigners, Prussians constituting the great bulk of these last; while there were also 450 Poles, 400 Russians, and many French. At *Marienbad* there were 4492 guests, 1413 natives, and 3073 foreigners, 1300 of these being Prussians; while the Poles and Russians were numerous. The numbers at *Franzensbad* were 3860, 2587 foreigners and 1273 natives. There were 900 Prussians, 600 Russians, and 130 Moldavians. At *Baden*, near Vienna, there were 6653 visitors, but only 173 were foreigners. At *Isohl* there were 2931 visitors, 2556 natives and 375 foreigners. At these two last places the numbers have considerably fallen off since 1861 and 1862, as they have also at *Hall*, resorted to for its iodine waters. At all the Bohemian baths the numbers have considerably increased.

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Medical Times and Gazette.

SATURDAY, JANUARY 28.

THE SCHOOL OF THE ROYAL MEDICAL BENEVOLENT COLLEGE.

Magna est veritas et prævalebit. This was the motto adopted by a large body of the governors of the Royal Medical Benevolent College when in behalf of their struggling brethren in the Profession they claimed the rights accorded to them by the original constitution of the College, and demanded admission for their sons to the school of the College upon a privileged footing. This demand was refused by the then existing Council, and the result was that a siege was regularly established in 1857. After eight years' determined opposition the Council have at length capitulated, and an honourable peace being concluded, the war is now happily at an end. We have no desire to rake up its embers, but a brief summary of the struggle may be pardoned. Our principal object is to entreat the friends of the College to make the best of the advantages which their perseverance has gained for them, and to follow up their success by appropriate action.

The original prospectus of the College was put forth in 1851, and a main feature was the establishment of a school, at which not only a certain number of boys, sons of Medical men, should be educated gratuitously, but also that others should be admitted to the privileges of the school on a payment of £25 per annum. Between 1851 and 1856, on the strength of this prospectus, £45,000 were collected from the public. In 1854 the first general meeting of the governors was held, and the bye-laws were agreed to upon which the College was to be governed. Under these bye-laws the charge for paying scholars, then first styled "Exhibitioners," was settled at £30—a rise of five pounds. In August, 1856, the Council proposed, and managed to carry at an extraordinary general meeting, attended by only thirty-eight (including the Council) out of 6000 governors, a retrospective law raising the charge to £40; entrenching themselves behind an Act of Incorporation obtained actually before any scholar had been admitted—an Act, too, the interpretation of which, so far as this question is concerned, is disputed, two very eminent counsel having given diametrically opposite opinions. Against this proceeding a large section of the governors, led by Mr. Cattlin, instantly protested as unjust; and, constituting themselves into an "Exhibitioners' Committee," determined to fight the matter out. Numerous and stormy meetings of the general body of governors were held from time to time, and hard knocks, after the manner of Englishmen, were exchanged. Very little was gained in this way; but still the dispute was kept alive. One by one, however, as new blood was infused, several members of the Council became convinced, and at length, in the course of last year, Mr. Cattlin was invited to join the Council, in order that he might have an opportunity of advocating therein the views of his party. The result of this most judicious step was the proposal, on the part of the present Council, of precisely those changes in the school which had been so long called for by the dissentient governors, and so long met by the dreary *non possumus* of the Treasurer and Council. Justice and truth have had all they wanted—an earnest advocate at head-quarters and a fair hearing. And now for the upshot.

This consists in nothing less than a revolution. Our less wealthy brethren have no longer any ground for complaint, for the resolutions carried at the late extraordinary general meeting not only give them all they asked, but more than they asked. The sincerity of the present Council is evidenced beyond question by the heartiness and completeness with which the alterations have been made.

The school is to consist of at least 200 boys. Forty of these will be maintained and educated as "Foundation Scholars," as heretofore. The "Exhibitioners," however, are in future to be what their title infers—boys admitted to the privileges of the school at a low charge. The charge is to be, for the present, that determined upon at the first annual meeting of the Governors—namely, £30 per annum; but it may be reduced to any less sum. This privilege, also, is to be confined to those who really need it, for the boys who are to be admitted upon this footing will be *selected* boys. The selection will lie with the Council, who on any application will require a confidential communication of the circumstances of the applicant to be made to a sub-committee. No one can quarrel with such an arrangement; for in what other way can it be ascertained which of the applicants has the strongest claim on the ground of misfortune? The number of "Exhibitioners," as well as the regulations for their admission, is also to be determined by the Council from time to time. This is the only point which we cannot quite approve of. The number of "Foundation Scholars" is settled at forty; we think that a minimum number of Exhibitioners should also be stated. We do not question ourselves the *bona fides* of the Council, in their present temper; but we think we can perceive looming in the not very distant future fresh dissatisfaction as arising from the omission. Let us, however, hope that the new law will be carried into effect in the same liberal spirit in which it has been conceived.

Thus far the new arrangements affect the "benevolent" element of the school, and are conducive to the satisfaction of the *quondam* "dissentients." But the school has other, beside benevolent, objects. It is to be a school for the sons of Medical men of all grades and classes; and so long as Medical men can be found to send their sons at a charge of £40 up to the full complement of 200, or as many more as can be accommodated, it is to consist of Medical men's sons only. But when the supply of these shall fail, then pupils are to be admitted who are not the sons of Medical men; but while the former are charged for at somewhat over cost price, the latter are to be received at a charge which will leave a profit after all expenses are paid. The charge for lay scholars is not yet fixed; but considering the high character of the education provided, we quite agree with Dr. Sieveking (a letter from whom we print elsewhere) that sixty guineas per annum would not be an exorbitant charge. In addition, scholarships of £10 per annum and upwards are to be established, open to the whole school, so that clever boys both among the Foundation Scholars and Exhibitioners may obtain for themselves additional advantages.

But for the realisation of this scheme money is requisite, and three sources are looked to for this. The first and main source of improved income will consist in the profits derivable from the lay scholars and day pupils. If a hundred lay scholars could be introduced (and a single school of 300 boys is as large as can well be managed by one head) an annual profit of £2000 per annum would be obtainable. Secondly, all boys entering the school (with the exception, of course, of the "Foundation Scholars," "Exhibitioners," and Surrey

Scholars) are in future to pay an entrance fee of two guineas, and a fee of seven shillings a term. Thirdly, an Exhibition and Scholarship Fund is established, for which special subscriptions, donations, and bequests are solicited. Now, of all these changes, that which commends itself to us most forcibly is the admixture of lay scholars with the sons of Medical men. Class education is an evil which, with Dr. Sieveking and Mr. Cattlin, we must all join in condemning. We are all aware how much of the breadth of mind derived from an education at our grand public schools is dependent upon the association of boys whose connections, antecedents, and modes of thought are greatly diversified. But this leads us to another topic. It is all very well to say that the profits from lay boys are to be devoted to the Exhibitioners, but first we must find accommodation for lay boys, and for this new buildings will be required. A special building fund for this purpose must be raised, and, if necessary, an amendment of the present Act of Parliament obtained to enable the Council to admit lay boys to this part of the School. We see no need for a "new and independent foundation," as suggested by Dr. Sieveking. A sum of money amounting to about £700 has already been subscribed for a testimonial in honour of the chief founder and present treasurer of the College. Could the money be better applied than, as Dr. Sieveking suggests, towards the erection of a new wing to the school, "which might not inappropriately be called the Propert wing?" Is it possible that this money—which we do not doubt for one moment might, by subscription and other methods, be rapidly raised to the requisite sum—could be better expended than in providing the means of carrying out the sanguine hope of Mr. Propert, when the first prospectus was issued, that an education for the sons of our less fortunate brethren might be provided at a charge of £25 per annum? Once let the lay school be filled, and it might and ought to be reduced much below even this sum. Of course, Mr. Propert would have to be consulted in the matter, but we cannot for a moment anticipate any obstacle in that quarter. Should there be any deficit after the building of the wing is completed, it might be fairly met by devoting a share of the annual profits of the school to its liquidation.

Now that the school is to be re-modelled, we see no objection to the change which has been proposed in the name. The term "benevolent" may well be dropped. We shall have the substance, and may dispense with the shadow. A new Charter or Act of Incorporation would then be desirable, granted to the "*Epsom College*," for which we will breathe a prayer, "*Esto perpetuum*."

MODERN SYPHILOGRAPHY.—No. VI.

TWO-FOLD INOCULATION; OR, THE TRUE CHANCRE COMPLICATED WITH THE SOFT VENEREAL ULCER.

As a very considerable amount of scepticism and misconception appears to prevail on this subject, and as it is in accordance with our own observation, we must dwell a little upon this knotty point, which is, in reality, a very simple one. Let us assume, as an hypothesis, that there are two distinct poisons, producing, the one a local, the other a constitutional affection, and that these are not interchangeable. Now, as the latter alone possesses a true incubation, it follows that if a man be exposed to the two poisons at once, the soft local sore will first appear, and will run its course during the incubation of the other, and that we may thus have a soft sore, which becomes hard before it heals, from the action and development of the true syphilitic element. Instances of this are not very uncommon; and the converse may equally happen, whenever a patient labouring under an indurated chancre exposes himself to the virus of the local soft sore. If the poisons produce their results in close proximity one with another, we can then watch these separately and mark the contrasts in their characters; but if one and the same abrasion be inoculated with both poisons, from exposure to one or many sources of contagion within a limited period of time, then, we have the two diseases existing together, or one succeeding the other, on the same spot. So that if we see the common, soft form of sore, we can positively pronounce it to be, so far, a local disease; frankly telling our patient at the time, however, what is the interval before any syphilitic poison would declare itself and the characters by which it may be known. If there be no such appearances afterwards we can most surely guarantee the local nature of the disease.

So long, however, as we had to depend upon our observation of cases contracting the diseases in the ordinary way, we might never, perhaps, have demonstrated the fact of this double inoculation; but this has now been effected by artificial inoculation. Under ordinary circumstances, these occurrences were, of course, strongly suggestive of a variety only in the processes and the unity of their cause, and so long was Nature apparently giving the contradiction to all our distinctions between the infecting and non-infecting forms of sores. Now, however, a specific induration has been inoculated with the pus of the soft ulcer, a pustule has formed, and the characteristic soft sore has resulted. We will give a few examples of the two modes by which the occurrence has been traced. Take that related by M. Fournier (which was seen by M. Ricord) of a double inoculation in the natural way. A man was labouring under a chancre affected with cartilaginous induration. This suddenly began to ulcerate, and, coincidently therewith, a large soft sore appeared on the skin of the penis. One of the indurated chain of inguinal glands inflamed and suppurated, and the pus from it was successfully inoculated. "Secondaries" subsequently appeared. Now, it was *proved* that this patient had contracted these soft ulcers from sexual intercourse with a woman suffering from the same affection, at the time he was under treatment for his indurated chancre. M. Rollet and his *interne*, M. Laroyenne, have succeeded many times in producing the pustule and soft ulcer by the artificial inoculation of an indurated sore with the pus of soft sores. Instances of similar experiments may be met with in most of the recent works of Continental Syphilographers. Although the poisons and their manifestations are mixed, in so far as they both appear in the same locality, one does not destroy nor essentially modify the other; both follow their ordinary courses and preserve their characters. Nor is the subsequent manifestation of secondaries arrested or modified apparently by the induced ulceration of the chancre or the presence of suppuration in the groin. It is asserted even further, that it is possible to take pus from the artificially-produced pustule on the induration, or that of the bubo in the groin, and to produce a soft sore by inoculation on the same, or on another and healthy individual; that is, provided the secretion used be pure and unmixed with any blood.

Our readers can repeat these experiments, and test their accuracy for themselves—at least, as far as regards inoculating a true chancre with the secretions from a soft sore; for we presume no English Surgeon would have the hardihood to *be guilty of performing any* experiment, of the nature we have indicated, upon a *healthy person*. If these observations be correct, what follows? Are we to believe that from varieties in the kind or condition of two secretions—both acting as vehicles of one and the same poison only—these are capable of affecting the same individual, exactly on the same spot, each in its own way? This seems to us as improbable as the view of their being the two perfectly distinct results of two dissimilar causes appears to be strongly corroborated. We never see anything allied to this from any varieties in the condition of vaccine lymph, although we know that the introduction of a bloody lymph from the pock of a syphilitic infant may give rise to the two diseases—vaccinia and syphilis; showing that two distinct animal poisons are not, on that account, at all antagonistic.

We think that the two affections are occasionally superimposed, as MM. Diday, Rollet, and others contend. If we are to

believe—and this must be conceded, we imagine—that the virus of *true* Syphilis does not manifest itself until after a relatively long interval—let this period be called one of incubation or not—and the late appearance of induration in a sore of soft character is easily accounted for.

Let us admit the distinctions in the causes, and so far from its making "confusion worse confounded," it seems to us to be a key to all the difficulties. Peruse a treatise on Syphilis, wherein these distinctions are taken as cardinal doctrines (such as that by Dr. Bumstead), and then turn to another treatise, by even the best author who holds the reverse doctrine, and you at once feel the absence of that system which commends itself to the understanding. We know, as Archbishop Whateley remarked, that minds are more prone to be captivated by a love of system often than by a desire for truth; but here the theory appears to us to be capable of combining and explaining all those facts which would otherwise be so irregular and discordant.

It was M. Ricord, unquestionably, who first applied the key which unlocked the door and displayed the road along which all subsequent syphilographers had to pass. But for his introduction of inoculation, as the test by which we could distinguish the specific from simple ulcers, we should never have been led to the further conclusion—so little anticipated by M. Ricord himself—viz., the differentiation of the common *soft specific* ulcer from the specific *syphilitic* chancre. The English Practitioner owes a debt of gratitude to Mr. Acton as one of the most sagacious and energetic exponents of M. Ricord's views. Mr. Acton has always boldly advocated them, at a time too when they were both novel and unpopular, and he was foremost in advancing our knowledge of these diseases. The Continental schools have furnished the leaders in this modern revolution of our ideas. While the French have laboured hard at the history, etiology, causes, and various forms of the disease, the Germans have worked equally hard at these, and the pathology of syphilis. Among the works recently published we may call attention to Dr. Hermann Zeissl's "Treatise upon Constitutional Syphilis."(a) We think our author's pathology calculated to make some men of the good old school "raise the eyebrows of astonishment." In the first place, it contains 432 pages upon syphilis, and syphilis only, with which the soft ulcer is held to have nothing whatever to do. Acquired syphilis is held to be a constitutional malady, having for its cause the reception of a poison derived from a syphilitic source. This real "syphilization" is characterised by exactly the same type of phenomena as mark other diseases of the enthetic group. The implantation of the virus is followed by a definite and true incubation before the appearance of any lesion at the point where the virus was inserted, and, for the rest, we have the evolution of a very definite chain of phenomena—differing chiefly in their degrees of severity, according as the manifestations are very mild or very severe.

A German professor never starts on a journey by his own path without securing a pack of learning upon his shoulders first of all; and whenever he undertakes the investigation of any subject he generally does it thoroughly. We have only to glance at the Index to see that this has been the case here. The history of syphilis, the evolution and the forms of its manifestation, the vehicles of contagion, the modern doctrines concerning the non-identity and duality of the poisons, the symptoms and pathology of the disease, are not only laid down in a very minute and lucid way, but the conclusions are supported by the results of a most extensive experience, and illustrated by some new experimental evidence.

We commend Dr. Zeissl's treatise to our New Sydenham Society, and to all who desire to be *au courant* with the latest and fullest information upon constitutional syphilis.

(a) "Lehrbuch der Constitutionellen Syphilis für Aerzte und Hörer der Medicin." Von Hermann Zeissl, M. et Ch.D., Prof. an der Universität zu Wien, 1864. ("Treatise on Constitutional Syphilis for Practitioners and Medical Students.")

We may venture to add a few remarks that have occurred to us from the perusal of Mr. Gascoyen's interesting papers, which have appeared in the pages of our contemporary since the foregoing was written. He strongly advocates the unity of the poisons, although he recognises the characteristic differences between the local soft and the true chancre. We think, however, that he has not thoroughly appreciated the nature, or the strength of the position occupied by the so-called "dualists;" nor has he succeeded, to our minds, in penetrating that position.

The blood disease which Mr. Gascoyen excepts from comparison—hydrophobia—seems to us the very one which is most analogous to the syphilitic.

In fine, the dualists point to the history of the two diseases; the results of traced descent; the differences as regards the intervals before their manifestation after exposure; the marked differences in the symptoms, and the pathological processes; the very easy inoculability of one, compared with the difficult auto-inoculability of the other; and the remarkable contrast in the effects, as establishing their theory of a difference of causation.

No one would deny that varieties in the condition of the inoculating fluid, or the source from which it is taken, may give rise to some differences; but it is maintained that these cannot account for such as are observed between the true syphilitic lesion and the local venereal ulcer.

Whether they be right or not remains to be established; but the grounds they take are very similar to those on which Physicians rely for the separation of typhus from typhoid fevers, for example.

THE WEEK.

THE ELECTION OF PRESIDENT AT THE MEDICO-CHIRURGICAL SOCIETY.

So much interest has been excited by the last two meetings of the Committee of the "Medico-Chirurgical," and the discussion as to the election of the new President, that, however unwilling we may be to discuss semi-private or confidential gossip in a public journal, we cannot with any sort of justice to our readers refrain from some comment on what is talked about at every Medical dinner-table. So close has been the division at each of the two meetings just mentioned that Dr. Alderson has been selected for recommendation by the Council to the Fellows by the casting vote of the Chairman. At each meeting exactly one-half of the members of Council present voted for Dr. Burrows, and half for Dr. Alderson. At each meeting the casting vote of the Chairman was for Dr. Alderson. Between this and March 1 the Fellows must make up their minds which section of the Council they will support.

MR. LUND AND THE CASE OF PRYCE *v.* BOWEN.

THERE is great virtue in confessing oneself in the wrong, and in doing one's best to repair an injury done. We know that such a course is talked of as being the barest morality, but practically how very few there are who pursue it. One of the few is Mr. Lund, of Manchester. Our readers are already aware from his letters published in recent numbers of this journal that he heedlessly allowed himself to be entrapped into giving evidence, on faith of the plaintiff's statement, in an unjust and unfounded action against Dr. Bowen for malpraxis. Mr. Lund has confessed his error, but he has not stopped here. He has sent the very handsome sum of fifty guineas to the fund which is being raised to meet Dr. Bowen's legal expenses. "'Sorry for it' is all a gentleman can say;" but, beyond mere words, Mr. Lund's regret has prompted him to taking this very decided method of reparation. We believe that the Medical Profession will accept Mr. Lund's act as the best proof that his error was one arising from want of caution and wrong information, and was not dictated by any wish to damage a brother Surgeon, or to gain *eclât* at his expense.

CHARQUI.

It is a self-evident fact that there is a close connection between the art of cookery and that of Medicine. It was formerly the doctrine that they stood in the relation of cause and effect, the patient and doctor being the intervening links. Medical men of these latter days have grown wiser, and look on a good cook as their most valuable ally. But, whichever belief is uppermost, we are clearly pursuing our legitimate functions as chroniclers of all that bears on the noble science we profess, when we put on record anything new or untried in an art and mystery which, from whatever point it is regarded, is of such vital importance to physic. Just now the public papers are full of letters from enterprising travellers and *maitres de cuisine*, on the subject of the South American beef which is to be bought in Cheapside at 3d. a pound. According to some authorities, it is likely to be a perfect boon to the lower orders; according to others, its chief value is that it affords an excellent "stock" for the gravies and soups of the upper. Mr. G. Warriner, Instructor of Cookery to the army, takes the latter view. He says that "to make chaqui into a palatable dish requires good cooking; and as our labouring population are bad cooks this is against it. None of the receipts hitherto given to the public are right."

"Chaqui beef, at 3d. per pound, is equal to 3lb. with bone of the usual stock meat, in addition to which the gravy is of a finer quality, for the same reason that a French cook can make better soup in France than in England. When he comes to this country he is surprised to find that he is obliged to use 2lb. of meat instead of 1lb. to give the same flavour. This is owing to the age of the animal."

But the most amusing and instructive writer on the history, virtues, flavour, and preparation of charqui that we have seen is Mr. W. Bridges Adams. Our readers will find that the following quotation from his letter to the *Times* will well repay perusal:—

"The earliest notices on the subject are given in the voyages and travels of the circumnavigators and bucaniers, and the article is therein commonly called 'jerked beef.' The bucaniers were originally driers of meat, not especially beef, but of swine's flesh, prepared by smoking, so called from the French word *boucaner*, to dry by smoke, as the Caribs did by the prisoners they ate. The 'jerked' beef is a sailors' corruption from the colonial Spanish *charqui*, evidently a corruption in turn from the *chair cuit* of dried flesh of the French bucaniers, and to this day a French pork-butcher is called a *charcutier*, because originally pork was sold in the dried form of ham and bacon.

"*Charqui* proper, as prepared in Chili, is the muscular fibre of beeves pared from the bones in thin flakes or strings with all the fat extracted, and then exposed to the sun to dry, which process takes place in the course of a few hours, all the moisture disappearing in the dry air, and the meat remaining in the condition of glue, not subject to putrefy, but only to engender mites like cheese. No flavour is lost in the process, as when the carcasses of animals are frozen, other than a change similar to that of preparing 'raisins of the sun' from grapes. The meat thus dried is usually packed in bags formed of dried hides. Chili is the especial country of *charqui*, because while it is a great cattle-producing country for its area, a large portion of it has an especially dry atmosphere. My first acquaintance with this meat was on a journey, when for my sins I undertook to prepare supper, and so boiled the dried meat in an earthen pipkin. My guide grinned askance, at what I knew not, but it soon came out, for after boiling the meat for an hour I thought it was done enough, and tried to eat it, but found that I was of that especial race of cooks said to be sent from below, for the meat was very like india-rubber in the chewing, so I turned it bodily over to my man Friday, and watched his process. First he toasted the meat on the red embers of the wood fire till it began to hiss; then he selected a large flat stone, on which he pounded the meat to shreds with another stone, and then restored it to the pipkin, with a lump of dripping fat dyed to a deep Indian red with ground capsicum. Then he sliced in some onions and hard-boiled eggs, added a portion of salt, with two or three small red pepper-pods and boiled potatoes, and finally turned out a stew for which Esau might have sold his birthright twice over. This dish is in Chili called a *charquiean*—a national dish, of which there is a tradition that once a Pope of Rome, having ordered to be prepared for him the national dishes of all nations, and tasted them in succession, gave orders that thenceforth he would have *charquiean* three days in the week.

"For travelling purposes this meat is prepared ready pounded, and packed in lamb or sheep skins with butter or dripping, and is analogous to the preparation of flesh called pemmican, only that is prepared by smoking in North America.

"*Charqui* proper can only be prepared in a dry atmosphere, and the climate of the Pampas and River Plate is a moist atmosphere, and therefore the natives do not prepare *charqui*, but only *tasajo—i.e.*, meat salted and hung in the air to partly dry—in short, hung beef, which is exported to the West Indies to feed the blacks, and this, probably, is the 'moist beef in rolls' alluded to by your correspondents. But it will not compare with the *charqui* of Chili, one pound of which is equal in nutriment to three or four pounds of fresh meat from which the water has not been abstracted. It is well known that the application of salt to muscular fibre destroys to a great extent its nutritive qualities."

LONDON FOG.

The "genuine London fog" which wrapped the metropolis in "thick darkness" on Saturday may be considered from very different stand-points. Some look upon it as a curiosity,—as one of the sights of London; some as a useful topic of conversation,—a kind of God-send to journalists and talkers in this dull season; some as an annoyance and a nuisance, but nothing worse; but the Medical man knows it to be a terrible scourge, and to many a patient it makes all the difference between life and death. Very many of us could, we doubt not, give instances of phthisis and bronchitis hurried to a fatal close by those hours of fog. We, therefore, gladly hail any suggestion that seems to promise to make a "London fog" a matter of history, and we reprint a letter on the subject from the *Times* of January 24. The writer is perfectly correct in his description of the clay lands round Harrow, and we have often noticed mist and fog hang over that region when the atmosphere has been clear elsewhere; but we fear he is too sanguine in believing that drainage, however perfect, of that district will destroy London fog. We should be inclined to place far more reliance on extension and perfect carrying out of a Smoke-consuming Act:—

"*To the Editor of 'The Times.'*

"Sir,—Is there good reason why London should continue to be remarkable for its fogs? Fog is, doubtless, a serious element of winter discomfort in London, and is very probably a cause of much sickness and of suffering to those whose respiratory organs are weak or otherwise affected.

"The Thames is popularly supposed to be the source of London fog, but, I believe, in this particular Father Thames is grossly maligned. The atmosphere in the immediate neghbourhood of the Thames is often comparatively clear, while the districts northward of it are wrapped in impenetrable vapour.

"The land surrounding the northern segment of the metropolis is for miles practically undrained. The land lying north and north-west is, for the most part, a stiff clay, and clay almost in a primitive state.

"By reference to the Ordnance map it may be seen that the tract of land bounded on the east by the road to Edgware, on the south by the Uxbridge-road, and on the north-west by a line drawn from Stanmore to Uxbridge, is almost uninhabited.

"The lines just named include a triangular space, in the centre of which stands Harrow-on-the-Hill. This triangle, excluding Harrow, is a notch cut out of civilisation, the cold wet soil hitherto hindering settlement upon it.

"Drainage is almost neglected, except in some rare instance where property has recently come into the hands of spirited and enterprising landlords. And until lately it is said that at Edgware ague was a common disorder, so that within nine miles of the Marble Arch, within an hour's drive of the centre of civilisation, we come upon one of the characteristics of the swamp and the jungle. Foot-rot quickly attacks flocks placed upon the pastures of the Harrow weald from the wetness of

the land. A journey of fifteen or twenty miles down the Great Northern line will show the same undrained condition to be the rule.

"Thus, from the backwardness of the proprietors or of the tenants of the agricultural districts indicated, the Londoner is literally compelled to swallow his own smoke and to inhale the poisonous products of the combustion of tens of thousands of tons of coal and feet of gas.

"I am, Sir, your obedient servant,

"January 20." "T. W. N.

SUICIDE AND QUACKERY.

If anything could rouse the public and the Legislature into action on the subject of the "Dirty Quacks" it is the tragedy brought to light by an inquest lately held at Higham, in Kent. The story is a short one: it is simply that of a man of somewhat weak mental power, but of irreproachable character, equal to the ordinary duties of life, and performing them conscientiously, who was goaded into suicide by the representations and extortions of some of the harpies who are allowed by our excellent postal arrangements and free press to scatter their obscene advertisements and lying statements broadcast in every town, village, and hamlet in the kingdom. We are not weak enough to suppose that quackery in all its forms can be put down by legislation; but if it be the duty of Government to protect the lives—we will say nothing of the morals and health—of the people, it is imperative that another Session of Parliament should not be allowed to pass without a stringent measure being carried against an infamous imposture which drives men to insanity and suicide. The following report of the inquest we extract from the *Daily Telegraph* of Saturday, January 21:—

"Yesterday evening an inquest was held at the Chequers Inn, Higham, Kent, before Thomas Hills, Esq., Coroner, on the body of James Miles, a foreman in the employ of Thomas French Nettleingham, Esq., merchant, at Gravesend. The deceased was found drowned in the canal on Thursday evening last.

"Sarah Reed, a widow, residing at Gravesend, identified the body as that of her nephew by marriage, and said he was married on Christmas-eve last, at Kingston. I have lived with the deceased and his wife for the last month. The deceased was 24 years of age, and, I believe, lived with his wife very comfortably. A few months ago the deceased was rather queer in his manner, and appeared very low-spirited, but he got better afterwards. About a fortnight ago he received something which made him worse. On Wednesday morning he was very desponding, and at dinner he complained of his head and stomach. The deceased told his wife that he did not know what he was about, and could not eat. At about five minutes to two in the afternoon he kissed his wife and shook hands with her, wishing her good-bye. He then lit his pipe and went out. I never saw him alive afterwards. He was always on good terms with his wife since their marriage.

"Police-constable Burr deposed to finding deceased's body in the canal, about half a mile from Higham.

"Police-constable Mitchell, who was present at the finding of the body, said: I found several papers and printed bills in deceased's jacket pocket. They are those now produced. Two are from Dr. De Roos, of Tavistock-square, and one from a Dr. Smith, of Burton-crescent, London. They are what are called quack handbills. At the residence of deceased I found this pamphlet. It is a work on secret diseases. I did not find any medicine at deceased's house.

"Thomas French Nettleingham deposed: I am a merchant, and carry on business at Gravesend. The deceased has been in my employ for the last six months as foreman at the wharf. He appeared to be rather weak-minded, and seemed languid and dull when we were very busy, and frequently forgot orders that were given to him. On Wednesday morning last deceased was much flushed. He has been very abstemious and steady ever since he has been in my employ. The deceased never made his appearance after dinner. His accounts are perfectly correct.

"J. J. Ely deposed: I am a Surgeon, practising at Chatham. I have examined the deceased, and have not found any marks of violence. From an inspection of the papers found upon the deceased, I have no doubt whatever they would cause a great depression of spirits, and tend to a person committing suicide. Persons suffering from disease are susceptible to depression of mind. The papers or bills are issued by quacks. It is not unusual for cases of suicide to arise from reading pamphlets similar to those produced.

"At this stage of the inquiry Mr. Nettleingham asked the Coroner to take the evidence of John Willsher Packham, a fellow-workman of the deceased, who had found a large packet of letters from Dr. De Roos, of Tavistock-square, London. The witness deposed that he found the articles now produced in an upstairs room in deceased's house. They consisted of two large-size tins, which evidently had contained medicine supplied to the deceased.

"The Coroner then read to the jury several letters from Dr. De Roos, which stated that the deceased must still continue with the medicine, and impressing upon him the necessity for remitting money, as he did not make it a practice to give credit to his patients, and stating that, in consequence of having numerous correspondents in all parts of England, he hoped he would not neglect writing to him, as he (Dr. De Roos) might forget the case. About thirty letters had been sent to deceased in the course of ten months.

"The Coroner summed up. He said: Gentlemen, you have heard the evidence which has been adduced. From this it would appear that the deceased had in all probability been reading the pamphlets which have been produced, and you will have remarked that on opening one of these pamphlets the word 'suicide' appeared written prominently round the margin. The number of letters from Dr. De Roos, of Tavistock-square—letters which it is impossible to stigmatise too strongly, and which, when read by the weak-minded, would lead them to the commission of suicide—must be noted as a weighty fact, and they tend to prove that the mind of the deceased had been deeply harassed by them.

"The jury returned a verdict to the effect that the deceased had committed suicide whilst in an unsound mind.

"After the delivery of the verdict a consultation between the coroner and the jury took place, which resulted in the foreman intimating that they considered deceased's insanity to have been brought on by the perusal of certain pamphlets issued by, and letters received from Dr. De Roos, of Tavistock-square, London. The jury expressed a wish that the press would take notice of this addendum to the verdict.

"The Coroner ordered that the pamphlets and letters should be kept in safe custody."

FROM ABROAD.—ALARMING MEDICAL LEGISLATION IN BELGIUM —INNOCUITY OF CONSANGUINEOUS MARRIAGES.

The Medical Profession in Belgium is at present in a state of some consternation. For a long time past, dissatisfied with its present position, it has been calling for some additional legislation, especially as regards the suppression of irregular Practitioners. A Bill has at length been brought into the Chambers, the provisions of which seem so thoroughly objectionable that all efforts are being made to throw it out, as were it to become a law fears are entertained that one evil will have been only exchanged for another—unbridled license for undue interference with the rights and liberties of legitimate Practitioners. The objectionable part of the Bill is that which relates to what is termed in it "Medical discipline," for the carrying out of which it establishes Disciplinary Councils, endowed with most extensive powers, in every juridical district. In districts where the Practitioners do not number seventy-five the Council is to consist of six members, and in others of nine—a third of the number being *pharmaciens* and two-thirds Medical Practitioners. All Practitioners who have been registered during five years are eligible, and the elections are made annually by ballot at a general meeting of the Practitioners of the district, under the supervision of the civil authorities. When there are fewer than fifty Practitioners resident in a district, two or more districts may be combined.

"The Disciplinary Councils will have to watch the dignity of the Medical Profession, maintaining the principles of humanity and delicacy which should prevail in its practice; and they will punish by disciplinary penalties faults which do not fall within the competence of the Medical police. They will reconcile any differences which may arise between Practitioners during the exercise of their Profession, and such that may arise between them and their patients in regard to fees."

The disciplinary penalities are—1. *Avertissement;* 2. Censure, with an injunction to be more circumspect for the future; 3. Reprimand, with threat of future interdiction of practice; 4. Interdiction of all Medical practice for a period not shorter than a month nor longer than a year. The accused must be heard in defence before any decision is pronounced, and may appeal to the civil tribunals. The expenses of the Councils are to be provided for by an annual tax levied on the Practitioners of the district, the contribution not to exceed 10 francs in communes where there are more than 5000 inhabitants, and 5 francs where the population is less. On reading such provisions as these, to be put into compulsory operation, one cannot feel surprised at the indignation which they have excited throughout Belgium.

"As Belgian citizens," exclaims the *Presse Médicale*, "we are revolted at the idea of losing our liberties, and being placed in so exceptional a position; and as Practitioners we ask ourselves whether the Medical Profession, in place of being an agglomeration of well-educated and instructed persons devoted to the cause of suffering humanity, is an assemblage of unprincipled men, destitute of moral sense, strangers to delicacy and to the most elementary principles of good breeding. There can be no doubt Practitioners are about to be transformed into privileged culprits; new crimes have on their account to be created, entirely referable to the conscience, which until now has been respected. To inculpate them, informations will have to be put into practice, and the Profession, tormented even at the bedside of their patients, will have to undergo, in 1865, all the agreeable amenities of the censorship and the inquisition."

M. Crooq, President of the *Fédération Médieale Belge*, has formally brought the Bill under the notice of the Academy of Medicine with the view of enlisting the influential action of this body against the measure.

M. Auguste Voisin read a paper at the Academy of Medicine tending to show the innocuity of consanguineous marriages. It is founded upon the results of his observations made during a month's residence at the village of Batz, near Croisic, in the Loire Inférieuse. It seems that consanguineous marriages have been frequent there for ages past, the inhabitants living quite isolated from neighbouring places. M. Voisin investigated the condition of the present families, inquired into their antecedents, and examined the physical and intellectual condition of the various members, besides listening to details from the older inhabitants. He has tabulated the information thus acquired, and comes to the conclusion that mere consanguinity has given rise to no disease, degeneration, or physical malformation, this race of people still being a very fine and pure one. At the present time, he says, there exist at Batz 46 consanguineous unions, 5 between cousins-german, 31 between cousins the issue of cousins-german, and 10 between cousins in the fourth degree. The 5 marriages between cousins-german have produced 23 children, none of whom have exhibited any deformity, and two having died from natural causes. The 31 marriages between the issue of cousins-german have resulted in 120 children, none exhibiting congenital affections, and 24 dying of disease. The 10 marriages of cousins in the fourth degree have been followed by 29 children, all in good health except 3, who died of acute diseases. No diathesis prevails in the community. "These facts," says M. Voisin, "seem to me to prove that, under the condition of a good selection being made, consanguinity does no mischief whatever to the product of marriage or the race. On the contrary, it augments the qualities, just as it would, under other circumstances, increase defects and causes of degeneration."

Professor Chelius.—This venerable Surgeon has resigned his Professorship at Heidelberg, after holding it fifty-two years, as also the Directorship of the Surgical Clinik, which he founded forty-seven years ago! (It seems that our own country is not the only one in which men continue to hold posts long after the period at which they can satisfactorily fulfil their duties.)

REVIEWS.

Diseases of the Ovaries; their Diagnosis and Treatment. By T. Spencer Wells, F.R.C.S., etc. In two volumes. Vol. I. London: Churchill and Sons. 1865. Pp. 376.

At the time when it was still a moot question whether ovariotomy be a justifiable operation, those who were opposed to it asserted that no satisfactory conclusions could be based upon the published record of cases, as operators were prone to print their successes, while they forgot entirely to speak of their failures. This assertion was not at first satisfactorily answered, but towards the close of the year 1857 Mr. Wells pledged himself to publish the details of every ovariotomy which he performed, whether the result were successful or not. From time to time reports of Mr. Wells' ovarian operations have appeared in this and other Medical journals, but he now redeems his pledge in the fullest manner. In the volume before us he gives an account of every case, both Hospital and private, in which he has either completed or commenced the operation. The volume consists entirely of a record of cases. Mr. Wells has reserved for his second volume the systematic teaching of the diagnosis and treatment of ovarian disease. At present we have the facts before us, and we may draw our own conclusions.

The reasons for such an arrangement are obvious, and are well put in the Introduction to the book.

"The cases, if not the most important, are certainly the most original part of the work, and it seems to be desirable to use them as the foundation, not as a mere appendix." Again, —"Ovariotomy is comparatively a new operation. Unlike lithotomy, herniotomy, or amputation, it wants the guidance, and it is free from the trammels, of tradition or long history. It is hardly fifty years since it was first performed; not forty years since Lizars first attempted it in Great Britain; not twenty-five years since its first performance in a London Hospital; there are still many Hospitals in this kingdom in which it has never even yet been performed; and there are some few men of eminence and authority in this country, and very many more abroad, who still regard it as an operation which is never justifiable under any circumstances."

The great mass of Mr. Wells' book is taken up by a record of one hundred and fourteen cases in which ovariotomy was completed. Among these there were seventy-six recoveries and thirty-eight deaths, or exactly one death to two recoveries. It is impossible to object that only favourable cases have been selected. A careful perusal of the book will show, on the contrary, that the operation was performed in many cases where little hope of a successful issue could be entertained, but where the Surgeon felt bound not to refuse to give the patient the only chance of life which remained to her.

As a specimen of the careful manner in which Mr. Wells enters into the question of prognosis, we quote from page 289 a letter sent to the Medical attendant of a patient who had consulted him as to the expediency of ovariotomy in her case. Mr. Wells writes:—

"(1) Believing that she has a compound cyst of the right ovary, with rather extensive adhesions to the abdominal wall, I should say that the case is a fair average one for the operation, not one of the most nor one of the least favourable cases which are met with, and that the chances would be about two to one, not more, in her favour.

"(2) If left alone, or with such palliation as tapping can afford, she is not likely to live (at the utmost) more than two years; and it is much more probable that she would not live one year.

"(3) At forty-two her expectation of life, according to insurance tables, is twenty-six years. By electing ovariotomy she risks two years, with two chances to one in favour of gaining twenty-six years; while the two years would be certainly years of suffering, and the twenty-six probably years of comfort.

"(4) But this question need not to be decided immediately; one or two tappings would probably not add to the risk. Temporary relief might be gained, diagnosis verified, and time allowed for full consideration. On the other hand, there is some risk even in tapping, and unexpected changes might follow it. I tell the patient it is one of those cases in which a Surgeon cannot give very positive advice. She herself, with the elements of the calculation before her, must assist her advisers by her own feelings."

The report of each case occupies on an average about two

and a-half pages. In each there is an attempt, often a futile one, to fix the precise date at which symptoms of ovarian disease showed themselves; any probable exciting cause, such as *suppressio mensium*, etc., is noted down. The age, conjugal condition, temperament, and general mode of life of each patient are all stated, and will doubtless form the groundwork of interesting generalisations in the forthcoming volume; then the actual condition of the patient before the operation is described, and in some cases the description is aided by woodcuts taken from photographs. The diagnosis and prognosis written down at the time of consultation are then given—at least, in the later cases. The operation is described; the after-treatment is, when necessary, fully entered into; and a line at the end gives us the latest news of the successful cases. One has gone to America, a second is married, a third has been delivered of a baby thirteen months after the operation; a few, only four, have died since the operation—one of hemiplegia two years later, and three of abdominal cancer, one ten months, one four months, and one six weeks after ovariotomy. Among the cases interesting in their after-treatment are several of tetanus. In two of these the Woorara treatment was tried, once successfully. Very interesting and instructive, too, are those cases in which fluid collected in the Douglas' space. Whenever such a collection was diagnosed, it was at once evacuated by puncture through the vagina. Mere puncture was found insufficient, and in one case a drainage-tube was introduced; while in another, where Chassaignac's plan was impossible, a flexible canula was allowed to remain in the opening made by the trocar. In all the latter cases the ovarian tumours removed have been carefully examined and fully reported on. Many of the pathological reports are valuable additions to our knowledge of the morbid anatomy of the ovaries. In a large number of the fatal cases the post-mortem appearances are detailed, and Mr. Wells frequently sums up by stating in a few lines the points of the case which chiefly impressed him, and from which he thinks lessons for the future may be deduced.

After the 114 cases of ovariotomy follows a unique one in which the operation was performed twice on the same patient. The result was unsuccessful, although the operation itself presented no unusual difficulty.

Then follow the cases of incomplete ovariotomy. In four cases a simple incision was made. One patient died four months afterwards from the spontaneous rupture of an ovarian cyst into the peritoneal cavity; the other three are still alive. In two of them the disease is undoubtedly ovarian; in the third it is probably tubercular peritonitis. The operation gave relief to both of the ovarian patients (one of them has since married); but, stranger than all, in the third case the incision appears to have cured the peritonitis, at least, temporarily.

In four cases tapping followed the incision; in two of them the fatal result was accelerated by the operation; in the third, the patient, already far reduced, did not suffer more than from an ordinary tapping, but sank on the fifteenth day from the natural progress of the disease. In the fourth case the patient made a good recovery, and lived on for a year, during which she was tapped seven times.

In one case in which iodine had previously been injected, the cyst was tapped, and an attempt made to separate it. Hæmorrhage was so free that the attempt was desisted from, and the patient sank on the sixth day with symptoms of blood poisoning.

In a single case, Mr. Wells was forced to leave a large portion of ovarian cyst adherent; the patient died in twenty-three hours. In the last section of reports are five cases of fibroid and fibro-cystic tumours of the uterus, in which gastrotomy was performed. Only one of the patients recovered from the effects of the operation.

Mr. Wells concludes with a few suggestions for facilitating the taking of notes of cases. For some years he has been in the habit of keeping a separate pass-book for each patient, and he now publishes that form which he has found most useful in ovarian cases. The points requiring notice are printed down one side of the page, and space is left opposite them for the written answers; while, at intervals, diagrams of the female figure are given very similar to those recommended by Dr. Bright in his monograph on abdominal tumours.

It requires some little trouble to accustom oneself to such an arrangement, but it possesses the great advantage that no point of interest is likely to be overlooked in rapidly noting down the chief features of a case.

We have no hesitation in saying that of Mr. Wells's cases the unsuccessful are the most instructive. The operation of ovariotomy has now, as Mr. Wells himself remarks, gained such a footing that the danger is that it will be performed too often, and not too seldom. The results, when successful, are so brilliant, the patient is so evidently snatched from the jaws of death and restored to health, that the temptation to operate is almost irresistible. The operation itself is sometimes so easy, that an onlooker is tempted to say, "I, too, will perform ovariotomy;" and this, although he possess no Surgical skill, and would shrink from the performance of an amputation, or from the extirpation of a simple lipoma. To such we would say, "Wait till you see a really difficult case." There is probably no operation in which Surgical *sang froid* and careful manipulation are more needed than in the extraction of some ovarian tumours. As an instance, we might refer to page 8, where a rent was apparently made in the iliac vein, or to page 221, where part of the cyst was so firmly adherent to the pelvic viscera and vessels that it was impossible to separate it.

It is true that nothing can be more alarming or require greater presence of mind and fertility of resource than serious post-partum hæmorrhage, but we submit that the means for arresting such a hæmorrhage are essentially different from those which are necessary in the cases under consideration, and that a pure accoucheur would be as much at a loss in the Surgical case as a pure Surgeon would be in the obstetrical one.

We cannot conclude our notice of the volume before us without referring to the elegant manner in which it is got up. It is printed upon cream tinted paper—a tint which, we believe, has been shown to be less trying to the eyes than any other. The edges, too, are cut. The additional cost of these little luxuries is very trifling—not more than three-halfpence a volume; and we sincerely trust that they will in future be indulged in by Medical authors more frequently than they have been hitherto.

Clinical Lectures and Reports by the Medical and Surgical Staff of the London Hospital. Vol. I. 1864. London: Churchill and Sons. Pp. 521.

The Medical staff of the London Hospital have commenced the publication of a series of reports upon the plan so successfully pursued by the staff of Guy's Hospital. It is only a matter of surprise to us that the attempt has not been made before. We say a "series of reports," for we do not doubt for one instant that the volume before us is destined to be but the forerunner of many equally good, if not better. Over and over again we have regretted the burial in Hospital case-books of much that is valuable in Professional experience; for notwithstanding the scope afforded to writers by the periodical Medical press and the certainty that any Medical work that is based upon accurate and extended observation will now-a-days obtain a sale commensurate with its deserts, it would not be difficult to show that the present opportunities of publication do not exhaust by any means the stock of information for which they are the outlets. Besides, a vast deal of good is, we think, effected when we succeed in fostering an *esprit de corps* in any large Hospital, and nothing promotes this like engaging its staff and *alumni* in some common work. Another good thing is rivalry, when its object is good and it is carried on in good humour. The Guy's Hospital reports have already obtained a world-wide reputation; we hope and wish the same for the younger publication. It will be the fault of the staff of the London Hospital if the London Hospital reports do not take their place at its side, and on an equal footing. May the Profession never see the last of them!

The reports have commenced well. Contributions are furnished by Dr. Herbert Davies, Dr. Down, Dr. Hughlings Jackson, Dr. Woodman, Dr. Andrew Clark, Dr. Barnes, Dr. Ramskill, Dr. Powell, and Messrs. Hutchinson, Maunder, Curling, Couper, Heckford, and Little. Amongst other things there is printed a series of cases reported by the Hospital gold medallists, a Statistical Report of the Maternity Department of the Hospital, and the Statistics of the Hospital for 1863. With respect to the latter, we should be glad in future years to see a more extended tabulation, and would like to suggest the adoption of a plan somewhat similar to that adopted by the registrar of St. Thomas's Hospital.

To repeat an inquiry which we have before made, we ask why the registrars of the great metropolitan Hospitals do not meet and agree to a scheme of registration which shall be uniform and complete, and such as shall supply to the

Profession year by year a summary of the whole Hospital experience of London?

In our review of this volume we do not propose to notice every paper, but merely a few which may be taken as samples of the entire series. Nor would we have it supposed that those we select for special notice are necessarily the best; our object is merely to give our readers an idea of how the volume is made up.

There is a very good and suggestive paper by Mr. Hutchinson upon "True Leprosy," which is of special interest just now in consequence of the inquiries upon the subject instituted by the Royal College of Physicians. Five cases are narrated, one having been under the care of Mr. Adams, two under the care of the author, and two communicated by Mr. Curling.

Mr. Hutchinson also furnishes a long paper upon "Cerebral Amaurosis, more especially with reference to that form supposed to be connected with the use of Tobacco." So far as that narcotic is concerned, the data which he has collected seem insufficient for any definite conclusion. The following is his summary. We may state that altogether notes of fifty-four cases are furnished:—

"1. That there is a special form of cerebral amaurosis usually unattended by other permanent disorder of the nervous system, in which white atrophy of the optic nerve supervenes. 2. That there is little doubt that this form of amaurosis commences centrally, the alterations in the supply of blood to the optic nerve and retina being secondary. 3. That in the early stage of this disease symptoms of functional brain disturbance are usually present: somnolence, headache, giddiness, slight stupor, and sometimes vomiting. 4. That the symptoms last mentioned almost always pass off when the amaurosis is more advanced. 5. That the rapidity of the extinction of sight is usually in ratio with the severity of the other cerebral symptoms. 6. That this form of amaurosis may occur in any age and in either sex. 7. That it now and then follows exanthems, congenital syphilis, disturbed menstrual functions, great anxiety, injuries to the head, etc. 8. That it occurs in large excess in adult males, typical and uncomplicated examples of it being, indeed, very infrequent in women. 9. That in men it is sometimes attended by disturbance or suspension of the generative function, but that in the great majority of cases no such connexion is proved. 10. That there is no reason to think that it is frequently consequent on masturbation, or that it occurs in any especial connexion with acquired syphilis or intemperance. 11. That no adequate explanation can be afforded of the clinical fact that men suffer from it much more often than women. 12. That it does not occur in connexion with any special occupation. 13. That a large proportion of those who suffer from it have been smokers."—P. 81.

Dr. Down narrates a case of "Polysarcia" which was observed in an idiot child, aged 13 years, who, when admitted to the Asylum at Earlswood, weighed 113 lb., although only 4 feet 4 inches high. This was in 1850. In 1862, although of the same height, she weighed 210 lb., and measured 55 inches round the waist. Although now aged 25 years, she had never menstruated. The chief object of the author, however, is to show the influence of several kinds of treatment to which she was subjected. The results are represented in the following table:—

	Weekly increase in weight.	Weekly decrease in weight.
	oz.	oz.
Mixed diet, unrestricted in amount	$7\frac{3}{4}$	—
,, restricted ,,	$1\frac{2}{5}$	—
,, ,, & iod. potassium	*nil.*	*nil.*
,, ,, & liq. potassæ	—	$2\frac{1}{7}$
,, ,, & fucus vesic.	—	$4\frac{1}{3}$
Purely meat diet, without medicine	—	28
,, ,, with fucus vesic.	—	29

She has now been reduced to a weight of 155 lb.

The sixth in the series of "Cases illustrating some very rare forms of Fracture and Dislocation of the Vertebræ," by Mr. Curling, seems to be unique. The following is an abstract of the case:—A robust man, aged 38, walked into the Hospital on May 17, 1838, having just slipped from a ladder and struck the back of his head and neck. He was stupid and pulse was slow, but the pupils acted freely. There was slight pain in the head and some deafness. The next night he was restless, and the pulse became rapid. On the 19th he was unconscious, but became sensible again on the 20th. In the course of the day, however, he again became insensible suddenly; the vessels of the head and face became congested, and breathing stertorous. He was relieved by bleeding, and became able to answer questions, but in the evening suddenly expired. On examination after death, the brain and its membranes were found congested, and there was more fluid than usual found in the lateral ventricles and cavity of the arachnoid. But the most remarkable point was a narrowing of the aperture of the foramen magnum and the odontoid process was found unusually moveable. On further dissection the processus dentatus was found to constitute a separate bone, articulated with the second vertebra. There were no appearances in the medulla of injury or disease, no rupture of ligament or extravasation of blood. Mr. Curling remarks upon this:—"The absence of all mark of recent injury, the perfect condition of the false joint, as evinced by the opposed surfaces being tipped with cartilage, the development of a bursa, and the large surface presented by the anterior part of the ring of the second vertebra for the play of the odontoid process, all tend to show that the parts had existed in this state for a lengthened period. . . . . The interesting question here presents itself, Whether the abnormal state of the odontoid process had any connexion with the symptoms of the disease which caused the patient's death?" —P. 144. Rokitansky tells us that in a few cases of fracture of the odontoid process "they have not only not proved fatal, but have even existed a considerable time without union of the fragments. A specimen of this kind is contained in the Vienna Museum (vol. iii. Syd. Soc. Edit., p. 246)." He says nothing about a false joint being formed in such a case.

There is some of the best advice to students on the subject of estimating the relative value of various kinds of symptoms in disease which we have ever read, in a paper by Dr. Hughlings Jackson, entitled "On the Study of Diseases of the Nervous System." He warns them against "ever taking a complete view of one aspect of a case for a knowledge of the patient's disease." "Learn the health tissues of a patient, as shown by the colour of his hair, the elasticity of his skin, the tint of his complexion, the feel of his arteries, and the condition of his urine. Examine the chief organs, and with especial care the one in fault, or supposed to be in fault; and, lastly, be most careful to ascertain if organs near or distant to the one or more most damaged act in harmony, if function be disordered." Again,—"Never treat a patient on stethoscopic evidence only. The heart may be a bad musical instrument, and yet a good force-pump." Again, speaking of paralysis, he says:—"How exceedingly various are the sets of symptoms produced by the same tissue changes. But we have to think, as regards treatment, of effusion of blood into nervous tissues rather than of disease of the corpus striatum, crura cerebri, pons Varolii, etc. To attend to the seat of damage only, is to study merely the physiology of disease, and is not practical Medicine. I should be misunderstood if I were supposed to underrate the physiological study of diseases of the nervous system. Indeed, I think that to neglect it shows want of education, but to neglect the clinical shows want of experience and sagacity. Never forget that we may run the risk of being over-educated and under-cultivated. We may be gorged with facts in anatomy, physiology, and pathology, and yet our facilities may be little trained for investigating disease."—P. 158.

Dr. Down gives the results of his experience of the use of sesquicarbonate of ammonia in a recent epidemic of scarlet fever at Earlswood. Out of a population of 440 persons 192 had the disease. Of these "147 were idiotic or imbecile in various degrees, and of these 9, or about 6 per cent., succumbed to the disease; while of the remaining 45 officers and servants, whose attacks were of an equally severe character, only one (or rather more than 2 per cent.) died; and even this isolated case (a male attendant) could scarcely be placed to the credit of the scarlet fever alone—it was one only of the factors which accomplished his overthrow. He had not long since recovered from an attack of acute rheumatism, which terminated with an adherent pericardium and a seriously damaged mitral valve. . . . Among the nine idiotic cases that died, no less than seven were the subjects of tuberculosis, and who, although they struggled through the febrile attack, failed to rally during that period when in others convalescence might have been fairly expected. The remaining two died from convulsions—a termination not infrequent amongst the idiotic."—P. 160. All the cases were treated with this salt, 5 grs. being given every four hours, and no trouble was experienced in administering it.

Mr. Couper relates an interesting "case of strangulated

femoral hernia, in which no sac was present. The protruded part seems to have been a portion of the cæcum uncovered by peritoneum.

The "Gleanings from the Field of Observation," by Dr. A. Clark, will be read with interest. The matters he treats of are "warty growths on the soft palate, nasopalatine gland disease, the production of free nuclei by the tonsils, three illustrations of the use of the microscope in the diagnosis of diseases of the lung, the products of pneumonia, the migrations of spermatozoa, spermatozoa in the urine of women, other products associated with spermatozoa in urine, pus in non-albuminous urine, the best method of detecting small quantities of albumen in the urine, notes on albuminous urine, renal calculi without hæmaturia, an hitherto unnoticed condition of the urine, etc., notes respecting false casts, relations of casts to kidney disease, kidney disease without albumen or casts, and the use of magenta in the detection of certain matters in the urine."

Mr. Couper gives "an account of an attempt to reduce dislocation of the lower jaw, which had lasted nearly four months." The attempt was unsuccessful; but the case is of importance as showing what nature can effect, even in so short a time, to remedy the effect of such an accident.

There is a long paper, with a record of thirty-six cases, by Dr. Hughlings Jackson, in which he confirms, by an independent series of observations, M. Broca's views of the association of loss of speech with hemiplegia of the *right* side. "M. Broca believes that diseases of the left side of the brain only, produces loss of language; and, moreover, he locates the faculty of articulate language in a very limited part of that hemisphere. My observations tend to support the first hypothesis, and, in a general way, the second."—P. 388.

Dr. Davies' paper on the Blister Treatment of Acute Rheumatism must not, however, be passed over. He blisters near every inflamed joint, and believes that when free secretion is obtained he thus eliminates the *materies morbi* locally, wherever it gives external manifestation of its presence. In the cases recorded the treatment seems to have been unusually successful. He adds: "I may say, with some amount of confidence, derived from the observation of twenty-five cases, that we may fairly hope and expect, by bold and efficient treatment, to deprive this fearful affection of its most dreaded result—organic disease of the heart." Patients do not seem to complain of the severity of the treatment.

Our readers will now, we think, be in a position to judge tolerably well of the character of these reports. They are illustrated by three lithographic plates (one coloured), and several woodcuts, all well executed. The editors are Drs. Down and A. Clark, and Messrs. Hutchinson and Maunder.

FOREIGN CORRESPONDENCE.

GERMANY.

Berlin, January 9.

As the question of the utilisation of sewage promises to become one of much practical importance at no distant time, I think that the views on this subject recently brought forward by Dr. Stamm, of this city, deserve to be placed before your readers. This gentleman, who is a philanthropist, has given many years of his life to the study of epidemic disease in the different parts of the world, and believes in the possibility of annihilating all such diseases merely by proper attention to cleanliness and other simple hygienic measures. In his pamphlet on the removal of sewage just published, he inveighs against our continuing to erect statues, build museums and buy expensive pictures, when whole towns are infested with stinks; and believes good privies to be a far higher sign of general civilisation than grand palaces and museums of art. According to him, all systems of canalisation for the removal of sewage have been utterly faulty, in ancient as well as in modern times. Liebig went so far as to ascribe the fall of the Roman empire to the system of sewers adopted there; and although this may excite a smile, yet there can be no doubt that sewers waste the productive force of the agricultural soil, and give nothing in return but stinks. Wherever there is an extensive system of sewers, epidemics are inevitable; where there are cesspools and latrines the evil is increased. History furnishes ample proofs of this. When the capital of Egypt was removed from Thebes to Memphis—that is, from the healthy upper country to the marshy lowlands—the empire gradually declined. Not only was all the sewage wasted, but the infection of air was carried on in an almost systematic manner. Cultivation decreased, the population diminished, the sanitary condition of the people was deteriorated. The origin of plague had the same cause. The locality where Cairo is now situated was originally quite surrounded by hills. A canal was led from the Nile to this low valley, where there was no access either to winds or to the pure air of the desert. This canal received the sewage of the whole population. The dead bodies were not properly interred, but covered with a thin layer of earth in the dwelling-houses themselves. The consequence was plague; and as soon as the conditions just named were removed, the plague ceased. The causes of yellow fever and typhus are of a similar kind, and Dr. Murchison has even proposed to call typhus "pythogenic fever," as he thinks that it takes its origin from exhalations from sewers, containing feecal matters in a state of fermentation. In the obstetric wards of the Vienna General Hospital there was an epidemic of puerperal fever in winter 1862-63; and Professor Braun, on the recommendation of Dr. Stamm, ordered the windows to be kept open by day and night, with the most beneficial result, as the epidemic ceased soon afterwards. A curious circumstance in this epidemic was, that in the wards on the second floor far more cases of the fever occurred than in those of the first floor. On examination, it was found that the pipes for the escape of gases from the cesspools opened just above the second floor, in a garret which was quite closed. On opening the windows there, no fresh cases of fever occurred in the second floor. From numerous other instances Dr. Stamm draws the conclusion that wherever there is stink there is *materies morbi;* and that even where there are waterclosets instead of cesspools the poison will penetrate into the dwelling-houses.

He then proceeds to prove that in every system of canalisation, the value of sewage as manure is either entirely or partially destroyed. In Asia Minor, in Syria, in Egypt and North Africa, in Italy and Naples, near Rome, and in Spain are vast tracts of country which have been much cultivated in former times, but where the soil has to so great an extent been deprived of nutritive material that it can no longer furnish produce. It appears extremely difficult, according to general experience, to freshly cultivate such tracts of country, probably because the manure employed does not contain all the elements required for the purpose. Moreover, such tracts easily become fever districts, because after the autumnal rains grasses grow, and are afterwards putrified. Similar conditions may be observed in some of the Confederate States of North America. Tracts of country, which were from the first exceedingly fertile, were cultivated without manure, and relinquished after they had become impoverished. Thus, large portions of Georgia, North Carolina, and Virginia are entirely impoverished, and territories which were formerly populous are now desolated and devastated by fever. Even England begins to suffer in consequence of the system of canalisation pursued throughout the country, and the English are, therefore, compelled to spend annually enormous sums for manure for territories which were once exceedingly fertile. If native sewage were utilised, there would be no necessity for guano. Native manure, however, is not to be had in sufficient quantities, and is comparatively dearer than guano. The consequence is an increased price of provisions; while at the same time the Thames, the Leith, the Clyde, and other rivers are horribly infected. The system of canalisation seems, therefore, equally bad according to the principles of hygiene, national economy, and chemistry; but canals for the removal of rain and slops will always be indispensable.

A general water-closet system cannot exist without canalisation, whereby the fæces are removed. The former is therefore equally bad as the other. In the same way, cesspools and latrines should be entirely done away with. Pettenkofer's researches on the propagation of cholera are alone sufficient to prove the utter worthlessness of this system. The water of wells may be infected by neighbouring cesspools; river-water may become poisoned by the opening of sewers in the river, and both may thus give rise to a spread of cholera. The same system also entails a loss of the largest portion of valuable manure, as ammonia and sulphuretted hydrogen go off in vapours, and only serve to poison the atmosphere. Of all fæcal manures, guano resists best to atmospheric influences; nevertheless, the upper strata of the guano on the Chincha Islands is found to be rotten. The valuable qualities of guano have, however, only been preserved for centuries for this reason, that it never rains on the Chincha Islands. There are

deposits of guano further south on the Pacific coast of South America; but the more we approach the South Pole, and rain becomes more frequent, the more guano loses its efficacy. Where there is much rain, the guano is useless, as the best parts of it are washed away by the rain. There is scarcity of manure in Europe as well as in North America; and we must not forget that it is manure which satisfies hunger, that in the natural course of things it is changed into bread and meat. At no distant time the guano beds on the Chincha Islands will be exhausted, and then no more manure of that kind will be forthcoming. It is therefore necessary that all cesspools and latrines should be done away with as soon as possible. The only good system of dealing with this matter is one which entails direct removal of fæcal matters, and by which neither the air, nor the soil, nor the water can become impure, and which finally allows of the full value of manure being turned to practical account. How should, then, the water-closet system be replaced, so that the comfort attending the water-closet may not only not be lost, but even increased? Dr. Stamm says that the comfort of water-closets consists chiefly in their being devoid of odour. Entire absence of odour, however, can never be had by that system, while it may be easily had by disinfection. A porcelain vase, with a wide funnel-shaped opening, may be made to communicate with a porcelain bucket which receives the fæces. These vases may have an opening from which, by pressure of a piston or some similar arrangement, a small amount of disinfecting fluid may flow into the funnel. This fluid may be kept in a special reservoir behind the stool. Such arrangements could be had in every bed-room or cabinet. The buckets should be emptied in butts placed in the court-yard. Such disinfecting stools do not waste the manure, they do not annoy the neighbours, they do not poison air and water; and as regards the complete absence of smell, they are even more comfortable than water-closets.

The costs for the necessary apparatus ought, in Dr. Stamm's opinion, to be borne by the landlords, as there would be no further costs for cesspools, water-closets, etc. The whole operation for the removal of sewage and rubbish should be conducted either by the municipal authorities or by a Great Removal and Utilisation of Sewage Company (Limited).

The advantages that would, in the inventor's opinion, be connected with the adoption of his system would be the following:—

1st. The cultivation of the soil would gain, provisions, and more especially vegetables, would become cheaper, or at least they would no longer increase in price. The manure might be sent by water or rail to a certain distance, where it could be applied to the soil, which would at once increase in fertility and value. Vegetables, especially for the poorer classes, might be grown where they would not thrive at present.

2nd. The drinking water would be considerably improved, and would no longer give rise to disease. In large towns it is, as a rule, exceedingly difficult to procure good drinking water, especially in summer, when people feel the want of it most. Pure water for cooking is also of great importance, and could easily be had if this system were adopted.

3rd. The average duration of life would be prolonged. In the same measure as air and water become purer, and good vegetables would be accessible to the whole population, the health of the people and the mean duration of life would increase. The more considerable the mean duration of life, the greater would be the work done by a nation. Before man is in a state to become of use to society, a certain time of more or less costly training and education is required, both for body and mind. The longer the life given to an individual for doing work, the richer the population will become. Thus we invariably find that increase of wealth in a nation goes *pari passu* with increase of mean duration of life. Where much time and money is spent on training, and afterwards little work is done, there is great loss to the country. Baron Rothschild, sen., therefore very properly used to say, that every man might become a millionaire provided he lived long enough.

4th. Morality and civilisation would increase. Men who starve in dirty alleys and stinking courts are more likely to become criminals than those who enjoy pure air and water and good food.

5th. Millions of money which are now thrown away would be saved for the country. The amount gained by Dr. Stamm's proposed utilisation of sewage would, in his opinion, more than cover the wants of the poor population, for which now poor-rates (a by no means popular impost) are necessary. Thus the adoption of his system would be, he thinks, a blessing for the nation at large.

GENERAL CORRESPONDENCE.

THE COLLEGE AT EPSOM.

LETTER FROM DR. SIEVEKING.

[To the Editor of the Medical Times and Gazette.]

SIR,—I trust that the changes which were effected in the laws of the Epsom College at the meeting of the governors on January 12, may not remain a dead letter.

The main feature of the new enactments consists in the establishment of exhibitions, the holders of which shall be educated, not as now at £40 per annum, but at £30 a-year. Scholarships are also to be created; but while these are to be rewards of merit, open to the competition of the whole school, the former are intended solely to meet the *res angusta domi* of the poorer members of the Profession. Let us hope that in the former case undeserving or illiterate boys may not convert what is intended as a boon to themselves as well as to their parents into an excuse for idleness. While I willingly admit the policy of the recent act of the Council, which was calculated to throw oil upon the troubled waters, I would venture to suggest that there is a great interval between the theoretical conclusions arrived at, and the practical realisation of the scheme, and it is because I would desire the Profession at large to see how much yet remains to be done that I take the liberty of addressing to you a few remarks on the subject.

It is determined to create a fund for the purpose of establishing the scholarships and exhibitions. Manifestly a long period must elapse before a fund will be collected which can be at all adequate to the purpose. But it will be observed that the new regulations advert to the admission of lay boys, which is made conditional on the failure of the application of Medical men's sons for admission to the College. This is practically a contradiction, for as yet there has been no lack of such applications, and with the increasing prosperity of the school, this failure is still less likely to occur, and can scarcely be said to be desirable. At the same time, there is but one opinion on the subject of restricted class education; it is pronounced to be objectionable by all who have seriously thought on the subject, and it is desired by all earnest supporters of the College that there may be an admixture of lay boys, not only for the purpose of obtaining an accession of income, but also on account of the moral and intellectual advantages which will accrue to the present denizens of the College.

The question then naturally arises whether it may not be possible to reconcile this apparent anomaly. Everybody, I believe, is agreed that the proposal to create exhibitions is good in the abstract; everybody also, I think, is of opinion that an infusion of the lay element among the pupils is most desirable, and that the school will not occupy that position which it ought to fill in the eyes of the public, as well as in that of the Profession, so long as the whole of the boys are derived only from one class of the community. The laws say that no sons of gentlemen not in the Medical Profession shall be admitted unless there are vacancies not required for the sons of Medical men.

I see no way out of the difficulty except by a new and independent foundation, to which no boys shall be admissible at a rate of less than sixty guineas a year. If the school is good for anything, the applications are certain to be numerous enough. It already offers many advantages not found in the majority of public schools, and the continued care and watchfulness of the Council will, I trust, still further enhance its attractive features. I would propose the erection of a new wing, which might not inappropriately be called the "Propert Wing;" and as a Propert fund already exists which has not yet been appropriated to any precise object, the few hundreds collected, to do honour to our treasurer, might form a nucleus to a distinct fund for that purpose. In this way we may reasonably hope to kill two birds with one stone. We should secure a permanent increase of income by the higher charges of the boys admitted to the Propert foundation, which would be at once applicable to the exhibitionerships; and the school would gain intellectually by the contact of a greater variety of ingenuous youths—a point that has been over and over again urged by the head-master no less than by many members of the Council.

Much more might be said upon this subject than you would probably care to admit into your paper; but I cannot conclude without urging one point which I deem vital, and without

attending to which I hold that the whole proposition would fail altogether. I advert to the present name of the College.

The present unfortunate name implies that all boys educated at the Epsom College are recipients of charity. There is not a public school in England in which the element of charity is excluded. In many of our foundations this element has been too much ignored. But it exists everywhere. There are few cases, however, where, as at Epsom, it is customary to affix a stigma to the sons of gentlemen by the very name of the school destined to lead to the highest honours which a preliminary education can prepare boys for. Many Medical men who think well of the school have been deterred from sending their boys there by the soubriquet of "benevolent," and it is utterly out of the question that, while it is retained, any excellencies of the College would ever tempt gentlemen out of our Profession to send their sons at an advanced rate of payment, though still much below that which they would have to pay at schools that in no way but their name merit a higher rank.

Before we can ask the general public to avail themselves of the advantages of Epsom College, it is absolutely necessary to change its present name.

Many of our public schools are not known by the names by which they are called in the charters, and there is no reason why, as there is no other College at Epsom, it should not ordinarily be called the Epsom College. But should the legal authorities object to this, I think that before we take the steps that may be deemed requisite to admit lay boys, we ought to go to the expense of a new charter or new Act, so as to do away with the present obnoxious name.

I am, &c. E. H. Sieveking.

THE CAUSE OF TIMOTHY DALY'S DEATH.

Letter from Dr. Septimus Gibbon.

[To the Editor of the Medical Times and Gazette.]

Sir,—In these days of legal proceedings against Medical men for malpraxis you have done a service to the Profession by printing the notes of Timothy Daly's post-mortem examination. It has gone forth to the public as an "indisputable fact" in this case that the immediate cause of death was "exhaustion from bed-sores." Inasmuch as this opinion would assuredly, with a less firm and less experienced coroner than Mr. Payne, have consigned Mr. Norton to Newgate on a charge of manslaughter, and may yet subject him to the anxiety and expense of having to defend a civil action for malpraxis, and as it may be quoted as a sort of precedent against any future Practitioner who may have a patient die with bed-sores, it behoves the Profession to come to some conclusion as to how far it is correct. Unfortunately, Dr. Andrew, who alone was present at the autopsy, and came to this conclusion, was not questioned on the point at the recent Poor-law investigation by the Medical assessor or any other Medical man.

Having heard Dr. Andrew's evidence, and having had some experience in bad cases of bed-sore, I feel bound to say that I do not agree in the conclusion he has drawn as to the cause of death. The examination Dr. Andrew made of the patient during life was admittedly a very cursory one. Although the case was brought into the Hospital as one of rheumatic fever, and the patient had "hurried respiration," "blueness of lips and countenance, with cold extremities," no stethoscopic examination was made; and the reason for not making one was quite inconsistent with the exhaustion theory—viz., because it was intended to remove him to a Surgical ward as soon as there was a bed to receive him; and yet this man was "in such an exhausted condition that he ought not to have been moved from one bed to another in the same room."

But Mr. Lowne, who had charge of the patient a whole week previously, does not agree in this description of Daly's condition at the time of his removal to the Hospital, for he describes him as being "quite comfortable," and free from the usual symptoms of fatal exhaustion, as hectic fever, pallor, faintness, etc.

During the Crimean war, many of the typhus and dysentery cases when they were admitted into the Smyrna Hospital, to which I was attached, were suffering from extensive bed-sores. These patients were of about Daly's age, and although they laboured under more debilitating diseases they all recovered. Others who had not this complication died. I have not recorded the exact dimensions of the sores, but the following description is given of several cases:—"Extremely emaciated, with a very large undermined bed-sore on sacrum, and two smaller ones over both trochanters." One poor fellow had sloughs on the calves of his legs, another on the heel of his foot. I think, therefore, that, *quoad* the sloughs, my cases were as bad as Daly's.

No doubt this is a true cause of death to many old and worn-out patients in St. Bartholomew's Hospital, and I have known a bed-sore in an earlier stage before the slough has separated, by inducing sleeplessness and irritative fever, determine a fatal result in continued fever. In Daly's case the sloughs had come away, and the sores looked healthy, and were granulating. The exhaustion caused by such sores compared with that resulting from pericarditis and recent pleurisy and pneumonia (Dr. Andrew stating that rheumatic pleuro-pneumonia—a complication, if untreated, of a very fatal character—existed at the time of death) must have been extremely small. This is evidenced by the firm clots that were found in all the cavities of the heart. The œdema of the lungs and cellular tissue no doubt was of post-mortem occurrence, as four days elapsed before the examination was made.

Although I doubt the accuracy of Dr. Andrew's opinion, I must bear testimony to the conscientious and impartial manner in which that gentleman gave his evidence.

I am, &c.

Septimus Gibbon, M.B., Cantab.

3, Finsbury-square, E.C., January 25.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, January 17.

Dr. Peacock, President.

In taking the chair for the first time, Dr. Peacock expressed himself as feeling highly gratified at being appointed to preside over the Pathological Society of London. At no period in its history, he remarked, had it been more flourishing than at present. He recollected some years ago hearing it stated that the Society was on its last legs, that it had exhausted the subjects for exhibition, and that the members were beginning to repeat themselves. After an experience of sixteen years, during which the Society had steadily increased in usefulness and reputation, they might well smile at such a remark. During that time the number of members enrolled had steadily increased, the interest of the meetings had been maintained, and there had been issued to the Society fifteen volumes of *Transactions*, which he believed would bear a favourable comparison with those of any other society, and the general reputation of which was attested by the frequency with which they were referred to, not only in this country, but abroad. The success of the Society was due, he believed, chiefly to two causes. First, that it devoted itself to the study of a branch of Medical science of the greatest interest and importance. It had never degenerated into meetings for the exhibition of specimens of morbid anatomy, but had aimed at cultivating pathology in all its bearings. Fresh subjects of pathological interest were continually arising, and many such had received a large amount of the Society's attention, and important information for their elucidation would be found in the pages of its *Transactions*. The other element in the success of the Society was, that it embraced a large number of young and energetic men; and if such continued to join the Society, and if the members continued to display the same energy, it would continue to increase in importance. He would say to the present younger members of the Society that their communications would also receive the greatest attention, and he would tell them that a reputation made in that room would be a sure prelude to higher distinction in a wider sphere. Many members who had been little known, and were amongst the most active at its commencement, now enjoyed a high reputation in their Profession, and he could confidently predict the same for those who had recently joined. The Society had from the first made it a point that the younger as well as the older members should be represented in the Council, and it would be seen from the list for the year that the principle had not been departed from. As regards the secretaries who had conducted the work of the Society during the last session, it was impossible for him to speak too highly, and they had to regret the loss of one of

them—Dr. Bristowe. He would, however, be replaced by a gentleman, Dr. Murchison, whose labours in the Society and elsewhere afforded a sure guarantee that he would prove himself not less efficient than his predecessor. The President concluded by saying that, having attended all the preliminary meetings of the Society, and nearly all those for business, he had seen its steady progress, and that had afforded him the greatest gratification. He had been anxious to promote its interests in his former position, he could be no less so as its President. He felt, however, that his position was a difficult one. He could not forget that the post he was called upon to occupy had been previously held by the most eminent members of the Profession, and he especially alluded to the able presidency of his predecessor. It would, however, be his earnest desire to fill it worthily, and he hoped he should in doing so promote the interests of the Society. It would indeed be a source of great gratification if, at the end of his term of office, he preserved the same kindly feelings on the part of the members which were manifested towards him in his election as President.

A report, by Dr. Harley and Mr. Francis Mason, was read, on Mr. Fergusson's specimen of

GALACTOCELE.

The report was in great detail, a thorough chemical and microscopical examination having been made of the fluid. The chief results, however, were that the fluid differed from ordinary hydrocele fluid, with which it was carefully compared, simply in containing fatty matter. The reaction of the two was identical, so also was the odour, and both contained sulphuretted hydrogen. The specific gravity was also nearly the same, the ordinary fluid being only two degrees higher than the other. In fact, in all respects they appeared alike, except one, viz., in the absence of oleaginous matter in the ordinary fluid. As previously stated, by removing the fatty matter from the milky fluid it assumed the appearance of the other. The counter experiment was also made, and by adding animal oil to the ordinary fluid it assumed precisely the same appearances as the other. The natural conclusion, therefore, was that the milk-like fluid was ordinary hydrocele fluid *plus* some of the fatty matter of the blood probably exuded by the capillaries of the tunica vaginalis.

Dr. Wilks showed a specimen of

LOSS OF THE PULMONARY VALVES.

A man, aged 31, came amongst Dr. Wilks' out-patients, suffering from phthisis. He had at the same time a double bruît, heard over the valves of the heart, and traceable with equal intensity upwards on the left side. There was no indication in the pulse of aortic valvular disease, and yet from the improbability of the affection being in the pulmonary artery, it was thought to be due to an aneurismal or other morbid condition of the aorta. He had had an attack of rheumatism ten years before, and had since been obliged to leave a laborious occupation for that of a cabman. After death, which took place from disorganisation of the lungs, the cause of the systolic and diastolic bruit was found to be in the pulmonary artery. One only of the sigmoid valves remained, another had completely disappeared, and of a third there was a mere vestige at the point of attachment. There was no thickening of the healthy valve, nor other signs of an inflammatory process in the neighbourhood; the morbid process appeared to be simply an ulcerative one. Two of the aortic valves were slightly adherent as the result of a former endocarditis; the right ventricle was not enlarged. As regards the origin of the disease, Dr. Wilks said some difficulty existed. The fact of the patient's health failing after an attack of rheumatism ten years before might point to that time as the occasion of the mischief, whilst, on the other hand, the absence of all the ordinary signs of endocarditis, with the simple loss of the valves, might suggest a congenital malformation. The latter theory would be merely throwing back the time of the occurrence of the endocarditis to intra-uterine life, but would be favoured by the fact that affection of the pulmonary valves appears to be more prone to occur at that time than after birth.

Mr. Hinton presented a specimen of

SUBACEOUS TUMOUR IN THE TYMPANUM.

The case was peculiar inasmuch as instead of a single laminated mass enclosed by a membrane, which is the usual form in which these tumours are met with in the tympanum, two were present in the form of small rounded bodies of a glistening white aspect, and attached not to the walls of the cavity, but to a semi-membranous pultaceous mass, which filled it. This mass itself appeared to be of the same character as the smaller tumours, but to have undergone a process of decay. The membrana tympani was thick, white, and fallen in, and at its posterior part was a perforation, round and with smooth edges—apparently the point at which the growth of the tumour had commenced. The bone was not diseased, but the upper wall of the tympanum was thicker and denser than is usual, and also than on the opposite side. The Eustachian tube was pervious. The external meatus contained thickened flakes of epidermis. The vestibule contained a large quantity of otoconic much in excess of the usual amount. The nerve fibres were small, and of fibroid appearance, and some of the epithelium cells exhibited marks of fatty degeneration; in the semi-circular canals were numerous large circular or oval forms, lined with epithelium; these were not seen in the opposite ear. In the cochlea the teeth appeared small and their outline indistinct. The patient was a man aged 56, who died in Guy's Hospital of cancer of the liver. He could hear a distinct voice within a foot of the ear, and a loud click of the nail at the distance of six inches; he had been deaf in that ear (as he said "from colds") for upwards of twenty years; neither pain nor tinnitus. The left ear also had at one time been deaf, but was cured by syringing; in the left ear, the hearing of which, three weeks before his death, was good, though not acute, the tympanic cavity contained a large number of fine but firm adhesive bands which surrounded the assicula in all directions. The opecula were fairly moveable. Labyrinth healthy.

At the desire of the exhibitor, the specimen was referred to Mr. Toynbee and Mr. Thomas Smith for further examination.

Dr. Crisp exhibited the

STOMACH, DUODENUM, AND PART OF THE JEJUNUM OF A VERY FAT MAN, SIXTY YEARS OF AGE,

who weighed about eighteen stone. The case occurred in the practice of Dr. H. Davis, of Putney. The patient for many years had been a great eater and drinker. He suffered much from flatulence, and was in the habit of taking large quantities of aperient pills. He had coliky pains in the abdomen, followed by a low form of peritonitis, and sank six days after he was first seen. There was obstinate constipation, but no stercoraceous vomiting. The intestines were glued together by recent lymph, but no other mechanical obstruction was found, The stomach and small intestines were much distended and of large capacity, the coats of the former being very thin. The length of the stomach was fifteen inches; its breadth, when opened, eleven inches. The lower part of the duodenum and the jejunum, when opened, measured five and five and one-half inches from side to side; the kidneys were deeply embedded in fat, and this material was deposited in many other parts to an enormous extent; thus, large flakes were connected with the small intestines that measured three inches in diameter. The liver was large, light coloured, and very fatty, but notwithstanding this the fæces presented a normal appearance, and the gall-bladder was filled with what appeared to be healthy bile. It was thought that the great capacity of the stomach and small intestines was due to the long-continued over-feeding, gaseous distension, and the injudicious use of aperients.

Dr. Crisp likewise exhibited the

LUNGS, SPLEEN, AND OTHER PARTS OF A YOUNG ORANG [*S. satyrus*] (WITH WAX CASTS).

The right lung was in a state of grey hepatisation, and the spleen, which had a supplementary one attached to it, had several small tubercles attached on its surface. This was the only organ affected with tubercle, and Dr. Crisp had met with the same localisation of tubercular deposit in other of the quadrumana, but he believed that in man tubercle was never confined to the spleen alone.

With these preparations was sent round the os penis of the chimpanzee and orang, a discovery Dr. Crisp thought that would tend much to lower these brutes in the animal scale.

Mr. J. Z. Laurence then showed a patient who had a

CANCROID AFFECTION OF THE CORNEA.

The patient was a man, 27 years of age. The eye presented the following appearances when Mr. Laurence first saw him in April, 1863:—Occupying nearly the whole outer half of the cornea was a soft, vascular, conical growth measuring about 4‴ transversely, about 3‴ from above downwards, and rising $1\frac{1}{2}$‴ above the surface of the cornea. The greater part of the tumour appeared to spring from the deeper layers of the cornea, the smaller portion on the outer side passing insensibly into the adjacent scleral surface. Numerous vessels passed

from the highly congested conjunctiva to the surface of the growth, especially one large vein from the inner side. The patient stated that he had experienced but little pain in the eye, and that the growth was but slightly sensitive to the contact of a foreign body, such as a fine probe. The portion of the cornea unobscured by the tumour was nebulous and highly vascular, and at its upper and outer part adherent to the upper lid, which was very much thickened and congested, and its palpebral surface roughened by minute fungoid elevations having the character of surgical granulations. The visual power of the eye was reduced to mere quantitative perception of light. When last seen on January 17, 1865, the eye appeared to have undergone little general change, excepting that the conjunctiva was more vascular, the growth larger in all its dimensions, and its apex flatter, softish, uneven, and of a dirty white colour (ulcerated); numerous large tortuous vessels running to it, and ramifying over its surface. The protrusion of the growth between their edges prevented the complete closure of the lids. The upper lid was considerably thickened at its margin, and projecting from its under surface, moving freely upon the cornea, were two lobular fleshy growths, each measuring about 1½‴ in length. Three cases of cancroid of the cornea (an affection which Mr. Laurence said is by no means frequently observed) have been reported in the *Ophthalmic Review* (i. 79).

CIRRHOSIS OF THE LUNG.

At the last meeting of the Society Dr. Bristow having exhibited a specimen of this disease, Dr. Quain suggested that a microscopic examination of the lung should be made. The President requested Dr. Wilks to do so, but Dr. Wilks having been very much engaged, asked Dr. Sutton to make the examination, and the following is an abstract of Dr. Sutton's report:—The greatly thickened pleura was found to be made up of bundles of fine fibrous tissue, and between the bundles were a number of fusiform and large spherical corpuscles with granular contents, the nuclei not being very distinct. By the naked eye it could not be decided where the thickened pleura ended and the lung tissue began, but a section made in the immediate vicinity of the pleura showed (as seen in the drawing) spherical and spindle-shaped cells, and with a high power it could be distinguished that there were fine bundles of newly-formed fibrinous tissue, which were continuous with those of the thickened pleura, and these had in some partly, and in others completely, obliterated the air sacs. The connective tissue around the bronchial tubes and pulmonary vessels was unusually distinctly seen and was apparently increased in amount, and from a similar extension into the lung tissue. Therefore, Dr. Sutton concluded, that there had been a formation of new tissue elements, and of such as usually represent connective tissue, and that these were in the highest state of development in those parts of the lung in the vicinity of the diseased pleura and of the increased fibrous tissue around the bronchial tubes; and in those parts of the lung most removed from these situations spherical granular corpuscles only were seen.

Dr. W. Squire exhibited, on behalf of Mr. W. Dunnett Spanton, of the North Staffordshire Infirmary, a specimen of

RUPTURE OF ONE OF THE MUSCULI PAPILLARES OF THE TRICUSPID VALVE.

The heart was taken from a young woman, admitted into the Infirmary seven weeks after a second confinement. She was suffering from pelvic inflammation, peritonitis, and from want. A very loud, rough, systolic murmur was heard at the base of the heart. She lived five days, the rough and intense character of the cardiac bruit being remarkable throughout. At the autopsy thick pus was seen surrounding the intestines and uterus, and filling the ovaries. There was pneumonia in the right lung, but no trace of tubercle. The pericardium contained half an ounce clear yellow serum; its inner surface was smooth. There was a soft fibrinous clot in the pulmonary artery and aorta, and in both the right and left cavities of the heart. On the tricuspid valve, at its free margin, were numerous large, firm, nodulated vegetations, and recent soft ones were seen to be attached to the columnæ carneæ. One of the musculi papillares was ruptured near to the origin of the cordæ tendineæ; the broken extremity was covered over and rounded by fibrinous deposit. The endocardium was of a bright red colour; mitral, aortic, and pulmonary valves were healthy. Tissue of heart soft and flabby, with fatty degeneration. Mr. Spanton remarks that "among eleven cases of rupture of the valves, Dr. Peacock found but one case affecting the tricuspid, and I cannot find an account of any other."

Dr. Squire also exhibited, for Mr. Spanton, a specimen of

CHRONIC ULCERATION OF THE LARYNX,

from a man who had suffered more than two years from the affection. The laryngoscope had shown extensive and deep ulceration below the epiglottis, and round its left base; there had been swelling about the uvula and tonsils for some time. There was no history of syphilis, and no evidence of any disease of the lungs either before or after death.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 7.

Dr. Oldham, President, in the Chair.

Professor Pajot, of Paris; Professor Hecker, of Munich; and Dr. Marion Sims, of Paris, were elected Foreign Honorary Fellows. Dr. J. B. Potter and Mr. G. H. C. Cooper were elected ordinary Fellows.

Mr. Gayton presented to the Society a pair of forceps with a spring-racket attached to the handles, as made at his suggestion, and employed by himself on many occasions without a still-birth.

Dr. Barnes exhibited a piliferous cyst of the ovary.

Mr. Baker Brown showed a

LARGE FIBROID TUMOUR AND UTERUS, THE LATTER CONTAINING A LARGE MASS OF FIBROID GROWTH, TO WHICH THE OVARIES WERE ADHERENT, AND ENLARGED BY CYSTIC DISEASE.

It was proposed to remove only the large mass, which from its weight had become so troublesome as to render the patient's life a burden. Upon opening the abdomen the tumour was found to be pendulous, attached to the uterus by a very small pedicle. This was divided by the écraseur, but as it contained a very large artery, profuse bleeding ensued; and it was then considered advisable to remove the whole uterus and ovaries in one. This was done, the cervix uteri being transfixed by two ligatures an inch and a half from the os, and each broad ligament being pierced with a needle and tied with strong twine. After the removal of the mass it was found that the ligature of one of the broad ligaments had slipped, and that bleeding was going on. It was taken up with the vulsellum, and a second ligature applied. The external wound being closed, the patient went on very well for ten hours, when, suddenly vomiting, she became faint, and shortly afterwards died. It was found at the post-mortem examination that bleeding had taken place from a portion of the broad ligament which had not been included in the second ligature. Mr. Brown remarked that in any future case he should tie the broad ligament with a double instead of a single ligature, to prevent the possibility of slipping.

Dr. Graily Hewitt exhibited Dr. Marion Sims's modification of Chassaignac's écraseur, which did not arrive in time for the last meeting.

Dr. W. Wade, of Birmingham, read a paper

ON PUERPERAL EMBOLISM.

The author reviewed the history of the disease, which he took as a real evidence of the progress of Medicine. He entered into a description of its nature and varieties, and gave a sketch of Virchow's doctrine and of his experiments upon the production of embola. He then described a case which had occurred in his practice, in a woman suffering from phlegmasia dolens, who was suddenly, during exertion, seized with severe dyspnœa three weeks after her delivery. The pulse was feeble; skin cold and clammy. This state continued, but became each day more severe, for a fortnight, when she died. As was prognosticated, a large clot was found in the pulmonary artery, extending from the third or fourth ramification.

Dr. Greenhalgh stated that cases of fatal embolism after parturition were rare. He had met with but one case in his own practice. It occurred in a very healthy young lady, who had been confined of her first child. She had had a perfectly normal labour, not followed by hæmorrhage or any untoward circumstance beyond some acceleration of the pulse on the third day after delivery. She was suddenly seized during the evening of the sixth day after her confinement with severe dyspnœa, acute agony in the cardiac region, and intense mental excitement, speedily followed by alarming prostration and death in less than three hours. No post-mortem was made.

Dr. Ballard asked if there had been any febrile disturbance in Dr. Greenhalgh's case.

Dr. Barnes observed that the history of this case and of others in which embolism followed upon phlegmasia dolens had an important bearing upon treatment. Thus it was usual, after the subsidence of the acute symptoms of phlegmasia dolens, to rub the affected limb with the view of promoting absorption and supplying passive exercise to the muscles and other tissues. It might be that this friction would favour the detachment of a clot from the femoral vein, which being thrown into the circulation would constitute "embolism." This danger should be borne in mind. He thought the connexion between a febrile state and clotting or thrombosis, suggested by the question of Dr. Ballard, was very frequent. He believed in most cases of phlegmasia dolens there was a pre-existent abnormal state of the blood which predisposed to coagulation. He (Dr. Barnes) had gathered up in his memoir on Thrombosis and Embolia, published in the Society's *Transactions*, vol. iv., most of the information at that time extant upon the subject. Since then, however, our information had been considerably enlarged by the publication of new cases.

Dr. J. Braxton Hicks read a paper on

AN INQUIRY INTO THE BEST MODE OF DELIVERING THE FŒTAL HEAD AFTER PERFORATION.

In introducing the subject of this paper, the author said that, notwithstanding the employment of premature labour and version, cases would occur in which it was either necessary or desirable to perforate. He pointed out that the subject had of late years not received the attention it deserved. He alluded to the disputes which arose upon Dr. Osborn's case of E. Sherwood, when that Physician asserted he could draw a child's head through a brim having an inch and a-half antero-posterior diameter, by tilting the base of the skull sideways, and concluded that Cæsarean section might be done away with. The disputes which followed were so acrimonious that the valuable points elicited by Drs. Hull, Hamilton, and Burns were, to a certain extent, lost sight of, at least as far as they were calculated to give any rule in practice. Dr. Burns in particular deduced from his experiments that the calvarium of the fœtal head being removed, the base of the skull could be drawn down easier face foremost than in any other direction. With this the author's experiments entirely agreed. And he pointed out further the advantage of the chin pointing anteriorly during the descent. He further instituted a comparison between the opposing diameters when the face is made to present and the other modes of drawing down the base of the skull. He then proceeded to answer the inquiry: if in cases of extreme lessening of the antero-posterior diameter, it is best to cause the face to present; and if, after simple perforation, it is best to continue vertex presentation, at what degree of reduction of the size of the head do the two presentations cause equal obstruction? This he answered by the results of experiments, which might be thus concisely stated. That, as is acknowledged by all, vertex presentation in natural labour is the best; and that after perforation and evacuation of the brain up to the extent of one-fourth, this rule holds good; yet if the evacuation of the brain and collapse of the calvaria by this means, or by more or less fracturing the bones, be carried to a greater degree, we find that the facial presentation affords the easiest mode of delivery, provided that the mentobregmatic falls beneath the bizygomatic diameter. And, further, that if we remove the whole calvarium, leaving merely the base, and then induce face presentation, taking care that the chin, as it descends, points anteriorly, we diminish to the smallest possible amount, short of wholly breaking it up, the opposition of the head, leaving only from one to one and a-half inch in depth to oppose the conjugate diameter of the brim, and from three to four inches at the outside to oppose the transverse. The author, as practical deductions from these facts, recommended that in cases where simple perforation failed, to allow the descent of the head in cases of obstruction —say above three inches antero-posterior diameter—to break up purposely and carefully the bones of the calvarium, and remove at least a portion, preserving the scalp as protection to the edges, and then to induce face presentation. That when the diameter was under three inches, then to remove all the calvarium, and then to induce face presentation, taking care to bring the chin forwards, if not already in that direction. Dr. Hicks then pointed out the facility of doing this with a small blunt hook, which could be readily, and without chance of injury, passed up to the orbit. The chin, he had found, had a tendency to point anteriorly upon being drawn down. He then entered upon some useful details, and compared this mode of craniotomy with the cephalotribe. He remarked that by this means, in deciding upon whether craniotomy or Cæsarean section should be performed, the head was not so much to be considered as the size of the body in cases of brim obstruction. The paper was illustrated by eight cases of craniotomy, six of which were required for contraction of the conjugate, and two for obstructions in cavity. In all the induction of face presentation was attended by instant and complete passage through the obstacle. In some of the cases the shoulder and pelvis of fœtus gave more difficulty than the head. The paper was accompanied by details of the experiments.

Dr. Greenhalgh considered that the author had done much service to the Profession by bringing the subject forward in such a scientific and practical manner. He drew attention to the dangers attending cases of extreme deformity of the brim, remarking that there was a wide difference between extraction and safe extraction, especially (as is often the case) where the passages are swollen and inflamed. He called to mind the occasional difficulty of entering the skull with the perforator, and quoted a case where this was almost impossible. He thought, from a case which he had seen at Vienna, that he should use Braun's cephalotribe in a future difficulty. He had, in a case where the whole vault of the calvarium had been entirely removed before he arrived, delivered by fixing three crotchets outside of the presenting part.

HARVEIAN SOCIETY OF LONDON.

Thursday, November 3.

W. Adams, Esq., President.

An abstract of a paper, by Mr. B. Squire, M.B., was read

ON THE DIAGNOSIS BETWEEN SYPHILITIC AND NON-SYPHILITIC DISEASES OF THE SKIN.

The author, after remarking on the importance of the subject, observed that an eruption, even when the question of antecedent primary syphilis was well made out, was by no means necessarily of syphilitic origin; and that where an eruption was clearly syphilitic, it was often extremely difficult to obtain a history of primary syphilis. He, therefore, placed very little reliance on inquiries of this kind as a means of diagnosis. The best evidence that we could obtain of the nature of an eruption was the evidence that was within our personal knowledge. The most reliable direct evidence of previous chancre was the cicatrix left by that chancre. One of the most important means of distinction between syphilitic and non-syphilitic eruptions was the situation of the eruption. The most frequent situations for syphilitic eruptions in the order of their frequency were the neighbourhood of the alæ of the nose, the angles of the mouth, the forehead near the roots of the hairs, the back of the neck near the roots of the hairs, the inner canthus of the eyelids, the middle of the chest, the inner surfaces of the limbs, the neighbourhood of the axillæ and groins. It might be stated generally that the face was the most favourite locality for syphilitic eruptions. The age at which syphilides most commonly appear for the first time was another means of diagnosis. The most common age for this was between 25 and 35. Infantile syphilis appeared generally at the age of one month. The earliest time at which the author had met with a syphilitic eruption dependant on syphilis communicated by intercourse was in the case of a female aged 8 years. The colour of the eruption was a favourite, but, unless under certain restrictions, a fallacious means of diagnosis. He meant that the notion that a coppery tint would enable one to distinguish syphilitic from non-syphilitic eruptions was an erroneous one: this tint was found more or less marked in every case of non-syphilitic psoriasis. Again, syphilitic eruptions did not present it at all at their outset; it was only as they became developed that the coppery tint gradually appeared. The form of the eruption was a more reliable means of diagnosis. Most commonly this was annular or oval. If not in actual rings, the eruption formed segments of circles—incomplete rings; or by the juxtaposition of two rings, it might form figures of eight. This, of course, however, would not enable us to distinguish, as by a touchstone, syphilitic from non-syphilitic eruptions. Psoriasis, *e.g.*, sometimes occurred in rings; so did lichen; so again did herpes circinatus. Lupus was another example of a non-syphilitic eruption of annular form. The absence of itching and smarting was a peculiarity which would often aid in the recognition of a syphilide. The mixed character of syphilitic eruptions was another means of distinguishing them.

Thus, in an eruption that was not syphilitic, it was rare to find rashes mixed with vesicles, or pustules with scales. Not so in a syphilide. What might be termed the "products of the eruption"—such as the scales or the crusts—were a means of diagnosis. The scales of a syphilitic eruption were finer, smaller, and more adherent to the surface beneath than those of a simple squamous disease. The scaly patch, too, was circumscribed by a whitish border, to which great importance had been attached by Biett as a diagnostic symptom. This whitish border was the result of the separation of the epidermis from the cutis around the diseased patch. The crusts, which might either follow the scales or succeed to pustules, were much harder, thicker, and greener, than the crusts of a simple cutaneous disease; they were sometimes, at all events at their centre, as thick as they were broad. The ulcers that were left by either pustular or tubercular syphilides were generally circular, with abrupt and perpendicular edges, and a grey pultaceous floor, the skin around them having a copper tint. The scars left by a syphilide, though at first of a violet hue, soon acquired even a more tawny-brown tint than the eruption that had preceded them; this tint in its turn at length faded, but even when the scar had at length been left perfectly white, its annular or reticulated form, as the case might be, would distinguish its origin. Another means of recognising a syphilitic eruption was attention to other changes produced by syphilis besides those wrought in the skin itself. With regard to the sore-throat, we should be on our guard against relying too much on it as a diagnostic symptom. There were many diseases of the skin (and some that resembled pretty closely one or other of the syphilides) that were dependent on scrofula, or, at all events, occurred more frequently in the scrofulous than in any other constitution. No people were more liable to sore-throats than the scrofulous, and perhaps no two diseases were more frequently confounded together than syphilitic lupus and the lupus that occurs in the scrofulous. In doubtful cases the question, "Have you suffered from sore-throat?" is often allowed to settle the difficulty. The most characteristic condition of a syphilitic sore-throat was either the presence of mucous tubercles or of cicatrices. The presence of mucous tubercles, either in the throat or elsewhere, was one of the most conclusive signs of syphilis that one could have. The erythema of the buttocks and scrotum, that was so common in sickly children whose cleanliness was hardly attended to, was often mistaken for infantile syphilis, and if they happened to have a cold at the same time, it was still more likely to be set down to a specific cause. This mistake happened the more commonly that simple erythema in infants, as it faded, often assumed more or less of a tawny tint. The effect of the common remedy for infantile syphilis—grey powder—on the other class of cases, was greatly to aggravate them. Again, the author had frequently seen severe cases of eczema in infants taken for infantile syphilis, and treated for it with the same unfavourable result. There was no better or surer means for establishing the disease to be syphilitic than the existence of mucous tubercles when these were present, and in the majority of cases of infantile syphilis they were. Their most common situations were, the angles of the mouth, the alæ of the nose, the vulva, the anus, the scrotum, or within the mouth. The author then referred to rheumatic pains in the limbs, along the bones, or in the larger joints,—to bitemporal neuralgia, to falling off of the hair, to indolent swellings of the glands of the neck, and, in the female, frequent abortion, or still-births, or suspension of the catamenia (not arising from any other ascertainable cause), as evidences of the syphilitic nature of an eruption, and to the chronic course and the progressive changes in the character of the syphilides, observing, however, that it was not upon any one symptom alone, but on the general issue of the evidence afforded by many symptoms that we should rely for our diagnosis of syphilides from the other diseases of the skin. He concluded by expressing his regret that the limits of a paper precluded his entering on the much larger subject of the diagnosis of the different syphilides from the several diseases of the skin for which they might be taken.

London Hospitals.—Two ladies, Miss Foster, of Hyde-park-square, and Miss Ellis, of Balham-hill, lately deceased, have left the following sums to Medical charities:—The first-named lady of £1000, to the Charing-cross Hospital, and the latter of £100, to the Royal Free Hospital, and similar amounts to the Asylum for Idiots, and other institutions not strictly Medical.

THE CASE OF PRYCE *v.* BOWEN. MEETING OF THE MEDICAL PROFESSION IN LIVERPOOL.

A numerous meeting of the members of the Medical Profession of Liverpool and the neighbourhood was held on Monday evening, at the Medical Institution, with reference to the case of Dr. Bowen.

Dr. Vose presided, and in opening the business said it was not long since the Medical Profession of Liverpool and the neighbourhood had thought it necessary to hold a meeting for the purpose of condemning the conduct of the witnesses for the plaintiff at a notorious trial in an adjacent city, and it was mortifying that they had so soon found it necessary to hold another meeting to express their opinion upon a like subject. All probably had heard more or less of the case of Pryce *v.* Bowen, tried at the last Liverpool assizes. The case belonged to a class which appeared to be rapidly establishing itself as one of the institutions of the country. Actions of this kind were set on foot by a certain description of the community, in concert with a certain description of attorneys, for the purpose of plunder; but they could never be brought at all were not these people aware that there was also a certain description of Medical men always ready, perhaps eager, to hire themselves out for a paltry pecuniary consideration to give evidence against their Professional brethren, and thereby involve them in disaster and in loss. They all remembered the formidable expense entailed upon the defendant in the Chester case, although the verdict was triumphantly in his favour; and in the present case, although Mr. South, of St. Thomas's Hospital, as well as other Surgeons of eminence, together with the judge and the jury, concurred in the opinion that Dr. Bowen's Professional skill had been unquestionable, they found that that gentleman had been mulcted in £200 costs to defend himself; to say nothing of the annoyance, the waste of time, and the suspense in which he had been involved. It was to be hoped that the machinery of the British Medical Association would without delay be brought to bear upon this and similar transactions, and that its opinion would be expressed unflinchingly on the conduct of its members when they came forward to give evidence against Professional men in cases like Pryce *v.* Bowen. ("Hear, hear," and cheers.) So strongly had his (the Chairman's) colleagues of the Royal Infirmary felt on this matter that they lost no time, after the trial, in addressing the Physicians and Surgeons of the Manchester Royal Infirmary with reference to it. In rather less than a fortnight afterwards they had the honour to receive an answer to their remonstrance, but only from a functionary of the Hospital who subscribed himself its "Resident Medical Officer."

Mr. Ellis Jones, who moved the first resolution, said that no doubt many members of the Profession had been extremely annoyed at the imaginary opinions formed by patients of the maltreatment of their cases. Both he and his colleagues had suffered in some degree in this way, and he mentioned a case at the Northern Hospital (with which Mr. Hakes had been more particularly concerned) where the patient expressed himself perfectly satisfied with the treatment he had received, and thanked Mr. Hakes and others for their attention to his case. But when he had left the Hospital, he got hold of a Medical man or two in the town, who told him that the treatment was not correct, that Mr. Hakes and the other Medical men had no right to interfere with his limb, and even went so far as to say that no dislocation had taken place. The president had told them that actions like these were frequently brought in consequence of the assertions of persons who knew nothing of the treatment adopted, and who sought only to injure the fair fame of an honourable man. ("Hear, hear," and applause.) Mr. Jones mentioned another case in point within his own experience in Liverpool where, though no action was actually taken, a Medical man had been served with a writ, and sustained great anxiety and annoyance. With regard to Dr. Bowen's case, he (Mr. Jones) had been requested by the attorney for the prosecution to appear against Dr. Bowen, but he declared that he would rather sacrifice his property and even his life than do so, and he recommended the attorney to give up the case. (Cheers.) What, then, was his surprise to see a man whom he had thought highly respectable come forward from Manchester and give evidence for the prosecution? The gentleman in question described himself as an honorary Surgeon of the Manchester Infirmary, but though attached to the Dispensary

he was not honorary Surgeon to the Infirmary. So much, therefore, for his veracity. ("Hear, hear," and laughter.) Mr. Jones then criticised the evidence adduced by Mr. Lund, and ridiculed the statement of Mr. Evan Thomas, jun., as to his having seen "thousands" of cases of arm dislocation. In conclusion, he warmly vindicated the talents and standing of Dr. Bowen, and pointed out how immense and unknown an injury might be done to a Medical man by such unjustifiable attacks. The resolution was :—

"That this meeting desires to express their deep sympathy with Dr. Bowen for the annoyance to which he has been subjected in the trial of Pryce *v.* Bowen, and to congratulate him on the very satisfactory manner in which he has vindicated his Professional reputation."

Dr. A. T. H. Waters seconded the resolution. Painful as it was, he said, it was their duty on an occasion like this to come forward and express their sympathy and congratulations, and also, in firm and unmistakeable language, to declare their opinion of those who unjustly and unfairly gave evidence against their Professional brethren. Meetings like the present would ultimately tend to put a stop to these most unjustifiable prosecutions ; they had an important influence, both on the Profession and the public, tending to show in both cases that a man who acted honourably and conscientiously, and to the best of his ability, when unjustly accused, would have the support of his Profession. (Applause.) If they respected and appreciated their own Profession, so would the public respect and appreciate them. (Hear, hear.) With regard to Mr. Lund, he (Dr. Waters) could not help remarking that had Mr. Lund acted upon the golden rule, not to give an opinion upon the case before he had consulted with his Professional brother, he would never have placed himself in the painful position which he now occupies, and the case of Pryce *v.* Bowen would never have been tried. ("Hear, hear," and applause.) No honourable member of the Profession would hesitate to give evidence against a Professional brother who had been guilty of culpable negligence, but in this case everything had been done which skill could dictate, and it was inexcusable for a member of their Profession to give evidence such as that which had been adduced. Dr. Waters hoped that meetings of this description would tend rather to diminish trials of the kind under review, and he believed this had actually been the result, as was shown by the difficulty of procuring Medical witnesses in the case which had been alluded to by Mr. Ellis Jones, in which both Liverpool and London were canvassed in vain. In conclusion, Dr. Waters warmly echoed the congratulatory terms of the resolution, which was then put and carried unanimously.

Mr. Bickersteth moved—"That this meeting feels bound to record their strong disapprobation of the course pursued by Mr. Lund in the matter of Pryce *v.* Bowen." It was extremely painful to pass a vote of censure upon any man, and nothing but a stern sense of duty would have impelled him (Mr. Bickersteth) to move the resolution. Had it not been for the conduct of Mr. Lund, he believed the trial would never have taken place. He had it on the authority of the solicitors for the plaintiff, that they had canvassed Liverpool, and had found no one who would support the evidence. (Hear, hear.) By Mr. Lund's own acknowledgment, he had been called upon by the solicitors for the plaintiff with the object of involving a Professional brother in disgrace, and he did not hesitate to give his services. Having alluded to the misstatement as to Mr. Lund's connexion with the Royal Infirmary of Manchester, Mr. Bickersteth asked if they could expect Professional morality where there was such an evident deficiency in ordinary morals. He (Mr. Bickersteth) had read Mr. Lund's defence or explanation, but explanation it was not. Mr. Lund "regretted that he had ever appeared in the case," and no doubt he would regret it as long as he lived ; for they were a strong Professional body, they had expressed their opinion of Mr. Lund, and Mr. Lund and Evan Thomas would for the future be connected in the minds of the Profession with this case. In conclusion, Mr. Bickersteth pointed to the fact that in Mr. Lund's statement a simple regret was expressed that he had erred from a want of judgment, no regret that he had injured a member of his own Profession and a brother Practitioner. (Hear, hear.)

Mr. Steele wished to place the nature of the meeting in its true light. It must be clearly understood that they had not met for the purpose of attacking any individual ; it was not an aggressive, but a defensive, movement on the part of the Medical Profession. (Applause.) All present would acknowledge that, as public servants, they were responsible to the public for the efficient discharge of their duties, and any Physician or Surgeon who undertook the care of a case of disease or injury was bound to bring to its treatment a reasonable amount of skill, judgment, and attention. If a person suffered damage in life or limb through the gross negligence or ignorance of his Medical or Surgical attendant, he was undoubtedly entitled to compensation at the hands of that attendant ; and if such a case as this were brought before a legal tribunal, any member of the Profession summoned to give evidence was not only justified, but bound to obey that summons, and to give his honest opinion upon the case. Mr. Steele further argued that the case of Dr. Bowen was not at all an analogous case to this, inasmuch as all necessary skill had been shown, and that the gravamen of the offence against Professional propriety, the injury which Mr. Lund had done to himself, and the scandal that he had brought upon his Profession, did not consist so much in what he said and did at the trial as before the trial. (Hear, hear.) Mr. Steele then quoted from the *British Medical Journal* of January 14, which contained a letter from Mr. Lund to the editor. It was clear, he said, that the prosecution in Price *v.* Bowen had submitted a case to Mr. Lund, with the view of getting his opinion as to how far an action would lie, and what chance they had of getting a verdict. In this case Mr. Lund had placed himself in the position of a grand jury, with the very important distinction that grand juries never ventured to cut or to find a bill without hearing the evidence on both sides. (Hear, hear.) Mr. Lund said in his letter :—"It has been asked, How is it that I did not apply to Dr. Bowen and hear his version of the case before the trial? My answer is, that it did not occur to me to do so ; and had I thought of it I should have considered it highly improper after giving an opinion on the merits of the case to the solicitor for the plaintiff, to have communicated with the defendant." Thus he admitted giving his opinion on the merits of the case—an opinion which must have been founded upon an extremely ambiguous statement of an uneducated woman as to whether the arm was in a prone, semi-prone, or supine position during a certain period of the treatment. But that was not all. Mr. Lund actually went further, and anticipated the defence Dr. Bowen was likely to set up, and suggested to the prosecution how they should be prepared to meet that defence. Mr. Steele gave quotations from the letter to support his argument, and then went on to say that the whole letter went to show Mr. Lund seemed at times to be desirous of conveying the impression that he was not prejudiced against Dr. Bowen, while at the same time he afforded all the materials requisite for an attorney to go on with an action. ("Hear, hear," and laughter.) Mr. Steele could not but again refer to the extraordinary statement of Mr. Lund "that it did not occur to him to apply to Dr. Bowen before he ventured to give an opinion." Dr. Waters had alluded to this matter, and at the last meeting held in that room this very point was brought forward by a speaker in reference to Drs. Ramsbottom and Lee, that a great portion of the offence that they committed consisted in the fact of venturing to give an opinion upon the treatment of a case without consulting the Professional man who had the case in the first instance. Mr. Lund could hardly be ignorant of that case, and he (Mr. Steele) could really not understand how he could have forgotten to have communicated with Dr. Bowen. ("Hear, hear," and cheers.)

The resolution was then put, and carried unanimously.

Dr. Stookes moved :—"That a subscription be opened to assist Dr. Bowen in defraying the needful expenses incurred for his defence." Dr. Stookes remarked that there could be little doubt that, in addition to the annoyance and harass which he had experienced, Dr. Bowen had been put to very large expense in the case, and it was most desirable that his Professional brethren should assist in defraying this expense.

Mr. Hakes had much pleasure in seconding the resolution, having had the misfortune himself to have been harassed in the same way as Dr. Bowen. In referring more particularly to his own case, Mr. Hakes said that, in order to procure witnesses against him, not only Liverpool, but London, and other parts of England, were canvassed for the purpose, and he mentioned the fact that Mr. Erichsen (of London), who had given an opinion on the case which precisely accorded with the treatment which he (Mr. Hakes) had adopted, after doing so declined to have anything more to do with the case until he had communicated with the defendant. Mr. Erichsen wrote him (Mr. Hakes) a letter, telling him all he had discovered, and which made it easy for him to ask Mr. Erichsen to offer

his services. Fortunately he was not required, for the case broke down, the plaintiff being nonsuited; but this conduct of Mr. Erichsen formed so marked a contrast to that which had occurred in connection with Dr. Bowen's case, that he (Mr. Hakes) felt bound thus publicly to call attention to it. (Applause.)

At this point of the proceedings Mr. Ellis Jones read a letter from Dr. Bowen, which stated that the expenses of the case would be under £175. The resolution was then put and carried unanimously.

Dr. Scholfield (Birkenhead), said he had received a letter from Dr. Hammond, of Preston, stating that a meeting had been held in that town in reference to Mr. Bowen's case, and that upwards of £17 had been subscribed. Resolutions had also been passed condemning the practice of Medical men giving evidence against their Professional brethren without first communicating with them, and in favour of establishing a General Medical Defence Fund for the protection of the Profession, the nucleus of such fund to be formed by the balance remaining after defraying Dr. Bowen's expenses.

In reply to Mr. Ellis Jones, Dr. Scholfield stated that Dr. Dobie and Mr. Harrison, of Chester, had each contributed to the fund, Mr. Harrison having also engaged to canvass the Profession in Chester.

Dr. Desmond moved and Dr. Fenton seconded, "That Dr. Stookes be requested to act as treasurer to the fund." This was adopted unanimously.

Mr. Manifold proposed, and Mr. Parker (Kirkdale) seconded, a resolution that the proceedings of the meeting be forwarded to the Medical journals. This was adopted. Mr. Parker remarked that accusations of this kind were now so frequent that it would really in a short time be a question with many how far they would be justified in the treatment of cases which were likely to end in a manner not quite so satisfactory as they could wish. He suggested that a committee should be appointed from the present meeting to take into consideration some further means of preventing similar proceedings in future. The resolution was then adopted.

Mr. Lowndes remarked that as Mr. Martin's name had been brought in question in connection with the case, and as Mr. Martin was present, it was desirable to hear any explanation he might wish to make.

Mr. Martin said that when he saw the case they asked him what he should propose. He said he would not do anything without meeting Dr. Bowen in consultation, and that he should like to meet him (Dr. Bowen). He (Mr. Martin), in consequence of this application to him, and hearing that the case was going to trial, thought it his duty to go over to Oxton, and he had two interviews with Dr. Bowen. ("Hear, hear," and cheers.)

Thanks to the Chairman were then moved by Mr. Stubbs, seconded by Dr. Imlach, and carried unanimously; after which subscriptions were received, Mr. M'Cheane and Mr. Harrison acting as secretaries to the fund.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary Examinations for the Diploma, were admitted members of the College at a meeting of the Court of Examiners on the 24th inst.:—

George Fortescue Webb, Exeter (St. Bartholomew's); George Clements, Brixham, Devon (Middlesex); Richard Douglas Powell, St. John's-wood (University College); Griffith Griffith, Edeyrn, Pwllheli, North Wales (Liverpool); Richard John Lupton, Bradford, Yorkshire (Liverpool); James Fernie, Kimbolton, Hants (Middlesex); George Stokes, Hanley, Staffordshire (Dublin); James Taylor, L.S.A. and L.F.P. and S., Glasgow, Chapel-en-le-Frith (Glasgow); George Dixon, M.D. Edin., Penrith, Cumberland (Guy's); Robert Duncan Logg, Calcutta (University College); Charles Webb Iliffe, Coventry (Birmingham); George Arthur Rogers, Commercial-road (London); Thomas James Webster, Conway, North Wales (Manchester); Frederick Sutton, L.S.A., County Asylum, Norfolk (Guy's); John Brady, Belfast; Samuel James Hulme, Bowdon, Cheshire (Manchester); Henry Pearson, Manchester; Thomas Edgelow, Teignmouth, Devon (St. George's); David Wilson, Carmoney, County Antrim (Belfast); Robert Whipp, Bowdon, Cheshire (Manchester); William Bell, Uppingham (King's College); Thomas Wilson, Darlington (Newcastle); Anthony Charles Farrington, Ottery St. Mary, Devon (St. Bartholomew's).

Admitted on the 25th inst.:—

Henry George Walker, Great Russell-street (University College); James Campbell Macaulay, Leicester; Edwin Wykes, Birmingham; Septimus Henry Liddle Murray, Newcastle; Miles Astman Wood, Ledbury, Hereford (King's College); Pierre Georges Cox, Mauritius (University College); John Smith Wallbridge, Demerara (University College); William Boughton Stirling, Whitechapel (London); Frederick William Armitage, Louth, Lincolnshire (Guy's); Francis Grealy, Galway; Charles Broom, Llanelly, South Wales (Guy's); Herbert Ray Archer, Montague-street, Portman-square (St. George's); Henry Greenway Hawse, Liverpool (Guy's); Owen Thomas Williams, Bangor, North Wales (Dublin); Henry George Samuels, Liverpool (Dublin); Evan Parry Davies, Denbigh (Dublin); Charles Glen Bott, Brentford (Guy's); William Lewis Hughes, Llandudno, North Wales (Dublin).

Naval Surgeons.—At a meeting of the Court of Examiners of the Royal College of Surgeons, on the 24th inst., the following gentlemen passed their Examinations for Naval Surgeons:—

Charles Henry Slaughter, of H.M.S. *Royal Adelaide*, M.R.C.S. Eng., June 20, 1856; George Bellamy, of Haslar Hospital, Gosport, M.R.C.S. Eng., August 31, 1859; Henry Normand MacLaurin, M.D. and L.R.C.S. Edin., 1857, of Greenwich Hospital.

Pharmaceutical Society of Great Britain.—Names of Candidates who passed the Examination, January 25, as Pharmaceutical Chemists:—

Samuel Booth, London; Edward P. Guest, Brentwood; William H. Holt, Altrincham; John C. Hyslop, London; Thomas Solman, London; Thomas C. Sloggett, Plymouth; Edward Smith, Worcester.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Banks, John T., M.D. Dub., has been elected a Physician to the Masonic Female Orphan School, Dublin.

Beatty, Thomas E., M.D. Edin., has been elected a Physician to the Masonic Female Orphan School, Dublin.

Casey, Edward, M.B. Lond., has been appointed Resident Medical Officer and Tutor to the Birmingham General Hospital.

Collis, Maurice H., M.B. Dub., has been elected a Surgeon to the Masonic Female Orphan School, Dublin.

Gornall, John H., M.R.C.S. Eng., has been appointed Resident House-Surgeon to the Warrington Dispensary.

Hyde, George E., L.R.C.P. Lond., has been appointed Surgeon to the Worcester Ophthalmic Institution.

Maunder, Charles F., F.R.C.S. Eng., has been elected Consulting Surgeon to Queen Adelaide's Dispensary.

Shaw, T. C., B.A., M.R.C.S. Eng., has been appointed Resident Medical Officer to the St. Pancras and Northern Dispensary.

Smyly, Philip C., M.D. Dub., has been appointed a Surgeon to the Masonic Female Orphan School, Dublin.

Waghorn, Frederick, M.D., M.R.C.S. Eng., has been appointed Medical Officer and Public Vaccinator to No. 1 District, Axbridge Union, Somerset.

Wells, J. Soelberg., M.D. Edin., has been appointed Ophthalmic Surgeon, to King's College Hospital.

Wood, Nathaniel C., M.R.C.S. Eng., has been appointed Medical Officer to the Macclesfield Workhouse.

Yeo, J. Burney, M.R.C.S. Eng., has been appointed Medical Tutor to King's College, London.

DEATHS.

Browne, James B., L.R.C.S.I., at Brownlow-hill, Liverpool, on January 12, aged 21.

Clarke, Charles Hall, M.D. Edin., at Stonyhurst, Blackburn, Lancashire, on January 14, aged 49.

Cooksey, Walter C., M.R.C.S. Eng., of Worcester, at Southampton, on January 5.

Gross, Edward, M.R.C.S. Eng., at Earl Soham, Suffolk, on January 7, aged 59.

Harrington, Dr. D., at New York, on January 5, aged 60, formerly of Kerry, Ireland.

King, Henry, Surgeon, at Calne, Wilts, on January 15, aged 90.

Maitland, John, M.D. Glasg., Deputy-Inspector-General of Hospitals, at Anglesea, Gosport, on January 23, aged 57.

Schuyler, Allen P., L.R.C.P. Edin., at East Badleigh, South Devon, on January 16.

Silver, William, M.D., at Sion House, Clifton, Gloucestershire, on January 19, aged 85.

Smallhorn, John K., M.R.C.S. Eng., R.N., at Monte Video, in H.M.S. *Bombay*, on December 14.

Smythe, W. Dumville, Assistant-Surgeon R.A., at Calcutta, East Indies, on December 13, aged 27.

Wills, Douglas C., M.D. Glasg., at George-street, Paisley, on January 11, aged 25, formerly of Cumnock.

Wrentmore, John, M.R.C.S. Eng., on January 18, aged 47.

Yeoman, Thomas H., M.D. Glasg., at 25, Lloyd-square, Pentonville, W.C., on January 21, aged 51.

Molluscum Simplex.—Professor Hebra exhibited two patients, the subjects of *molluscum simplex*, to the Vienna Medical Society. The entire surfaces of their bodies were covered with an enormous number of globular tumours, varying from a pea to a man's fist in size. He remarked that during his practice, extending over twenty-two years, and embracing 80,000 cases, he had never met with a similar case, and now, by an extraordinary coincidence, two such came into his wards at the same time. There are, he observed, two forms

of molluscum, *simplex* and *contagiosum*, the contents of the first being connective tissue, of the latter only *sebum*.

Zoological Society.—At the last meeting of this Society, held on January 10, Mr. Francis Day, F.L.S. and F.Z.S., of the Madras Medical Service, read a valuable paper on the "Hard-rayed Fishes of Cochin, on the Malabar Coast of India," where he had been stationed for some years as civil Surgeon. He entered upon the scientific and native names, the seasons of the year at which they arrive and depart, and the uses to which they are and may be put. The paper, he remarked, was only the description of the first part of his collection, and contained 125 species, of which 9 were entirely new, 3 had been previously described, but their existence had been doubted, whilst he showed that several fishes now in our catalogues were in reality the same in different stages of growth, or modifications of the same influenced by the localities in which they reside. He illustrated his paper by upwards of forty elaborately coloured drawings and engravings executed by himself. Mr. Day is, we understand, engaged in preparing for publication a monograph on the fishes of India.

The Late Prosecution against Dr. E. Bowen.—Meeting in Preston.—A meeting of the Medical Profession of Preston was held at the Literary and Philosophical Institution, Cross-street, on Wednesday evening, 18th inst., for the purpose of expressing sympathy with Dr. Essex Bowen, of Birkenhead, on the occasion of the unjust prosecution to which he has recently been subjected. At the meeting there were present Drs. Altham, Broughton, Brown, Gilbertson, Hammond, Heslop, Moore, Ridley, Smith, Stavert, and Walling, and Messrs. Pilkington and Richardson. Dr. Stavert occupied the chair. Letters, approving of the objects of the meeting, and expressing strong sympathy with Dr. Bowen, were read from Messrs. Allen, Haldan, and Howitt, of Preston; Ashton, of Walton-le-Dale; Gradwell and Fisher, of Lytham; and Eccles, of Longridge. The first resolution was proposed by Dr. Broughton, seconded by Dr. Hammond, and carried unanimously, viz.:—"That this meeting sympathises most deeply with Dr. Bowen on the annoying and vexatious trial to which he has recently been subjected, and begs most cordially to congratulate him on its satisfactory termination." The second resolution, which was proposed by Dr. Gilbertson, seconded by Mr. Pilkington, and carried unanimously, was as follows:—"That this meeting most strongly condemns the practice of Medical men giving evidence against their Professional brethren without first communicating with them." The third resolution was proposed by Dr. Smith, seconded by Dr. Altham, and carried unanimously:—"That a subscription be commenced to assist in defraying Dr. Bowen's legal expenses, and that Dr. Hammond be appointed treasurer, and Dr. Moore honorary secretary." It was next moved by Dr. Altham, seconded by Dr. Ridley, and carried unanimously:—"That this meeting is of opinion that it is desirable to establish a General Medical Defence Fund for the protection of the Profession, and suggests that any funds left after defraying the cost of Dr. Bowen's suit should be devoted to that object." The last resolution was proposed by Dr. Walling, seconded by Mr. Richardson, and carried unanimously:—"That copies of the foregoing resolutions be forwarded to the different Medical journals, and to Dr. Scholfield, the chairman of the Birkenhead meeting." A vote of thanks to the chairman terminated the proceedings.

The Health of Woolwich and the Main Drainage Sewer.—A serious epidemic having existed in Woolwich, stated to have been occasioned through the main outfall sewer of the Metropolitan Board of Works, at Crossness-point, Erith, Dr. Bristowe was requested to make a report on it by the local authorities, and this report has just been presented. Dr. Bristowe says:—"Admitting the fever to have been essentially typhoid or enteric fever, the important question arises, What has been the cause of the fever? The drainage has been accused. It would seem that about ten years ago the whole town of Woolwich was drained (under the present surveyor) chiefly by pipe drains of sufficient diameter and with sufficient fall. The total length of the main drains constructed was over fifteen miles. The outfalls of these drains are four in number, and are below low-water mark, so that they are rarely, if ever, exposed. Each of the principal drains is provided (according to its length) with one or two ventilating shafts, which consist of pipes carried up along the sides of houses, and above any openings in the houses. The majority of the houses in Woolwich are connected with the drains, and all can be connected with them, but it appears that out of about 5000 houses 800 are as yet undrained. These are not aggregated in any particular spot, but are scattered irregularly throughout the town. Early in the year the southern outfall sewer came into use. This sewer passes through Woolwich parallel to the course of the river, presents in its passage through the town four or five ventilating holes, and receives the drainage of the valley between Woolwich and Charlton, the original drains of this valley having been connected with it. There is no doubt that great complaints are made with respect to the smells which escape from the ventilating holes of the outfall sewer, and that there is an impression that the fever has prevailed in its course, and especially in the valley, which would suffer, if it suffered at all, from the effluvia arising from this particular sewer. It certainly is an odd circumstance that diarrhœa should have commenced in April, somewhere about the time, as I am informed, at which the outfall sewer came into operation; and it cannot be overlooked that the sewage is discharged at the pumping-station during a very limited period of the day only, and that during the greater part of the day the sewage is allowed to collect in it, and to become stagnant, and, therefore, to generate gases. There is no reason to suppose that any smell direct from the pumping-station can affect Woolwich, and as regards the river it is generally admitted that this has been less offensive of late than it was in former years; besides which, the absence of undue prevalence of fever on the river bank demonstrates that the river is not the cause of fever. Before, however, expressing any opinion of my own in reference to the causation of the fever, it is important to consider the sanitary circumstances of Woolwich. That the drainage on the whole is good seems pretty certain; but it is equally certain that a good many houses are still unconnected with the sewers, and that (at least in the lower localities) there is a great deficiency of water for flushing of drains and closets. It is certain, too, as I ascertained by personal visitation of many localities, that excessive overcrowding, filth, and dilapidation of premises, accumulation of offensive refuse, and neglect of privies and private drains, prevail to a large extent. The Board, though evidently anxious to do their duty to the inhabitants of the town, have evidently not considered it their duty to institute habitual house-to-house inspection and hunting up of nuisances, measures which have had such beneficial effects in the metropolis generally. Taking all the above circumstances into consideration, I think it can scarcely be assumed that any one of them is of itself the cause of the typhoid epidemic. Certainly there is not sufficient reason to attribute it to the main outfall sewer, although there is sufficient ground to suspect that that may have concurred with other causes in producing it. At all events, the main drainage cannot reasonably be condemned until other matters liable to produce fever which prevail in Woolwich have been remedied."

Flint Implements.—The Academy of Sciences has received a communication on this subject from M. Ch. des Moulins, of Bordeaux, which derives peculiar interest from the author's remarks on the "patina," or kind of rusty crust with which flint implements that have lain long underground are often covered, and which, in the eyes of archæologists, are a sure sign of their being antediluvian, and not merely Celtic. In the first place he contends that the word "patina" is not correct, because it is used by archæologists to denote the crust which covers metallic surfaces, and that it cannot, therefore, be applied to stone. M. Boucher de Perthes, he remarks, is aware of this, since he uses the word varnish instead. But other observers who have come after him have observed on other instruments a different kind of modification of the fractures of certain flints, modifications of colour and sometimes of texture, penetrating below the surface; and this has by them been equally considered a test of antiquity, and by degrees these two very different things have been blended together by a supposed assimilation under a common name which properly belongs to neither. Moreover, this "patina," which is believed to distinguish the antediluvian from the Celtic specimens, is only found as a varnish on certain sorts of flint, and not on others, so that it does not offer a general characteristic; and, again, it is liable to disappear, and hence it does not constitute an absolute feature. It has been affirmed that every polished hatchet is Celtic, and not antediluvian; and yet the other kind of "patina," which also exists on certain kinds of silex only, appears not only on the knives and hatchets made by chipping off large splinters, such as M. de Perthes considers antediluvian, but also on polished

hatchets of the same species of flint. Hence of itself alone this "patina" signifies nothing, since it cannot, by its presence prove a flint implement to be antediluvian when it may be post-diluvian, so that archæology has not sufficient resources of its own to rely upon, and must refer to the geologists in order to ascertain the nature and age of the deposits in which the flints are found.—*Galignani*, Friday, Jan. 6.

CONJURING *v.* ANIMAL MAGNETISM.—An anecdote is told in the *Union Méd.* which illustrates the correct reply when we are called upon to explain some of the feats of alleged animal magnetisers—viz., that these are equalled and even surpassed by those of avowed conjurors. At a recent *soirée* in Paris a celebrated *prestidigitateur* was amusing the company with his wonderful skill when M. Tardieu, the Dean of the Faculty of Medicine, was announced. The conjuror was introduced to M. Tardieu just as he was excusing himself for being so late. "That is nowise surprising," was the reply, "for Monsieur has either been robbed of or lost his watch." M. Tardieu put his hand to his waistcoat, and sure enough there was his chain without the watch. This was in the conjuror's hand! How he could have detached it from the chain without M. Tardieu or the bystanders perceiving it quite passes explanation.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A delay in the post has this week deprived our readers of an article on Cheap Wines, by our Special Correspondent. It will appear in our next number.

G. H.—R. B. Carter, "On the Ophthalmoscope," from the German of Zander; Hardwicke. Jabez Hogg, "On the Ophthalmoscope;" Churchill and Sons.

A Fellow.—The election of Councillors generally takes place in July. At present there is no death vacancy.

Methylated Spirit.—A naturalist asks where he can buy methylated spirit wholesale? That which is got in common shops spoils his preparations from the resinous matter it contains. He should apply to Messrs. Bowerbank, Sun-street, Bishopsgate.

A Student.—You have, in common with many others, misinterpreted the regulations. There is no occasion to spend *four* years at the Hospital—only three winter and two summer sessions are necessary; the four years are made up as pupil to your father. You are exempted from the Preliminary Examination.

M.D, Guernsey.—You will find the lines in Pope's translation of Homer, who, speaking on Machaon's being wounded, says,—

"A wise physician, skill'd our wounds to heal,
Is more than armies to the public weal."

Butler, in his "Hudibras," part i., canto ii., says:—

"A skilful leech is better far
Than half a hundred men of war."

Farriers were called "*horse-leeches*," and persons skilled in the distempers of cows and other horned cattle are, in several counties, to this day called "*cow-leeches*." They are, of course, giving way to the Members of the Royal College of Veterinary Surgeons.

Erratum.—In Dr. Kidd's letter on "Chloroform Accidents," p. 53, *for* "H." *read* "K."

THE GRIFFIN TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscriptions have been further received on behalf of the above fund:—Chas. Arnison, Esq., Abston, 10s. 6d.: J. Byerley, Esq., Birkenhead, 10s. 6d.; Dr. Lambert, Birkenhead, per J. Byerley, Esq., 10s. 6d.; R. S. Daniel, Esq., Birkenhead, do., 10s. 6d.; Dr. Downing, Birkenhead, do., 10s. 6d. Amount previously announced, £111 16s.; received at the *Lancet* Office, £6 16s. 6d.

I am, &c.
ROBERT FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, January 25.

PRYCE *v.* BOWEN.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscriptions have been received for the "Bowen" fund since your last issue, which I acknowledge for Dr. Scholfield.

I am, &c.
Sudley House, Birkenhead, Jan. 24. JOSH. GODDEN, Hon. Sec.

John Harrison, Esq., Chester, £5; Dr. W. Roberts, Manchester, £2 2s.; Dr. Eason Wilkinson, Manchester, £2 2s.; Dr. Parr, New Brighton, £1 1s.; Dr. Trull, New Brighton, £1 1s.; Dr. Bird, Egremont, £1 1s; J. Byerley, Esq., Egremont, £1 1s.; Dr. Nottingham, Liverpool, £10 10s.; Dr. Gee, Liverpool, £3 3s.; Dr. Holcombe, Liverpool, £1 1s.; Dr. Fenton, Liverpool, £1 1s.; Dr. Hill, Liverpool, £1 1s.; Dr. Vose, Liverpool, £5 5s.; Dr. Desmond, Liverpool, £1 1s.; Dr. Nevins, Liverpool, £1 1s.; Dr. Turnbull, Liverpool, £2 2s.; Dr. Fitzhenry, Liverpool, £1 1s.; Dr. Walker, Liverpool, 10s. 6d.; Dr. Stookes, Liverpool, £2 2s.; W. H. Manifold, Esq., Liverpool, £1 1s.; E. R. Bickersteth, Esq., Liverpool, £5 5s.; S. Kisch, Esq., Liverpool, £1 1s.; C. B. Wilson, Esq., Liverpool, £1 1s.; A. M. Bligh, Esq., Liverpool, 7s. 6d.; R. H. Taylor, Esq., Liverpool, £1 1s.; H. Stubbs, Esq., Liverpool, £2 2s.; J. Hakes, Esq., Liverpool, £1 1s.; Ellis Jones, Esq., Liverpool, £3 3s.; W. McCheane, Esq., Liverpool, £1 1s.; H. Lowndes, Esq., Liverpool, £1 1s.; *E. Lund, Esq., Manchester, £52 10s.; John Stewart, Chemist, Birkenhead, £2 2s.

* With Mr. Lund's cheque for £52 10s. came the following note, which was received the morning after the Liverpool meeting by the Treasurer, Dr. Scholfield, Birkenhead:—

"22, St. John's-street, Manchester, Jan. 23, 1865.

"Sir,—As the correspondence relating to the case of Pryce *v.* Bowen seems at length exhausted, I feel more at liberty to follow out my original impulse to subscribe towards the fund for defraying Dr. Bowen's expenses, and I now place 50 guineas at the disposal of the Committee, to be applied to that purpose, merely remarking that, had I followed the suggestions of others instead of acting on my first intention, I should perhaps have been content with forwarding the fee of 15 guineas which I received from the plaintiff's solicitor. "I am, &c., "EDWARD LUND.

"To Dr. Henry D. Scholfield, Birkenhead."

COMMUNICATIONS have been received from—

Dr. J. H. HAMMOND; Mr. REGINALD HARRISON; Mr. J. BURNEY YEO; Mr. T. TURNER; Dr. A. PATERSON: Dr. SCHOLFIELD; Mr. JOHN HILL: Dr. EDWARD CASEY; Mr. W. MCCHEANE; ROYAL INSTITUTION; Dr. C. KIDD; ANOTHER INDIAN SURGEON; C. C; APOTHECARIES' HALL; WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON: NEMO; Dr. B. WASHBOURN; ANTHROPOLOGICAL SOCIETY OF LONDON; HARVEIAN SOCIETY; Mr. HOLMES; Dr. R. FOWLER; Da. J. H. JACKSON; Dr. S. GIBBON; OBSTETRICAL SOCIETY; PHARMACEUTICAL SOCIETY; ASSISTANT-SURGEON R.N.

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 21, 1864.

BIRTHS.

Births of Boys, 1053; Girls, 1069; Total, 2122.
Average of 10 corresponding weeks, 1855-64, 1831·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	818	767	1585
Average of the ten years 1855-64	729·3	758·3	1488·1
Average corrected to increased population..	..	..	1587
Deaths of people above 90	..	..	6

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	..	11	5	4	4	7	1
North ..	618,210	5	10	12	1	14	23	5
Central ..	378,058	..	4	7	1	18	21	3
East ..	571,158	..	4	15	3	13	17	3
South ..	773,175	4	13	13	3	13	13	4
Total ..	2,803,989	9	42	52	12	62	81	16

APPOINTMENTS FOR THE WEEK.

January 28. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Marshall, "On the Nervous System."

30. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

31. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. G. D. Gibb, Esq., M.D., LL.D., F.G.S., "On the Larynx of the Negro." T. B. Peacock, Esq., M.D, F R.C.P., "On the Weight of the Brain and Capacity of the Cranial Cavity of a Negro." T. B. Peacock, Esq., M.D., F R.C.P., "On a Skull Exhumed in Bedfordshire." T. Bendyshe, Esq., M.A., F.A.S.L., "On the History of Anthropology."

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, "On Electricity."

February 1. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

OBSTETRICAL SOCIETY OF LONDON. Dr. Snow Beck, "On Puerperal Fever." J. Baker Brown, Esq., "New Mode of Securing the Pedicle in Ovariotomy." And other Papers.

2. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

HARVEIAN SOCIETY OF LONDON, 8 p.m. Dr. Chas. Drysdale, "On the Antecedents and Treatment of Phthisis."

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, "On Electricity."

3. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 8 p.m. Prof. Odling, "On Aluminium, Ethide, and Methide."

WESTERN MEDICAL AND SURGICAL SOCIETY, 8 p.m. Mr. George Nayler, "On Syphilitic Diseases of the Skin following Vaccination."

ORIGINAL LECTURES.

LECTURES ON

CHEMICAL AND MECHANICAL DISEASES AND THEIR RELATIONSHIP.

By H. BENCE JONES, A.M., M.D., F.R.S.

Lecture

ON DISEASES OF SUBOXIDATION—DIABETES.

(Continued from page 84.)

There are two great ends to be gained by the use of medicines in diabetes.

Of these the first and most important is to promote the oxidation of the sugar; or, failing this, to compensate the system for the loss of saccharine fuel and the consequent loss of power and nutrition by promoting the supply and oxidation of the oleaginous fuel.

Of all the medicines that can be given for the promotion of the oxidation, whether of sugar or fat, in the body, iron and alkalies are the most energetic; and hence, beyond all other remedies, iron or the ammonio-citrate of iron with excess of ammonia, or with other alkalies, are the best medicines for diabetes. The iron may be given in potass or Vichy or in Fachingen water, and that preparation which confines the bowels least is most to be preferred. Hence the potassio-tartrate and Griffiths' mixture are often useful.

Alkalies without iron promote oxidation. This is very evident in the copper test for sugar. M. Miahle even has stated that alkalies are the specific for diabetes; without doubt they are of importance in promoting oxidation. Soda or potass may be given in the caustic state or as carbonates. Carbonate of ammonia in ten, fifteen, or even twenty-grain doses thrice daily in any gaseous mineral lessens the thirst.

Long since Professor Graham tried the phosphate of soda, with three equivalents of soda, on the ground that the blood required this substance and could not get it in the animal food. I have not found any great advantage from its use.

Vichy water, more particularly the Celestin, is recommended by M. Bouchardat. It contains between eighty and ninety grains of carbonated alkali and alkaline earths in a quart of water. The Hospital spring contains about ninety-six grains, the Grand Grille ninety-two, the Hautrive eighty-nine, and the Celestin eighty-five grains to a quart of water.

Carlsbad Sprudel water and the more aperient Muhl spring is highly praised by Dr. J. Seegen. It contains about one-fourth or less of the alkali of Vichy water, but half a drachm or more of sulphate of soda in each quart gives an aperient action which the common salt of Vichy water rarely possesses. Marienbad Kreutzbrun water is twice as aperient, but rather less alkaline than Carlsbad Sprudel. Fachingen water has one-third or more of the alkaline power of Vichy. Seltzer water one-sixth.

Besides alkalies some animal substances are thought to promote change in the sugar in diabetes. Of these rennet and pepsine may be mentioned. In 1852 Dr. James Gray published some remarkable results in the *Edinburgh Monthly Medical Journal*, p. 396, but I am not satisfied that rennet is very useful in diabetes. It is an albuminous substance in a state of change, and, therefore, it exactly fulfils the conditions required in the undiscovered specific for diabetes. It should be well washed with water to remove the adhering sugar and dextrin, and it should be given on an empty stomach, so as to enable it, if possible, to act on the sugar in the blood rather than on the sugar in the food.

Pepsine is another albuminous substance in a state of change. Its action in the stomach is to help the solution of the albuminous food, but when it passes into the blood it might be the animal diastase that carries on the change in the sugar. With this idea it has been given in diabetes, but with no satisfactory result; although many patients have said they were better whilst taking this remedy, yet I have never found the sugar diminish under its use. It usually helps the action of the bowels.

Lately oxygen gas has been tried by Dr. Richardson in diabetes. It would be splendidly simple if this were the specific for diabetes. This view implies that a deficiency of oxygen is the cause of diabetes, but the chemistry of the disease does not admit of this explanation. There must be a much more complex chemical error than a want of oxygen, and it is far more probable that no deficiency of oxygen exists, but that it does not act because the proper animal diastase is not present.

Vegetable and animal oils and fats constitute important remedies in diabetes. Of all these, cod-liver oil and cream are most frequently used. The following case may be taken as an instance of the amount of cod-liver oil that can be given:—

A man, aged 24 years, was admitted into St. George's Hospital, having lost two stone in weight during eight months. He passed seven quarts of urine daily. He remained under treatment for a month, during which time he was on animal diet and cod-liver oil. He began with half an ounce daily, and this was gradually increased up to eight ounces. The quantity of urine fell to two pints and a-half, specific gravity 1030, and he increased in weight from 8 st. 8 lb. to 9 st. 1 lb.

Cream may be given in any quantity until the tongue begins to be coated, then it soon disagrees, and the stomach refuses to take it, or rejects it when taken.

Fats, combined with alkalies, as soaps, are more ready to undergo oxidation than when the glycerine is unseparated. Pure glycerine is, however, often very useful as a substitute for sugar in tea and in other liquids.

To lessen the thirst and the craving for food opium is very useful. The alkaloids of opium diffusing out of the blood in contact with the nerves of the blood-vessels cause contraction of the capillaries; this affects secretion, so that the quantity of urine, saliva, bile, and intestinal secretion is greatly diminished. The drain of urine and the desire for food are thus checked, but the increased constipation and dryness of the mouth almost, and in some instances quite, counterbalance the gain obtained by checking the flow of water. By the use of very small quantities of opium, as five or ten grains of Dover's powder, or five or ten drops of laudanum once or twice daily, the thirst and excessive flow of urine may be stopped, and the constipation may not be excessively increased.

The second great object in the treatment of diabetes is to remove the constipation.

The excessive determination of water to the kidneys causes increased dryness elsewhere, hence the mucous membrane and the skin are harsh and dry; probably also the production of acid being greatly diminished by arrest of change in the sugar, the healthy secretion by the intestines and skin cannot take place.

Notwithstanding the amount of food eaten, the action of the bowels usually is very difficult. All saline aperients increase the thirst and pass off by the urine. Magnesia from the absence of acidity is usually inactive. Castor oil is by far the best aperient, when it does not nauseate, then capsules containing castor oil with minute quantities of croton oil are most efficacious. Compound extract of colocynth with jalapine, scammony, or gamboge, or podophilline will act when oil cannot be taken. Mercury when soluble combines with the albuminous matters with which it comes in contact and sets up increased chemical action. The nutrition of the parts to which it is directly applied, or carried by absorption and diffusion, is so altered that increased action, inflammation, and ulceration are produced. This altered nutrition has no influence on the oxidation of the sugar or fat, and hence diabetes is not benefited by mercury. Calomel may be used as an aperient, but it has not any advantage over other chemical or mechanical irritants to the mucous membrane of the bowels, and promoting a more rapid change in the albuminous structures of the textures causes a feebler nutrition to take place.

In extreme cases the constipation of the bowels becomes the most serious symptom. The chemical disease leads to a mechanical difficulty amounting almost to an obstruction of the bowels. Strong chemical irritants are required to excite the muscular action, sometimes even "croton oil" is necessary. When the bowels do act the prostration of the strength is sometimes alarming; so little power seems to be set free in the body that any extra expenditure seems to deprive the heart of the force necessary to carry on the circulation, in the same way as a fatiguing journey to London for advice or extreme mental anxiety will bring a prostration of strength from which with difficulty recovery takes place.

On the Loss of Mechanical Power Caused by Diabetes.

Loss of chemical action necessitates loss of heat, mechanical power, and healthy nutrition; neglecting the loss of power consequent on deteriorated structures, some estimate of the

loss of power in those who suffer from diabetes may be obtained by calculating the amount of carbon which escapes in twenty-four hours in the sugar unoxidised.

In extreme cases from twenty to forty ounces of sugar may be lost in twenty-four hours. This is equal to 8·4 to 16·8 ounces of carbon, and this if fully oxidised would generate a force capable of raising from ten to twenty millions of pounds one foot high.

In diabetes if no other fuel but sugar was supplied to the human machine, it would rapidly cool and come to rest; the motion of the heart and lungs would stop; but fatty and even albuminous food may partially or wholly supply the force which ought to be got out of the sugar. When the coals fail in the steamer, the wood of the ship itself may furnish the fuel necessary to keep up the motion. The body may waste to move the heart and the lungs, until the supply of power failing, or the use of it being too great, feebleness and exhaustion constitute a general mechanical wrong which terminates in the stoppage of all muscular motion.

In addition to this general mechanical disease, the feebleness of the chemical action in and around the capillaries tends to produce local congestions and imperfect nutritions; hence, low inflammations, effusions, tubercles, and wasted muscles may arise from the deficient chemical action in the body, consequent upon the want of oxidation of the sugar.

ORIGINAL COMMUNICATIONS.

REPORT OF SOME CASES TREATED IN THE REGIMENTAL HOSPITAL, COLDSTREAM GUARDS.

Under the care of Surgeon-Major WYATT.

Case 1.—*Acute Bronchitis, complicated with extensive Diptheritic Deposit on Throat and Mouth—Recovery.*

November 13.—M. H., aged 32, a man in tolerably good condition, but looking anæmic, was admitted with the usual symptoms of acute bronchitis, accompanied by more than ordinary amount of dyspnœa and depression. Bowels rather constipated and skin moist. Tongue glazed and morbidly clean. His account of himself was that he had been exposed to the weather a few days previously and taken cold. On examination posteriorly no bronchitic râles could be heard, but in front, and below the left nipple especially, cooing respiration and moist râles were universal. The expectoration was scanty and rather tinged with blood. Pulse 120, full and soft. He was ordered a mustard sinapism, and to take the following mixture three times a day:—Carb. ammonia, gr. v.; tinct. scillæ, ʒss.; camphor mixture, ʒj.

14th.—Expectoration still discoloured; pulse as before; respiratory murmur is blended with fine crepitating sounds, above the position where the moist râles are audible. Tongue inclined to dryness. Bowels relaxed. To add chloric ether and decoction senega to the mixture and employ a suppository of extract of opium. Beef-tea and wine, ʒiv.

15th.—Depression much greater, and expectoration less in quantity, very tenacious, and brown. Complains of great thirst; pulse 104, soft and compressible. Diarrhœa almost involuntary, with great tenesmus. Wine, ʒvj.; turpentine stupes to the abdomen.

16th.—The fine crepitation increases in front, but posteriorly the respiration is natural; depression greater; pulse 96; tongue dry; secretion and expectoration very difficult; the sputa being so very adhesive and scanty; the diarrhœa is quite controlled. Hydrag. c. creta, gr. ij.; c. pulv. Doveri., gr. ijss. four times a day, with ʒjss. of the following mixture:—Ammon. carb., acid, citric, āā ʒj.; potass chlorat., ʒj.; sp. æther nit., ʒjss.; vin. ipecac. ɱxl.; mist. camph. ʒiiij. Complains of much pain in the left side anteriorly during inspiration; pulse fuller, and with much force; expectoration more easy. Emplastr. vesicat. to the side, and to be dressed with ung. hyd. Continue turpentine stupes to belly.

17th.—Crepitation now audible in the left axillary space. Inspiration not so difficult or painful, but expectoration very tenacious and scanty; pulse 100; bowels regular; still no abnormal sounds audible behind; mouth parched. Continue powders night and morning. Wine and nourishment.

18th.—Depression now very great indeed, and during the night considerable delirium; pulse 120, soft and full; skin moist; urine scanty, and passed occasionally involuntarily. Diarrhœa quite checked, but the tongue this morning was white and pasty, and the aspect of the man when attempting to expectorate was peculiarly distressing. On examining the throat, which was quite dry, the right tonsil and pillars of the fauces, as well as the uvula, were covered with a dense whitish opaque substance of a glassy appearance, as if smeared with a dirty white paint. The man complained of intense thirst, and constant ineffectual attempts to swallow. The back part of the throat was brushed with a strong solution of nitrate of silver (ʒij. to ʒj.), and to take every four hours a mixture composed of chlorate of potash, hydrochloric acid, and bark. Wine ʒxij., and strong beef-tea *ad libitum*.

19th.—The left tonsil is now becoming coated with the white deposit, and the dryness of the throat is extreme; there is now no form of expectoration; pulse 120, small and weak. The fine crepitation audible over the front of the chest is now blended with moist râles. The throat to be painted with equal parts of glycerine and tinct. ferri sesquichloridi. To take champagne and mock-turtle soup.

20th.—Some of the false membrane was removed from the back of the throat (nearly the whole of which is now covered with it) and placed under the field of the microscope, when it assumed the character of sporules arranged in clusters; when treated with dilute acetic acid, one long adhesive piece was easily detached from above the uvula, and from the hard palate a thick portion was removed, which had quite a cast of its surface; its removal afforded the man great relief. Pulse 130, small and soft; and delirium frequent.

21st.—More vigour of aspect, and pulse stronger—80; less delirium, and slept well; another large portion of adhesive matter was removed from the right side of the throat; it was very tenacious, like bird lime; but the surface of the mucous membrane beneath appeared healthy. Continue the wine and nourishment.

22nd.—Aspect improved; bowels relaxed five times, with much tympanitis; pulse 100, fuller; throat less implicated, particularly on the left side; thirst not so great. To take powdered charcoal, ʒss.; and compound chalk and opium, ʒss. three times a-day; and to use a gargle composed of liq. sodæ chlorinat ʒijss., to water ʒviij. Port wine, ʒviij., instead of champagne. Brandy and eggs.

23rd.—Aspect much improved, and no fresh amount of deposit. A large portion of that which existed yesterday has become renewed; pulse 120; less tympanitis; and diarrhœa checked.

24th.—Throat much more free from deposit; pulse 88 only; and less diarrhœa. To continue the charcoal and mixture; also wine, etc.

25th.—Scarcely any deposit can be seen, and in every respect he is better. To take the charcoal once daily, and mixture as before.

26th.—Improving most satisfactorily, and the throat is now quite free from all diseased aspect. Complains of excessive weakness; the bronchial secretion is excessive; and there is wheezing over the whole of the left side of the chest; pulse 120. To have a mutton chop, also pint of porter and two eggs daily.

December 3.—Progressing favourably, but still looks pale and weak. Upon subsequent examination there was found to be a considerable portion of the left lung in a state of consolidation, with mucus and subcrepitant râles above. Pulse 120. Pulv. Doveri, gr. iij.; hyd. c. cretâ, gr. ij., nocte manque. Potass. iodid., gr. v.; decoct. sarzæ, ʒij. bis die.

January 10.—The man's condition has gradually improved. Syrup ferri. iodid., ɱxx.; c. Ol. morrhæ, ʒj.; acid hydrocyanic, dilute, gtts. ij., with a bitter infusion, twice a-day.

15th.—The expectoration continues most profuse, and the whole of the right lung is in a state of condensation. He was selected to proceed to the convalescent station at Walmer for the benefit of the sea air, and after remaining there nearly three months he returned with an increase of 36 lbs. in weight, and with the respiration clear at both apices; but at the seat of the original disease, on the left and posterior aspect, there was still some slight evidence of previous implication, the expansion being less, and respiratory sounds not so clear, but the bronchophony is decidedly much less, and he is able to undertake modified duties with his battalion.

Case 2.—*Case of Supposed Catalepsy.*

W. P., aged 21, had been several times admitted into Hospital on account of sudden attacks of unconsciousness to which during the past twelve months he has been subject. The first attack occurred when he was a recruit, after drill,

and he is quite sure that prior to his enlistment he was not subject to anything of the kind. His aspect is healthy, and his functions appear well performed. There is no reason to suspect any deception, and he does not dislike the service. He states that he seldom has any premonitory symptoms beyond a kind of heavy, dull feeling about the head, with an irresistible inclination to drowsiness, after which he becomes unconscious, and sleeps profoundly for twenty-four or thirty-six hours. During this trance he is in a perfectly cataleptic state. The pupils are dilated widely, and his arms and legs remain for a long time in any position in which they are placed. He is insensible to the most powerful galvanic shocks, and except by reflex muscular action there is no evidence of his vitality, except by respiration and circulation.

A very careful examination has often been made of this young man's physical condition, and nothing of an abnormal character can be detected in any part of his body; there is no evidence of any previously exhausting nervous complication, and his general condition and aspect are compatible with perfect health: he sleeps like any ordinary individual when not troubled with these cataleptiform seizures, which are very variable as regards periodicity; they have frequently occurred early in the morning in the barrack-room, where his comrades, not being able to awake him, have left him in what they considered a profound sleep; they have also occurred while a patient in Hospital, so that every opportunity has been afforded to guard against deception of any kind; and during this condition powerful galvanic shocks have been most ineffectually tried; reflex action has, of course, been powerfully excited, but no return to consciousness; the breathing is generally quite natural, and pulse about 86, the pupils being dilated, and his arms and legs will remain for a long time quite tense when raised in abnormal positions. Every practicable opportunity was taken of testing the genuineness of these attacks while the man was in Hospital; on one occasion being found in this insensible condition at the morning visit, the hot water cautery was employed down the spine, with no other appreciable effect than increasing the pulse some forty beats per minute; he was, upon another occasion, placed upon his legs, without knowing that any preconcerted arrangement had been made to prevent his falling backwards, when he would have fallen upon his head if he had not been securely caught. From this state of unconsciousness he awoke some hours afterwards, quite ignorant of what had been done.

Every kind of remedy, both external and internal, was resorted to, and for a time the daily use of the cold shower-bath appeared to control the frequency of the attacks; but they recurred at such irregular intervals that, after many months' close observation, it was quite evident he was unfit for the duties of a soldier, and he was consequently discharged from the service. It may be remarked that when in these states of insensibility he always appeared quite calm and easy, as if in a sound sleep, with no distortion of features, or irregular contraction of any muscles; so that I was led to believe the cause of the seizures to be allied to the subtle and unknown influence of epileptiform attacks. Being a case of such peculiar interest in a physiological point of view, I had the gratification of showing him to several eminent Professional friends, who could not detect any evidence of diseased action.

Case 3.—*Acute Rheumatism with Pericarditis—complete Recovery.*

J. K., aged 40, a stout muscular man, accustomed to drink daily considerable quantities of porter, came under my care on January 31, 1864. He had felt unwell for some days with wandering pains, and about twelve months since had been under treatment for nearly two months; the affection now appears to be chiefly confined to the right elbow and wrist joints, which are much swollen and very painful, depriving him entirely of sleep; urine very high coloured, and loaded with pink lithates; bowels constipated; aspect very anxious and pallid; pulse 56; heart's sounds appear indistinct, but there is no abnormal bruit; tongue much coated. To have a warm bath, and take a dose of senna purgative.

February 1.—No perceptible change in the symptoms. To take potass. bicarb., gr. xx.; tinct. colchici, ♏. xx.; solut. morph. muriat, ♏. v.; aquæ, ℥j., three times a-day. Milk diet.

2nd.—Pulse very soft, 52. Omit colchicum on account of the action of the heart being so subdued. To have a garter blister applied above the knee and wrist, where the pain and effusion are most acute.

3rd.—States that he feels much better, and that the pain in the joints has quite subsided, the only remnant being a feeling of stiffness; his countenance is clearer, and less expressive of anxiety. Hot fomentation. To add aromatic spirit of ammonia with each dose of the mixture, and to take four ounces of gin daily. Also the following pill at bedtime: Pil hydrarg., gr. j.; ext. colchici, gr. j.; ext. opii, gr. j. M.

4th.—The heat and pain in the knee and wrists have quite disappeared, but the heart's sounds are very indistinct, and the pulse weak.

5th.—Not so well. Complains of a feeling of stiffness in the pericardial region. Urine very high coloured, and loaded with lithates still. Tongue furred. Countenance very anxious. Pulse 37. Complains of a "heaving" at the heart upon any exertion, and the pains have appeared in the left wrist. To apply a garter blister above the joint.

6th.—Pain has quite disappeared from left wrist joint, and the pulse intermits, 58. Countenance less anxious. Tongue cleaner; and says that although weak he feels much better, except a slight soreness about the pericardium. Apply a blister to the pericardial region, and to be dressed with ung. hydrarg.

7th.—Both hands are red and hot, but he says that excepting a feeling of stiffness he has no kind of pain. Apply two garter blisters, one to each arm. Pulse 88, full. A distinct to-and-fro friction sound can now be heard to the right of the left nipple. Bowels inclined to be loose. Pil hydrarg., gr. i.; ext. opii, gr. ½, every three hours, with potass bicarb., ʒij.; sp. ammon. aromat., ♏. xxx.; mist. camph., ℥ij.; c. acid tart, gr. x.

8th.—The countenance now very anxious. Pulse 70, and intermittent. Friction sound very distinct, and experiences difficulty in lying down; lithates less abundant. To continue the gin, also mutton broth and milk diet. To take calomel, gr. j., ext. opii, gr. j., with each dose, instead of pil. hydrarg.

9th.—Slept well. Pulse 80, and very intermittent; heart's action heaving, and friction sound very distinct; bowels rather relaxed; tongue dry in centre.

10th.—Friction sound modified in intensity, and the heart's sounds are very indistinct. Rapid effusion has supervened. Pulse 80, soft and fuller; aspect not so distressed; bowels less disturbed; gums becoming affected; tongue brown and dry; sleeps well. Says that he feels much better.

11th.—Complains of pain over the region of the heart, the sounds of which are muffled and indistinct. Omit calomel and opium.

12th.—Not much change. Gums sore. Potass chlorat., ʒj., aquæ, ℥viij. for a gargle.

13th.—Much improved in every respect.

14th.—Pulse 80, quiet and soft. Urine more natural. Potass nit., gr. xv.; potass acet., gr. xx.; mist. camph., ℥ij.; liq. opii sedativ., ♏ v., four times a-day.

15th.—Much improved in every respect. Has no pain in the chest, and sleeps well. Pulse soft and regular. Sounds of heart much more distinct, and quite free from friction murmur.

17th.—Decoct. cinchonæ, ʒiss., *vice* mist. camph.

20th.—Is now able to sit up after dinner.

From this date his daily condition was much improved, the heart's sounds became natural in every respect, and on 5th March he was dismissed Hospital quite well.

This man suffered more acutely than any it has ever been my duty to treat for acute rheumatism, and considering the nature of his constitutional powers, there was sufficient reason to prognosticate grave and permanent cardiac complication, which, I believe, was much controlled by the repeated blistering of the cutaneous surface from the very commencement of the attack. Since his dismissal he has continued to perform his duties in every way with more energy than for a long time previously, so that this case may be considered complete.

Case 4.—*Acute Peritonitis, probably Tubercular—Recovery.*

R. C., aged 23, a delicate lad, of fair complexion, who had been twice in Hospital for a similar affection, was admitted on March 17 in a state of acute suffering, and almost bent double with violent pain in the abdomen, which is tense and intolerant of the slightest pressure. Bowels much constipated; skin pungently hot; pulse small and hard. To have a warm bath, mustard poultice, and dose of castor oil.

18th.—No better; pain intense; pulse 110; tongue coated, and expression anxious. Twelve leeches to abdomen, hot fomentation with calomel and opium every four hours.

19th.—Pain still intense, particularly in the hypogastric region; face flushed; skin hot and dry; bowels opened. Repeat leeches and fomentation.

20th.—Pain slightly relieved. Pulse 84.

21st.—Pain decidedly less acute, and expression of anxiety diminished. Can bear pressure of abdomen. Pulse quiet, and not so characteristie of serous inflammation. Faee less flushed. Slept badly last night. To take the pill twice a-day, and 20 minims of Battley's sedative at night.

24th.—Much better in every respect, and only eomplains of pain in the right iliac fossa. To omit the pills, and take a teaspoonful of cod-liver oil three times a-day.

27th.—Almost well; can bear firm pressure; expression of anxiety quite disappeared.

April 1.—Quite well, and dismissed to-day. This man throughout bore in a remarkable manner the physiognomy of serous inflammation more than is usually witnessed, and although relieved entirely from the present attack, the irregular feeling of induration experienced on pressing deeply below the abdominal parietes leads to the belief that these seizures will be recurrent, and that they are eonnected with tubercular implication of the mesenteric glands. No evidence of disease eould be traced in the lungs.

Case 5.—Acute Pneumonia of Apex of Lung—Simulating Phthisis—Complete Recovery.

R. M., aged 19, a healthy-looking lad, was admitted on April 4, complaining of pain in the ehest, with cough and dyspnœa. Physical examination detects nothing abnormal. The skin is hot and dry, with furred tongue and much thirst. Pulse quick, 96. To have a warm bath and senna draught; also, pulv. Doveri, gr. x.; potass. nitrat., gr. xv., h. s. Spoon diet, with pint of milk daily.

5th.—Has vomited, and been much purged. Mist. salin, ℥j., ter. die.

6th.—Complains of acute catching pain in the left breast, with great dyspnœa and inability to lie on the affected side. Skin hot and dry; face flushed; expression anxious; pulse 120; respirations 40. Diminished expansion of the left side of the chest, and very slight respiration audible from apex to base of the lung; but no crepitation or other dulness appreciable, neither are the voice-sounds increased. To have a mustard poultice and take calomel and opium pill every four hours, with antimonial mixture, etc.

7th.—Is very weak and low this morning; respirations rapid; pulse small and compressible; tongue rather dry in the centre. Crepitation is now audible in the middle lobe of the right lung, and slight dulness can be detected at the base. Expectoration rusty, and mingled with muco-purulent masses. Was delirious last night. Omit antimonial wine, and substitute chloric ether. To take at bedtime tinct. opii and vin. ant. tart. āā ℥ss.; brandy, ℥ij., and beef-tea, daily.

8th.—Slept well; skin still hot and pungent; respirations frequent and catching; pulse 112; expectoration tenacious and rusty; dulness is now pretty general over the right lung, but is most marked at the base and beneath the clavicle; bronchophony and bronchial breathing are also audible. Hyd. c. creta gr. ij., c. pulv. Doveri gr. ijss. ter die. Continue sinapisms.

9th.—Is rather better to-day, and does not look so anxious. Breathes with greater freedom; distinct crepitation now audible at right apex, with moist râles occasionally.

11th.—Decidedly improved; has little pain in the chest and the cough is less troublesome. Pulse, 86; respirations 20. Crepitation not now audible at apex, but dulness below continues with large mucus râles anteriorly. Cough less troublesome.

12th.—Is very weak and perspires profusely; expectoration quite free of the tenacious character, and now consists of a thin, reddish fluid in which are suspended circular flakes of purulent matter, having central streaks of blood; dulness and tubular breathing still well marked at the apex, but at the base, both before and behind, respiratory murmur is audible; pulse 80. Omit the powders and mixture; to take cod-liver oil ℥j. three times a day; mutton chop daily.

13th.—Feels better and coughs less; tongue clean, large crepitation now audible at apex. Emp. lyttæ below the clavicle. To omit the beef-tea for a light pudding.

16th.—No very marked change, except that the breathing from below upwards is becoming more natural.

18th.—No crepitation audible at apex, and dulness diminished in intensity. Sputa still purulent; tongue morbidly red, and complains of occasional sickness after food. Potass iodid., gr. iij.; potass bicarb, gr. x.; ammon. sesquicarb., gr. v.; infus. gentian ℥j.; bis die.

May 1.—Has gradually but effectually improved since last report, the morbid sounds at right apex being reduced to a mere shade of dulness, with some comparative harshness of respiration; still looks pallid; pulse ranges from 80 to 90.

19th.—He was sent this day to the Convalescent Hospital at Walton-on-Thames, where he remained for six weeks, and then returned to his duty with no trace of disease.

Upon a review of the treatment adopted in this case, which was certainly a very serious one as regards prognosis, it may fairly be inferred that had the firmer vigorous "anti-pneumonie" treatment by antimony, bleeding, etc., been employed, the chances of arousing any latent predisposition to tubercular degeneration would have been very much increased; and I think that although the term "conservative" is more frequently applied to our Surgical practice, yet that the above case may be fairly adduced as an instance of the propriety of the conservation or retention within the body of the vital fluid.

Case 6.—Acute Pneumonia, with Rapid Consolidation of Lung and Albuminuria—Recovery.

J. B., aged 18, having recently been enlisted, was sent to Hospital this afternoon, being scarcely able to stand upright. He complains of hacking cough and pain in the chest, skin perspiring, and pulse rapid; faee flushed; respirations frequent, oppressed, and catching, 40 in number; tongue coated with red edges; pulse full, 120; expeetoration viscid and rusty; states that the pain came on with a violent shivering fit. He is a man of powerful frame.

On stethoscopic examination, no crepitation is audible, but dulness and tubular breathing can be detected over the middle and lower lobe of the right lung, especially well marked from the spine to the angle of the scapula, where it is very intense.

Sinapisms to the front of the chest were at first employed, and subsequently a blister; also antim. tart., gr. $\frac{1}{6}$; potass. chlorate, gr. x., every two hours. Hyd. c. creta, gr. ij.; pulv. Doveri, gr. ij. ss., night and morning.

April 12.—Better to-day; the pulse quieter and softer, 100; respirations more easy, 28; tongue moist, and skin warm and perspiring; face still much flushed; sputa viscid and rusty. The physical signs are much as before, except that crepitation can now be distinctly heard at the base of the lung. To have beef-tea.

13th.—Is much weaker, and the face assumes a dusky hue; pulse 112, small and eompressible; respiration 32; urine free from chlorides, but loaded with albumen. Wine ℥iv. daily.

14th.—Improving both in aspect and physical condition; pulse 80, and cough less.

15th.—Much better. Dulness and bronchial breathing in the right lung are rapidly clearing up. Expectoration almost free of rusty discoloration. Pulse 85; respirations quiet. To omit the antimonial mixture, and take quinine and sulphuric acid three times a-day.

18th.—Continues to improve. Pulse 80. Still eoughs and eomplains of dyspnœa; physical signs of eonsolidation still audible, but less intensely.

20th.—Improving in every respect.

22nd.—Much better. To sit up daily.

28th.—Almost convalescent, with very little evidence of diseased action remaining.

May 12.—Dismissed Hospital quite well.

Case 7.—Acute Gangrene of the Lung—Death.

G. H., aged 32, was admitted on July 15 with very severe eough and copious expectoration of a peculiarly fœtid odour. The stethoscopic signs of disease were very slight, and much out of proportion to the embarrassment of respiration and frequent cough. After a short time he beeame gradually weaker, the cough being almost constant, with the same fœtid expectoration, which at times was sanious. Pulse small and rapid; integuments yellow and dusky; tongue furred; appetite very trifling; he complained of pain about the right apex of the lung.

July 25.—Auscultation now revealed slight dulness and large moist crepitation over the anterior part of the right lung. The treatment has consisted of alkaline and sedative medicines, with wine and strong beef tea daily.

August 1.—Some slight improvement; the pulse is gaining strength, and the crepitation has almost disappeared from the right lung; countenance very sunken and yellow; sputa of a dark brown hue, and mixed with blood; very fœtid still. ℞. Sp. amm. aromat. ♏ xx.; tinct. camph. co. ℥ss.; vin.

ipecac. ♏ xx.; æther chlorin. ♏ xv.; decoct. senegæ ʒj. ter. die.; chlorodyne ♏ xx.; aqua ʒj. ter. die.

4th.—Expectoration less profuse.

5th.—Aspect much sunken, and is very depressed in spirits; cough very frequent, after which he is tormented with efforts to vomit, for which hydrocyanic acid was prescribed.

10th.—There is now considerable enlargement of the abdomen evident.

31st.—Since last report the change has been daily more unfavourable, the debility increasing, and emaciation also; the countenance dusky, and at times almost livid; breathing very laboured; expectoration profuse, and the odour insupportable; large, moist, crepitating râles audible over the right lung; appetite capricious; sickness and diarrhœa present; abdominal distension increasing, evidently from flatus, and the pulse is at times imperceptible.

September 1.—Sinking rapidly from exhaustion.

2nd.—Died at 10.30 p.m.

The post-mortem examination corroborated the prognosis which had been formed during life: the whole of the upper lobe of the right lung was in a state of gangrene; no actual cavities could be detected, but most of the lung tissue was soft, and easily broken down by the finger; a great part of the lower lobe was in the condition of grey hepatisation. There was but little evidence of tubercle throughout.

Case 8.—*Morbus Addisonii—Rapid Exhaustion—Death.*

T. F., aged 25, a well-made and muscular man, who had hitherto enjoyed good health, was admitted on August 12 in a state of extreme depression and prostration, complaining of great languor and debility; his expression was very anxious, and countenance dusky with a brownish discoloration below the lower eyelids; lips livid, but says that he suffers no kind of pain. His account of himself is that, during the last fortnight, he has had occasional attacks of retching, which have resulted sometimes in his vomiting a thick fluid streaked with blood, having an offensive odour; he suffers from dyspnœa after the slightest exertion. The whole integument of his body is dusky, but around the nipples and umbilicus it is almost black; the circulation and respiration are both very feeble; complains of coldness of extremities, and no appetite. No abnormal condition whatever could be detected either of the breast or lungs, and the abdominal rigors afforded no indication of disease; the urine is also natural; bowels regular; the temperature of the whole body is evidently reduced, but particularly of the tongue. ℞. Æther sulphuric, ♏. xx.; acid sulph. dilut., ♏. xx.; aquæ, ʒiss., ter die; pil. hydrarg., gr. j.; pulv. Doveri, gr. ij., night and morning. To have spoon diet, with two pints of strong beef-tea, and champagne with ice.

13th.—Feels better; less depression and anxiety of countenance; nausea and sickness abated; temperature of body raised; pulse 84, small and feeble; complains of great thirst. To have a tepid bath, and lemonade.

14th.—The bath afforded him ease, but he was unable to walk from it; has had one attack of coughing and retching; pulse weaker than yesterday. To have four ounces of sherry, and a boiled egg; but his inclination for any kind of nourishment is very variable.

16th.—Continues very low, and sinks down in the bed. To have an effervescing mixture with quiuine, etc.

21st.—Much the same; pulse almost imperceptible.

24th.—Appears better; pulse has more power. To have a mutton chop.

27th.—Improvement continues.

29th.—Not so well; very restless and depressed; pulse scarcely perceptible. Has vomited a greenish, bitter fluid. To add hydrocyanic acid to each dose of the medicine.

30th.—Very depressed and collapsed, his aspect being almost like that of cholera; has vomited several times; dark halo round the eyes, which are sunken; no pulse to be detected; and the heart's sounds are almost inaudible; hands and feet dry and cold, also the tongue, which is clean; whispers that he has no pain. He took thirty drops of chlorodyne last night, which produced but little sleep, and is now unable to swallow anything unless it is very cold; every kind of nourishment now causes intense retching as soon as it is swallowed, and he appears to be sinking from exhaustion (asthenia). To have beef-tea enemas, with port wine.

31st.—A slight amendment. Brandy, ʒiij.

February 1.—Pulse can be felt, small and weak. Takes beef-tea in very small quantities at a time; was sick last night. ℞ Spirit. am. aromat., ♏xxv.; tinct. opii, ♏v.; infus. rosæ co., ʒj. ter die.

3rd.—Again much better; the extreme prostration having subsided, and takes wine with nourishment.

5th.—Complains of feeling giddy on sitting up in bed; bowels have acted twice from a simple enema; sickness after food continues.

7th.—Continues to improve, but has the same disinclination for food; to have bread-and-milk with lime-water, also rice.

12th.—Acid hydrocyanii dilut. ♏ ij., brandy ʒj., aquæ ʒjss., with ice every four hours, in order to restrain the vomiting if possible.

14th.—The pulse is more distinct, but vomiting almost as constant after swallowing anything; he begs to be allowed some stout, which was given him in small quantities.

16th.—Creosote was now administered in pills, but could not be retained; the strength of the man is daily diminishing, and he lies in bed in a semi-torpid state, answering questions in a very faint voice.

17th.—To omit all medicines, and take small beef-tea injections with ʒij. brandy frequently.

18th.—Very restless, and almost pulseless; countenance much collapsed.

19th.—Passed a very restless night; takes no food by mouth; to have an opium draught.

20th.—After lying in this collapsed state all day, he gradually expired at 6.30 p.m. without a struggle.

The autopsy revealed but little general emaciation, the whole of the integuments had a dusky brown aspect, which around the umbilicus, nipples, and orbits was of a much darker hue; rigor mortis very slight. The lungs were much collapsed, but healthy in structure; heart pale and flabby; the adipose structures all over the body had an intensely yellow colour, and emitted a very peculiar faint odour; the mesenteric glands were pale and enlarged; intestines also free from any vascularity, and quite empty; liver healthy; the pancreas larger than natural, but the duct was quite pervious throughout; the cortical structure of the kidneys was vascular and enlarged, but the supra-renal capsules were very dark, irregular in form, and quite hard on section; the thoracic duct was traced, and appeared healthy in structure. Every organ of the body was most carefully examined to discover some organic cause for the rapid exhaustion and failure of nutrition; but with the exception of the change noticed in the supra-renal capsules, nothing to account for death could be discovered.

Case 9.—*Paralysis of Portio Dura—Recovery.*

J. F., aged 28, married, a healthy looking man, was admitted on November 23, 1864, complaining of deep-seated pain in the head, particularly behind the left ear, and of a sense of tingling around the angle of the mouth on that side. He stated that he first experienced these sensations about a week since, without any apparent cause, and that it had increased in severity since. He has always led a steady life.

Whether the result of congestive action or not, there is now distinct evidence of paralysis of the facial branches of the portio dura on the left side of the face, evidenced by almost complete loss of power of the muscles on that side. The motor division of the fifth does not appear to be affected, and sensation is perfect on the paralysed side. The power of hearing is very slightly affected, and deglutition also perfect. The eyelid cannot be closed, and the tongue is protruded to the opposite side of the median line to a great extent. Pupils rather dilated, but irides act efficiently. Bowels regular; pulse quiet.

Although the pain complained of has often been intense, it is singular that, until his attention was drawn to the peculiarity of his expression to-day, he had not noticed it. To have spoon dict and a purgative.

November 24.—Slept well, but pain and tingling as before. To apply a blister behind the left ear, and the surface afterwards to be dressed with ung. hydrarg.; also, to take internally the solution of bichloride of mercury in camphor mixture twice a-day.

25th.—No change in the symptoms. Low diet.

26th.—Pain in head much increased since last evening. To apply a blister to the vertex.

27th.—Pain less. Urine examined to-day; it was clear, and sp. gr. 1020, depositing phosphates.

28th.—Much sensation of singing in left ear. Repeat blister, and take the bichloride in decoction of bark.

29th.—Blister has acted well, and the pain and singing are quite removed.

December 1.—Repeat the blister to the vertex, which is to be followed by the application of ung. hydrarg. The eyelid can now be almost closed.

5th.—The paralysed muscles are now beginning to act. He feels quite well, and free from pain in the head. Gums slightly affected.

10th.—The evidence of paralysis is now almost gone. He was subsequently dismissed the Hospital, and became quite restored.

Case 10.—*Acute Phymosis from Syphilitic Sores—Sloughing Phagadæna, with Great Destruction of the Penis—Recovery.*

W. N., a delicate-looking young man, 21 years of age, was admitted on April 9, 1864, on account of an acute state of phymosis. After a previous illicit intercourse a large amount of sanious discharge issued from beneath the swollen prepuce, which was livid, and it was evident that a venereal sore existed behind the glans. To have an aperient dose, and apply hot fomentation.

April 11.—No beneficial result has ensued, and as there is now much redness, tension, and pain complained of in the body of the penis, the exuding pus being very sanious and fœtid, an incision was made in the middle line above, from which free hæmorrhage ensued. Injections of dilute Condy's fluid to be constantly employed.

12th.—Some relief to the tension and pain has followed from the incision, but there is now a gangrenous spot about the size of sixpence on the lateral aspect of the prepuce, the surrounding integuments being red and puffy; discharge extremely fœtid; numerous ulcerations were observed on and behind the glans; the man looks weak, pale, and is much depressed; complains also of excruciating pain. Lotio opii. to be constantly applied, and to take thrice a-day, Acid nit. dilut., ♏xx.; tinct. opii., ♏x.; decoct. cinchonæ, ℥j. To have a mutton chop, and wine ℥vi., daily.

13th.—The sloughing process is spreading, and reaches to within two inches of the pubis; the denuded corpus cavernosum immediately behind the glans is soft and ash coloured, evidently in a state of gangrene; the sloughing edges were freely touched with nitric acid, and the frequent application of a charcoal poultice ordered. To continue the mixture, and take extract opii, gr.j. night and morning. Beef tea, Oij. daily.

14th.—The opium has produced a satisfactory sleep; general aspect improved, and the pulse is stronger; hæmorrhage to a great extent ensued this morning, and could only be controlled by pressure with the lint saturated with perchloride of iron. The diseased action does not appear to have spread, but a portion of the cut edges of the prepuce still have an unhealthy aspect, and were again treated with nitric acid. The injection of Condy's fluid to be continued, and the penis to be kept in an elevated position. Nourishment as before, with six ounces of brandy.

15th.—No increase of the sloughing; hæmorrhage quite checked; there has been a considerable detachment of a sloughy portion of the prepuce, and the glans is partially removed from its attachment to the corpus cavernosum.

16th.—General condition has deteriorated; tongue very dry and brown; pulse rapid; skin hot. To omit the opium.

17th.—The whole of the glans in a state of sphacelus, but it was necessary to apply the nitric acid again to the lower part of the prepuce.

19th.—Sloughing action quite arrested, and the edges of the ulcerated parts both clean and healthy. There being no further dread of the violent hæmorrhage, the blackened glans was removed.

20th.—Much improved in every way; granulation proceeding satisfactorily. To omit the brandy, and take instead four ounces of wine daily.

23th.—The denuded parts have a very healthy aspect, and the corpus cavernosum projects about half an inch beyond the surface; the orifice of the urethra distinctly visible below.

27th.—Considerable contraction has now taken place, and the corpus cavernosum is on a level with the surrounding integuments; its surface is very vascular and florid, the slightest touch causing excruciating pain.

May 1.—Healing process continues favourably, but an abscess has formed over the coccyx. To be placed on an air-bed.

3rd.—Abscess opened and fœtid pus discharged.

6th.—Discharge from abscess has a very unhealthy aspect, thin and sanious; granulating surface of the penis satisfactory.

9th.—Appears now to lose ground, but says that he feels better. Eyes are sunken and pupils dilated. Complains of great pain over the lower part of the sacrum. The discharge still continuing unhealthy, and it being now evident that his condition would be likely to benefit by change of air, on May 28 he was sent to Walmer Convalescent Hospital, and returned quite strong and well on August 17; the mutilated penis entirely cicatrised over.

Case 11.—*Laryngitis, with Rapid, Sub-mucous Effusion—Tracheotomy—Recovery.*

W. C., aged 24, a healthy-looking man, was admitted on the evening of July 23, complaining of sore throat, with dyspnœa and cough. He had complained in the morning, and was excused duty for the day, but there was only a superficial congestion of the right side of the throat to be then observed. During the afternoon he felt at times as if he should be suffocated. He stated, on admission, that he had felt unwell, and unable to take food for several days. He cannot now swallow, and on making the attempt the fluid retrogrades through the nostrils. Is in perpetual fear of suffocation; respiration hurried; skin parched; cough constant, and expectoration glairy and muco-purulent; pulse small and rapid. Can speak with difficulty, and only in whispers. Bowels acted during the day. He was examined by Assistant-Surgeon Trotter, who could discover only a slight amount of redness and swelling of the right side of the fauces. There was, however, some swelling over the larynx, upon which, when pressure was made externally, pain was experienced. Six leeches were applied, and a pill of calomel, antimony, and opium ordered every two hours. To have fever diet, with ice and milk. About midnight the distress became so urgent, with cough incessant, and increased dyspnœa, that tracheotomy was deemed necessary; but as some relief to the breathing ensued, this operation was not performed until 6 a.m., to relieve the symptoms of impending suffocation. The relief was great after the introduction of the tube, and he became calmer, and lost the anxious expression of countenance. The respirations were 25, and pulse 128 per minute.

24th.—After the operation the tube by some means became displaced, and the previous urgent symptoms again returned, which subsided after the re-introduction of the tube. I saw the man for the first time about 10 o'clock a.m., when he whispered that he felt much easier; the breathing was quiet, and he had slept for short periods since the operation. Skin was hot and dry; pulse 118; respiration 30. To continue the pills, with an increase of the antimony and opium, and apply hot fomentation.

25th.—Passed a quiet night, with considerable amount of sleep. Disturbed by coughing, which is now less constant, and the expectoration diminished. Swelling less, but there is an erysipelatous-looking redness extending downwards to the chest from the wound. Can now swallow fluids gradually. Countenance calm; pulse 100. The tube was removed to be cleansed of the tenacious secretion. To have a pint of beef-tea.

26th.—He was troubled last evening with the accumulated secretion about the tube, but it was not considered necessary to remove it; passed a good night, but cannot swallow the beef-tea, as it appears to cause irritation and cough, which he does not experience from the iced milk; pulse 84, intermittent; respirations 26; feels very week. There is considerable amount of œdema about the opening, and extending round the neck (probably from inflammatory effusion in the cellular tissue). When the tube was removed for cleansing, he breathed quietly; but on attempting to close the wound, the dyspnœa recurred. On examining the epiglottis with the finger, it appeared rigid, hard, and as if curved lengthways on itself. A strong solution of nitrate of silver was applied to the adjacent parts internally, and externally the erysipelatous blush was painted over with collodion. To continue the pills night and morning. Towards the evening the artificial opening was found to maintain its patency without the tube, which was removed, and he could breathe comfortably through the nares. Some light gauze was placed lightly over the wound.

27th.—Passed a good night, and was able to swallow a pint of beef-tea, and two pints of iced milk. Pulse 84, firmer; respiration 22; the erysipelatous redness nearly disappeared, and swelling diminished; expectoration still tenacious, but not so troublesome; breathes though the wound and mouth; cough less. To continue the application of the solution of nitrate of silver three times a-day, and the pills twice as before.

28th.—Can swallow better, and slept well. Temporary closure of the wound does not produce the same amount of

irritation; tongue coated, and bowels constipated. To have a common saline enema.

29th.—Can now breathe comfortably when the wound is closed. It was ordered to be covered with wet lint and oiled silk, and to take an ounce of the cold infusion of bark twice a-day.

30th.—Wound now granulating and filling up. The same sensation of rigidity is experienced on feeling the epiglottis. To continue the beef-tea and milk, with three ounces of sherry daily.

31st.—The edges of the wound were now approximated by suture, which produced no inconvenience.

August 1.—Improvement continues.

3rd.—An abscess is forming on the side of the neck; tracheal wound closing fast; the voice is rough and thick. Ordered a Plummer's pill every night, and decoction of bark with nitric acid twice a-day.

5th.—The abscess in the neck was opened. Half diet and porter daily.

6th.—Abscess refilled; voice thick and husky; could not swallow the solid food.

7th.—The difficulty in swallowing varies; the external wound surrounded by large pale granulations.

12th.—All traces of abscess disappeared, and the wound into the trachea quite closed; feels stronger, and can swallow much better; cough almost gone, and no difficulty in breathing.

14th.—Improving, but voice still husky, and rigidity of epiglottis as before. Half diet with porter and one egg daily.

17th.—Walked out for a short time. Examination with the laryngoscope revealed a vascular condition of the mucous membrane about the epiglottis, and the condition of rigidity as described previously.

The daily improvement continued, which it is unnecessary to describe, and on August 25 he was dismissed as a convalescent to attend as an out-patient, which he did for several weeks.

Case 12.—*Popliteal Aneurism—Complete Cure in Fifteen Hours by the Combination of Forcible Flexion with Digital Compression.*

S. M., aged 23, a healthy-looking young man with florid complexion, was admitted into the Hospital, complaining of pain and swelling round the left knee, which extended to the calf of the leg and thigh; it was of a spasmodic character, and often very intense; there was a generally diffused redness also present. After a few days' rest he recovered from these symptoms, which were supposed to be rheumatic; but then, on February 25, a circumscribed swelling was detected in the popliteal space, a little to the outside, which communicated a distinct pulsation to the fingers; the surface of the swelling was red, and it measured longitudinally three inches by two and a-half in breadth. A *bruit de soufflet* was heard with great intensity over it, and all pulsation ceased on pressure being exerted over the femoral artery above, the swelling also much subsided; he had been under treatment on seven different occasions for venereal disease, but his constitutional powers were in no way impaired. The heart's action was somewhat weak, and the circulation in the left is not so vigorous as in the right lower extremity. He complains of dyspnœa on exertion.

26th.—A bandage was applied to the thigh at 11.30 a.m., and modified pressure made by the double tourniquet, but this could not be borne except for a short time, on account of the pain produced. At 7 a.m. forcible flexion of the thigh was made, immediately after which a simple roller was applied tightly, to act as a compressor of the femoral artery against the bone below the profunda, while digital compression was kept up on the downward course of the artery towards the knee for several hours, which materially controlled the circulation in the sac, the impulse of which was afterwards much diminished. The whole extremity was then bandaged from the foot upwards as high as the groin, and also placed on an inclined plane.

27th.—At 10 a.m. the tumour was examined very carefully, and all pulsation in it had quite ceased; its volume also diminished. The roller was again applied to the groin, and the extremity carefully re-bandaged. To have milk diet, and one grain of opium every night.

28th.—Slept well; no pulsation; pulse 100. Continue as before.

29th.—The outline of the sac can be clearly defined; it appears to be connected with the outer side of the artery, and has a soft, semi-fluid feeling. To continue the roller and bandage.

March 1.—The pressure is still kept on the extremity; but there has never been the slightest return of the pulsation; pulse 80; he complains of no pain.

3rd.—The contents of the sac now appear harder.

5th.—Progressing most favourably; all bandages were removed.

7th.—Is now walking about; the circumference of the limb is still half an inch more than the opposite; no pulsation can be detected below the seat of compression in the thigh.

11th.—Sac hard and contracting in size, and pulsation in the artery above returning. Dismissed.

September 12.—Has done his regular duty since, and, on examination, the sac is very hard and about one-third its former size.

The above case may be considered to have had a very favourable and speedy termination; and the sudden detachment of some portion of the contents of the sac by the forcible flexion of the leg upon the thigh, combined as it was, immediately afterwards by the uniform and equable compression and elevation of the whole extremity, fulfilled, according to my mind, that which modern experience has indicated as the most rational treatment for external aneurisms.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

FOUR CASES OF EPISPADIAS, WITH EXTROVERSIO VESICÆ, SUCCESSFULLY TREATED BY PLASTIC OPERATION.

(Under the care of Mr. JOHN WOOD.)

The peculiarity of Mr. Wood's mode of operating in these cases consists of, firstly, following the method of Pancoast, of New York, in turning the surface of the skin to the bladder, he takes flaps chiefly from the sides over the groins, carefully avoiding wounding the peritoneum, and the admission of urine into its cavity. These flaps are made with the base downwards, so that they may be sustained by the recurrent branches from the common femoral artery, traction being made on the extensible structures of the scrotum, and the new urethra rendered more compact. His object is to cover the raw, abraded, and protruding mucous membrane, to protect it from the friction of the clothing, to render the application of a urinal more easy and effective, to confine the exit of the urine to an aperture above the penis, and to enable the patient to wear trousers.

Case 1.—*Operation Successful so far as the Closure of the Epispadias was concerned—The Patient Died afterwards from Erysipelas of the Head and Neck Six Weeks after the Parts had healed.*

A boy, aged 6½. Anterior wall of bladder and abdominal parietes deficient; posterior wall of bladder thrust forward, showing the openings of the ureters; penis small and ill-developed; upper wall of urethra and corpora cavernosa wanting; pubis deficient at the symphysis; the two branches separate to the extent of two and a-half inches; a testicle to be felt in each inguinal canal. The first operation was performed on October 17, 1863 (from Case-book, vol. i.). Mr. Wood dissected a triangular piece of skin off on each side, with the base downwards; these were then brought into the middle line, and fastened with silver wire; the upper extremity was then fastened; the edges of the raw surfaces then brought together by hare-lip pins, and the rest of the surface left to granulate. A second operation was performed on November 21. As the surfaces separated in several places on this occasion, they were brought together by a quilled suture on their deep aspect, and by fine wire on their superficial. A third operation was performed on December 5. On this occasion a flap of integument was dissected off from the abdomen above the bladder, and united to the deep surface of the flaps below, which covered in the bladder in front. The fourth and last operation was performed on January 17, 1864. A square flap was dissected from the scrotum on one side of the penis, and a smaller one from the other; these were turned up and united to the old flaps; a small bent catheter was in-

troduced through the artificial urethra (formed by the lower surfaces of the flaps and the lower surfaces of the undeveloped urethra) to draw off, as a syphon, the urine and mucus formed in the bladder. These flaps united speedily and completely, and a useful covering was made for the bladder. He appeared to be in perfect health, but on February 23 there appeared a swelling of a livid hue of one side of the face below the eye. There was foul tongue, quick pulse, disinclination for food and vomiting, but no delirium, and he complained of no pain. The day before his death he did not pass his water. He died on February 27. No morbid appearance about the parts operated upon, the operation having been a successful one. The parts operated on were exhibited at the meeting of the Pathological Society, May 14, 1864. The ureters were dilated and free, with slight dilatation of the pelvis of the kidneys. A bad case of erysipelas had been placed in the next bed, and there was much of this disease at that time in the Surgical wards of the Hospital.

Case 2.—Case Complicated with Pneumonia and Debility—Cure after Three Operations, a small Fistula only Remaining.

A boy, aged 12, from one of the London workhouses, of a feeble constitution, and pale and cachectic appearance. The deformity in this case was very similar to the last. An operation had been performed some years before at the Middlesex Hospital, but was not successful. On January 17, 1864, Mr. Wood performed the first of a series of operations by dissecting two broad flaps from the upper part of the groin, one on either side, with the base downwards and outwards, large enough to overlap one another; he next dissected off a semicircular flap from above the bladder; then the lateral flap on the left side was turned with its cutaneous surface towards the mucous membrane of the bladder; the lateral flap from the other side was next turned over on this, their raw surfaces being opposed; and, lastly, the superior flap from the abdomen turned down and tucked behind the other two, its cutaneous surface being applied to the wall of the bladder. These were then fastened together by hare-lip pins, and a small catheter introduced as in Case 1. The edges of the flaps sloughed, and union was obtained only by the surfaces at the lower half of the opening. After two months a second operation (cicatrisation having been accomplished) was performed of the same kind, at the upper part where non-union had occurred. After this he was considerably weakened by a bad cough, with purulent and rusty expectoration, indicating pneumonia. Notwithstanding this, the edges united very well, leaving only a small chink above the position of the pubes. To close this a third operation was performed on May 21, the edges being pared and brought together by wire sutures. This gap gave considerable trouble, as it showed a disposition to slough, but it ultimately granulated over almost entirely, leaving a very small opening through which a few drops of urine dribbled. He was then discharged to have the benefit of a change of air at one of the country branches of the Workhouse Infirmary (Edmonton), where he is now enjoying good health.

Case 3.—Case Complicated with a Right Inguinal Rupture—Arrest of Development almost entirely the same as in the last Case—Union by Adhesion.

A boy, aged 13. First operation October 15, 1864. An incision was made commencing at the scrotum across the hernial sac, and then upwards and inwards towards the upper margin of the imperfect bladder; the flap contained by this incision was then dissected off to within about half an inch of the bladder and turned over to the opposite side, lying upon its skin surface. A second flap was then made from the left or opposite groin (with its base downwards as before) towards the scrotum and thigh, terminating on the left side of the urethra, opposite the point where the first incision commenced; this was then turned over the other, and united to it by wire sutures. The flaps united by first intention; but on the upper part of the left, for the space of an inch and a-half, union did not take place.

A second operation was performed on November 19, when the upper border of the united flaps was split up for about a quarter of an inch, and a small, semi-oval flap dissected from the abdominal wall above the bladder and inserted into the bifurcation in the upper border of the lower flaps. These were then united by wire sutures.

Owing to ulceration caused by the stitches, a small portion still remained uncovered, through which the water came away above. A third operation was performed December 10, the edges being pared and brought together by a quilled suture. This operation was successful, so far as to close the opening with the exception of about half an inch, and he left the Hospital very much relieved, there being scarcely any escape of urine except by the artificial urethra. He was sent out for the benefit of fresh country air, having become somewhat pallid by long residence in the Hospital wards. He is to be re-admitted at some future time to have the small remaining fistula closed.

Case 4.—Very Rapid Union by Adhesion of Extensive Raw Surfaces.—Case now in the Hospital.

A boy aged 7. The first operation in this case was performed in a similar manner to the last, on November 19, 1864. The union was very rapid and complete, almost entirely by adhesion, only a small portion of the bladder protruding above the flap on the right side. A second operation was performed December 17, in which the upper margin of the flaps was split (as in the former operation), and a small flap turned down from the abdomen and inserted into it, and kept in its place with a wire suture transfixing it and the under portion of the first flap; the corners of the lower flap were then brought into apposition with the skin of the abdomen, and fixed with a quilled suture. This case is now in the House (January 23, 1865), about to be operated on for the closure of the small fistula (of about half an inch) remaining. He is getting stout, and in excellent health, having lost entirely a cutaneous pustular eruption which he had when admitted.

HOSPITAL FOR SICK CHILDREN.

TWO CASES OF OPERATION FOR EXTROVERSION OF THE BLADDER.

(Under the care of Mr. HOLMES.)

Two operations for extroversion of the bladder have been performed at this Hospital by Mr. Holmes. The first took place on March 21, 1863, and was described by Mr. Holmes in the *Lancet* for June 27, 1863. Mr. Holmes had the advantage at the operation of the presence and assistance of Mr. Partridge, of King's College Hospital. It is believed to have been the first case of this kind in which the operation has been performed successfully in this country; in fact, the first in which complete success has been obtained, since in Dr. Ayres' case, operated on in New York in 1859, the success does not seem to have been quite perfect, and in Dr. Pancoast's case, operated on in Philadelphia, though ultimate success appeared probable, the patient died of another disease before the treatment was complete.

In Mr. Holmes's first case the patient was a boy, aged 9, otherwise well formed and healthy. There was no hernia. The operation consisted in taking a square flap out of the groin, with its base towards the exposed mucous surface of the bladder, and turning it back over the latter, with its raw surface upwards. This first flap was then covered by a second, taken from the opposite side of the scrotum, and twisted slightly so as to be over the former flap, with its raw surface in contact with that of the first flap. The two flaps being united by silver sutures at their upper and lower edges, kept each other in place, and formed a broad bridge of healthy soft parts over the exposed bladder. The upper edge of this bridge was then implanted into the skin of the abdomen, which was pared to receive it. The wound was not dressed in any way whatever, nor was any attempt made to hinder the contact of the urine with the raw edges, previous experiments having shown that such attempts were more likely to do harm than good. All went well, except that the part where the bridge had been implanted into the abdomen failed to unite. Two subsequent operations, however, obtained complete union of this part, by a firm and healthy cicatrix, in which only an opening remained through which an Anel's probe could be passed, but through which no water seemed to exude, and which, therefore, was not thought worth treatment. The boy was perfectly relieved of all the distressing complications of his infirmity, except the constant dribbling of water, so that a common railway urinal kept his clothes clean and free from odour.

He died about a year after the operation, of the growth of a tumour, apparently of the fibroplastic variety, in the brain. The parts concerned in the operation were shown at the Pathological Society (Pathological Society's *Transactions*, xv. 254), and are preserved at the Hospital, together with accurate drawings of the case before and after operation, by Dr. Westmacott.

The general idea of this plan of operation was suggested by a case reported by M. Follin in *L'Union Médicale*, Sept. 10, 1862.

Mr. Holmes repeated a similar proceeding on a male infant, aged a year and a-half, on May 20, 1863. In this case there was hernia on one side. The operation differed from that in the previous case, in the fact that no attempt was made to implant the bridge into the skin of the abdomen at the first operation. This first operation was perfectly successful, and a bridge of healthy skin was obtained to cover the exposed bladder. A first attempt to implant this into the skin of the abdomen did not succeed, and the child was being kept in the Hospital, in order that a second might be made, when he was attacked with typhoid fever. The case seemed to be going on well, and he might have recovered, but that his friends insisted on taking him home, a considerable distance into the country. He died a few days after reaching home. This case may be said, like Professor Pancoast's, to have been successful as far as it went.

ST. GEORGE'S HOSPITAL.

TWO CASES OF PLASTIC OPERATION FOR EXTROVERSION OF THE BLADDER.

(Under the care of Mr. HOLMES.)

Mr. Holmes has also operated on two cases of this malformation at St. George's Hospital, the plan pursued being the same as in the last mentioned operation. Neither cases had any success, though in neither did any injury result. In one the patient was a man about 21 years of age, an agricultural labourer, of ruddy complexion and fair proportions. He was most anxious to submit to anything which would lessen his sufferings. He was the subject of a very large hernia on both sides, the skin covering which was so thin that much care was requisite in dissecting flaps off it, and when formed they were very deficient in fat and cellular tissue. Nevertheless, the first operation seemed to likely to succeed, when unfortunately a short time after the sutures had come away, phagedæna attacked the raw edges, and the union melted down. Some weeks afterwards the proceeding was repeated, reversing the sides, but with no better result. Another attempt was afterwards made by uniting the remains of the flaps over the median line; but it also failed, and the man was sent home, having been provided with the usual cumbrous and inefficient apparatus.

In the fourth case, the patient was a little boy about 7 years of age, in very weak health. In him also the deformity was complicated with large herniæ on both sides. The operation failed, and it was thought better not to repeat it until the general health was more satisfactory. In both these unsuccessful cases, the cicatrisation induced by the operation in the groin and scrotum appeared to be of some service in diminishing the size of the hernial tumours.

WESTMINSTER HOSPITAL.

COMPOUND COMMINUTED FRACTURE OF TIBIA AND FIBULA—PRIMARY AMPUTATION—DEATH.

(Under the care of Mr. CHRISTOPHER HEATH.)

On August 24, 1864, William W., aged 38, was admitted into Northumberland ward at 3 p.m. with a bad compound comminuted fracture of both bones of the leg. He was driving a brougham, when the horse ran away, and dashed the driving-seat against a lamp-post with such violence as to wrench the post out of the ground. The driver's right leg came in contact with the post, and received all the violence of the shock, but was uninjured otherwise.

On admission he was bleeding freely from the right leg, the lower part of which was completely smashed, the bones being broken in several places and into the ankle-joint. The skin was divided vertically all down the shin, and was torn at the side at the lower part; there was also a deep wound at the lower part of the calf punctuating the muscles. Mr. Heath was in the Hospital when the patient was admitted, and proceeded to amputate at once.

Operation.—Chloroform being administered, Mr. Heath made a skin flap over the upper part of the front of the tibia, and as long a flap as was possible from the muscles of the calf, and sawed through the tibia and fibula necessarily very high up. The popliteal artery was the only vessel which required a ligature, and this was applied just above the point of bifurcation. The flaps were brought together, without any tension, with wire sutures, and wet lint was applied. ℞. Brandy, ʒss., 2ndis hôris.

24th.—There was some oozing of blood in the evening, which, however, stopped on the application of a bandage over the face of the stump at nine o'clock. ℞. Brandy, ʒss., 4tis hôris; liq. opii. sed., ♏. xx.

25th.—Patient had a good night, and is very comfortable to-day. All symptoms of shock have passed off. Beef-tea, O. ij. Chop.

27th.—Stump dressed to-day; looks healthy. Porter, O. j.; brandy, ʒiv.

29th.—Patient's progress uninterruptedly good. Put on full diet. Porter, O. j.; wine, ʒiv.

The remainder of the case was supplied by Mr. Power, who took charge of the case during Mr. Heath's absence from town:—

This patient came under my care on the 1st of September. The wound was looking healthy, except that the upper border of the cut edge of the tibia projected one-eighth of an inch, white, and dead. During the next day or two cicatrisation rapidly progressed, and though more of the circumference of the bone appeared, the granulations around it were perfectly healthy, and the discharge was small in quantity. There was no bagging of matter in the upper part of the thigh. About a fortnight after I first saw him he had a violent rigor, and on the following morning his pulse was frequent and small; his complexion remarkably sallow, and he lost his appetite; he had no pain in the limb or elsewhere, except in the chest; some dyspnœa; no pneumonia or bronchitis. At this time he began to have violent sickness and delirium at night, Discharge from stump became rather fœtid, and all dressings were removed except lint and water. I directed him to be taken upstairs to another ward, and gave him an additional quantity of stimulants (brandy and wine). Very soon, the limb remaining unchanged in appearance, excepting that it had nearly healed up, the jaundiced appearance increased, and he became violently delirious. His bowels were carefully attended to; one or two enemata were administered. The delirium continued, but the sickness was relieved. ℞. Ammoniæ acetas. He gradually sank, and died on September 26, 1864. No post-mortem allowed.

VARICOSE VEINS OF BOTH LEGS TREATED BY LEE'S AND WOOD'S METHODS RESPECTIVELY—CURE EFFECTED.

(Under the care of Mr. CHRISTOPHER HEATH.)

The treatment of varicose veins has been modified from time to time by various Surgeons. Mr. Henry Lee advocated the plan of passing two needles beneath the vein at a little distance from each other, and a figure-of-eight ligature being applied to each sufficiently tight to compress the vein, the subcutaneous division of the vein was effected with a narrow knife. For the ligatures he has latterly substituted small slips of thin india-rubber, which answer every purpose, and are more easily removed. Mr. Wood's plan we detailed in the *Medical Times and Gazette* of January 14, and we need not, therefore, allude to it any further at present.

Charles T., aged 47, admitted into Mark Ward, August 17, 1864. Has suffered from large varicose veins of left leg for eighteen months, and has large clusters of engorged veins at various parts of the leg, and specially about the inner ankle, at which there is a small ulcer. The internal saphena vein is also much enlarged. The external saphena vein of the right leg is considerably enlarged.

August 17.—Mr. Heath introduced two hare-lip pins beneath the lower part of the saphena vein at a distance of an inch apart. Having passed an india-rubber band over each so as to compress the vein, he then divided it subcutaneously midway between the two. The divided vein bled freely, and it was necessary to tighten the lower india-rubber band. A pad of lint was applied, and a bandage over all.

19th.—Lower pin withdrawn. Patient has suffered no inconvenience whatever from the operation.

21st.—Upper pin removed. The vein is apparently blocked with clot at the seat of the operation, but the veins of the leg do not appear to have undergone much change at present.

24th.—Veins of left leg much diminished in size, and ulcer healed. The external saphenous vein of the right leg was operated upon in a similar manner.

26th.—Lower pin withdrawn.

27th.—Upper pin withdrawn.

29th.—The vein has much diminished in prominence, and is only visible when the patient stands up. Discharged.

November 3.—Readmitted with a varicose ulcer of the left leg, the veins of the leg being apparantly as large as before the operation. It appears that he has been working and walking about without his elastic stockings. The external saphena vein of the right leg appears to be perfectly obliterated, and that leg has given him no inconvenience.

December 6.—Mr. Heath introduced a Wood's hernia pin beneath the internal saphena vein of left leg three inches below the knee. A wire suture was then passed subcutaneously and over the vein, and the wire was attached to the pin, after which the pin was rotated, so as to twist the wire and compress the vein.

13th.—The pin has been turned from time to time, and to-day, being quite loose, was drawn out with the wire and a portion of the vein included between them. The vein is apparently quite obliterated, and the ulcer healing rapidly.

27th.—Discharged. Ulcer nearly healed, wound of needle not quite closed. The vein appears to be perfectly obliterated, as when he stands up it does not project at all beneath the skin.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 4.

THE MEDICAL COUNCILS ON MEDICAL TITLES.

The preamble of the Medical Act is very brief. It says, "Whereas it is expedient that persons requiring Medical aid should be enabled to distinguish qualified from unqualified Practitioners," be it enacted, etc. The Legislature proposed to accomplish this object in a fashion which promised, according to the views of the period, to be successful. Experience has falsified the anticipation. The Act has now been some six or seven years in operation, and it is most difficult, if not impossible, for the public to distinguish the qualified from the unqualified Practitioners. To the Council constituted under this Act was assigned, as the first and especial duty, the preparation of a list of Practitioners who were duly qualified. It was supposed that this list—the "Medical Register"—would be in the hands of the public, and that a reference would be made to it by persons inquiring into the qualification of Medical Practitioners. Few copies of the register are to be found except in the official hands in which they are placed, and few or no references to it are ever made by the public. In popular estimation, a Doctor is a Doctor and a Surgeon is a Surgeon, and no further inquiry into Professional qualifications is thought of. The public do not know that any one, qualified or unqualified, may call himself a Doctor, and practise on their credulity and their pockets, as well as on their bodies, though he were as unacquainted with physic as with honesty. The Medical Act has failed to remedy this evil. The case of "Dr. Henery," who was lately sent to the very suitable occupation of hard labour at Holloway, has in some measure awakened the public to a knowledge of the fact. Still, the fact will soon be forgotten, and it is the duty, as well as the interest, of the Medical Council to seek to apply their experience to correct this wrong.

Under the Medical Act qualified Practitioners are encouraged to register by the grant of certain privileges withheld from the non-registered—viz., the recovery of debts, the holding public appointments, etc. (clauses 35 and 36); whilst by another clause (40) a penalty is inflicted on "any person who shall wilfully or falsely pretend to be, or take or use the name . . implying that he is registered under this Act." To the first two clauses no valid objection has been raised; the last clause—and it is the most important clause of the Act, for on its operation depends the value of the Register—has proved inoperative. It has been found impossible to convict in cases in which it was necessary first to prove what a man pretended, or what he implied by assuming a name. A person may take the name of Doctor, and may practise Physic; and, if sued under this clause, he may say—"I am a Doctor of Philosophy; I never implied that I was registered under the Medical Act."

We are given to understand that the several branch Councils have met and discussed at length the means of remedying this great evil. We published at page 76 the resolution arrived at by the Scottish Branch Council, which is very similar to that previously adopted by the Irish Council, and which is as follows:—

"Section XL.—On and after the day of , 186 , it shall not be lawful for any person, unless registered under this Act, to pretend to be, or to take or use the name or title of, Physician, Doctor of Medicine, Licentiate in Medicine or Surgery, Master in Surgery, Bachelor of Medicine, Doctor, Surgeon, Medical or General Practitioner, or Surgeon, or Apothecary, or Accoucheur, or Licentiate or Practitioner in Midwifery, or any other Medical or Surgical name or title; and any unregistered person so offending shall forfeit and pay a sum of not exceeding £20, to be recovered in a summary way before the justices of the peace."

The English Branch Council, at a meeting held on Friday last, adopted the following as a substitute for this 40th clause:—

"Any person practising Medicine or Surgery, or being engaged in the treatment of diseases or injuries, for gain, not being registered under this Act, nor being able to give evidence of being qualified to be registered under this Act, who shall take or make use of any of the titles or designations enumerated in Schedule (A) to this Act, or that of Physician, Surgeon, Doctor, Professor of Medicine, Professor of Surgery, or any Professional title, name, or distinction commonly used by, or used to distinguish, duly educated or qualified Practitioners in Medicine or Surgery, shall, upon a summary conviction, be liable to a penalty not exceeding £ for each offence."

Of these several proposals, we prefer the last: it is more comprehensive and more practical. It differs very materially from both the others in this respect—that whilst they render registration compulsory before assuming any title, the English proposal is satisfied with qualification for registration as well as with registration; and this is right. If Oxford, or Cambridge, or London, have conferred on a man the degree of Doctor of Medicine, he cannot be prevented from calling himself, nor can others be prevented from calling him, Doctor. A College of Physicians can make a man a Fellow or a Member: it would be strange if he could not practise, calling himself a Physician. Universal registration is certainly the simplest plan; but we doubt whether the Legislature would grant, the corporations agree, or the Profession submit to a compulsory tax of five pounds or five guineas to be added to the funds of the Medical Council. With the exception of the words "for the sake of gain," which would inevitably lead to evasions, we approve of the clause suggested by the English Branch Council. It is conceived in a liberal spirit. It aims at, and it appears to succeed, as far as language is intelligible, in preventing unqualified persons from assuming the designation and names by which the qualified are generally recognised. More than this the public do not want, and more than this we should not ask. In asking more we may get none.

INDIAN MEDICAL SERVICE.

Every student of English history cannot fail to have observed that no great measure of reform, however urgently required, has been proposed, nor any vital change in the constitution of any long-established system, however intrinsically faulty, has been attempted, without drawing forth expressions of dissatisfaction and dissent from many quarters, perhaps from quarters where it was least expected. These expressions of feelings and opinions assume in some instances a bitterness of invective wholly inconsistent with a pure desire after truth; but even where this is not the case, parties who are incidentally interested in the subject under discussion, from viewing it at different points and through varying media, are apt to form very discordant views regarding it, and these they express in a mild, philosophical spirit, which is essential to elucidate the real merits and bearings of the case. Both these classes, for the most part, employ the periodical press for the purpose of giving circulation to their opinions, and it is a matter of congratulation that this is so, as the subject thus becomes thoroughly opened up and ventilated and the cause of truth and right promoted. In this way the periodical press is a great public benefactor.

We have been led into these remarks by some strictures which we have received—one published in to-day's issue—on our previous articles on Sir Charles Wood's new scheme or Warrant for the organisation of the Indian Medical service. For ourselves, we need hardly say that in our editorials on this subject we have been actuated solely by an honest desire to place the whole subject in what we had, and still have, reason to believe to be its true light. We had no foregone conclusions to substantiate, no "preconceived notions" to maintain. We are not, however, in the least surprised to find that our views on some points have not met with the unhesitating approbation of all. In the very nature of things, as we have before said, it was only to be expected that dissentient voices would be raised, and we look upon it rather as confirming our own view of the matter that, though our remarks on the subject have been so widely circulated, the voices raised in dissent have been so few.

We have given careful attention to all that has been urged by our correspondents on the subject of the New Indian Warrant, and we see no reason for changing our previously expressed opinion that it is a great and substantial boon to the Indian Medical Service. Under it those painful days of 225 Rs. per mensem, rendered beautifully less by large subscriptions to the Medical Fund, have passed away for ever; a gradually increasing rate of pay, according to length of service, has been established; the long delayed and anxiously looked for promotion to the rank of Surgeon (which of late has rarely been under fifteen years, and in many instances extended to seventeen and eighteen years) is now reduced to a certainty after twelve years' service; the injustice of half-batta pay has been abolished; a liberal scale of "unemployed pay," a new feature in the service, instituted; the right of all service from date of commission to count for promotion to the rank of Surgeon-Major conceded; the rate of furloughs and sick pay have been increased; the retiring pensions (for the lower grades, at any rate,) augmented; and all claims, present and contingent, on the Medical Funds guaranteed. These are broad facts which are patent to all, and can we be wrong in looking with a favourable eye on any scheme by which such substantial advantages are secured? That so comprehensive scheme as the present should have its faults was only to be expected in the very nature of things; some interests may have been prejudicially affected; others, perhaps, altogether over-looked. Much, perhaps, yet remains to be done; indeed, we believe that some further changes—such, for example, as the grant of extra pay, in the form of head money or otherwise, for extra incidental charges—are indispensable to the fair and proper working of the scheme; still, looking at it as a whole, we see no reason for changing the opinions we have already expressed on its merits.

Our correspondent, "An Indian Surgeon," whose letter we published in our issue of the 14th ult., has favoured us with a second communication in elucidation of his views; its great length (nineteen pages), however, precludes the possibility of our publishing it *in extenso;* but this is less to be regretted as it contains little beyond what he has already so ably and temperately advanced in his former letter. We shall content ourselves, therefore, with taking a few prominent passages from his present paper, and answering them to the best of our ability.

1. *As to Staff Pay.*—Our correspondent says (paragraph 13):—"You express yourself at a loss to understand the complaint made with regard to the abolition of staff salaries; and you say that in paragraph 27 of the Warrant staff allowances are distinctly and specifically admitted. I reply that either as proof of the existence of staff salaries, meaning thereby a fixed allowance, extra and in addition to the regulated pay of rank and given for the performance of military duty, such as 300 Rs. a-month for Surgeons, or 165 Rs. for Assistant-Surgeons, which existed up to June 15 last, or as a Warrant to establish such, the said section is not virtually worth to the service the value of the paper on which it is written." He then furnishes the dates of the various orders for the staff pay, of staff, ordnance, and regimental officers, and he adds—"When I see another such order referring to Medical officers, I shall give it due credit; till then I must maintain my present opinion."

Now, what says paragraph 27 of the new Warrant?—"I have now to inform you that it has been determined that in future all employment on the part of the Medical officers of the Indian Service involving the receipt of special staff salary shall be considered as staff employment, the salaries being in all cases consolidated." If these words mean anything, they admit the existence and establishment of staff salaries, although, for some reason which we do not comprehend, they are for the future to be consolidated. A case by way of illustration. Under the old system, previous to June 15 last, the pay of a Surgeon-Major in charge of a corps at a full batta station was 563 Rs., in addition to which he drew 300 Rs. staff allowances, = 863 Rs.; by the new Warrant the staff allowances are consolidated with the pay proper, and the income fixed at 1000 Rs. per mensem. So in the Civil Department. An Assistant-Surgeon, for example, holding the appointment of Surgeon to a political agency: instead of drawing as heretofore 256 Rs. from the Military Department as pay proper, and 400 Rs. from the Civil Department as staff salary, these sums will be consolidated, the staff salary abolished in name, but remaining intact, in fact, and the gross income of the appointment will be 656 Rs. per annum. Whilst, therefore, we agree with our correspondent in thinking that no extra staff pay will be granted to specific appointments, we yet maintain that the *principle* of staff allowances is distinctly and specifically admitted. There are many special appointments—such, for example, as that of Chemical Examiner to the Presidency, the Professorships at the Medical Colleges, etc.—appointments requiring peculiar qualifications, and entailing not only much extra work, but heavy responsibilities,—which it would be an act of the greatest injustice, as well as impolicy, to deprive of staff allowances, placing them on an equality, as to pay, with the comparatively easy appointments of a civil Surgeon at an up-country station or of one in charge of a native corps. Almost all these appointments have special staff salaries attached to them, and we look upon paragraph 27 of the new Warrant as guaranteeing these in their integrity, although instead of their being drawn as heretofore as a separate charge (perhaps in two divisions, one from the Civil and the other from the Military Department), they will for the future be drawn from one source in the form of consolidated pay.

2. *As to the Medical Funds.*—Prior to the appearance of our correspondent's letter we had expressed ourselves against the clause by which the Medical funds were abolished, though

not, perhaps, in the same forcible language. On that point, therefore, our opinions are happily in unison. He, however, takes strong exception to the passage in our article in which we expressed our opinion "that the funds had long ceased to become little better than insurance offices; and that on the increased rate of pay under the new Warrant, without deductions for these funds, the prudent Medical officer may obtain very nearly as great, if not greater advantages, by effecting an insurance in some of the many good insurance companies now existing." Our correspondent has quoted the passage correctly with the exception of the last sentence, which in our article ran as follows:—"By effecting an insurance in some of the many good mutual insurance companies now existing in all the large presidency towns of India." This distinction is all-important. When we penned these lines we had in view one office in particular, of which we happen in times past to have known something, the Madras Mutual Insurance Company, of which Messrs. Arbuthnot and Company, of Madras, are secretaries. We have not the figures before us to speak with the precision desirable on such a subject, but we may say generally that in the course of years the sums paid in the way of bonuses (the whole profit being divisible amongst the insured) were so large that the premiums required in some years were reduced to a very small amount, enabling a man to effect an insurance at rates very little in excess of the life rates which obtain for Englishmen in England. Similar mutual insurance offices we believe to exist in the other presidency towns; and, as we observed before, it was to these, and these only, we had reference, in penning the above passage. And we have no hesitation in counselling the new members of the Indian Medical Service who have now no Medical funds to fall back upon to lose no time after their arrival in India in effecting an insurance in one of these local offices—that is, if they should have belongings for whom they wish to provide in case of their death. As far as our experience goes, they are quite as trustworthy as the home offices, and very considerably cheaper. They require to be inquired for, as for the most part they advertise little, if at all.

3. *As to appointments awarded by selection versus seniority*, the "Indian Surgeon" remarks that he "is convinced, if the service were to be polled on the subject, we should find nine-tenths would give their votes for *seniority with competency* versus *simple selection*." True, if that were the question to be settled. But it is not; it is simple seniority (with or without competency; for who is to decide as to the competency?) *versus* simple selection. The "Indian Surgeon," in his long experience, must remember the time when the seniority system was in full force; and could he not put his finger upon men who, for the accidental circumstance of having a few extra years of service, have attained the appointment of Superintendent-Surgeon, and subsequently a seat at the Medical Board, without any one other single recommendation in their favour? Under the old seniority system, who could hope ever to attain to the top of the tree? Who could hope to attain even the rank of Superintendent-Surgeon (now Deputy-Inspector-General)? To the young Medical officer entering the service there was a long vista of years, stretching into the far future, unenlightened by a single ray of hope of attaining to the higher grades. All stimulus to ambition was damped. Be his talents, acquirements, or good qualities what they might, he could never hope to raise himself over his seniors in the service. Under the new *régime* all this is altered, and we think beneficially. Our correspondent says:—"It opens the door to interest or intrigue, and gives an undue advantage over his equally well-qualified seniors to the man whom circumstances happened to bring more in contact with the Powers that be, and who had opportunities of blowing his own trumpet or of impressing the man in authority with a conviction that he was more qualified than others, or in creating a desire in them to advance his interest." We admit the objection here advanced. At the same time, we think it is one which comparatively seldom is likely to arise and to operate prejudicially on the service at large. In our opinion, it is better, far better, that such exceptional cases should arise than that the young, ambitious, and talented member of the service should succumb to the operation of a pure seniority system, such as was formerly in vogue. This, however, is a matter of opinion.

We had hoped here to have been able to conclude; but we cannot, in justice to ourselves, do so without noticing briefly two passages in the letter of "Another Indian Surgeon," who, it will be seen, takes us somewhat roughly to task for the opinions which we have advanced in our former articles.

He objects to our saying all the civil and other charges at the presidencies remain intact, and he adds "Will you read section 20 of the Despatch, and say if you still adhere to your statement? You cannot, for Sir C. Wood distinctly orders uncovenanted members to be employed." Now, Section 20 referred to runs as follows:—"In making the calculation (*i.e.* for the reduction of the establishment consequent on the transfer of the European regiments to the royal service) you will of course take into account the several situations which may be properly filled up by uncovenanted members of the Medical Profession." That is the whole of the section, and we confidently appeal to our readers whether this conveys the "distinct orders" of Sir C. Wood to fill up all the civil and other charges at the Presidencies with uncovenanted men? Decidedly no. We beg respectfully to adhere to our former finding—as they say at court martials.

Once more and finally he says, "the highest pension under the old rules was £700 a-year. With the Medical Retiring Fund (at Madras) £100. Under the new rules the highest pension is £500. Now let the reader judge for himself.

	Old rate of pension. £	New rate of pension. £
After 17 years	191	220
,, 21 ,,	250	292
,, 25 ,,	300	365
,, 29 ,,	365	550
,, 32 ,,	500	
,, 35 ,,	700	—

If these figures were all, our correspondent's statement might have the appearance of correctness; but by Section 36 of the new Warrant it is distinctly laid down that an Inspector-General after five years' employment in that grade in India is entitled to an extra £350 a-year; and by Section 37 a Deputy-Inspector-General under the same circumstances to £250 extra; so that after 30 years' service in India the highest pension, that of an Inspector-General, is £900, and the next highest, that of a Deputy-Inspector-General, £800 a-year! exclusive of the annuities to which they may respectively be entitled from the Medical fund.

We now leave the subject for the present, awaiting confidently the verdict of the Medical officers in India, who are the parties most interested in the question.

PERSONAL RESTRAINT FOR THE INSANE.

A CASE has lately been decided in the Durham County police-court which is of considerable importance to the Medical Profession. A great question is involved in it—a question, however, which appears to have been entirely ignored by the magistrates who decided it—viz., whether a Medical Practitioner is justified by the law in interfering in his own person to place an insane patient under mechanical restraint. The magistrates seem to have entirely ignored the insanity of the patient and the position and responsibilities of the defendant as Medical adviser; in fact, they treated the case as one of common assault. We have not sufficient data before us to offer an opinion as to the propriety or non-propriety of Mr. Carpenter's interference at the particular moment at which he acted, but there seems to be abundant proof that the patient Mary Lamb was a dangerous lunatic, and there appears no doubt that Mr. Carpenter acted *bonâ fide*, and, as he believed,

for her benefit. The result, however, is that he has been fined £5 and mulcted in the costs of the proceedings. We think when our readers have perused the following narrative they will come to the conclusion that he has been treated with but scant justice, whatever be the law of the case.

In November last, Mr. R. H. S. Carpenter, a Licentiate of the Royal College of Physicians and of the Apothecaries' Society of London, residing at Carrvilla, Durham, was called to attend a woman named Mary Lamb, aged 68. It does not appear at whose request he first saw the patient, but it is evident that Mr. Carpenter's attendance had the approval and sanction of the patient's husband. He found Mary Lamb to be a person of unsound mind and requiring care and control, and after several fruitless applications to the relieving officer of the parish, he wrote to the Commissioners of Lunacy, calling their attention to the case, and enclosing the following certificate:—

"I certify that, having examined Mary Lamb, and received the following statements from her husband and neighbours, I believe her to be a lunatic, and not under proper care and control. "R. H. S. CARPENTER, Physician.

"November 25, 1864.

"'*Statement from Neighbours and Husband.*

"'That Mary Lamb is about 68 years of age; that for some months past she has been insane; that she has frequently threatened to drown herself, and, on many occasions, had rushed from her house to execute her threat; that on several of these occasions a policeman has hurried after her; that on one occasion a man caught hold of her just as she was about to throw herself into the river; that she was taken by him to the Durham police-station, and detained there until taken away by her husband; that her husband then made an application to the Durham magistrates, but was referred by them to the relieving-officer, who refused to interfere; that about four months since she took a knife and threatened to cut the throat of a young woman; that she will sit up in bed, and for some time continue vociferously to shout "Murder," under the influence of imagined danger; that two certificates have been given by Surgeons in Durham testifying to the unsound state of her mind; and that she is a fit person for a lunatic asylum, but that no attention was given to these certificates by the relieving officer.'"

A good deal of correspondence followed between Mr. Carpenter and the Commissioners of Lunacy; certificates were forwarded to them, signed by the churchwarden of the parish, Dr. Watkin (Consulting-Physician to the Durham Infirmary), and Messrs. Pratt and Sutherland (Surgeons), which remove all doubt as to the degree of insanity under which the patient was labouring, and the danger in which it involved those around her. In proof of our assertion we quote Mr. Pratt's certificate:—

[Copy.]

"Having had frequent opportunities of seeing and conversing with Mrs. Lamb, I am able to certify that she is a lunatic requiring to be placed under proper treatment in an asylum. During my last visit she was smoking lighted paper: said she liked 'flame,' and that the smoke was beautiful. A short time since she broke eight panes of glass. She also said she would cut Mrs. Cockburn's head off, and roast her like a herring; that she would get some arsenic to poison Dr. Carpenter, her husband, and myself; and that when she had the chance she would split Mrs. Jones's head. The reason she assigned was that the devil had told her through the wall that she had to do these things. "JOHN PRATT,

"Member of the Royal College of Surgeons.

"Durham, December 29, 1864."

On January 14 Mr. Carpenter wrote the following letter to the Commissioners:—

"Carrvilla, Jan. 14, 1865.

"Gentlemen,—On Thursday last Mary Lamb succeeded in breaking another pane of glass, and yesterday (Friday) she broke two more before the poker she was using could be taken out of her hand. To-day she was shouting "Murder," stating in the presence of a dozen people that the devil had told her through the wall to do so. Her husband has not had his clothes off since Tuesday last, and last night he had two men to sit up with him to watch her. *To-day he attempted to tie her hands with a towel*, and if *something be not done* with her, I am afraid *I shall have to sanction mechanical restraint*. Yesterday the county police reported the case to the chiefs in the county police office, but I am informed that they considered they could do nothing, as the magistrates had pronounced her sane. "I am, gentlemen, your obedient servant,

"R. H. S. CARPENTER.

"To the Commissioners in Lunacy.

"P.S.—Since this has been written the lunatic has broken two more panes of glass; states that she likes to break glass; that she will have all the panes in the house out before she has done; and that then she will smash in the wood-work."

Three days afterwards, after hearing that she had threatened to split the skulls of some children in the neighbourhood, Mr. Carpenter paid her an evening visit. According to his account, contained in a subsequent letter to the Poor-law Commissioners, he found her excited and threatening to leave the house to put her threat of splitting the heads of the children in execution. Her husband urged Mr. Carpenter to put on her a strait-waistcoat, at the same time declaring that unless Mr. Carpenter did so he would not remain in the house with her. Not having a strait-waistcoat, Mr. Carpenter secured the lunatic to the bed-post by placing her arms round it and tying her wrists with a handkerchief. Accounts vary as to the time which passed whilst she was in this position, but, at the highest computation, it was less than an hour. Mr. Carpenter then removed his patient to bed. About this time her son, who denied his mother's insanity, entered the house. According to Mr. Carpenter's statement,

"He rushed into the room, accompanied by several people, and created a complete riot. The lunatic's husband was dragged several times to the floor, and his shouts of 'Murder' and for help were heard for a considerable distance off. I myself was violently dragged backwards and forwards, and at one time detained in the house as a prisoner, and charged by the son with being inebriated. The fury of this son, who has for some years been a patient of mine, was directed against me for using the handkerchief and interfering in his father's behalf, as he asserted, to assist in the obtaining the removal of the lunatic to an Asylum."

Mr. Carpenter threatened this very enthusiastic maintainer of his mother's sanity with a summons, but before he could procure one the son obtained one against Mr. Carpenter for an assault on his mother by tying her to the bedpost. The magistrates, declaring that they "were not sitting *de lunatico*," found the defendant guilty, and inflicted, as we have already said, a fine, with costs.

In a letter to the *Durham Chroniele* Mr. Carpenter states that he paid the fine "under a protest, with a view, if possible, of obtaining a re-hearing of the case elsewhere." He asserts that he was employed by the husband of the lunatic, and that he placed her under restraint by his express desire. He therefore argues that he is not liable to be convicted of an assault, and he quotes a case (Hill *v.* Philp, Court of Exchequer, 1852) in support of his position. Whether he be right in law, we do not now offer an opinion, although we think he has the strongest *primâ faeie* case in his favour. There cannot, however, be a doubt, if the statements made be true, that the patient required restraint; and even if Mr. Carpenter were not himself legally justified in applying it, to impose a heavy fine for such an offence is an outrage on every principle of equity. We wonder what would have been the verdict of "the great unpaid" who adorn the Durham Bench had this mad woman been allowed by Mr. Carpenter to murder her neighbour's children, as she threatened.

CO-OPERATION OF THE LADIES.—M. Amedée Latour, while noticing the frequency with which the names of French ladies appear in the lists of benefactors in the Medical Associations, generally in commemoration of a husband or a son, asks what reason can be adduced why the wives, sisters, and daughters of Medical Practitioners should not be admitted as members of the Medical Benevolent Societies. Of the value of their co-operation there can be no doubt. Much of the success of the French Humane Society is attributable to the number of lady subscribers.

THE WEEK.

THE PRESIDENCY OF THE ROYAL MEDICO-CHIRURGICAL SOCIETY.

Our readers will learn from a letter which we publish elsewhere that Dr. Burrows declines to allow himself to be put in competition with Dr. Alderson for the President's Chair of the Medico-Chirurgical Society. The course he has taken in the matter has been dictated by that high sense of honour which has ever distinguished him. The result must be that the Fellows of the Society will ultimately have the benefit of the services of both these distinguished Physicians. If Dr. Alderson be the President-elect, Dr. Burrows must succeed him as the next Physician who shall fill the Chair of Baillie and Halford, Bright and Addison.

ARMY MEDICAL DEPARTMENT.

A report has appeared in some of the papers that the Indian Government intend to withdraw the last Warrant, which, despite some dissentient voices, has given, on the whole, satisfaction to Indian Medical officers in this country. We learn from a reliable source that the rumour is not founded on truth. Such an act of childish vacillation would be too great an outrage on good sense and public opinion even for Sir Charles Wood to perpetrate. The affairs of the Royal Army Medical Department, however, have assumed no healthier appearance since we last noticed them. It will soon be seen whether our young Medical men possess the "moral courage" so much extolled by H.R.H. the Duke of Cambridge in his address to the seventy candidates at Netley, or whether the redundant display of it there has not exhausted the supply. A man entering the Army Medical Department just now binds himself and his future brother officers with very different fetters to those of the Brothers Davenport kind, and if he hopes—as the late candidates did, no doubt—for a speedy and radical change, it is one more illustration of the triumph of hope over experience. So long as candidates can be had the Horse Guards will not be such fools as to make any changes; silently, but surely, will an additional rivet be added here and there, and as surreptitiously as certainly will a few more indignities be imposed upon the Medical Department. For some two or three years the journals—Medical and lay—have been teeming with complaints from the Medical men serving Her Majesty. Are all these complaints pure fictions, and has a spirit of disaffection and distrust spread over the widest geographical limits, like the advance of some mysterious epidemic, for no causes whatever?

When the whole question is mooted in the House of Commons, what will be the ready reply? "There is a small section only of Medical officers in H.M.'s service who have been dissatisfied. The evils do not exist, or have been most grossly exaggerated. Our army and navy are becoming daily more and more popular with the outside Profession, and we have no lack whatever of Medical candidates." Thereupon the question is shelved for another year. The Horse Guards register another victory over the Doctors, and congratulate His Royal Highness upon the decision he has shown. So that the forage allowance for the Commander-in-Chief passes muster at the annual voting of the Estimates, the whole Medical Department may be sunk in the Thames, running at the back of Whitehall-yard, for anything the military officials care.

All the Royal Colleges in the United Kingdom may unite in memorialising Government on this subject, but their labours will be as completely wasted as the paper on which their opinions and prayers are impressed so long as the Government have a goodly supply of Medical candidates.

TIMOTHY DALY'S CASE.

Mr. Farnall's report has not yet been made public, but it is generally surmised that its probable tenour as regards Mr. Norton will be that no blame attaches to him on the score of neglect of his duty as to his attendance on Timothy Daly or as to his Professional skill, and that there was no case for complaint against him; but that, generally, as Medical officer of the workhouse, he is open to censure for not keeping his forms personally and for entrusting their filling up to other persons.

POOR-LAW MEDICAL OFFICERS.

Such Poor-law Medical officers as have been devoting their whole time to the service of the unions for which they act should not overlook the fact that, at length, their claims to a retiring allowance have been acknowledged, and that, under certain conditions, they can, on their ceasing to hold office, be voted by the board of guardians a pension equal to two-thirds of the salary which they are receiving at the time of their retirement. This boon to union Medical officers, circumstanced as above stated, is secured by the statute 27th and 28th Vict., cap. 42. The statute will be found set out, and its provisions explained, in the work on the subject by Mr. Cecil Austin, of the Home Circuit (published by Butterworth and Co. and Knight and Co). We understand that, although the Act has only been a short time in operation, it has been already made useful in the case of a Medical officer.

ASSISTANT-SURGEONS TO THE FORCES.

We commend the following to the attention of Regimental Surgeons, and shall be glad to hear what they think of it. Does it mean the formation of a General Medical Staff system?

"*Circular No.* 889.—*Commissions of Medical Officers.*

"War Office, January 9, 1865.

"The Secretary of State for War having decided that, from and after July 1, 1864, all candidates appointed to Assistant-Surgeoncies in the army should be gazetted and commissioned as 'Assistant-Surgeons to the Forces,' and that subsequent transfers should be notified in the *Gazette* only; and further, that the same course should be followed on promotion to the rank of Surgeon and subsequent transfers; a deduction on account of stamp duty will, therefore, be made in cases of first appointment, or promotion of the classes of Medical officers alluded to from the above-mentioned date.

"Edward Lugard."

NURSING SISTERHOODS.

Our attention has been called to a fierce controversy which has been excited at Gloucester, by a proposal to nurse, or supplement the nursing of, the County Infirmary by the aid and supervision of the "Sisterhood of St. Lucy's Home, in the parish of St. Mark, Gloucester." The term "sisterhood" has on many a good Protestant John Bull the same effect that a red rag has on his four-footed namesake, and as every one knows the intensity and virulence of the "*odium theologicum*," it may be easily imagined how high feeling may run on this matter. We know nothing whatever of the constitution and rules of the "St. Lucy's Home," but that the nursing in our Hospitals, Infirmaries, and Workhouses may be universally improved by the help of educated lady-nurses no one with any knowledge of the subject will deny; and the patients of the Gloucester Infirmary will be very fortunate if they can obtain the services of ladies as devoted to the earnest and effective performance of their duties as nurses as are those of the St. John's House, the All Saints' Home, and the Deaconnesses' Institution, who, respectively, nurse the King's College, University, and Great Northern Hospitals, in London.

MR. ERASMUS WILSON ON FOOD AND DISEASE.

The lecture on "Food as a Means of Prevention of Disease," by Mr. Erasmus Wilson, delivered before the Association of Medical Officers of Health, and published in this journal, is now published in a separate form, and may be had for twopence. It is a capital tract for distribution amongst schoolmasters and heads of families inclined to keep children on too low a diet.

FROM ABROAD.—DISCUSSION ON "VACCINAL SYPHILIS" CONTINUED — PROSECUTION OF ILLEGAL PRACTITIONERS IN FRANCE—FUNCTIONS OF THE SPLEEN.

The discussion at the Paris Academy of Medicine, on "vaccinal syphilis," was resumed by M. Blot, who, as a member of the Vaccine Committee, wished to protest against the assertions of M. Depaul, the Reporter of that Committee, as exaggerated and dangerous. Not one of the cases adduced by him in proof of communication by vaccine lymph will bear examination, the accompanying blood having been doubtless the agent in the few cases in which syphilis really seems to have been conveyed. M. Blot refers to various observers who have vaccinated from avowedly syphilitic children without transmitting syphilis, where care has been taken to introduce lymph alone. In several of the cases cited by M. Depaul the appearances described may be explained either by the presence of vaccinal phagadænism, or the presence of eruptions which would have appeared had not vaccination been performed; and M. Blot repeats the assertion that up to the present time there has not been recorded a single case in which the insertion of unmixed vaccine lymph has given rise to syphilis. But still who could be always certain that in vaccinating he did not also convey a particle of bloody serosity? and, in fact, if the cases adduced of the propagation of syphilis by vaccination are authentic and exact, M. Blot says the only logical course is to abandon vaccinating from arm to arm and to repair to the cow, for the precautions advised by M. Depaul are perfectly illusory. At all events, the matter is at present in the condition of hypothesis and obscurity, the present discussion is premature, and any report relating to it sent in to the Minister would be most inopportune.

M. Jules Guérin, also a member of the Vaccine Committee, pointed out the consequences which would have attended the adoption of M. Depaul's report, declaring on the part of the Academy the transmission of syphilis by vaccination to be an established fact. Such a manifestation addressed to the Minister, and dispatched to the préfets, and from the préfets to the various Medical Practitioners, would have obtained a most unrestricted publicity. But what do we see? The discussion has hardly commenced when it is found that the facts upon which the statement is made are deficient in number, in character, and in precision, and already M. Depaul beats a retreat by declaring that he does not care that this portion of the report should be sent in. "The Academy will surely agree with him here, and then all results which could be desired from such a discussion will be attained. It will have aroused the attention of Practitioners to a new and very important order of facts, will call forth new observations, and suggest the means of better observing, better characterising, and, perhaps, of preventing vaccinal syphilis. But such an end may be attained without the concurrence of ministers, administrations, and *préfets*. It is by the Academic debate that Practitioners will be made acquainted with what ought to be known to them, and the future will one day furnish the solution of a question which for the present should not be canvassed beyond scientific precincts."

On this occasion M. Trousseau delivered one of his brilliant extempore discourses, delighting a crowded auditory, but contributing literally nothing to the further elucidation of the points at issue. He ridiculed the excessive prudence, or, as he termed it, prudery, of the Academy in approaching this subject—not perceiving, apparently, that the objection raised was not to an Academical discussion, but to the bringing the Minister and the public in contact with a question yet unsettled. However, M. Trousseau could see no objection to M. Depaul's report being sent in to the Minister, especially as he added that there was little chance of his reading it. He narrated a case of vaccinal syphilis which occurred in his own wards at Hôtel Dieu, and which formed some two years since the material for a remarkable clinical lecture by M. Ricord. The subsequent history of this case adds additional doubts to those then expressed as to the source of the syphilis in this instance. However, M. Trousseau declares that, although vaccinal syphilis is now and then met with, it is a "prodigiously" rare occurrence, and forms no argument against the practice of vaccination. Vaccinal erysipelas is a far more common and a very fatal occurrence in young infants vaccinated in Hospitals; so that M. Trousseau has lost about twenty such cases in a children's ward containing twelve cradles, and yet he considers that no reason for abstaining from vaccination, seeing that almost every young infant taking variola dies. The fact of even a rare occurrence of vaccinal syphilis imposes upon us the necessity of a careful selection of subjects to vaccinate from; and, perhaps, the greatest security would be derived from employing healthy-looking children two or three years old.

The French Practitioners seem well satisfied with the penal laws they possess against quackery and illegal practice, and they contrive, by the aid of the Medical Association, to put them into pretty vigorous operation. The last account we have seen narrates the conviction at Niort of a man and his wife and another woman for illegal practice and swindling as magnetisers. The woman Morel was condemned to pay ten francs fine for each of 173 contraventions of the law, and her husband the same sum for 89 contraventions, the woman Revan paying ten francs for each of 69 contraventions. Morel and his wife were also each condemned to a year's imprisonment and a fine of 1090 francs as swindlers. They also had to pay $\frac{8}{10}$ths of the expenses of the trial, the woman Revan paying the other $\frac{2}{10}$ths. This accumulation of penalties is a highly important feature, upon which the Association lays great stress, and if the legality of such accumulation is confirmed by the Court of Cassation (of which there is some doubt), the law will prove a formidable repressive agent. It is strange that none of the numerous persons so convicted have as yet appealed in Cassation. Certain it is that if they possessed the funds and the impudence of the quacks who infest our country they would have done so long since, and thus have got the question settled. Much of the success of the prosecutions now so frequently instituted in the different provincial districts of France arises from the energetic support given to their institution by the Medical Association, notwithstanding the assertions to the contrary by the editor of the *British Medical Journal*. It is true that the Association cannot itself institute prosecutions as a corporate body, but it supplies advice and funds, and numerous instances of its successful intervention are recorded in its *Annuaire*. One remarkable feature of the French law is that the Medical Practitioners of any district may prosecute illegal Practitioners in that district, and recover damages as persons whose interests have been wantonly injured.

One more new theory on the functions of the spleen. MM. Estor and Saint Pierre, in a communication to the Academy of Sciences, observe that since M. Claude Bernard's researches physiologists are aware that the activity of the functions of glands coincides with the acceleration of the course of the blood; and that during their own researches on the gases of the blood the idea occurred to them that the reddening and oxygenation of venous blood may afford a guide for determining the instant of the performance of their functions by certain glands, the physiology of which is at present obscure. With this view they have undertaken certain experiments on the spleen by M. Bernard's method of displacing the gases of the blood by oxide of carbon. These experiments have been made successively on the arterial and venous blood of dogs, both during digestion and while fasting; and the conclusion arrived at is, that while the quantity of oxygen contained in the arterial splenic blood is sensibly constant, that of the venous splenic blood varies up to double the amount. The experiment has been varied on the same animal. Thus, after having found 11·69 of oxygen in the blood of the splenic vein of a dog which had fasted during twenty hours, milk was injected into the stomach. Immediately, besides modifications in colour, size,

and consistence in the spleen, the blood of the splenic vein was found to contain only 7·26 of oxygen. "From the researches related in this memoir we conclude—1. That the principles laid down by M. Claude Bernard concerning the different qualities of the venous blood of glands, in the state of active function and repose, may enable us to determine the instant when glands, the physiology of which is yet unknown, manifest activity of function. 2. We have found in our experiments the quantity of oxygen contained in the venous blood of the spleen increasing from once to twice its amount during abstinence. 3. We infer that the functions of the spleen are performed in alternation with those of the stomach."

REPORT ON CHEAP WINE.—NO. X.

(By our Special Empirical Commissioner.)

(Continued from page 44.)

Hungarian and Austrian Wines continued—Imperial Tokay: its Uses—Dry White Wines: Ruszte, Szamarodnya, Dioszeger Bakator, Œdenburg, Steinbrueh, Villany Muscat, Neszmély, Somlau, Badaesony, and Hungarian Hock and Chablis. Attempt at Classification; Grape Flavour to be distinguished from Wine Flavour; Red Wines: Ofner, Szegszarder, Menes, Erlaure, and Carlowitz; Austrian Wines from Vöslau.

WHOEVER would know whether Hungarian wines may suit his own tastes or those of his patients, may very likely be perplexed with the number of specimens whose strange names appear on the lists of the wine merchants, and will possibly find it to his advantage to follow the course I venture to point out for studying these wines in logical order. Truly, whether we owe it to Mr. Gladstone, or to the vine disease, or to whatever seeondary causes, the educated and refined middle classes of England have reason to be grateful for the vast addition to their means of innocent festivity, of health and appetite and restoration from sickness which the numerous most excellent and fragrant wines of Hungary confer on them.

Let us suppose that the conscientious student has ordered a sufficient case of speeimens from some of the gentlemen who deal in these wines, and whose names, taken alphabetically, are, I believe, Andres, Azémar, Denman, Dioze, and Max Greger. Probably a laudable curiosity, combined with the wish to do homage to the female members of his family, will tempt him to begin with a bottle of Imperial Tokay. This is by no means a cheap wine, for it costs 60s. per dozen and upwards for pint bottles; but besides its reputation, it is worth studying as a kind of landmark or standard. We need not repeat the information to be found in every book, that it is made of the first pressings of the finest over-ripe grapes. The result, as it reaches us, is a sweet wine, of delicate pale tint, in which the sweetness and fragrance of the grape, though perceptible, are partly hidden by, or converted by age into, an exceedingly rich, aromatic, mouth-filling wine-flavour, so that, rich as it may be, it is not cloying nor sickly. I have many times had a sip of Tokay at the end of a state dinner, but never studied it deliberately till of late, when I have had specimens from Denman, Max Greger, and from Monsieur A. Günzberg, from Pest, now of 13, Auckland-road, Old Ford, near Victoria-park, who was good enough to send me a bottle through Messrs. Churchill, and says he has a considerable quantity to sell. One specimen of Denman's that I examined had sp. gr. 1050, and about 25 of proof spirit per eent.

Of course, Imperial Tokay can hardly figure in a list of cheap wines; yet it is really cheaper than it seems, for a very small quantity suffices, and, measure for measure, it is therefore only half so costly as its nominal price. There are, as I am informed, large quantities in the English and French markets, which meet with a slow sale (at least here), because there seems no place for it. English customs are more and more adverse to sweet cakes and wines, for morning callers, etc.; and English meat-eating people prefer naturally a dry kind of wine. Yet, I conceive not only that this wine may be useful as a cordial in cold weather for the aged, before going into the open air, but my solitary bit of experience shows in what respects it is preferable to some other cordials. A short time since I was attending a gentleman, nearly 80, dying with senile decay and atrophy of the heart, with probably some obstruction to the circulation through the lungs, for though the air entered forcibly, the dyspnœa was most intense—so intense that the act of swallowing could only be performed by snatches, and every movement and everything that "caught his breath" threatened instant suffocation. Having worn out every form of nourishment and stimulant I could think of, at last I suggested some Tokay, which the patient eagerly eaught at, and a servant was despatched to get a bottle. The wine merchant had none; but, as it was late in the day, very properly sent on trial what came nearest in his opinion—viz., a bottle of very fine old malmsey. Next day I had the opportunity of judging of both wines, and of their adaptation to the case in question. The malmsey was uncommonly fine, rich, and old, but, though mild and soft, was very strong; the alcoholic potency was unmistakeable, and it caused distress to the patient, who could not drink it undiluted. The Tokay from Max Greger's, on the eontrary, was marvellously fuller flavoured, and had no prominent alcoholic character at all. It was curious to notice how superior its true wine-body and flavour were to the lesser-wine and more spirituous character of the malmsey; and the patient swallowed it easily. This may give a useful hint to some of us who are at our wit's end with a patient ill of diphtheria, hopeless phthisis with aphthous tongue and throat, etc., etc. In this case I also ordered a mixture of Tokay and cream. Such things may sometimes soothe a dying bed, and enable an old man to forget the peevishness of suffering, and to bless his family tranquilly before he falls into his last sleep.

There are other sweet wines of high class, both red and white, on the lists of the merchants, of which I know only a "Ruszte," said to be "rich" in Denman's catalogue, price 40s., which may be described as a lesser Tokay; deeidedly sweet, and full of flower fragranee, as of fresh grapes; very different from those excellent wines the Vinsanto and Cyprus. which taste rather of dried raisins, yet having similar generic characters and uses.

Tokay is a classical wine, and its name tempts one; not so the red and white Magyar Husszar Bor, and others, whose names would have puzzled Milton's "Stall-readers," and recall his sarcasm on the names of some of those northern preachers who attacked the Greek title of "the book called Tetrachordon," which he wrote in favour of divorce.

> "Cries the stall-reader, 'Bless us! what a word on
> A title-page is this!' and some in file
> Stand spelling false, whilst one might walk to Mile-
> End-green. Why is it harder, sirs, than Gordon,
> Colkitto, or Macdonnell, or Galasp?"
> "Those rugged names to our like mouths grow sleek,
> That would have made Quintilian stare and gasp."

I may plead that I have got them up pretty aceurately, and find, besides, that such words as Szamarodnya and Dioszeger Bakator Auslese are, thanks to the wine that they designate, by no means too rugged for ladies' lips.

Turning, then, from the sweet to the dry white wines, if we take them in a descending series, I will mention first Max Greger's *Ruszte Ausbrueh, finest, dry*, at 54s.

This *dry Ruszte* is a remarkably fine wine, and, with peculiarities of its own, resembles some samples I have tasted of first-class white Burgundy or of a dry St. Peray. There seem to be, as I have said already, two kinds of wine flavour—1st, that derived absolutely from the grape; 2ndly, that which is *wine proper*, and engendered by fermentation and improved by age. Each has its charms. Writing with some of these Hungarian white wines on the table before me, it is impossible not to be struck with their admirable fragrance, and how they bring before one the vision of flowers, and likewise of *honey*; not the sweetness which is common to all honey, but the fragrance which is peculiar to the best, and which seems to be of the same nature as this grape perfume. This is especially noticeable in Tokay; and it was noticed by a veteran wine taster to whom I gave some old choice white Mount Hymettus of Denman, whieh he said had a decided Tokay

flavour. Any one who has ever tasted old dry *mead* knows it; but I shall, with your permission, descant on that old English wine presently. Now, if I taste, side by side, a bottle of the Szamarodnya, described as "a dry Tokay wine," No. 13 of Max Greger's list, at 36s., I find in said Szamarodyna a most agreeable sound wine, with prodigious fragrance, great dryness, and fine wine flavour; a mouthful is a nosegay. But a sip of the *dry Ruszte* puts out the Szamarodnya; there is in it more body-fulness and a *souvenir* of Burgundiacal bitterness, which shows much greater potency and value. I affirm judicially that the *dry Ruszte* is a great acquisition, and that no dinner will fail to be gratefully remembered at which a man of sense first becomes acquainted with it.

The "*Szamarodnya*, or *Dry Tokay*" of Denman, at 42s., is a very fine specimen; and "*Szamarodnya Muscat*, first quality," of Max Greger, at 48s., has a prominent flavour of the muscat grape in addition. I need hardly say how the flavour of all muscat grapes is preserved in the wine that is made from them. I have not taken the alcoholic strength of these wines; nor is it necessary. Colour, flavour, and the whole purity and fineness of the wines forbid the suspicion of such a suicidal sophistication. Besides, I would rather drink the wine than distil it.

Taking the Dry Ruszte and the Szamarodny as examples of wine possessing as it were a duplex aroma (*i.e.*, the fragrant grapy and the true vinous), we may take the *Dioszeger Bakator* as an example of a wine with single aroma of the fresh, fragrant, grapy order. I have already mentioned one specimen of this wine which I got from Denman's, price 32s., and which particularly pleased me. My note was "very agreeable, clean, grapy, fruity." Another specimen from Max Greger's, "Count Stubenberg's own growth," price 36s., is on the table before me, and deserves at least equal praise.

I have been obliged to describe a few of the higher priced Hungarian wines, because it was necessary in studying these wines, most of which were quite new to me till last year, to ascertain what were the qualities which we ought to expect in the lower priced. Of course my readers will not think that I am presumptuous enough to set myself up as a judge of all Hungarian wine by the few bottles I have drunk. My title shows that I only treat of such as are sold here in 1864, and of their effects on my own palate and stomach. Yet, so far as I see, it seems that the low priced dry white wines may be ranged under two orders, according to the nature of their flavour, whether of the fresh, fragrant, flowery, unaltered grapy, or of the true dry wine flavour derived from fermentation and improved by age.

In the former class I venture to place the *Œdenburg*, No. 16 on Max Greger's list, of which I have drank two kinds, one being "selected muscat." *Delicacy* is the charm of wines of this class; and if they have a fault it is that of being a trifle too thin, so that the acidity is not veiled. Both of these are delicate, one with slight muscatel flavour, and body enough. Alcoholic strength of the muscat sort about 20. They compete well with high class Rhine wines.

I doubt whether the *Somlau*, No. 10 on Max Greger's list, price 26s., ought to come into this class or the other. It seems a sound, dry, firm wine, with plenty of flavour, and cheap for the money. Alcoholic strength about 21.

There is a *Hungarian Chablis* of Denman's at 16s., which I note as "a light wine, of light straw colour, not too acid, rather much bouquet;" alcoholic strength about 20. As I have said before, if rational people must economise in the wine they drink at dinner, why martyrise themselves on bad Sherry when such cheap and fragrant wines as these are to be had so easily?

The *Neszmély* (No. 8 on Max Greger's list, price 18s.,) is a very cheap wine of slightly darker colour, not deficient in flavour, but of the second or vinous order, seeming as if it were a diminished example of the Szamorodny.

Of the *Badacsony*, I have drank one specimen from Denman at 24s.; alcoholic strength about 21; aroma full and peculiar, and of the vinous order; and one from Azémar (alcoholic strength 22) at the same price, and of the same character.

Of the *Hungarian Hock*, I got one specimen in 1863 from Messrs. ——·——, at 30s., which I noted as poorish and too thin, not body nor flavour enough; and one in 1864 from Azémar at the same price, which has alcoholic strength about 22, and satisfactory stoutness and flavour; more than the Badacsony, which it otherwise seems to resemble.

Here let us pause one moment, because that knowledge of wine which every Medical Practitioner ought to possess, and which seems difficult at first owing to the infinity of names and qualities, may be rendered easier of attainment by any glimpse, however partial, of a reasonable classification.

White wines, then, in which we decidedly taste the grape, form, as it were, a sub-kingdom of themselves, and it is interesting to observe how the actual state of the grape may be tasted in many of them. Thus, there are many which speak out for themselves, so to say, and bear testimony to the fact that they are made of grapes which have not attained the fullest maturity of sweetness,—whether from a northern climate, as many of the Rhine and Moselle wines, or from a cold northern aspect, or from the gathering of the grapes at an early stage. Hence a kind of greenness as it were; a very light straw, passing into a greenish colour, and general characters of grace, juvenility, delicacy, insubstantiality,—just the characters of a young girl with a young head on her shoulders. Such wines, if of bad quality, are thin, poor, and sour, as aforesaid; if of good quality, their very acidity tends to the generation, in time, of the most exquisite superadded bouquet. Such a wine of low quality is the first met with by the tourist who proceeds along the western coast of Brittany to the south. At a village named Sarzeau, famous as being the birthplace of Le Sage, they make a wine of the small white grapes, which is put on the table at the inn for the guests to drink of gratis, as they do cider elsewhere in Brittany, and water in England. It is sold at five sous per bottle. Similar wine, of rather more stoutness, is made near Nantes, and sold at ten sous per bottle. Such is the wine to be expected at the northern limit of vine culture, but the Hungarian Dioszeger Bakator and Œdenburg are good specimens of the more generous wines of this sort, so are two wines that I have not mentioned yet, the *Pesther Steinbruch*, of Denman, at 26s., and the *Villany Muscat*, at 24s. Each of these is about alcoholic strength 21, and there seems little difference between them. I drank Denman's *Steinbruch* in 1863, and noted it as a very clean, well-flavoured dry wine, deserving further study.

Can we, then, venture to guess at the conditions under which these delicate wines would be appreciated and useful? I think so, if we remember what a help the fresh acid fragrant juice of the lemon is, to a man who is eating something too sweet or too rich; and how the Orientals squeeze the half-ripe grapes to make delicious sherbet, and sauce for their *kibobs* and *pilafs*. These are wines for delicate refined people; it would be of no more use to give them to a day labourer than it would be to use a lancet to chop sticks. They are wines better adapted for hot weather than for cold. If a man dines on a single joint, he would prefer a bottle of Erlaure or Ofner; if he has a complex repast, he would drink these light wines with his fish or *entrées*. Give one of these wines to a man whose tongue is too red, and who has diarrhœa, and he would reject it; on the other hand, a man with a clammy coated thirsty tongue would probably drink them greedily. I may add that I am satisfied of the entire wholesomeness of these white wines. I have drunk of them freely, both singly and in combination, and one night when very tired took half a bottle of the dry Ruszte with unmixed pleasure at the time, slept soundly and awoke as if I had had "food for the nervous system." It is worth knowing too, so far as my limited experience goes, that they are slightly aperient, or at least the reverse of constipating.

So much for the grapy wines, whose grapiness is of the immature (or certainly not *dead ripe*) sort. Then we have a class which is redolent of the ripe sweet grape, as the Muscats, Rivasaltes, Tokay, sweet Ruszte, and the like. Other wines there are which bring before us a reminiscence of grapes in various stages of drying; as the Como, Vinsanto, Cyprus, Constantia, Malaga, etc., etc., and, of course, in the higher specimens with true vinous flavour superadded.

If I have been tedious over the classification of the white Hungarian wines, I shall be short enough about that of the red; for, in truth, they have certain *general* characters, but I have not been able to attach a specific character to each. For example, I drink an Erlauer, and endeavour to impress its character on my mind side by side with a Szegszarder; but then if I get another Eclauer and another Szegszarder from another dealer, the characters which I hoped to find are either not there or are interchanged. So that I can do no more than take each sort I have drank, and describe it as a unit, leaving the classification to some more deeply bibulous hand.

One of the commonest and best kinds of red Hungarian wine is that which is called *Ofner*, from the town of Ofen, near which it is made, and of which some varieties have distinctive names,

such as *Adlerberg, Blocksberg, Burgerberg*, etc., from various hills in the neighbourhood. My first essay of these was of a specimen of *Ofner*, price 24s., from Denman, in 1863; of which my note is "apparently pure and full-bodied; not acid, nor astringent, *quere* sweetish (?), agreeable, and satisfactory." Specimens from the same dealer, at the same price, in 1864, sp. gr. ·995, alcoholic strength about 21, deserve the same note, except that I should substitute the words "fruity" or "grapy" and "smooth" for "sweetish." A specimen of *Ofner Adlerberger Auslese*, retail price 28s., from Messrs. Azémar, 40, Mark-lane, deserves at least equal praise. Alcoholic strength about 23. There is also a fine *Ofner Auslese*, at 36s., No. 31 of Max Greger's list, which is very good indeed, pure, smooth, and delicate. I should be inclined to recommend a good Ofner, as I would a good Bordeaux, to any patient whose veins wanted filling with good blood.

Next I may take the *Erlauer*. A specimen of Max Greger's (No. 27), at 17s., was some time ago brought to me as a rarity, and I was led to believe it was an Assmanshauser. I found it a pure wine, with something of an old dry quality, subaustere, subacid; no volatile bouquet, but a pleasant vinous taste, greatly enhanced by nursing it up to 60°, at which temperature its slight austerity and acidity greatly decrease. I could find in it no high vinous character, and was greatly relieved when told it was a seventeen shilling wine, at which price it is uncommonly cheap and satisfactory. An *Erlauer*, from Azémar, at 24s. did not seem to belong to the same family; much fuller and fruitier; specific gravity, 995; alcoholic strength, about 22. A good useful wine; but I could not have distinguished it from a Szegszarder. An *Erlauer*, at 30s., of Denman's has received great commendation at my table from friends, who have pronouneed it "an excellent claret"—a verdict I concur in.

A *Visontaere*, at 20s., of Denman's, I marked as a wine of good colour, body, and flavour; quite satisfactory. A *Visontá seleeted*, No. 4 of Max Greger, price 24s., alcoholic strength about 19; and a *Visontá*, 1858, of Messrs. Azémar, at 24s., may be described in the same terms.

I once fancied that I could tell a *Szegszarder*, of which I have had some from Denman at 16s., from Azémar at 18s., do., No. 3, from Max Greger at 20s., which I noted as powerful-tasting and strong-bodied, though its alcoholic strength was only 19. Also the *Menes* wine seems a full-bodied wine, insomuch that I have suspected some specimens to have been a *little* fortified; but perhaps I am wrong. I have drank a *Menes* stout and full-bodied, of Denman, at 28s., alcoholic strength about 25. Also a powerful-tasting full-bodied Menes of Azémar, alcoholic strength 24.

There is a *Menes Maslas Ausbrueh*, 1841, at 42s., of Max Greger's, which is an interesting study of a red wine which has thrown down its crust and become tawney. It is said to be a rare wine, highly valued in Hungary, but I doubt if it ever will become popular here.

The last kind of red Hungarian wine is the *Carlowitz*, of which I have drank an ordinary sort of Max Greger's No. 6, at 24s.; another from Azémar at 27s.; and several, procured some time ago, through different friends, of a "selected" of Max Greger's No. 25, at 32s. The "selected" was noted as specific gravity 996, alcoholic strength 21, as a full-bodied, subastringent wine of *drier* character. These wines were tasted with some curiosity, because they have acquired a sort of vogue in certain circles on the alleged ground that they contain phosphate of iron; a sort of contamination which, if true, would make every sensible man drive them from his dinner table, and consign them to the Apothecary's shop. The Carlowitz of Azémar, alcoholic strength about 22½, was noted as "full-bodied and roughish;" otherwise, a good wine which I could not distinguish from a Mencs, except that this astringency seems to distinguish the Carlowitz from other Hungarian wines; but whereas Azémar's was somewhat "fruity," I fancied that the other two were of a slightly different character, with less of the purple colour of the grape, and less taste of the grape, and more of the ruby colour and astringent smack of *port wine*. Altogether I do not think it so good as the Ofner, which of these wines seems the best.

I must keep till next week my observations on the kindred and excellent wines of Vöslau, near Vienna, from the vineyards of Mr. Robert Schlumberger, who is, I learn, determined to distance all competitors in the task of growing wine that shall be pure and wholesome, and yet full, sound, and dry enough for the English taste. Meanwhile, to sum up what I have to say on the Hungarian red wines, there seem as yet no products of such very superior excellency as to acquire a cosmopolitan reputation. With the exception of the Carlowitz (so far as I can tell from the few bottles I have drunk) their character is a full, grapy, subfragrant fruity body. If they have not that charming bouquet and quality which distinguish very good Bordeaux, and even some of the lower qualities when aged, yet they have not the acidity, austerity, and fancied coldness of the latter, which so repel the sweet-ale-loving Englishman. They have the round, full, soft body of the better Bordeaux. I never met with any positively bad Hungarian wine. If what is already imported never rises above a certain level, it never (so far as I know) sinks below it. Hence a man who calls for a pint of Hungarian at a railway refreshment room ought to be able to get exactly what he looks for. Of course, the higher varieties, as the Ofner and Erlauer, that I have spoken of, have greater delicacy, smoothness, and flavour. I would advise any one disposed to try them to order from the wine merchant an experimental lot, comprising a series of increasing excellence and price, and leave it to him to make the selection.

In conclusion, they seem a thorough English middle-class wine, and I hope that both red and white may be abundantly used to give variety to our dinners, and to displace the beastly compounds which do duty at some entertainments for "sherry."

(To be continued.)

REVIEWS.

Lectures on the Diseases of the Stomach, with an Introduction on its Anatomy and Physiology. By Wm. Brinton, M.D., F.R.S., Physician to St. Thomas's Hospital. Second Edition. London: Churchill and Sons. 1864. Pp. 368.

Dr. Brinton's new edition would call for few remarks—so well is the book now known, and so acceptable has it been to us all—were it not for the addition of two new chapters to which we wish to direct attention. One of these is upon what Dr. Brinton calls "gastric phthisis." We think that the author has done well in recalling this condition to our minds, since, somehow or other, it has not received the recognition which it deserves since the time when Louis' researches on phthisis became popular in this country. The attention has for many years past been concentrated on the chief seat of pathological changes, and very much diverted from the associated phenomena presented by the digestive system, notwithstanding that symptomatically these latter are sometimes the first in point of chronological order. We may refer in illustration to one of the most recent works upon the subject, namely, the valuable work of Dr. Edward Smith on "Consumption in its Early and Remediable Stages," where he merely lays down the following proposition, viz., that "the whole of the processes concerned in alimentation are commonly lessened in vigour," and then proceeds to say that he believes it "to have the widest application, and yet at the same time to have only a limited force." Respecting vomiting, which Dr. Brinton, as we shall see, especially dwells upon, Dr. Smith says merely "a tendency to vomiting not unfrequently occurs," and adds, "we do not know that in the instance in which vomiting occurs there are evidences of any especial disorder of the stomach, and hence we do not think that the primary cause of it is associated with indigestion." "The symptom," he says, "is almost restricted to such as evince much sensibility of the pharynx and the general system," etc. . . "It is a symptom which, in the stage now under discussion, is never permanent, but passes away in a few days." Our own experience is certainly more on the side of Dr. Brinton.

We say our author has done well in "recalling" this condition of early phthisis to our minds; and we use this word advisedly, inasmuch as in our student days, when Sir James Clark was our head master in all that related to phthisis, we recollect reading something of this kind. We quote from the "Cyclopædia of Practical Medicine" (vol. iv., p. 326) because it is handy on our shelves:—"It is during the middle period of life, from thirty-five to fifty, that it is accompanied with more marked symptoms, such as dyspepsia with its various concomitants, which exist often for a considerable time, and not unfrequently obscure the pulmonary affection till tuberculous disease has made considerable progress. This is the form of the affection which has been denominated *dyspeptic phthisis*. . . . We do not know such a disease as dyspeptic phthisis as constituting a particular species, but we are well acquainted with *that form of tuberculous phthisis which is long*

preceded and accompanied in its progress by dyspepsia." [The italics are ours.]

The impression left on our mind is that Sir James Clark regarded the dyspeptic phenomena as "links of the chain which connects special functional disorder with the formation of tuberculous cachexia." Dr. Brinton does not seem to take quite this view—at any rate, not exclusively. "In some instances it is fair to infer," he says, "that the dyspepsia causes the phthisis, which in point of time it certainly precedes and ushers in. In other cases, perhaps more numerous, the thoracic lesion and the gastric disturbance seem to be twin effects of a common cause—a bad and cachectic state of the constitution. Far oftener, I believe, the dyspepsia, as well as the various appearances which we sum up by the word cachexia (so far as the word has any exact meaning), is itself the result of the injurious reaction of tuberculous deposits—dying, dead, or decomposing.—P. 340. More exactly he says in another place :—"These cases of gastric phthisis may thus be regarded as a kind of neuralgia of the pneumogastric and sympathetic nerves : certain thoracic segments of these compound nerves forming the starting-point of an irritative and morbid action, which is transferred to their abdominal connexions, and is manifested in the visceral branches of the solar plexus."—P. 350. Dr. Wilson Philip, with whom the terms "dyspeptic phthisis" we believe originated, clearly distinguished between the class of cases in which the gastric were consecutive to the pulmonary symptoms from those where they preceded them. He says :—"What is the nature of the relation observed between the affection of the lungs and that of the digestive organs in this species of phthisis ? Is the one a consequence of the other, or are they simultaneous affections arising from a common cause ? They are not simultaneous affections, for the one always precedes the other. In by far the majority of cases, in which both the lungs and digestive organs are affected, the affection of the digestive organs precedes that of the lungs. In some instances we find the affection of the lungs the primary disease ; but in these the case does not assume the form above described, but that of simple phthisis."—(*Med.-Chir. Trans.*, vol. vii.)

Having thus very briefly indicated the historical position of Dr. Brinton, as respects the literature of phthisis, we proceed to quote his description of a typical case of "*gastric phthisis.*"

"The patient, usually under 35 years of age, feels the first approach of the malady as an 'indigestion,' an epithet which, on inquiry, resolves itself into a pain beginning between the first and second hours after food, and going off gradually. At first such a pain often follows but one of the daily meals, perhaps oftenest a full morning repast. It rarely brings with it any flatulence, and is still more rarely relieved by eructation. As the malady advances the pain becomes more frequent and follows all the meals, only distinguishing by attacks of unusual severity those in which the food is more copious in quantity or more solid and indigestible in quality. By-and-by, the sickening depression which has gradually been recognised as an element of the increasing pain diverges into distinct nausea, and this soon provokes retching, which, in its turn, sometimes gradually deepens into vomiting. Often, however, the latter symptom remains long or permanently absent. If present, it is only rarely or after long persistence that it brings back from the stomach any of its alimentary contents ; and even then scarcely ever unloads the organ, much less relieves the pain by which it is preceded. By longer continuance the pain and retching become more severe, and more easily provoked, and therefore continually approach the period of taking food, so as not only to follow it by shorter interval, but at length to limit the meal to little more than painful and unavailing attempts to take food, the suffering which immediately follows its deglutition becoming almost unbearable. The climax of gastric disturbance thus attained is, in rare instances, itself the chief cause and immediate forerunner of death. But it much more commonly either inaugurates a rapid infiltration of the lungs with tuberculous deposit, or is displaced by the thoracic symptoms of tubercle already deposited, to alternate (it may be) with such symptoms during the brief remainder of life. In other cases, the dyspepsia amends spontaneously, or is vanquished by appropriate treatment ; and the patient, slowly recovering flesh and strength, advances towards that imperfect health which in so many instances is associated with the retardation or arrest of the progress of tuberculosis ; perhaps until the infirmities of declining years, mingled with the insidious symptoms of the malady, leave it in doubt to which of these two causes—natural decay or tubercular disease—we must chiefly refer the eventual death."—P. 342.

The grounds which the author indicates as those on which the diagnosis is to be chiefly based are the absence of signs indicative of even moderate aggregations of tubercles in the lungs, much less of their disintegration and removal, the febrile reaction being in excess of what is observed in gastric ulcer or ordinary functional gastric derangement ; the variable character and situation of the pain, which rarely or never reaches to the severity of "spasm," as it is called ; its capriciousness as respects diet compared with the pain of cancer or ulcer ; the rapidity with which in advanced cases the vomiting succeeds the digestion of food, thus anticipating the pain of which otherwise it would have proved the climax ; the absence of hæmorrhage ; and concurrence of constipation. This new chapter deserves careful study.

The other subject newly introduced is one upon "Gout in the Stomach." It consists in an attempt to define this affection in answer to the following questions :—"(1.) What do we see in actual practice suggestive of such an affection ; and what is the exact nature of the cases thus grouped ? and (2.) How far do these cases correspond with those descriptions of authors which represent what may be called our traditional knowledge of the affection ?" Dr. Brinton refers to four conditions—viz., 1st, what Dr. Watson jocosely terms "*pork* in the stomach—that is, the effects of offending ingesta ; 2nd, biliary colic ; 3rd, gastric symptoms which are associated with renal degeneration ; and 4th, those connected with valvular heart disease and ushering in its close. And then he asks, "Is there any 'gout in the stomach' left after the abstraction of these affections ? I can only say that I know of no such case ; have never seen one ; have never been able to get trustworthy evidence of one from some of the most accomplished Physicians living, or from the best records."—P. 361.

FOREIGN CORRESPONDENCE.

AMERICA.

Near Petersburg, Va., December 28.

Since the dispatch of my last communication to you, the army has continued its operations in front of Petersburg. No grand assault or general engagement has taken place, yet so constantly have the men been kept upon the *qui vive*, and so laborious have been their duties, that an assumption of hostilities in the open field would by many be looked upon almost as a relief. Until lately the troops have had no opportunity given them of making themselves comfortable. Those on duty in the fortifications, spending as they do one-half their time in the picket pit and the other in their gopher-holes or bomb-proofs, are permitted to think of comfort only as a thing of the past. The reserve divisions have been kept almost constantly in motion ; one day in rear of one part of the lines, the next supporting another point, while the third is spent, perchance, in pushing outwards as a reconnoitring column into the *terra incognita* beyond our lines. In no one place have they been permitted to remain for more than three or four days at a time. Repeatedly during the course of the autumn have they policed new grounds ; felled trees, split them, and constructed winter huts, when the inexorable order to march would arrive, and render their labour profitless. So frequently has this occurred, that they ultimately become rather shy of building, fearing a repetition of the marching order.

The weather during September was decidedly disagreeable. Heavy rains rendered the grounds so muddy that a walk of a few yards out of camp, and in some instances a few steps within its precincts, would secure damp feet to the adventurer for the rest of the day. The low-cut army shoe affords but little protection in such depths. On the left of the army, however, where a sandy soil prevails, this was not the case. The nights were very chilly, and many of the men unprovided with blankets. August was sultry ; blankets and overcoats were of no immediate use, and were thus doubly a burden upon the march. Many of the men, more especially of the recruits, threw them away ; September came, and not a few of the admissions into Hospital during that month owed origin to the lack of these articles. Every man drew a full supply at next issue.

Yet this army has been healthy. A fortunate army it has been, and is, in this respect. No epidemics have ever

paralysed it. Its march has never been impeded by its sick. Four per cent. has been the daily ratio of sick during the past three months treated in the field, both in Hospitals and in quarters, and at the same time the number sent to northern Hospitals for treatment has not been many.

As usual, camp diarrhœa forms the largest figure in the sick report. Dysentery has not been common. Cases of unmodified typhoid fever have been rare, and of pure intermittent scarcely less so. Typho-malarial fever has occurred frequently. Four-fifths of the mortality from sickness has been owing to it.

The division field Hospitals are in excellent condition. They have been comparatively stationary since my last writing—the changes in the position of the troops, though frequent, being seldom to such an extent as to render necessary any alteration in the site of the Hospitals—hence they have arrived at a degree of comfort seldom attained in the field during active operations.

Of late the grand drama being enacted by Sherman and Thomas in Georgia and Tennessee has drawn the eyes of the country from the army of the Potomac, which, as the *Richmond Examiner* would say, lies exhausted and impotent after its many futile attempts upon our noble city. This army, however, has been playing a very important *rôle*. By its continued feints—feints in such force that were the opportunity favourable they could be readily transformed into most deadly assaults—Lee and his troops have been kept upon the alert and chained to Petersburg, how effectually is seen in the war bulletins detailing the rout of Hood and the capture of Savannah. One of these feints I will refer to at greater length, as it shows the difficulties the Medical officer has sometimes to contend with in army practice. On such expeditions, as fighting is not intended, more especially if the enemy be met with in force, very few ambulance waggons are permitted to accompany the troops, to the end that in case of a rapid rearward march the progress of the movement may be unimpeded. The same holds good in the case of the march of a reconnoitring column.

Part of the 2nd and 5th Corps with Gregg's cavalry were the Union troops engaged in the fight extemporised on the Boydton Plank Road on October 27. At 2 p.m. on the 26th the different commands broke camp, and marched to the extreme left of the army, bivouacking for the night outside the fortifications near the Halifax Road. All the waggons belonging to these troops were ordered to go into park near a house in this vicinity, called the Gurley House, there to remain until further orders. To this arrangement no exception was made, even of the medicine waggons, so that on the following morning when the march was resumed only a few ambulance waggons followed in rear of the troops.

Reveillé was sounded at 3 a.m. It was intensely dark, and a drizzling rain falling contributed to our discomfort. After a hurried cup of coffee, the troops fell in and marched, the 5th Corps westward, the 2nd Corps southward along the Halifax Road for over two miles and then westward, the cavalry still farther along the Halifax Road and then westward also. Why westward? Evidently that the party as a whole might turn up in the course of the morning in front of the Danville railroad, forming a line of battle parallel to it, with the cavalry on the left, the 2nd in the centre, and Warren with the 5th on the right.

Let us follow the second column, for in its neighbourhood all of interest transpires. Three miles through dense woods are travelled over, and the grey light of early morning is showing objects with increasing clearness as a few dropping shots from the skirmishers ahead tell that the enemy has been encountered. Still the march is continued; his pickets are falling back before our advance. We pass the first of the day's wounded. He is lying by the roadside, shot through the abdomen. A Hospital steward waits beside him to see him transferred to one of the ambulances that are coming up in rear of the leading division. Now the skirmishers report the enemy entrenched on the west bank of Hatcher's Run, a small stream, but with precipitous banks, running south and eastward towards the Nottoway River. Their position commands the ford. Our advance is arrested for a short time. A couple of regiments are deployed into line. Forward! With an exultant hurrah, they dash from cover across the run and up the rising ground towards the works, receiving as they proceed a well-directed volley that causes many a gap in their line. There is a hesitation or wavering manifested as the storm sweeps past them, but it is instantly recovered from, and the work is gained. A few of the enemy are captured in it. Crossing this little stream with the head of the column, as soon as the march is continued, we find that its possession has cost us about fifty men. The ambulance officers are picking them up, as the Doctors look at the nature of the wounds, and give an encouraging word to each of their patients. One case is worthy of more particular attention. The patient, an officer, whose blanched appearance speaks of active hæmorrhage, is lying on a stretcher within the captured work. Three or four Medical officers are bending over him, utterly unobservant of all that is passing around, of the march of the troops or the singing of the random bullets. He has been shot through the thigh; the bone is uninjured, but the femoral vessels have been severed. The Surgeons have enlarged the wound, cut the sartorius across, and are searching for the proximal orifice of the injured artery. There! Now the tenaculum has found it. The section is smooth as if a knife had formed it. A ligature is passed around, and the knot is run fairly and firmly home, relieving the stiffening fingers of the officer who has been hitherto controlling the bleeding at the groin. An energetic oozing of darkish blood continues from the lower end of the wound. After some difficulty its source is found in the distal orifice. The patient is lifted into an ambulance, and the officers as they mount their horses feel proud as the man who led the storming-party to success. They feel that to-day they have not lived in vain. In the end, however, this case was a failure. Three days after the operation, while the patient was being conveyed on a stretcher to a Hospital some distance in the rear, hæmorrhage recurred; the ligature occluding the mouth of the artery had separated, perhaps owing to some rough or careless handling during the transportation. Little blood was lost; an officer accompanying the patient controlled the flow until assistance arrived, when the sheath was opened about an inch above the injured point, and the vessel re-ligatured. Two or three days after this, amputation had to be performed on a level with the original wound, on account of gangrene of the limb. He rallied well after the operation, but succumbed subsequently to pyæmia. The whole of the ambulances belonging to the division engaged—fifteen in number—were loaded up with the proceeds of this assault. It is to be regretted that they were not sent back to the Gurley House where the main train was parked; but as the country behind us was now in the hands of the rebel cavalry, travelling was unsafe unless accompanied by a formidable escort, and this the military authorities would not grant. The wounded therefore had to be carried onwards.

Cautiously through the woods the advance continued, skirmishing occasionally as a few of the enemy showed themselves; on the right all was silent, but from the left every now and again the sounds of Gregg's guns was wafted to us. As we approached the Boydton Road, near the point where it is intersected by Hatcher's Run, we were opposed more sternly; the enemy seemed inclined to strive for its possession, but the weight of our lines drove him across it with little fighting. At this point connexion was made with Gregg on the left; but as no news of the Fifth Corps' advance had been received, it was decided to halt, form line of battle, and await Warren's arrival.

The line formed ran from east to west across the road, and then curved southwards, parallel to, but a few hundred yards distant from its western margin. By the roadside, about half a mile south of the point crossed by the line of battle, and quite close to the position held by the dismounted cavalry, was a frame building known as the Rainey House. This was settled upon as our depôt for wounded. It was as safe a place as could be fixed upon, while yet ignorant of the direction from which the storm was to come. Military men decided that the enemy, if they attacked at all, would make the attack on our right, in which case the Rainey House would be out of the line of danger, save from such round shot as might be bowled at random along the plank road. The ambulance officers were instructed to carry their wounded there, and the Medical men, except those previously named to accompany their regiments into action, rendezvoused at it with their stewards and attendants, their operating-cases and field companions.

We do not wait long in vain for developments. The enemy speedily discover a part of the right of our line, as it stretches across an exposed field. They open with shell upon it from a couple of batteries, while a third rolls round shot along the road, in the hope of injuring the traffic they expect is going on upon it. They fire well, and the men exposed get uneasy; infantry do not love artillery fire, and *vice versâ*, an artillery-man who is heedless of the scream of a shell, dodges at the

softer note of a Minié bullet. Four guns are planted upon an eminence to distract the attention of the rebel batteries from our infantry. The *ruse* succeeds. They point their guns at our battery, and overwhelm it from their numerical superiority. Their fire, too, is killingly accurate—so much so, that unless reinforced our guns cannot remain in position. Four more are sent to their assistance, and the early part of the afternoon is spent in a noisy light artillery brawl. Still Warren does not come; his left has beeome entangled in the woods, and cannot find our right so as to eomplete the line. The ammunition in our caissons is about expended, hence the firing from our artillery flags. Since there is no supply nearer than the Gurley House, it would not pay to waste it all in such profitless duelling. Our guns are limbered up and removed from the knoll, and the enemy, satisfied with having silenced their opponents, become silent also.

What is to happen next? Hark! That long rolling volley on the right, preluded by those scattered shots, gives speedy answer. Can it be the 5th corps that has found the enemy and is giving him battle? Ah, no. It is the enemy that has found the gap between us and the 5th corps, that has inserted a mass of men into the unguarded interspace, and that is now pouring in a galling flank fire and advancing with resistless impetuosity to roll our right into disorder. To an inexperienced eye the right seems already in disorder; in fact, the whole line beeomes agitated as aides gallop hither and thither with orders from the fiery Hancock to his subordinate generals. It breaks up and its component parts are coursing at the double-quick in all directions; they are forming anew to meet the unexpeeted blow.

Meanwhile on the right the troops are, as they laughingly express it, "doing some tall running" to avoid being cut off by the advancing foe, while every few seconds some of their numbers are struck down by the ruthless fire poured in upon them. Wounded men are, more slowly, limping, crawling rearwards to avoid that undesirable fate expressed as "wounded and a prisoner;" while others less fortunate, inasmuch as their fractures prevent retreat, resignedly hitch themselves towards the cool and shady side of a neighbouring tree, or lie looking at their flying comrades with a longing eye and sinking heart. There are Doctors there, too; you may know them by the green silk sashes they wear. There is one with a wounded officer bearing on his shoulder; there another leaning upon the shoulder of his steward, he is shot through the thigh. No matter; it is but a flesh wound, and if he but limp actively he may yet escape the Hotel de Libbie or Castle Thunder.

The enemy are foiled; our men fled too eleverly for the success of their attempt. They advanee, there is nothing to oppose them, until their flank becomes exposed to a line that has been rapidly formed. Their own game is played upon them, and played successfully too; they fall back in confusion, leaving their wounded among ours, and quite a number of unwounded prisoners in our hands. The lines are re-established, and quiet prevails, if we except the snarling fire kept up between the opposed pickets and the occasional groan of a wounded man as the stretcher-bearers, carrying him to Rainey's, stumble over a stone or a stump.

(To be continued.)

GENERAL CORRESPONDENCE.

THE PRESIDENCY OF THE ROYAL MEDICO-CHIRURGICAL SOCIETY.

Letter from Dr. George Burrows.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have only this day learnt, and with some surprise, from a paragraph in the *Medical Times and Gazette* of Jan. 28, that there has existed considerable difference of opinion in the Council of the Royal Medico-Chirurgical Society, in reference to the nomination of a Physician to fill the office of President of the Society during the ensuing two years. It appears that my name has been brought forward in opposition to that of Dr. Alderson, and that upon two occasions the Council were equally divided in their votes in favour of Dr. Alderson or myself. The paragraph to which I refer in the *Medical Times and Gazette* also intimates that the fellows of the Society may possibly be called upon at the annual meeting in March to decide with which section of the Council they will coincide.

I should greatly deprecate any such contest, and however much I should prize the honour of presiding over such a distinguished body of men as the Fellows of the Royal Medico-Chirurgical Society, and grateful as I feel to those members of Council who have thought me worthy of such a post, I must request you will make known that I could not possibly accept such an honour when it was obtained by the disparagement of Dr. Alderson, who is much senior to myself on the list of Fellows of the Society, and who is also my personal friend. I am, &c. George Burrows, M.D.

18, Cavendish-square, Jan. 31.

PROFESSOR CHELIUS.

Letter from Dr. Jones.

[To the Editor of the Medical Times and Gazette.]

Sir,—Although quite aware that "men continue to hold posts long after the period at which they can satisfactorily fulfil their duties," I cannot help feeling how little this observation applies to that venerable Surgeon, the Geheimrath Chelius, whose clinical lectures I enjoyed the privilege of attending more or less frequently for the space of eight years. It is not yet two years since I left Heidelberg, at which period the Geheimrath was in the full possession of all his faculties, and as competent to perform his Medical and Surgical duties as our own Prime Minister, Lord Palmerston—several years the older—is to rule over this empire. Chelius graduated when only 18 years of age. His lectures on Surgery were delivered at the early hour of 7 a.m. winter and summer, and, to the best of my recollection, he seldom or never missed lecturing during the whole time of my residence in Heidelberg. When I last saw him his voice was as clear, his eye as bright, and his step as elastic as if he had been 40 instead of 70 years of age.

I hope you will kindly find room for these few lines, as I fear the Geheimrath, who is well acquainted with and highly esteems our English Medical literature, may feel justly pained and grieved at perusing your observations.

I am, &c. J. Jones, M.R.C.P.

Springfield, Upper Clapton, Jan. 28.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 10.

Dr. Basham, V.P., President, in the Chair.

A paper, by Dr. Horace Dobell, was read, entitled

A CONTRIBUTION TO THE NATURAL HISTORY OF "WINTER COUGH."

The paper was an analysis of fifty-eight cases of "winter eough," the details of which were given in an appendix. The cases were arranged in four groups, according to the physical signs:—1. Cases in which there were physical signs both of bronchitis and of emphysema. 2. Cases in which there were physical signs of bronchitis, but not of emphysema. 3. Cases in which there were physical signs of emphysema, but not of bronchitis, and in which there was no history of previous bronchitis. 4. Cases in which there were physical signs of emphysema and not of bronchitis, but in which there was a history of previous bronchitis. Each case was reported in the form of answers to a set of forty-one questions relating to the short breath, the cough, the taking of colds, the past illnesses, the occupation, the dwelling, the food, the habits, and the family history of the patient, in addition to a concise statement of the personal condition at the time of examination. The number of facts thus collected was too numerous to admit of their being discussed within the limits of a paper; the author therefore restricted himself to an analysis of the cases under the several groups, and a comparison of some of the principal facts in a series of twenty tables, thus putting the materials into a convenient form for future use.

Dr. Salter questioned the appropriateness of the words "natural history" in the title of the paper. He thought nothing was gained by removing the ordinarily received landmarks of a vocabulary by taking up a word and transplanting

it into a position not its own, and that nothing tended so much to weaken and impoverish the resources of a language as attempting to expand the use of words too far. By "natural history" was generally understood the history of organised beings, animal and vegetable. No doubt the study of disease was the study of a department of nature; but if the use of the expression "natural history" was defended on this ground, it would be as appropriate to speak of the natural history of astronomical or any other natural phenomena. The point on which the paper seemed to promise to throw some light was the causation of emphysema; but in this it had disappointed him. The only case that really bore on the subject was the single one in which emphysema was said to have existed without bronchitis; but he could not conceive that bronchitis really was absent in this case. Emphysema with cough and without bronchitis he could understand; but emphysema with winter cough and without bronchitis he could not understand: the bronchitis might be very feebly pronounced, but he did not believe in any non-bronchitic winter cough. While containing much that was interesting, and suggestive of many hints for future useful work, he thought the paper suffered a great disadvantage from being so entirely a paper of figures. And he thought, too, that it very well illustrated what had been often said of figures—that they could be made to prove anything. Take, for example, the fact stated by the author—that patients with emphysema had bad spirits, while those with bronchitis had good; and his explanation—that this difference depended on the presence of expectoration in the one case, and its absence in the other. He (Dr. Salter) thought that this statistical evidence of the exhilarating tendency of expectoration was a strong proof of the omnipotence of figures. He differed from the author in the little importance he assigned to occupation in the causation of winter cough; he (Dr. Salter) found it the most potent of all circumstances in the production of the affection. By far the larger proportion of sufferers from it who came under his observation were those whose occupation exposed them to all weathers, and at the same time prevented their lying by—such as vendors of things in the streets, cabmen, porters in Covent-garden Market, etc. Indeed, the fact that the disease was due to climatic influences was itself a proof that those whose occupations the most exposed them to those influences must be the greatest sufferers. He quite agreed with the author as to the undefined use of the word "asthma;" that a great many cases of so-called asthma were simply chronic bronchitis; and that any chronic difficult breathing is commonly called asthma. At the same time, he thought that a carefully directed inquiry would generally detect whether such cases were truly asthmatic or not.

Dr. Dobell said he begged to thank the Society for listening so patiently to his very dry paper. He had hesitated to bring it before them because of the number of tables and calculations which it contained. He was much obliged to Dr. Salter for his suggestions about the term "natural history" used in the title; but he entirely disagreed with him. When treating of animals or plants, the term "natural history" was used to comprise a description of the "conditions of their existence;" the circumstances influencing their development, maintenance, growth, and reproduction; their habitats, habits, and the like. It was precisely this kind of information which he had collected with regard to "winter cough;" and he must, therefore, maintain that it was correct to call it "natural history." With regard to occupation, he entirely agreed with Dr. Salter, that the influence of occupation on winter cough was of the greatest importance. Dr. Salter had simply misunderstood the words of the paper. It was there stated that, as there were only fifty-eight patients, and as they followed twenty-eight different sorts of occupation, no more than seven following any one of these, it would not be fair to draw any conclusion as to the influence of occupation on the disease from the tables, but that, as a correct record of facts, it would become valuable when added to others of a similar kind. With regard to the whole paper, he (Dr. Dobell) wished particularly to impress that, as it only treated of fifty-eight cases, broken up into four groups, and as each case necessarily differed to some extent from the rest, he did not consider that it ought to be taken as a safe basis for general conclusions respecting such an important and widely-spread class of diseases. He had scrupulously abstained from making such conclusions, and he hoped that others would do the same. The title described the paper as no more than a "contribution" towards a natural history, and he did not wish it to be considered as more than it assumed to be.

A paper, by Julius Althaus, M.D., M.R.C.P., was read

ON SEA-SICKNESS AS A FORM OF HYPERÆSTHESIA.

Most writers on sea-sickness consider this affection to be due to hyperæmia of the brain and spinal cord, or to a morbid condition of the gastric nerves. The object of this paper is to show that sea-sickness is, in reality, caused by anæmia of the brain and the cervical portion of the spinal cord, arising from insufficient power of the heart, and whereby a general increase of reflex excitability throughout the system is brought about. The first and most constant symptom of the disorder is not retching or vomiting, but vertigo, which is most severe in the standing posture, and at once relieved by a strictly horizontal position, and which is thus proved to arise from a deficient amount of blood in the nervous centres. The increase of reflex excitability is also shown by greater sensitiveness of the patient to light, sound, touch, etc.; and in some cases there are even reflected spasms in the lower extremities. It is, however, greatest in the stomach, as evidenced by retching and vomiting, the degree of which is dependent upon the posture of the patient, but not upon the full or empty condition of the stomach, or its greater or less vital power. This increase of excitability is, after a time, generally followed by a considerable diminution of it, there being great torpor and profound indifference. The organ primarily disturbed, therefore, appears to be the heart, which, in consequence of the ship's motions, becomes unable to propel the blood with sufficient power into the nervous centres. The blood is accumulated in the chest and the abdomen, where it produces a feeling of pressure and heat. Persons with a strong heart and a slow pulse generally suffer little from sea-sickness; while irritable people, with a quick pulse and a tendency to palpitations, are more liable to be affected. This explains to a certain extent the different liability to sea-sickness of the different nations; for, as a rule, the French and Italians, being of a more irritable temper, suffer most, the Germans less, and the English least, of the disorder. The treatment of sea-sickness flows directly from the pathology just enunciated. Our task should be to facilitate the afflux of blood to the nervous centres, and to strengthen the heart's action. For this purpose a horizontal position should be enjoined, and a few tablespoonfuls of well-seasoned beef-tea, and small doses of brandy, should occasionally be given.

Dr. Basham said that most persons had some experience of sea-sickness, and inquired if any explanation of its cause had suggested itself to any of the fellows present.

Dr. Althaus said that since he had written the paper just read to the Society he had seen an essay on sea-sickness from the pen of Dr. Chapman. That gentleman considered that sea-sickness depended on the presence of an undue quantity of blood in the middle and lower portions of the spinal cord, and suggested the use of ice to the part as a remedy. He (Dr. Althaus) did not believe that the local congestion was the cause of the sickness, though it might possibly exist. If it were the cause, then change of position would relieve the sickness; but change of posture from the back to the stomach did no good, whilst, as was known, it often relieved spasm immediately. He had not tried the use of ice, and therefore could offer no opinion respecting its use. Cold was a powerful agent, and he should be glad if it were found generally successful. He knew of no remedy so effectual as the recumbent position. The administration of very small doses of morphia endermically had been recommended, but he had not tried it.

Dr. Barclay's experience differed from that of the author. He had found liquids, and particularly alcohol, aggravate the sickness.

Dr. Basham remarked that we must not shut our eyes to the fact that, with very few exceptions, most persons at sea soon became tolerant of the cause of sickness, whatever it might be. He had never met with any one who, after being at sea a day or two, could not join the dinner-table. The exceptions were from idiosyncrasy. He thought there had been too much speculation as to the cause of sea-sickness. Many other conditions, such for instance as being in a "roundabout," produced the same effect. The true pathology of sea-sickness, whatever it might be, had not yet been ascertained.

A Housebreaker was captured at Oxford through the instinct of a small terrier. The man had effected his entrance to the house by giving a dose of chloroform to a large mastiff. He then hid himself under a bed, but was discovered by the uneasiness of the smaller dog.

WESTERN MEDICAL AND SURGICAL SOCIETY.

FRIDAY, DECEMBER 2.

Mr. GEORGE POLLOCK, President, in the Chair.

A PAPER was read by Mr. B. E. BRODHURST upon

BONY ANCHYLOSIS.

The author gave the details of a case of bony anchylosis of the hip-joint, in which the neck of the thigh bone was cut through to form a false joint. Cases of bony anchylosis are rare. When of the hip-joint the patient is very helpless, and can only move by the aid of crutches. He is less helpless when any other joint is affected. The propriety of interfering with bony anchylosis of the knee or ankle joint may be questioned, but in the case of the hip and the elbow joint it is of great importance to give the patient a chance of renewal of motion, even where motion would seem to have been hopelessly lost. In operating it is important to divide the bone as near as possible to the articulation. In the elbow a wedge-shaped piece may be taken from the centre of the articulation; and in the hip the neck of the femur may be divided just below the head of the bone. The divided ends of the bone may then be scooped out, so that both surfaces shall be concave. There is difficulty in retaining motion in these cases, so strong is the tendency for bony union to occur. A swinging limb need never be feared. If the action of the muscles cannot be gained, reunion by bone is certain to take place. It is important, therefore, to divide the bone in the most favourable position for the action of the muscles, and that point must be the nearest possible point to the articulation itself. In these cases we have to deal with tolerably healthy structures, and hence it is that the tendency to repair is strong in them. The muscles, too, which formerly moved the limb are somewhat altered in structure, and through disuse they will have lost power. It will require, therefore, for a lengthened period both patience and fortitude to gain fair muscular power after bony anchylosis has once become fully established. *Case.*—A. M., aged 23 years, suffered from bony anchylosis of the left hip. When she was 10 years old she met with an accident, through which inflammation was excited. She continued to walk, however; no attention being paid to the limb for many months. She limped as she walked. The limb swelled; an abscess formed, and continued more or less to discharge pus, with portions of necrosed bone, for ten years. Pain and abscesses at length ceased, and the limb became motionless. The author first saw the patient in 1862: she was in fair health. The question simply was, Could motion be given? Anchylosis had taken place without dislocation of the head of the femur occurring. The neck of the bone was in part absorbed. The limb was shortened one inch and a-half. The pelvis was rendered oblique—apparently increasing the shortness of the limb by two inches. She had during the previous year walked with crutches, and worn a boot which was raised three inches in the sole. The case appeared favourable for operation, and it was thus performed:—An incision three inches long was made commencing over the head of the femur and passing to the outer side of the great trochanter; from the upper angle of which another incision extended inwards for two inches. The neck of the bone was divided, and the ends gouged out as before described. The flesh wound healed almost by the first intention. Movement of the limb was attempted when the cicatrix had formed, but it was difficult, and so painful that without chloroform it could not have been borne. This passive motion was, however, continued, and at length the limb moved readily, and even some voluntary motion was gained, so that the patient could flex the limb to a right angle. After six months she could rotate the limb outwards, and sit down at ease. The pelvic obliquity was easily removed; the horizontal position being in itself almost sufficient for this purpose; and the foot was consequently brought by so much nearer to the ground. A steel support, with joints opposite to the hip, knee, and ankle, was fitted to the limb; and the buttock was supported by a leather shield. With this instrument, and a couple of sticks, the patient moved about easily. The operation has now been done two years. There is no lack of firmness about the hip joint; but, on the contrary, it requires constant exercise to keep it free. The patient now walks without the instrument, and with one stick for support.

OBITUARY.

DEATH OF DR. JONES QUAIN.

WE regret to announce the death of Dr. Jones Quain, which occurred on the 31st ult. Many of Dr. Quain's former pupils, men who have now long left behind the period of middle life, will hear this announcement with sincere sorrow, for few teachers were more beloved by their pupils than was the subject of this brief notice during the period that he filled the chair of anatomy and physiology at University College, ending with the session 1836. Accomplished as a scholar, eloquent and impressive as a lecturer, endowed with remarkable tenderness of feeling and kindness of heart, his retirement from his duties was regarded at the period as a great calamity. Annoyances coming from sources where they were least to be expected, told on his refined, perhaps too sensitive temperament, and he withdrew from public and Professional life to enjoy in retirement those scientific and literary studies which afforded him constant pleasure and satisfaction. Dr. Quain was also a member of the Senate of the University of London, an office which he continued to hold for a few years after his retirement from the chair in University College. We need not perhaps say that he was the author of "Quain's Anatomy,"—a work the value of which has been appreciated by every member of the living generation of Medical Practitioners, and of which successive editions continue to be published. He was also, in association with Mr. E. Wilson, the author of the series of anatomical plates which bears his name; and he translated a valuable little manual called "Martinet's Pathology." Dr. Quain had reached, we believe, very nearly the age of seventy, and his health had latterly been failing. Always sensitive to cold, he seemed to suffer much during the recent severe weather. He gradually sank, and died on Monday last. His remains will be interred in Highgate Cemetery.

METROPOLITAN WATERS IN DECEMBER, 1864.

(*From the Report by the Metropolitan Association of Medical Officers of Health.*)

	Total solid matter, per gallon. Grains.	Oxidisable organic matter, per gallon.(a) Grains.	Loss by ignition.(b) Grains.
THAMES COMPANIES:—			
Grand Junction	Not examined.		
West Middlesex	20·3	0·56	1·62
Southwark	22·8	0·80	2·31
Chelsea	20·2	0·80	1·90
Lambeth	20·7	1·12	2·14
OTHER COMPANIES:—			
Kent	25·7	0·32	1·74
New River	18·8	0·40	1·51
East London	22·7	0·48	1·14
LONDON WELLS.—			
Camberwell	100·3	17·36	20·11
St. Paul's-churchyard	74·7	6·72	14·58
Old Jewry	56·3	3·00	8·96

THE SEWING-MACHINE.—Dr. Küchenmeister observes that it is much to be regretted that the girls and young women of the present day, who suffer so much from chlorosis and dysmenorrhœa, have not the healthy exercise of the spinning-wheel so much pursued by their more robust grandmothers. In the sewing-machine, however, we have the same motion of the foot as in the spinning-wheel, and he strongly recommends the employment of this as a good gymnastic procedure for females suffering from chlorosis and dysmenorrhœa.—*Zeitschrift fer Medicin*, 1864, No. 3.

(a) The amount of oxidisable organic matter is estimated by the colou of the water when seen through a column of it, two feet in length, and by means of a solution of permanganate of potash, every 1000 septems o which contain 0·5 grains of available oxygen, the mean value of which has been estimated by its action on humurcrenic and apocrenic acids, and other vegetable organic matter in water.

(b) The loss by incineration, which is generally estimated as organic matter, consists of various volatile substances, as hygrometric moisture, combined water in sulphates, oxygen from nitrates and nitrites, carbonic acid from earthy carbonates, ammoniacal salts, and organic matter.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary Examinations for the Diploma, were admitted members of the College at a meeting of the Court of Examiners on the 26th ult. :—

Ferdinand Albert Purcell, M.D., Queen's University, Ireland (Cork); William John Morgan, Burwood-place, Edgeware-road (Charing-cross); Arundel Hill Cotter, Cork; Edwin Child, L.S.A., Vernham, Andover (Charing-cross); Richard Jeffreys, Chesterfield (Sheffield); Frank Charles Plumptre Howes, L.S.A., Great Yarmouth (King's College); John Grimes, Castle Thorpe, Bucks (King's College); Edward William Adrien, Old Town, County Dublin; Alfred Charlton, Tunbridge (Guy's); Charles Edwin Curtis, Yately, Hants (St. Bartholomew's); Arthur Taylor, Kennington (Guy's); John Murray, Aberdeen (Edinburgh); Richard Colville Parkinson, Guildford (Dublin); James Shaw, Handsworth (Birmingham); Bushell Armingson, Hampstead (King's College); John Thomas Jacques, Birstall, Leicestershire (St. Bartholomew's); Edward Drummond, M.D. Edin., Blyth, Northumberland (Belfast); Edward Cheatle, Tamworth (Birmingham); Joseph Rymer Dowman, New Zealand (Birmingham); Robert Ormc, Instou, North Devon (Guy's).

The following were admitted members on the 27th ult. :—

Ebenezer Shedd, L.S.A., Montreal (London); John Morgan Bryan, Northampton (St. Mary's); Charles Creasy Clayworth, Spilsby (London); Thomas Hall Redwood, Rhymney, Monmouth; Mark Autony Kilroy, Virginia, County Cavan (Dubliu); William Gosselin, Cavan, Ireland (Dublin); Charles Pitt Wetherell Neate, Fowey, Coruwall (St. Thomas's); John William Armistead, Leeds.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, January 26, 1865:—

William Matthew Renton, Newcastle-on-Tyne; John Hedley, Newcastle-on-Tyne; John Geo. Fredk. Wilford, Brompton, Yorkshire; Geo. Henry Watson, Jersey; Charles Broom, City-road, E.C.

The following gentleman, also on the same day, passed his First Examination :—

Ebenezer Shedd, Manchester.

PRELIMINARY EXAMINATION IN ARTS. — The following Gentlemen passed this Examination on January 27 and 28, 1865, and received Certificates of Proficiency in General Education :—

Augustus Hewitt Aldridge, Poole, Dorset; Edward Francis Atkinson, Alma-square, St. John's-wood; William Arthur Attwater, Lawn-place, Shepherd's-bush; Sydney O. Bishop, Sandhurst, Berks; William A. S. Blue, St. Bartholomew's Hospital; Edward J. H. Booth, Queen-street, Huddersfield; John Charles Chester, Redruth, Cornwall; George Charles Coles, Blenheim-crescent, Notting-hill; Frank Cufaude, Aele, Norfolk; Arthur F. L. Dorin, Drayton-grove, Brompton; David Henry Goodsall, Windmill-street, Gravesend; Joseph Hargrove, Wolverhampton; Charles Irving, Duncan-terrace; Henry E. Jackson, Highbury-grove-villas; Nathl. Howard Jarvis, Kingsbridge; Wm. Henry Kesteven, Manor-road, Holloway; William Moore King, Sussex County Hospital, Brighton; Alexander Longhurst, Farnham, Surrey; Burford Norman, Guy's Hospital; Perring Pickering, Henley-on-Thames; Thomas Pink, Croom's-hill, Greenwich; Frederick Prigg, Bury St. Edmunds; Chas. Frederick Rigg, Wigan, Lancashire; H. H. C. A. Rodberd, Preston, near Yeovil; Thomas Somerville Smith, Sittingbourne, Kent; John R. A. Taylor, Dorchester; Lewis Thorpe, Bradford-street, Walsall.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BUCANNON, Dr. R. F., has been appointed Surgeon and Agent for the Admiralty Coastguard Stations in Achill.

CAMERON, LEWIS, M.D., has been appointed Junior House-Surgeon to the Dispensary, Preston, Lancashire.

EAMES, JAMES A., M.D. St. And., has been appointed Resident Physician to the Letterkenny Lunatic Asylum.

JACKSON, GEORGE, M.R.C.S. Eng., has been elected Assistant House-Surgeon to the West London Hospital, Hammersmith.

MAUGHAM, WILLIAM, M.D., has been elected Medical Officer of Carnarvon Workhouse.

ROUSE, THOMAS M., M.R.C.S. Eng., has been appointed House-Surgeon to the West London Hospital, Hammersmith.

SMITH, ALFRED R., M.D. Edin., has been elected one of the Visiting Surgeons of the Hereford Dispensary.

SNEWIN, ALFRED G., M.R.C.S. Eng., has been appointed House-Surgeon to the Royal Pimlico Dispensary.

STOCKWELL, THOMAS G., F.R.C.S. Eng., has been elected Surgeon to the Bath United Hospital.

TAYLOR, JOHN W., M.D., St. And., has been appointed one of the Surgeons to the Malton Dispensary.

WADE, WILLOUGHBY F., M.B., has been elected Physician to the Birmingham General Hospital.

DEATHS.

BELFOUR, EDMUND, at 37, Lincoln's-inn-fields, W.C., on January 30, aged 76. Upwards of fifty years Secretary to the Royal College of Surgeons, England.

BULL, CHARLES, M.R.C.S. Eng., at Catton-grove, Norwich, on December 5, formerly of Diss, Norfolk.

CALLAGHAN, Dr. ARTHUR, of Limerick, at the Clifton Hotel, Liverpool, on January 23.

CURTIS, WILLIAM, M.R.C.S. Eng., at Harting, Petersfield, on January 27, aged 61.

DEBOUT, M., with whose name our readers must be familiar, has just died. He was editor of one of the most celebrated French Medical periodicals, the *Bulletin de Thérapeutique*, and an active member of the Paris Surgical Society.

DUCE, JAMES, M.R.C.S. Eng., at Wednesbury, Staffordshire, on January 27, aged 28.

FALCONER, HUGH, A.M., M.D. Edin., V.P. of the Royal Society, at 21, Park-crescent, Portland-place, N.W., on January 31, aged 56.

PAYNE, WILLIAM, Surgeon, at St. Austell, Cornwall, on January 13.

ROBERTSON, DAVID, L.R.C.P. Edin., at Dunkeld, Perthshire, on January 19, aged 26.

WATSON, JAMES, M.D. Edin., at Edinburgh, on January 23.

ST. MARY'S HOSPITAL.—At the election for Assistant-Physician to St. Mary's, which took place on Tuesday last, Dr. Broadbent was elected by a large majority. The other candidate was Dr. Edward Smith, F.R.S.

MR. HENRY SMITH will give the Lettsomian Lectures on the "Surgery of the Rectum," at the Medical Society of London, on Wednesdays, February 8, 15, and 22.

COMPARATIVE ANATOMY. — The Course of Lectures on this subject annually delivered at the Royal College of Surgeons, will be commenced on Monday next, by Professor Huxley, F.R.S., who will deliver twenty-four lectures "On the Structure and Classification of the Mammalia," in continuation of the course published last year in the *Medical Times and Gazette*. The following is a syllabus of the proposed lectures—viz., "The Anatomy of a Hedgehog," "The Principal Modifications of the Insectivorous Type," "The Anatomy of a Bat," "The Principal Modifications of the Cheiropterous Type," "The Structure and Systematic Position of the *Galeopithecus*," "The Anatomy of a Rabbit," "The Principal Modifications of the Rodent Type," "Remarks upon the Subdivision of the Mammalia constituted by those Mammals which have Discoidal Placentæ," "The Anatomy of an Armadillo," "The Principal Modifications of the Edentate Type," "The Anatomy of a Horse," "The Anatomy of a Pig," "The Principal Modifications of the Ungulate Type," "The Anatomy of a Porpoise," "The Principal Modifications of the Cetacean Type," "The *Sirenia*," "Remarks upon the Subdivision of the Mammalia constituted by those Mammals which have Diffuse or Cotyledonary Placentæ," "The Structure and Systematic Position of *Hyrax*," "The Anatomy of an Elephant," "The Principal Modifications of the Proboscidean Type," "The Anatomy of a Dog," "The Principal Modifications of the Carnivorous Type," "Remarks on the Affinities of those Mammalia which have Zonary Placentæ," "The Anatomy of an Opossum," "The Principal Modifications of the Marsupial Type," "The Anatomy of an *Echidna*," "The Modifications of the Monotreme Type," "Remarks upon the Classification of the Mammalia Generally."

THE LATE DR. BAIKIE.—At a time when his friends and the many who are interested in African exploration and discovery were anticipating with eager interest the arrival in this country of Dr. Baikie, the sad news has come giving information of his death at Sierra Leone on December 12, of fever and dysentery. During the past six years our lamented countryman has devoted himself with extraordinary enthusiasm and energy to African exploration, chiefly along the course of the Niger, and for a part of the time in the interior of the country, undergoing surprising privations, overcoming the greatest difficulties, escaping imminent dangers, and collecting, during these six years, an immense mass of the most important facts in natural history and physical science, as well as a large accumulation of specimens, which we trust may be preserved as a fitting memorial of the perseverance and heroism of this gifted Orcadian. Dr. Baikie had made every preparation for returning to his native country by the American mail steamer, and had arrived on October 21 at Lagos, from which place his friends had received letters from him by the previous mails. Indeed, had it been possible, he was to have come home by the previous mail; but the labour of arranging his African collections occupied longer time than he had anticipated. Arriving at Sierra Leone, "the European's Grave," he was suddenly seized with illness, and died in a couple of days. The loss of such a man to science and to civilisation is very serious indeed, and while we cannot but offer our condolence with Dr. Baikie's relatives in Kirkwall, we cannot but feel that the public loss is in one sense even a greater cause of

sorrow. Dr. Baikie has for years been in a great measure lost to his friends, and by his extraordinary devotion to the mission with which he was intrusted has rendered himself peculiarly an object of public attention and affection, and we venture to say that there are few public men who have recently been called away whose death will be more generally deplored. Dr. Baikie was born in Kirkwall, and was son of Captain John Baikie, R.N., long agent for the National Bank of Scotland. He received his early education in Kirkwall Grammar School, and thereafter studied, with a view to prosecute the Medical Profession, at Edinburgh University, whose diploma he earried. At an early age he manifested unusual interest in travel and adventure, and it was not difficult to foresee that, if spared, his future life would be distinguished in that respect. As a Medical student, Mr. Baikie gave evidence of singular ability, and it was in that capacity that he was first fixed upon to undertake duties that ultimately urged him into the theatre of African exploration. In that department Dr. Baikie's history has been full of marvel. He has, especially during the last six years, gone through scenes of adventure and escaped dangers which entitled him to one of the highest positions in the list of travellers, and render his history since the day he left Kirkwall Grammar School one of the most wonderful of any age; and there is no doubt that, whether Dr. Baikie's papers have been left in such a state as to justify his friends in giving to the public a detail of his last six years' adventures or not, enough is known of him to justify us in placing his name by the side of the galaxy of modern African travellers who have done so much to enlighten the world regarding its swarthy tribes and its physical characteristics, and to advance the interests of scientific discovery and advancing civilisation. And certainly, among the long list of honoured sons of which Orkney can boast, there is none of whom it has more reason to be proud than "Dr. Baikie, the African explorer."—*Northern Ensign.*

Asylum for Idiots for the Northern Counties.—On Thursday last, a meeting was held at Liverpool for the purpose of hearing the statements of the High Sheriff (Sir J. P. Kay Shuttleworth) and Dr. de Vitre, relative to the proposed asylum for idiots in the six northern counties, which it is proposed to erect at Lancaster. There was a very numerous and influential attendance. The Chairman said that in the six northern counties which had been indicated as the area of the proposed institution, the number of pauper idiots alone was nearly 2000, while the number of idiots not indigent was great in proportion to their superior position. The Central Committee in Lancaster had in their eye a most eligible site for an asylum, embracing about forty acres of beautiful land near the town of Lancaster. The Committee had already received subscriptions to the amount of £9000, including £2000, a grant, the residue of the Ripley fund. The Mayor then read out a list of subscriptions from Liverpool gentlemen—non-subscribers to the original fund—amounting to upwards of £4000. The proceedings terminated with the appointment of a local committee.

Death of Mr. Edmund Belfour.—There are many Members of the Royal College of Surgeons who will regret to hear of the death of the venerable Secretary of that Institution, with which he had been connected for upwards of half a century. Mr. Belfour had never recovered from the blow occasioned by the terrible death of his only son little more than a year ago, and owing to this, and increasing attacks of bronchitis, had quite secluded himself from nearly all Collegiate intercourse; occasionally his opinion would be sought by members of the Council, well aware of the importance of his sound judgment on all affairs conneeted with the Profession. So highly was he esteemed by the governing body, that in 1860 a sum of 200 guineas was unanimously voted to present him with a service of plate, bearing on one of the pieces the following inscription:—"Presented by the Council of the Royal College of Surgeons of England, with other plate to the value of 200 guineas, to Edmund Belfour, Esq., in acknowledgment of his zeal, fidelity, and honourable conduct, and of the invaluable services he has rendered the College, in all its departments, during the fifty years of his tenure of the office of Secretary.—John Flint South, President. November 9, 1860." And well did the deceased merit this encomium passed on him by one so well qualified to judge as the late Joseph Henry Green, with whom he was always an especial favourite. The very inclement weather which set in with an intense fog on Saturday, the 21st ult., told seriously upon him, and notwithstanding the kind and unremitting attention of his attached friend and Medical adviser, Mr. J. S. Streeter, F.R.C.S., who sat up with him the whole of the night preceding his decease, he quietly and almost imperceptibly sank, and died of senile exhaustion and decay in the 76th year of his age, leaving a widow and two daughters, one of whom is married to Captain E. Ward Fox, of Haddon House, Bakewell, Derbyshire. The remains of Mr. Belfour will be interred this day (Saturday), in the family vault in Hackney Old Church, and notwithstanding the wish of the deceased that the funeral should be strictly private, it is believed that it will partakemore of a public character from the high estimation in which he was deservedly held, not only by the members of the Council, but by the Profession generally. Mr. Belfour will be suceeeded by Mr. Edward Trimmer, M.A. Cantab., a grandson of the celebrated authoress of the same name, who, having filled the office of Assistant-Secretary for several years, has proved himself eminently qualified for the important duties of Secretary to the Royal College of Surgeons of England.

Non-Ventilation of Cornish Mines.—The Cornish agricultural labourers are second to no class in the kingdom in point of longevity and health. The Cornish miners die young, chiefly of pulmonary disease. It has long been known that the most prominent cause of this early mortality was a preventible one—the non-ventilation of the mines. Lately, however, the point has been again brought before the public by a Royal Commission. Dr. Angus Smith, who, at the request of the Commission, has investigated the subject, writes:—"A healthy atmosphere may be taken to be one with 20·9 per cent. of oxygen, and ·04 per cent. of carbonic acid gas. Late in the evening in the pit of London minor theatres as much as 0·252 and 0·320 per cent. of carbonic acid has been found; but the average of above 300 samples of air taken from these mines had 0·785. Two-thirds of the samples presented an atmosphere exceedingly bad, and the worst parts of the mines had only about 18·69 per cent. of oxygen, and as much as 1·8 or more of carbonic acid, in one instance 2·26 per cent." In order to test the effects of such bad air, Dr. Angus Smith caused to be constructed a small close chamber of lead, with windows sufficiently large that they might in any emergency be broken through for a way of escape. The first trial was made by sitting down in the chamber for an hour and forty minutes. This produced about one per cent. of carbonic acid, and the air became cheerless. A young lady was anxious to be in the chamber when the air was such that the candles would not burn. She was not much struck by the impurity of the air on entering, although the candles were threatening to go ont; there were not quite 19 per cent. of oxygen, and there was rather more than 2 per cent. of carbonic acid. No one had been breathing in the chamber, so that organic matter from the person was absent, and that makes a great difference. She stood five minutes perfectly well, making light of the difficulty, but suddenly became white, and could not eome out without help. On another occasion a still greater amount of carbonic acid was present in the chamber, but it was not accompanied with a eorresponding loss of oxygen, for the gas was driven in upon pure air; there was 20·19 per cent. of oxygen, with 3·84 of earbonic acid. Two persons got headaches instantly, and were unable to stay above seven or eight minutes. Dr. Smith staid about twenty minutes, but felt very anxious to get out, as his movements were made with great haste, and both mind and body betrayed symptoms of feverish activity. The face was flushed, and the lungs acted more rapidly than usual. In fact, there was a burning haste to live, as if life were afraid of being put out. It seems to him impossible to endure 4 per cent. of carbonic acid for any length of time. There was a very remarkable lowering of the pulse, and as this happened regularly he puts it down as the result of poisoning with carbonic acid gas, and asks whether it may not suggest a mode of lowering the pulse in a fever. These experiments show the great mischief that must arise from the impure, unwholesome air in metalliferous mines. The men call it "thin," "poor," "dead;" the effect is slow poisoning. The explosions of gunpowder produce sulphide of potassium, the effect of which is probably like that of sulphide of hydrogen, but from its acting more slowly there is distributed over a long period that death which might ensue instantly, and so, in chemical phrase, the effect is dissolved in health, and becomes disease. Gun-cotton seems to promise to perform the work of blasting with less injurious influence upon the air. In the coal districts, where, on account of the dangerous gases, great

attention has been given to the proper ventilation of the mines, the mortality (accidents excepted) is considerably less than in the metalliferous districts, and this shows that the excessive mortality in the latter is not caused by the mere working underground in dark galleries. Dr. Smith touches incidentally to his report upon various points of practical importance. He notices the purifying effects of rain upon the air, of which there was such a scarcity last year. Moisture with a high temperature is oppressive, but moisture with a lower temperature improves the air, and he holds that cold and moisture in such amounts as those in which they are found in Great Britain are capable of producing powerful constitutions, and that the more watery districts of the kingdom present in many instances the most healthy spots. Still, in relation to ventilation he notes that "chemical action, and with it the feelings demand a certain amount of warmth first and above all things. No function can go on without it. You may live hours, days, or years, in badly ventilated places with more or less discomfort and danger, but a draught of cold air may kill like a sword. In railway carriages, and in houses also, the great instinct of man is first to be warm enough, and he is quite right. Such a universal instinct must not be sneered at."

Medical Provident Society.—The second meeting of the Directors of the Medical Provident Society was held at the Freemasons' Tavern, London, on Friday, January 27. There were present—Dr. Richardson, in the chair; Dr. Armstrong (Gravesend); E. Bartleet, Esq. (Campden); R. B. Carter, Esq. (Stroud); Dr. Chevallier (Ipswich); J. Clay, Esq. (Birmingham); Dr. Desmond (Liverpool); Dr. Fayrer (Henley-in-Arden); Dr. Latham (Cambridge); C. F. J. Lord, Esq. (Hampstead); Dr. Morris (Spalding); T. Heckstall Smith, Esq. (St. Mary Cray); Dr. A. P. Stewart (London); H. Veasey, Esq. (Woburn); S. Wood, Esq. (Shrewsbury); and Dr. Henry, Secretary. *Rules of the Society.*—The minutes of a meeting of the Executive Committee, held on November 18, at which a draft code of rules was prepared for the consideration of the present meeting, were read. The rules having been printed, and a copy forwarded to each Director a month previously to this meeting, it was agreed that they should be taken as read, and discussed *seriatim*. Mr. Clay said that, before the rules were discussed he wished to have the opinion of the meeting as to whether they should be registered under the Friendly Societies' Act. There were several reasons in favour of their being so registered; for example, legal power was thereby given to the Society to sue and be sued in courts of law; and the safety of its funds was insured. He moved—"That the Medical Provident Society be registered under the Friendly Societies' Act." Mr. Heckstall Smith seconded the resolution, which was carried unanimously. Mr. Clay also moved, Mr. Heckstall Smith seconded, and it was unanimously resolved—"That the Chairman and Secretary be requested to communicate with the Registrar in reference to the registration of the Society, and to make the necessary alterations in the rules in accordance with the requirements of the Registrar and of the Friendly Societies' Act, provided that these do not interfere with the scheme propounded by the Directors." The rules were then discussed *seriatim* by the members present, various additions and amendments being made. As they are to be submitted to Mr. Tidd Pratt in accordance with the foregoing resolution, and further consultation with Mr. Finlaison is required in regard to the tables of payments, an outline only of their principal provisions is here given. The Society is to be denominated "The Medical Provident Society in connection with the British Medical Association;" and may be ordinarily designated "The Medical Provident Society." Its object is to enable certain duly registered Medical Practitioners to provide, by mutual assurance, for those exigencies of sickness or casualty which render them unable to discharge their Professional duties. The Society is to consist of honorary and contributing members. Donors of ten guineas and upwards, being duly registered Practitioners, and approved by the Board of Directors or Executive Committee, may become honorary members for life; and shall be eligible to office, but shall not have any claim on the sick fund unless they be also contributing members. The Board of Directors may also confer the title of honorary members on benefactors of the Society, but these shall have no part in the management of the Society nor claim on its funds. Contributing members are to be duly registered Medical Practitioners residing in the United Kingdom, and approved by the Board of Directors or Executive Committee, enrolled in the books of the Society as contributors to the sick fund for benefit. They must not be in active service or on full pay in the army or navy. They must be healthy; and must not have any organic disease, or predisposition to periodical or recurring attacks of illness, likely to incapacitate them from discharging their Professional duties. A candidate for admission as a contributing member is to be required to fill up an examination paper (resembling those of insurance companies) and to obtain a certificate of health from two registered Medical Practitioners; and also to sign a declaration of the truth of the statements made on the examination paper. These being found satisfactory, he is to be admitted by the Executive Committee, and duly enrolled. Any contributing member obtaining admission by means of false statements is to be expelled if the fraud be proved by investigation within twelve months from his admission, and will thereon forfeit all interest in the society. The annual contributions are to be paid within a fixed time; and any member not doing so will be suspended from receiving benefit; but the suspension may be removed if the arrears are paid within a certain period, and a certificate of health is produced. Members who have been struck off in consequence of not paying their subscriptions may be again admitted on complying with the rules for original admission. The funds of the Society are to consist of an Auxiliary Fund, a Sick Fund, and a Management Expense Fund, of each of which a distinct account is kept. The Sick Fund, or a competent part thereof, is to be from time to time applied, as occasion shall require, for the benefit of such of the contributing members respectively as shall have conformed to the rules of the Society, and who, suffering from sickness or casualty, may be unable to follow their usual Professional occupation; but no member is to be entitled to claim benefit in consequence of infirmity. Every contributing member who has been enrolled a member of this Society upwards of twelve months, and who has paid his annual contributions, shall be entitled to receive, during the first twenty-six weeks of his illness, £2 per week; and if his illness continue longer than twenty-six weeks, he shall then be entitled to receive £1 per week. The affairs of the Society are to be managed by a board of directors, elected in part by the committee of council and the branches of the British Medical Association, and in part by those members who do not belong to the Association. The chairman and vice-chairman are to be elected by the British Medical Association at its annual meeting. The directors are to hold an annual meeting either in July in each year or at the time and place of the annual meeting of the British Medical Association, and are to meet at such other times as the business of the Society may render necessary. Provision is also made for calling special meetings of the board. A report is to be presented to the annual meeting of the British Medical Association. The directors are to elect a treasurer, secretary, trustees, and auditor; as well as an executive committee for carrying on the business of the Society. The special duties of the various officers are defined. Power is given to the Society to appoint agents in such localities as they may think fit; and they are instructed to appoint duly registered Practitioners to act as referees in cases demanding inquiry. After the appointment of Dr. Henry as Secretary, with a salary of £100 per annum, and some votes of thanks to Mr. Finlaison, the Actuary, Mr. Clay, and the Chairman, the meeting adjourned.

Conviction under the Health of Towns Act.—At the Thames police-court, on Saturday, January 28, Messrs. Alexander Scott Duncan and Joseph Stott Campbell, proprietors of the Albion Chemical Manufactory, Old Ford, Bow, appeared before Mr. Partridge to answer an information and summons exhibited by Mr. Edward Fulcher, sanitary inspector of the Board of Works for the Poplar district, for permitting a nuisance injurious to the health of the inhabitants of the neighbourhood to exist on their premises, and not using the best practical means for abating the nuisance. Dr. Thomas Ansell, Medical officer of the north district, Poplar, Board of Works, said he had visited the defendants' works with Dr. Letheby, and they had made a joint report. The defendants were manufacturers of sulphate of ammonia and carbonate of ammonia from ammoniacal liquor of gas-works, brought in covered tank barges alongside the works on the banks of the Lea river. The liquor was pumped from the barges into a large tank on the upper floor of the building. This tank was about sixty-two feet long, seven feet wide, and two feet six inches in depth. It was capable of holding 6500 gallons of liquor. The tank was covered, and everywhere air-tight as far as could be perceived, except at the opening, where the liquor was pumped into it, and here the offensive effluvium from the liquor could, and no doubt did, escape at the time of filling the tank. The liquor was pumped from the store

tank into two tanks on the same floor, or run into a tank on the ground floor, where it was saturated with sulphuric acid. Each of those tanks would hold about 3000 gallons of liquor, and at the time of its being saturated with sulphuric acid it evolved abundance of sulphuretted hydrogen, which was conveyed by an iron pipe to a furnace, where it was burnt. While the process of saturation with acid was going on, the vapour of ammonia and sulphuretted hydrogen and steam was conveyed into the saturating tank from a charge of ammoniacal liquor contained in a boiler heated by steam or by a fire, and as soon as the liquor was saturated it was run off by a syphon into evaporating troughs, situated on the ground-floor of the building. This was being done at the time of his visit, and he and Dr. Letheby ascertained that the hot saturated liquor was evolving abundance of sulphuretted hydrogen, which escaped freely into the open air. The quantity of sulphuretted hydrogen so evolved was sufficient to blacken lead paper he prepared as a test in a minute. The vapours were poisonous and injurious to health when evolved, depressed the nervous system, and produced nausea, headache, loss of appetite, and general debility. The best means had not been used to abate the nuisance. He had visited the works that day. The manufactory was not in operation; alterations were being made, and the saturating tanks were being cleaned out, with a view of carrying out the suggestions of himself and Dr. Letheby. After the several witnesses had been called to prove that their health and that of their families was injured by the works in question, Mr. Partridge said it was proved by clear and most indisputable evidence that the defendants' factory was a nuisance and injurious to health, and that the best practicable means had not been used to abate the nuisance. He fined the defendants £5, with two guineas costs.

Number of Doctors in Medicine in France.—M. Bonjean, in the *Journal de la Soc. de Statistique*, gives the following as the number of the persons to whom Doctors' degrees were granted in France between the years 1795—1863:—By the faculty of Paris, 16,043; of Montpellier, 6820; of Strasburgh, 1800; total, 24,663. According to an official statistical inquiry made by the French Government, in 1861, there were then practising in France 11,546 Doctors of Medicine, and 5687 *officiers de santé;* giving a total of 17,233 Practitioners. It is thought that 18,000 Practitioners, in round numbers, may amply suffice for the wants of the population; and the question is, how many need to be annually admitted to keep up this number. Very discrepant accounts have been published as to the annual mortality among French Medical men, varying from 1 in 56 to 1 in 30, and requiring recruitals to the amount of 321 or 600. The mean of these numbers—460—would seem to be pretty near the truth, and is, in effect, the figure arrived at by M. Salvandy by a separate calculation. As to the question whether, in the present tendencies of the middle classes, these numbers will be supplied, it is to be observed that during the ten years 1853-62 there had been 408 Doctors' diplomas annually recorded—furnishing the required number all but by 5; and that without counting the *officiers de santé*, a grade which Medical reformers are seeking to abolish.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

H. O.—The paper is intended for publication, and will appear shortly.

Douglas, Isle of Man.—You had better apply to the author of the paper.

Hope (Micheldever) will find relief from a tonic *régime* prescribed by any Practitioner of experience.

An Invalid can consult either of the Surgeons he names with entire confidence.

G. (Stoke Newington) should apply to Dr. Robert Barnes, President of the Obstetrical Society.

Our notice of the *Drainage Difficulties at Bournemouth* is unavoidably delayed by want of space.

We shall, as soon as possible, give an article, or short series of articles, on *Modern Dermatology* (or *Dermopathy*, or *Dermotherapia*), in which the recent works of Erasmus Wilson, Mr. Williams Williams, Dr. Squire, Dr. Hillier, Dr. Frazer, and Dr. Tilbury Fox shall be dualised.

M.D., Dublin.—Dr. Theodore Goulston was the founder of the lectures bearing his name, for which he left £200 to the College of Physicians. He died in 1632.

West London Association for the Suppression of Public Immorality.—We believe that Sir Richard Mayne is right in his law, and we regret it. The whole subject of prostitution must come under review shortly, and some effective law be framed for freeing our streets from congregations of prostitutes, as they have been freed from assemblies of betting men.

Vaccine Virus.—Yes; Baron Dimsdale represented Hertford in Parliament in 1780, and again in 1784. He was created a Baron of the Russian Empire, with a pension of £500 per annum and a present of £12,000, for his successful inoculation of the Empress and her son.

Mr. B. T. Lowne writes very angrily, but all that he says strengthens what we have before said. We said that he did not consult the Physicians and Surgeons of the Farringdon Dispensary, and that he did consult the Honorary Secretary of the institution, who is a potato dealer. Mr. Lowne says the same. Mr. Lowne says "I simply called Mr. Shuter to see Daly, that he might hear the poor man's statement of the treatment he had received in the workhouse, and so relieve my mind from the terrible responsibility of knowing of such a case and keeping it a secret." We say this is just what we accuse Mr. Lowne of doing—of not calling in the Medical officers, his superiors, who ought to have been consulted, and of bringing in the potato dealer, who had no right whatever in a sick room.

Medical versus Legal Coroners.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—We need a stroke from your powerful pen on the old subject, "Medical *versus* Legal Coroners." Our coroner (Mr. Cooper, Surgeon) has just died, and we expect a great fight for the vacant office. Amongst the candidates are two lawyers and, I am happy to say, a Surgeon (Mr. Garrington), who has the entire confidence of his brother Practitioners. Having been mayor of the borough, at present wearing the aldermanic gown, and being, moreover, J.P. (made so by petition of the inhabitants to the Lord Chancellor ten years ago), universally respected and esteemed as a man of integrity and sound judgment, we feel a more eligible man could not be found to fill so important an office. I am, &c.

One of the Medical Practitioners of Portsmouth.

Portsmouth, January 31.

Pryce *v.* Bowen.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I wish to inform the members of the Profession that sufficient contributions have been raised to enable Dr. Bowen to defray the legal expenses incurred by the late trial, Pryce *v.* Bowen.

I am, &c. H. D. Scholfield, M.D., Treasurer.

14, Hamilton-square, January 31.

Further contributions to the Bowen Fund:—Preston, per Dr. Hammond, £17 16s. 6d.; Dr. Waters, Chester, £5 5s.; Dr. Stevenson, Birkenhead, £5; Mr. Mallock, chemist, Birkenhead, 10s. 6d.; J. Bontflower, Esq., Manchester, £1 1s.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I shall feel greatly obliged if you will publish the following additional list of subscribers to the Bowen Fund in the next issue of the *Medical Times and Gazette*:—James Hall, Esq., Preston, £1 1s.; W. H. Spencer, Esq., Preston, £1 1s.; E. L. Dixon, Esq., Preston, £1 1s.; Dr. Arminson, Preston, 10s. 6d.; Dr. Marshall, Preston, 10s. 6d.; J. Rigby, Esq., Preston, 10s.; Dr. Gradwell, Lytham, 10s. 6d.

I am, &c. J. H. Hammond.

Winckley-square, Preston, January 31.

Diabetic Dietary—Potato Gluten.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In the interesting and singularly full diabetic dietary by Professor Bouchardat, cited in Dr. B. Jones's Lecture in your last, I see no mention in the list of permitted articles of the gluten of potatoes. Potatoes in their ordinary state are very properly placed in the list of prohibited articles. I am in the habit myself, however, of ordering potato gluten in diabetic cases. I did so in the case of a diabetic patient whom I saw for the second time yesterday. The case was that of a poor farmer. There is nothing peculiar about it. There is a very copious emission of highly saccharine urine. The habits of the poorer classes in the country here render the employment of potato gluten comparatively easy. I directed my patient then to discontinue baker's bread and to substitute "boxty." I also recommended eggs and boiled fish, along with butcher's meat, as often as he could procure it. I made him clothe in flannel, and directed the occasional use of a hot air bath, bricks being heated in a common fire for the purpose.

The country people prepare for laundry purposes potato starch. Raw potatoes are peeled, grated, and washed. The gratings from which the boxty cake is made remain in the colander, while the starch passes through. This boxty cake, which I beg to commend to the notice of the Profession, has a peculiar but not unpleasant flavour. I remember to have partaken of it in the country while a child, in one of the houses of the peasantry. Grated potato might be readily dried and converted into gluten flour. If ground after being cooked it would answer nicely to thicken soup or custard, and might even help as part ingredient in a pancake. Flour gluten, however, can be prepared at any time by kneading dough in water. But when good potatoes can be obtained I would strongly commend the boxty bread, if only as a change. I am, &c.

Belfast, January 29. Henry MacCormac, M.D.

The Indian Medical Service.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I read with great pleasure the admirable letter in your last number signed "An Indian Surgeon," which I beg to endorse; and the only regret is that others do not come forward and give their opinion before it is too late.

You say the Court of Directors dispensed with the services of their

Medical officers "without scruple when occasion required," whereas the very opposite was the case, the Court of Directors invariably directing that their officers should be tried by Court Martial, and in the case of Captain B. (connected with the mutiny in the 6th Madras Cavalry), who was tried by Court Martial, but whose sentence was not satisfactory to the Commander-in-Chief, who wrote to the Court of Directors not to confirm it, but to dispense with his services, to their honour be it said, they declined to interfere with the sentence of the Court Martial, and ordered it to be carried out. And now the strange part remains to be told. Lord Tweedale was so annoyed at his advice being declined, that he virtually forgave the officer.

As I was at Madras at the time the services of the Medical officer you allude to were dispensed with, I must inform you that you are wrong in your statement as to his case not being cognisable by Court Martial: the Commander-in-Chief stated that he could be brought to trial by Court Martial, but as it would entail great expense, the witnesses being in England, he advised his services being dispensed with. I should say, the Court of Directors sent him out from England with orders to have him tried, and it was only after months of correspondence they acted on the advice of the Commander-in-Chief, and it was very seldom they exercised this prerogative, as there was a mutual covenant between the Company and their officers, under which they could not be put on half-pay, as in the British service, on the reduction of the army. Had this not been the case, the Indian Secretary would long since have put hundreds of officers on half-pay, so anxious was he to get rid of them; but he had to give large bonuses, in the shape of increased pensions, to induce some to retire. The Medical officers alone got nothing, as they have no one to fight their battles; even their own journals, instead of taking their part, raise their voice against them, as witness your last editorial, where you write of our "discontent being chronic." But journalists who profess to instruct the public should be more cautious in their assertions. Have you compared the so-called advantages of this despatch (for it is not a Warrant, which makes a great difference) with the privileges and pensions under the Company? If you do, you will find that, though we under the Company grumbled, yet we were far better off than those will be who enter under Sir C. Wood's despatch, which, as your correspondent states, gives "no guarantee for anything."

You say, "all the civil and other European charges at the Presidencies remain intact." Will you read Section 20 of the despatch, and then say if you still adhere to your statement? You cannot, for Sir C. Wood distinctly orders "uncovenanted members" to be employed; and when this is done at the Presidencies and civil stations, it will be in his power to place the Medical officers he may not want on half-pay. And is a good opening for young men to get private practice in India?

That there have been complaints of the seniority system in India I will not deny, but upon what grounds I never could ascertain. You write as if you supposed the duties of a Deputy-Inspector of Hospitals required great Medical talent; on the contrary, their duty is to audit and check the expenditure in Hospitals—in fact, they are commissariat officers, their whole time occupied in useless correspondence regarding the extra expenditure of perhaps a quarter of an ounce of lamp-wick, washing, or a few limes. They visit Hospitals at head-quarter stations once a week; and it is true their advice may be asked in important cases, and we are ordered to do so; but from the date of their appointment they may put their talents to grass.

Your remarks on the Medical Funds are wholly inexcusable; any Medical officer could tell you they were the great boons of the Company's service, and not to be compared with insurance offices for a moment. That the Bengal and Bombay Medical Funds are not what they were or should be is no fault of the Company. I give you particulars of the Madras Medical Fund, which was established in 1807, and consists of three branches—viz., annuity, charity, and sick allowances. "The annuity" gives £400 a-year, according to seniority, to members who have served for a pension. (To those who leave the service from ill health before completing their service their subscriptions are returned.) For this annuity we pay £1200 by monthly deductions from our pay. "The charity" branch gives pensions to widows of £228 11s. 5d. a-year, and to children, according to age, from £20 to £70 17s. 1d. (the latter beginning at 11) a-year, to boys till 21, and to girls till death or marriage, with reversionary benefit in the event of widowhood. And for these we pay according to age, thus:—I married at the age of 28, and paid £370, which secures a pension as above to my wife. At the birth of my last child (a girl) I was 46, and paid £88 16s. to secure a pension as above to my daughter. "The sick allowance" branch gave, when on sick leave to Europe, £108 7s. 6d. a-year to Surgeons, and £81 7s. 6d. a-year to Assistant-Surgeons for three years. For this we paid £200 by monthly deductions from our pay. Now, Sir, will you tell me the insurance office that will give the same advantages for the same money? If you do, I promise to pay to any charity you name the sum of £50. I am often surprised at the public ignorance on subjects connected with India, but I was not prepared for the amount of ignorance shown by Medical journalists during the discussion of this subject. And yet the editors do not fail to lash the writer who asserts anything contrary to their preconceived notions. How could you have read Section 27 of the despatch as still giving staff salaries? It says distinctly "in future, the salaries being in all cases consolidated;" and the next section gives the amount of the consolidated salary for each rank. Heretofore we drew pay and allowances, with staff salary, according to the appointment we held. Thus, as regimental Surgeon, with a staff salary of 300 rupees a month, I have had charge of a garrison Surgeoncy, for which I got 500 rupees a month. All these extras are now abolished, and, no matter what the work is, pay is according to standing or rank.

In conclusion, I must say your last paragraph is in very bad taste; you have attempted to criticise your correspondent's letter without being well up in your subject. Nor have you shown the good points in the new service. The highest pension under the old rules was £700 a-year, with Medical Retiring Fund (at Madras £400); under the new rules the highest pension is £550. I leave your readers to draw the conclusion which is best.

I am, &c.

January, 1865. ANOTHER INDIAN SURGEON.

P.S. Since writing the above I have read in your last number Dr. F. Bowen's interpretation of the 27th Section of Sir C. Wood's despatch, which was as much a surprise as the interpretation you gave; and as to an allowance of 100 rupees per mensem for Divisional Staff, it is the first time, after twenty-two years' service, that I heard of it. I have had charge of divisional and brigade staffs on more occasions than one, and never received more than 30 rupees a month; nor have I seen the pay code that authorises more. The words of the Section are plain—"the salaries being in all cases consolidated."

COMMUNICATIONS have been received from—

Dr. GEORGE BURROWS; Dr. J. C. THOROWGOOD; ETHNOLOGICAL SOCIETY OF LONDON; Dr. T. DOWNIE; Dr. R. LUCAS; APOTHECARIES' HALL; Dr. H. D. SCHOLFIELD; EPIDEMIOLOGICAL SOCIETY; Dr. J. H. HAMMOND; THE MEDICOS OF PORTSMOUTH; OBSTETRICAL SOCIETY OF LONDON; Dr. H. MACCORMAC; Mr. H. DOLBY; Mr. STARK; Surgeon-Major WYATT; Mr. B. J. VERNON; GALOI LOBB; Dr. J. JONES; OUR OWN AMERICAN CORRESPONDENT; Dr. C. CLAY; Mr. B. T. LOWNE; ROYAL INSTITUTION; Mr. H. OSBORN; MEDICAL SOCIETY OF LONDON; HUNTERIAN SOCIETY; Mr. W. N. HIRON; Mr. J. PEEKE RICHARD.

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 28, 1864.

BIRTHS.

Births of Boys, 964; Girls, 930; Total, 1894.
Average of 10 corresponding weeks, 1855-64, 1894·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	913	834	1747
Average of the ten years 1855-64	713·0	734·3	1447·3
Average corrected to increased population..	..	..	1591
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	3	9	4	2	11	11	..
North ..	618,210	8	4	13	3	16	16	..
Central ..	378,058	1	2	7	1	13	13	1
East ..	571,158	..	5	14	3	26	22	2
South ..	773,175	2	6	19	8	15	14	4
Total ..	2,803,989	14	26	57	17	81	76	7

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·430 in.
Mean temperature	31·7
Highest point of thermometer	38·0
Lowest point of thermometer	19·6
Mean dew-point temperature	27·7
General direction of wind	N.E.
Whole amount of rain in the week	1·53 in.

APPOINTMENTS FOR THE WEEK.

February 4. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Marshall, "On the Nervous System."

6. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m. Dr. Babington, "Suggestions for the Diminution of Venereal Disease among the Civil Population."

MEDICAL SOCIETY OF LONDON, 8 p.m. E. Symes Thompson, M.D., "Notes on Cases of Tumour in the Mediastrium." Mr. Teevan, "On Certain Fractures of the Skull."

ROYAL INSTITUTION, 2 p.m. General Monthly Meeting of Members.

7. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Professor Busk, F.R.S., "On Human Remains from Gibraltar."

PATHOLOGICAL SOCIETY, 8 p.m. Meeting.

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, F.R.S., "On Electricity."

8. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

HUNTERIAN SOCIETY, 7 p.m. Annual General Meeting. 8 p.m.—Annual Oration, by Mr. Hutchinson.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Lettsomian Lectures—Lecture I. "On Some Points connected with Fistula in Ano," by Henry Smith, Esq., F.R.C.S.

9. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, F.R.S., "On Electricity."

10. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

HUNTERIAN SOCIETY, 6 p.m. Annual Dinner.

ROYAL INSTITUTION, 8 p.m. W. G. Palgrave, Esq., "On Arabia."

ORIGINAL LECTURES.

LECTURE ON THE RESULTS OF THE SURGICAL TREATMENT OF CANCER.

By T. SPENCER WELLS, F.R.C.S.,
Surgeon in Ordinary to Her Majesty's Household.

GENTLEMEN,—Perhaps there is no question which more frequently arises in practice, or which is answered with so much doubt and hesitation, as the question, "Should a cancer be removed?" At one time removal was the general rule of practice. Then the frequency of return after removal, and the revival of the humoral or chemical pathology, led to the rule only to operate in exceptional cases. It was asserted that by removal of a cancer in the early stage we only removed one seat of deposit, left the blood unaltered, encouraged deposit in some other part, and so did more harm than good, often shortening life. Therefore it came to be a sort of rule of this school not to attempt to remove or destroy a cancerous tumour, unless it was either actually ulcerated, or growing so fast that the skin was about to give way, or the destruction of some vital part was threatened. It was urged that growths, having all the characters of cancer, occasionally disappeared under the influence of hygienic or Medical treatment—that other such growths have sometimes remained completely dormant for many years without injuring the health or shortening the life of the individual—and that it was absurd to say the disease was not cancerous in such cases because the patient recovered, or lived to old age unaffected by the local disease. But the most determined leaders of this school admitted that in cases where an open cancer gives great pain, and is wearing away the patient by bleeding or profuse discharge, this cancer should be removed, in the hope first of relieving suffering, and secondly, of prolonging, though not of saving life. In some other cases where a cancer caused great mental anxiety to a patient, it was to be removed at her earnest entreaty, after fairly explaining the probability of a return of the disease. For many years these rules were followed in practice, and are so still by many excellent Surgeons. But during the last four years a marked change has been taking place, and the Professional mind is still in a state of transition. The transudation hypothesis is falling before the cellular theory. The belief that cancer is always a disease of the blood is severely shaken by the vigorous attacks of Virchow, and the positive and visible demonstration which he affords of the local origin of morbid growths, and the secondary contamination of neighbouring parts and of the blood by extension and by absorption of the products of local disease. He has gone very far towards proving that the cells of the connective tissue (commonly known as cellular or areolar tissue) are the ovules of cancerous growths, as they are of all the new cellular productions. We are still ignorant of the nature of the peculiar change or irritation which, in the first instance, alters a connective tissue cell into a cancer cell; but when once this change has taken place, and the altered cells begin to grow and multiply by division, we have clearly a focus both of local and general contamination—local, by imbibition of the fluid formed by the diseased cells into the healthy cells of adjacent tissues; and general, by absorption or transudation of the morbid products through the lymphatics and veins. Thus the harder the tumour, the less likely to spread; the softer, the more likely both to spread locally and to contaminate the blood. The direct and necessary practical deduction for the Surgeon from these views is, that all malignant growths should be removed in their earliest possible stage—as soon, in fact, as their nature is ascertained; and to this rule Surgeons seem to be partially, though perhaps unconsciously, returning.

It requires the observation, and careful observation, of many years, and of many independent observers, to settle such a point as this; but a great deal has been done to show, by comparing a large number of cases of cancer where removal has been practised with others where the patient has been left without operation, that the average duration of life in the patient operated on is decidedly lengthened. No trustworthy data exist for making such a comparison with cases in which the tumour was removed at a very early stage; but my own experience is leading me to adopt the rule deduced from the pathology of Virchow. I have had several cases since the publication of my pamphlet on "*Cancer Curers*," in which I have excised growths which microscopic examination has proved to be truly cancerous, and in which no return has yet been observed. The time is obviously too short to speak of them as permanent cures—indeed, it is almost certain that in nearly all there will, sooner or later, be a return; but the result has satisfied me that the rule of practice most commonly followed may be advantageously modified in cases where the disease is in a very early stage. The operation at that stage is a very trifling one, is perfectly painless under chloroform; and so little necessity does there appear to be to keep patients to their rooms, that I have both in private practice and among Hospital out-patients allowed them to come backwards and forwards from their homes. Supposing the general health to improve, and the cause which led to the first change in the connective tissue cells should not operate again, then *removal* really becomes *cure*.

If the teaching of Virchow, the greatest of living pathologists, be true—if the belief in the universal constitutional origin of cancerous tumours be unfounded—if the constitutional disease is, even in some few cases, secondary, the morbid condition of the blood originating in, and being kept up by, a supply of hurtful ingredients from some diseased locality—how hopefully may both Surgeon and patient look upon the treatment of cancer in its early stages, before the germs have spread into neighbouring tissues, before they or any irritating fluid have been conveyed to a distance, before the healthy cells of neighbouring parts have imbibed by endosmosis the specific or parenchymatous fluid, or this fluid has been carried by lymphatics or veins to distant parts. And, on the other hand, how fearful is the responsibility of the cancer curer who tampers with the life of the poor sufferer who has confided in his knowledge and skill! If he attempt to procure absorption of the tumour and succeed, he may produce the general contamination of the blood of which the growth itself was erroneously regarded simply as an "outward and visible sign." If he fail, he still gives time for the growth of germs, and for extension first locally and then by absorption. If he employ caustics, he may be adopting the very practice of all others most likely to lead to a rapid and general development of cancer throughout the body, by hastening softening of the growth, setting up irritation in neighbouring parts, and assisting the transmigration of cancer cells through the blood to distant parts of the body.

The fact that *removal* may really result in *cure*—that the disease may not return—should certainly encourage both patient and Surgeon to think of removal in any case where the whole of the diseased part can be removed without unusual risk or difficulty; but it would be very wrong to conceal from any patient the fact that this happy result is extremely rare, and that, except under very unusual circumstances, no more can be expected from removal than prolongation of life and diminution of suffering.

That *life is prolonged* by removal is now satisfactorily established by statistics. The results of different statistical tables vary. But those most to be relied on tend to prove that the average duration of life in those operated on is certainly greater than in those in whom the disease is allowed to run its course without operation. In a valuable lecture, published in the *Medical Times and Gazette* in 1862, Mr. Paget says, "In a recent tabulation of Hospital and private cases, 85 cases operated on lived an average of 55-6 months, and 62 cases not operated on lived an average of 43 months. And some such proportion as this will probably always be found."

Not only is life prolonged, but *suffering is lessened*. The amount of suffering, mental and bodily, of a patient during the ordinary course of cancer is very great. "Consider," says Mr. Paget, "the pain and anxiety—the pain likely to increase daily—the misery of waking every day to the consciousness of an incurable disease; the sometimes loathsomeness; the restlessness for cure—cure, such as there are *never wanting dishonest men to promise.*" By an operation painless under chloroform, and not followed by painful dressings, this constant, daily, weary pain is relieved for a time, and the patient is also restored to a state of mental comfort which is as great a gain as the relief from pain. In some cases, where there is no hope of prolonging life, the pain and suffering from an open cancer are so great that it is right to operate simply to obtain for the patient a comparatively painless death.

If, then, the oft-repeated objection to operation—that life is not lengthened but shortened—is satisfactorily answered; if we also dismiss as unproved, and certainly erroneous, the suggestion that when the disease returns it will be in a more aggravated form than if the disease had run its own course,

the question arises, "Why not operate in every case?" And the answer is ready, "Because the operation is one attended with risk to life." In some cases this risk is very great, in others very small; but taking the average of some hundreds of cases, Mr. Paget estimates that "a patient runs a risk of 1 in 10 of dying" from the operation. Others estimate the risk as low as 5 per cent., or 1 in 20.

In a consultation, however, upon any individual case, neither patient nor Surgeon will be content with a mere statement of averages. It is seen at once, as from 1 in 20 to 1 in 10 die of the immediate effects of the operation, and the average life of those operated on is over 55 months, that some patients must live many years. And the questions which are asked are not: What are the *general* results of operation? How long do people *in general* live after it? How soon does the disease *generally* return after operation? but the individual case is pressed home: What risk would there be to *my* life? How long should *I* be likely to live? How soon might *I* expect a return of the disease?

It is said, and said truly, that general conclusions can only be drawn from general averages. Mr. Paget says—"To deal with single cases is a sort of Surgical gambling." The gamblers, however, are they who operate in nearly every case which comes before them and they who operate in none, both classes satisfying themselves by statistical tables and general averages, rather than by forming a careful estimate of the probable results of treatment in each case. Each case must be considered by the light of general experience, but it is no less in itself a subject for separate calculation. And in every case which comes before us we must be guided by certain general rules, the most important of which may be shortly summed up as follows:—

Risk of Removal.—The average mortality being from 5 to 10 per cent., in what cases is the risk above and in what below the average? Supposing the patient to be placed under the most favourable circumstances possible to prevent the occurrence of erysipelas, pyæmia, any form of septicæmia, or secondary hæmorrhage (the chief causes of death *soon* after operation) the probable liability of any patient to these dangers may be estimated by observing certain general and local conditions. The *general* conditions favourable to operation, or those which may fairly justify the hope that a patient will not die from its effects, are that she is not more than 60 years of age, not emaciated, is well-nourished, clear-complexioned, temperate, courageous and even-minded, and free from other organic disease. The reverse conditions are seen in patients over 60 years of age—in over or under fed people—the emaciated, or the fat and plethoric—those of cachectic, leukæmic, or chloro-anæmic aspect—the dejected or hysterical—and they who, in addition to the cancer, have some organic disease of heart, lungs, liver, or spleen. The favourable *local* conditions are that the skin over and near the tumour is soft and healthy, free from œdema, freely moveable, and free from scattered nodules of cancer—that there are no diseased cervical glands—none, or few, diseased axillary glands—that the breast is small—that only one breast is diseased—and, if only part of one be affected, that this is the lower part. The unfavourable local conditions are that the skin is brawny, the hair-follicles large and open, the skin over the tumour adherent, that there are scattered cancerous tubercles in the skin, that the supra-clavicular glands are swollen, that there are many diseased axillary glands, that the breasts are large, that both are diseased, or, if only part of one, that it is the upper part.

By bearing these things in mind it is not difficult so to select cases as to reduce the risk of removal to a very low average, and there can be no difficulty in deciding in any case whether the risk is greater or less than the average.

When part of one breast only is affected, the rule generally followed is to remove the whole breast; and this rule is a good one if the breast is small. But when only a small portion of a large breast is affected, it is much less dangerous and equally effectual to remove the diseased part and some of the surrounding healthy tissue, than to remove the whole breast. There is good reason to believe that the disease is as long in returning when only the diseased part has been removed, as when the whole breast is removed.

When it has been decided to remove cancer, the question will arise, "Should it be removed by the knife, or by caustic?" And the answer must be framed again upon full consideration of all the circumstances of each case, but guided by the following general rules:—

1. There is no proof whatever that the return of cancer after removal by caustic is less rapid than after removal by the knife. On the contrary, it is probable that the return will be more rapid, (*a*) from the greater probability that some portion of the cancer will escape the action of the caustic than the dissection of a careful Surgeon; (*b*) from the inflammation set up in the surrounding tissues and the irritation of neighbouring glands.

2. Admitting that the immediate risk to life from the removal by caustics may be less than after removal by the knife—in other words, that pyæmia and hæmorrhage are less likely to occur—we have abundant proof that the risk is very considerable, and that the intense and long-continued suffering does in itself lead to exhaustion and death.

3. It is possible that the attempt to remove a cancer by caustics may fail altogether, that the irritation set up in the diseased growth and in the parts surrounding it, or the extension of the sloughing to vital parts in the neighbourhood, may destroy the patient before the cancer is destroyed.

These objections will generally lead the Surgeon to advise the patient rather to submit to excision than to caustics. But in some cases, where the situation of the growth is such that the knife cannot be used safely, caustics are decidedly preferable, as they are also in cases where the growth is small, or of moderate size, and slow in its progress, while the unhealthy general condition of the patient would render the knife more than usually hazardous; for, as Mr. Paget has said, "the constitutional maladies that greatly increase the risk of cutting, do not, except very rarely, increase the risk of caustics." There are also some cases of open cancer in a very late stage of the disease, so adherent that the knife could not be safely used, where the diseased part may be completely destroyed by caustic, and a sound cicatrix may result. Sometimes it may be well to leave the choice to a patient, after representing to her fairly the advantages of the two methods. Some may be guided by the dread of the knife, others more by the dread of pain, and it is right to allow these fears their full weight.

The cases decidedly unfit for caustics are those of acute or rapidly-growing cancer, or those of large size, and those where there is an œdematous, brawny, or tuberculated or ulcerated condition of the surrounding skin, and those where the supra-clavicular or axillary glands are enlarged and indurated. And most of the conditions which on general grounds forbid the use of the knife also forbid the use of caustic.

Supposing it to be decided to destroy a cancerous tumour by caustic, all the evidence before us goes to prove the chloride of zinc to be the most effectual and safest yet employed; that it is a matter of great indifference whether it is employed as a paste or in solution; but that its action is considerably hastened by scoring through the slough, as Justamond did, down to the living tissues beneath, so that they are not protected by the slough from the action of the caustic. This scoring is not so necessary when the chloride is used in solution as when it is used as paste, after destroying the skin by nitric acid; and it is not at all necessary if one or more pairs of galvanic plates are used as the caustic. If a piece of zinc be placed on any raw surface, and a piece of silver near it, a silver wire connecting the two, the part covered by the zinc is destroyed very rapidly, and the slough formed is a very soft one, which is easily sponged away. I saw a lady in 1854, with Dr. Lawrence, of Connaught-square, suffering from cancer of the breast, and we decided, on consultation, to adopt this method, which Dr. Lawrence carried out most effectually. I should not be at all surprised to hear that the next great empiric who appears in London will profess to cure cancer by galvanism.

Occasionally it is advisable to apply the actual cautery instead of using caustic, and I have recently found the use of a small jet of lighted gas, by means of the instrument made by Mathieu for M. Nélaton, very efficacious. It is much more easily arranged than the galvanic cautery, is equally manageable, and has the great advantage of destroying parts without touching them; so that there is no fear of the eschar adhering to the metal, being removed as the metal is withdrawn, and bleeding thus being set up. In cancer of the upper jaw, or base of the skull, which project into the mouth, very great temporary relief is gained, even if only a partial destruction of the growth can be effected.

When removal cannot be recommended either by the knife or by caustics, it must be remembered that we can do a great deal more towards arresting, even curing cancer, than is generally believed—that our art is not nearly so powerless as charlatans assert. Growths with all the characters of cancer have occasionally, although very rarely, disappeared under the influence of remedies. Other such growths have remained com-

pletely dormant for many years, without affecting the health or shortening the life of the individual; and it is absurd to say that the disease was not cancerous in such cases because the patient recovered, or lived to old age unaffected by the local condition.

ORIGINAL COMMUNICATIONS.

RATIONALISM AND EMPIRICISM IN MEDICINE.

By J. STEVENSON BUSHNAN, M.D.,
Fellow of the Royal College of Physicians of Edinburgh, Resident-Physician Laverstock House Asylum, Salisbury, etc., etc.

It is a singular proof of the slow progress of Medicine as a science, that the controversy which arose among the Greek Physicians between two and three thousand years ago, known as that between the empirics and dogmatics, still exists. As it seems to me, this requires to be fully understood by all who desire to penetrate into the real character of Medical science and Medical practice. The modern Medical world is indebted to Celsus for a succinct summary of the arguments employed in ancient times by the contending parties. There are also due to Celsus certain views which constitute the foundation of a middle course between the two original extremes of the controversy such as in recent times has been known under the name of the "empirico-rational, or the rational empirical."

There would not, however, be much profit afforded to a modern audience by a detail of the several particulars made use of by Celsus to illustrate the differences between the empirical and the rational, or to bring out his ideas regarding an intermediate empirico-rationalism or rational empiricism, since that which in ancient times was regarded as physiology and pathology represents only in a very remote degree the physiology and pathology of the present day. The rationalist of modern times would not regard his cause as in any degree promoted by a recital of the grounds on which, in the age of Celsus, it was argued that the treatment of diseases should essentially rest on theory or principle. Here the empirical Physician has the advantage, for he may still adopt the arguments recited by Celsus in behalf of the empirical as bearing on that view of Medicine which he has embraced. Moreover, he may insist on putting this posing question to an opponent upholding the rational—namely, Would not a rationalist two thousand years hence regard your physiology and pathology as no more fit to found the treatment of diseases upon than you consider what was called physiology and pathology in the days of Celsus adequate to that object? No thinking man could venture to give an absolute negative to this question. He might no doubt point out that many of the natural actions which the empiricist in the age of Celsus held to be inscrutable have been since sufficiently laid open so as to afford explanations of certain parts of the treatment in diseases; and he might thence infer that at the distant future referred to other natural actions, now imperfectly understood, would then be so known as still further to render theory available for the foundation of practice. But in this argument the rationalist has taken a lower stand, and has identified himself with the supporter of the middle course referred to above as empirico-rationalism or rational empiricism; not to mention that in this argument the assumption is made of the impossibility of physiology and pathology retrograding from the height on which these sciences unquestionably stand at present.

Nevertheless, in presenting such a view of the empirical, the rational, and the empirico-rational, as belongs to the actual state of Medicine, it is of consequence, for many reasons, to preserve as far as possible the original limits pertaining to these three several aspects of the whole body of Medicine.

For this purpose a slight notice of some of the leading points in the survey taken by Celsus of this celebrated controversy will not be out of place by way of introduction to the subject to be treated of.

In the first place, then, it is to be remarked that in the account which Celsus gives of rationalism he takes care to make it appear that the rationalist does not neglect experience. On the contrary, he represents him as regarding experience as ineffectual without the previous knowledge of what constitutes theory or principle. He says "Practice is not sufficient unless the constitution of bodies and things be known." In another passage he points to the still more explicit limitation of the doctrine of the rationalists. He says, "Nor do they deny that experiments also are necessary, but they contend that not even access can be had to these unless from some theory." Again, he shows the rationalist view as teaching that experience is essential to establish the truth of what principle had suggested. "The more ancient Practitioners did not prescribe at hazard anything for their patients, but considered what would suit them best, and examined that by experience, to which some conjecture had previously led them."

It may be said, then, that according to the light in which Celsus exhibits rationalism, it includes all that the empirical view requires, while it seeks theory or principle to be superadded. If it were true that this is rationalism in its reality, and that it had preserved this character through all past ages, no excuse could be made to raise a finger against its pretensions. But it will be found that the history of rationalism is far from confirming this favourable idea of its character. It may be the case, however, that the mischiefs of which it has been the source are solely the result of an abuse of its principles.

The empirical does not by any means make so favourable a figure in the hands of Celsus. He represents the idea of the empiricists as to Medical inquiry as similar to that of the barbarian Mussulman as to other books besides the Koran. "They ask," says he, "whether theory teaches the same thing as experience or another; if the same, that it is needless; if different, that it is even mischievous." In short, it does not appear that in the time of Celsus the empiricists had any idea of an ulterior improvement and progress in human knowledge, whether relating to Medicine, or to any department of the knowledge of nature. They gave attention to the evident causes of diseases, because it was necessary to teach men to avoid these; but they held it to be superfluous to inquire into the concealed causes of diseases and the natural actions of the body, because a knowledge of these is unattainable. "They contend, he says, "that an investigation of the obscure causes and natural actions is fruitless, because nature is incomprehensible. But that it cannot be comprehended is evident, from the discord of those who have disputed concerning these things; since it is not agreed upon concerning that matter, either among the professors of philosophy or among Physicians themselves."

The frequent coincidence between theory and practice they held to be of very easy explanation—namely, that remedies were first of all discovered by experience, and that after this discovery men set about finding a reason why these remedies should succeed. "Not that medicines were discovered after theory, but that theory was sought for after medicines were discovered."

In the view which Celsus takes of the middle course which he recommends between the extreme opinions respectively held by the empiricists and rationalists there is great good sense. With respect to the causes which secure health and give origin to diseases, to the mode in which breathing and digestion are carried on, the professors of philosophy, he tells us, have not a clear understanding, but only a conjectural idea. But, he adds, when there is not a certain knowledge of an action, a theory of that action cannot suggest a certain remedy. On the other hand, he says there are many things not specially belonging to an art which are of much service, because they arouse the ingenuity of him who practises that art. It will be well to remember the maxim, "Itaquè ista quoque naturæ rerum contemplatio, quamvis non faciat medicum, aptiorem tamen medicinæ reddit;" the contemplation of the nature of bodies, although it may not make a Physician, yet it renders him more fitted for the practice of Medicine.

But not to dwell longer on the ancient views of this controversy, it is time to consider the place to be assigned in our own age to each of these doctrines—namely, the rational, the empirical, and the empirico-rational.

It is manifest that those who in modern times profess themselves rationalists give too great latitude to the term rational, and thereby thrust the empirical within too narrow limits. It is true, indeed, that, looking merely to the persuasion of the ancient empiricists, they obtain no small ground for that mode of proceeding; and were it incumbent on modern empiricists to adhere strictly to the opinions of their brethren in ancient times, the rationalists of modern date would possess an overwhelming advantage over their opponents. But th

controversy between the rationalists and empiricists is almost coeval with the origin of Medicine, and if it be not destined to continue as long as Medicine shall exist, it is at least certain that it will be prolonged far beyond the improvements so conspicuous in recent times; and it is therefore essential that the points in dispute should be from time to time modernised and made to accord with the advancing progress of Medicine. That the empiricist should reject the study of physiology and pathology does not any longer carry with it the necessity apparent in ancient times. Such studies he may insist on being conceded to him, not to teach him how to practise, but merely as a source of mental exercise and improvement in reference to the more nice appreciation of the phenomena of life. That this much must be conceded to the empiricist in the present day is evident from the undeniable fact that a preliminary education in anatomy, chemistry, and physiology is essential to every Medical man, whether he is thereafter to be governed in his views of practice by the tenets of rationalism or those of empiricism. The ancient persuasion of the empirico-rationalists, as represented by Celsus, is now undisputed and common alike to rationalism, empiricism, and empirico-rationalism. "And it is probable that Hippocrates and Erasistratus and others who, not satisfied with simply treating fevers or ulcers, inquired also to some extent into the nature of things, though not made Physicians by that means, yet became thereby better Physicians."

In the investigation of diseases it is not to be disputed that the empiricist is bound to bestow as much pains as the rationalist. The governing idea in the mind of the empiricist is that, having observed a remedy to produce a certain effect in one case, he is to lay up that fact in his memory till he meet with a case as nearly as possible identical with the first case, in which, and in which only, the remedy is to be again prescribed. The empiricist is not to be content with that identity of cases of disease which results from their bearing a common name. With the improved lights of modern times it is incumbent upon him to employ every means within his reach to distinguish from each other all the varieties of morbid action which fall under one name. Nay, he is not exempted any more than the rationalist from considering the same variety of disease as still farther varied by the peculiar temperament, habits, and constitution of the patient. Thus, it is imperative on the empiricist to apply himself equally with the rationalist to the study of the modifications produced on diseases by sex, age, temperament, mode of life, place of abode, and the like. No more has he license to dispense with the examination of the urine, blood, and other animal products by the microscope, or by reagents and other chemical means, or to neglect the search into the condition of inward parts by the aid of auscultation and percussion; for it is manifest that if the empiricist neglect any means of the kind just enumerated, he runs the risk of violating his fundamental principle, and employing a remedy in a case in which the whole circumstances were only apparently, but not really, the same as that in which its curative power was originally observed.

It is quite true that many who proclaim themselves rationalists at the present day claim to themselves the exclusive patronage of all the means of instruction just recounted, and seem to believe that their title to be called rationalists rests on the patronage so extended. Here they forget that the terms "empirical and rational" are not terms wholly peculiar to Medicine, that these terms are general terms applicable to numerous arts and pursuits, and that the signification of these terms cannot be limited by any views held of them in ancient times, when art and science in almost every department were in their first infancy. There are but few instances in which art did not precede science—that is to say, the empirical naturally first arises, and is succeeded by the rational. In other words, art is the foundation of science, while science, after its first advances, repays to art the debt which it had contracted. As knowledge advances, the aid which science affords to art is very variable in different cases; in proportion as any science attains exactness and perfection, in like measure the arts dependent on that science derive benefit, so that the empirical in them is apt to be lost sight of. In the sciences founded on the exact relations of number and quantity everything is rational, so that in the arts connected with these there is hardly room for the empirical—unless, perhaps, at their very first foundation. In the arts associated with chemistry there was at first a striking predominance of the empirical, which predominance has declined step by step in accordance with the approach of chemical science to a higher and higher degree of perfection. In Medicine, the sciences of physiology, pathology, and therapeutics have made very slow progress as compared with the advancement of many other departments of knowledge; hence the proportion of the empirical to the rational in the heart of Medicine is still very great, and must continue to be excessive so long as the sciences on which the art of Medicine rests remain in a backward state.

Thus, then, it is clear that, though the distinction of empirical and rational arose in ancient times, there is not a shadow of reason for retaining the exact same relation between these terms in the present day as prevailed in the distant ages referred to.

But in order to obtain a firmer hold of the general distinction between the empirical and the rational in subjects of human knowledge, it is necessary to contrast some acknowledged examples of the one with some equally acknowledged examples of the other.

When primitive man, after satisfying his hunger with the seeds of such common légumes as the pea, the bean, the lentil, observed that new plants sprung up where he had by chance dropped some of those seeds, he made an observation more important to him at that time than all the after philosophy of the schools. He now knew a fact by the empirical use of which he could raise a crop of such légumes, even where these did not spontaneously shoot up. If, on any after occasion, he put some of these seeds into dry sand instead of putting them into moist earth, he learned a negative fact, which taught him, with a kind of foretaste of science, yet still empirically, that he must attend to all the conditions present in the ground in which he had originally succeeded in getting a crop. If, again, he put the seeds in what appeared to be the same kind of soil in which he had raised a former crop, and yet no plants came up, or, coming up, soon perished without producing fruit, he ascribed his failure of success, not to the true cause, namely, the occult deficiency of the requisite materials in the soil, but to the evil agency of some angry demon. It is manifest that agriculture prosecuted in this fashion was carried on in a purely empirical manner; and yet, every now and then, its usages will be found to border on the rational. When men found that after successive crops had been taken from one field the following crops were deficient in that field, and observed also that a field recovered its original productiveness by lying fallow, they could not but attempt a theory to account for what was an undeniable truth. Accordingly, it is found to be a prevailing belief, even at present, among the peasantry, that there are occult qualities in the soil by which it is fitted for the successful production of different crops, and that these qualities being exhausted by a repetition of the same crop, time is required for the exhausted quality to be reproduced. Thus theory, though untrue, served the purpose of an explanation, and runs parallel in a very remarkable manner to the true theory. Again, when the ancient philosophers taught that fire, water, earth, and air, were the elements of the organic world, it is evident they made a very shrewd conjecture, or rather, it might be said, they reached the truth in distant general terms. But while such general explanations of the phenomena of living nature undeniably fell under the rational, they were not sufficiently close to the truth to afford any direct aid to the agriculturist. Thus all the improvements in agriculture in the early ages of its progress were derived from the empirical method. When the exact chemical composition of plants and animals came to be known, and that composition was found to correspond to the composition of air, water, and soil, then the foundation of a rational agriculture was laid. The distinction between the empirical and the rational might, in like manner, be traced through the useful arts in general, particularly through those dependent on chemical principles.

But to return to Medicine. The theory or science of Medicine is commonly reduced to the three heads Physiology, Pathology, and Therapeutics. Under physiology, of course, anatomy ranks. The object of physiology is to determine the laws of organic nature in the normal state. It is a very wide subject, but does not directly lead to the cure of disease, which is the sole object of Medicine. It is one of those departments of knowledge which do not make one a Physician, but which render one more fit to be a Physician. The same thing may be said of pathology, which has for its object to determine the character of deviations from the normal state of health, and the conditions under which such deviations occur. But while it is true that a man may be a pathologist without being a Physician, it is also beyond doubt that a man cannot be a Physician without being a pathologist; because a knowledge of pathology is essential to the discrimination of

the nicer shades of diseases. Still, neither physiology nor pathology constitute the true science of Medicine. The object of Medicine is to cure a disease when that disease has become known; which object can be accomplished only by therapeutics. When a man, then, boasts that he practises Medicine rationally, what ought to be understood is, that he learns to cure diseases from the science of therapeutics, or from that part of Medical science which determines the principles applicable to the restoration of health, when such deviations from the healthy state have arisen.

Such, then, is rational Medicine in the present day. There is nothing else that can be called rational Medicine, according to the current use of that term in all arts which rest on a scientific foundation.

To what extent, then, can Medicine be rational? Certainly only within narrow limits. It can be calculated how far a certain amount of gunpowder can project a shot of a given weight, and that calculation will remain the same for all like circumstances. It can be reckoned what quantity of a certain kind of coal used to convert water into steam will raise a given weight so many feet from the ground, and that reckoning will remain the same for all cases in which these circumstances are the same. But when the would-be rational Physician has ascertained how much fox-glove is required to bring down the pulse from 120 to 60 per minute in one individual under a particular disease, he has obtained no certainty that in the same individual at another time, under apparently the same circumstances, that effect will be produced by the use of exactly the same quantity of the drug as nearly as possible in the same manner; and the same thing is true of drugs in general. It is not, indeed, to be believed for a moment that effects are not uniformly proportioned to their causes in the organic world as certainly as in inorganic nature; but where the thing acted on varies, the cause, however much conforming to the same measure on each successive occasion, is no longer a measure of the effect. Every single human body, from the moment of birth to that of death, is in a continual state of change, so that agents can never produce twice exactly the same effect,—still less can exactly the same effect be expected from one agent on one human body which that agent has produced on another human body; so that the wonder is not that rational medicine is imperfect, but that there is anything at all resembling a rational medicine.

Are there, then, any cases in which the treatment of diseases can be duly said to be rational? The only instances in which Medicine can be correctly represented as rational fall within the following predicament: when the physiological effect of a remedial agent (established independently of Medical practice) and the essence of a disease have been successfully pursued up to the extent that the coexistence of the two in the living system is found to be impossible, whence of necessity one of two things must happen: the use of the remedy must cure the disease, or the disease must destroy the remedy. In either case, however, it should be admitted that the treatment is rational.

When, for example, it seems certain that cardialgia depends on an excess of acid in the stomach, it is rational treatment to employ such ant-acids as preparations of pure potass and its carbonates, preparations of the carbonates of soda, preparations of pure ammonia and its carbonates, preparations of lime or magnesia and their carbonates. Again, when a violent and painful spasmodic affection of the fibres of the stomach and the adjacent abdominal muscles seem to be dependent on acid in the stomach, it is merely empirical treatment to employ tincture of opium mixed with peppermint water as a combination of an anodyne with an antispasmodic; but if an ant-acid, such as calcined magnesia, is conjoined, then a rational treatment is added to the empirical—unless, indeed, it could be shown that magnesia was employed in such cases before it came to be known that excess of acidity on the stomach is a cause of the spasmodic affection referred to.

But how few are the cases of this description in the whole range of Medicine? The therapeutic value of most drugs—that is, their value in actual disease—came to be known long before their physiological action was investigated, hence their use was established by empirical Medicine.

But it were needless to dwell longer on points so obvious.

Our conclusions then are—that rational Medicine must in modern times rest exclusively on its success in establishing the previously unknown physiological action of remedial agents and the incompatibility of that action with definite forms of morbid agency, that empirical Medicine can no longer reject the study of physiology and pathology, organic chemistry, microscopic investigation, and all the other departments of knowledge which tend to discriminate from each other the long train of morbid affections to which the human body is subject, and to render the diagnosis of these in actual practice more easy and unerring; and, therefore, that the only contest which remains between rationalism and empiricism is the extent to which, independently of actual practice, the physiological action of remedial agents can be discovered; and the degree in which their therapeutic value can be deduced, without actual trial in diseases, from their physiological action.

According to the view which seems most tenable the rational mode of cultivating therapeutics must for long ages, if not to the end of time, lie within very narrow limits, while the empirical method of proceeding promises the most abundant harvest to the ardent cultivator.

Thus the true doctrine, which is elicited from the contest of thousands of years between the dogmatics and empirics, is the empirico-rational, or that which, while it admits the soundness of rationalism within due bounds, contends that the empirical method is that by which Medicine at the present time can most successfully extend its sway over diseases.

APPARENT ATTACK OF TUBERCULOSIS IN THE LUNG, WITH SPEEDY RECOVERY.

By JOHN C. THOROWGOOD, M.D., M.R.C.P., Lond.
Assistant-Physician City of London Hospital for Diseases of the Chest, Victoria Park.

The following case seems to illustrate an attack of tubercle in the lung, passing quickly away and leaving the patient apparently well:—

Edward C., an omnibus man, came to the Hospital for Diseases of the Chest at Victoria-park, December 19, 1864, and gave the following history of his present attack:—He said that rather more than three months ago he began to be troubled, chiefly on rising in the morning, with a dry hacking cough, coming from no cold caught or other ascertainable cause. He often felt severe pain under the left clavicle; his strength declined; and he lost flesh rather rapidly.

Within the last month the cough from being dry has become moist, and he has coughed up a good deal of thick, yellowish-white and grey phlegm, never mixed or streaked with blood. Since the cough has become thus moist, he makes a spontaneous statement that he is conscious of much general relief; his spirits have been better; and his appetite has improved greatly. Now, he says, the spitting is diminishing, and he feels that he is getting better, but at night he has profuse sweating; and this alarms him somewhat.

On examination the pulse was 114; skin not hot; tongue clean; face thin and pale, but not anxious. The left infra-clavicular region is a shade duller than the right, and bronchial breathing, with some few moist sounds, are to be heard at this spot; the rest of the chest seemed healthy. He was ordered ol. morrhuæ., ʒij., ter. die.; hst. quinæ c. ferro., ter. die.; pil. conii. co., gr. v., om. noct.

January 2, 1865.—Feels very much better; cough and spit much diminished; pulse 84; only complains of the night sweats. Ordered decoct. cinchonæ, ʒj., c. ac. sulph. dil. ♏ x., ter. die.; pt. ol. Omit pil.

12.—Cough entirely gone; already has gained flesh; lost all pain, and feels so well that he says he ought not to trespass on the charity any longer. Sit dosis ol. morrh., ʒss., ter. die. Pt. med. for fourteen days, and let go at own request.

I have given this case from the rough notes made at the time; for it was an afterthought to send the case to this journal.

The cough coming from no known cause, the wasting and depression, and then the general relief felt when free expectoration took place, are matters which, in my mind, seemed to point to the tubercular nature of the attack; and nature was already perfecting the cure when the man applied to me for advice. To have substantiated the fact of a small cavity at the left apex would have been interesting, but I could detect nothing further by auscultation than the signs I have noted down; and the tubular breathing was still present in a less degree up to the time of the man's discharge.

In another case lately under my observation, a patient, in his youth decidedly tuberculous, remained free from all cough and expectoration for near thirty years. He then had, in the

course of three weeks, two or three severe attacks of hæmoptysis, and as he recovered and the lungs got clear of blood, the signs of a small cavity at the right apex were recognised.

In this case, before the hæmoptysis there were no symptoms pointing in any way to the organs of the chest; during convalescence there was for a few days some expectoration, but this did not continue, and the patient, after an illness of but a few weeks, gained flesh fast, and seemed to his attendants perfectly well, with the exception of the physical signs of the small cavity at the right pulmonary apex.

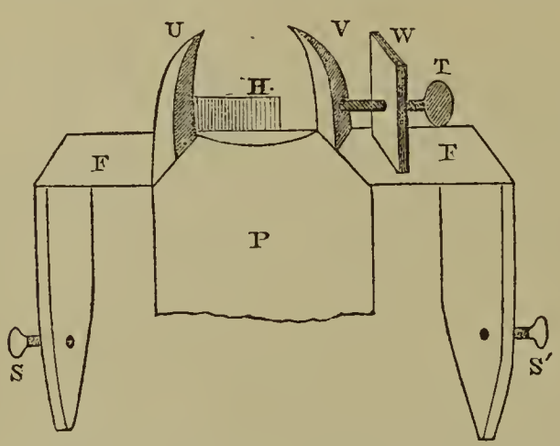
The presence of disease in the right lung had been recognised in the former attack many years previously, and it seemed as if the fresh outburst of disease had seized upon the weak lung, and there expended itself in the form of free hæmoptysis, ceasing at last, and leaving the patient to all outward appearance well.

Finsbury-circus.

AN APPARATUS FOR FIXING THE HEAD IN OPERATIONS ON THE EYE.

By J. ZACHARIAH LAURENCE,
Surgeon to the Surrey Ophthalmic Hospital.

The following is an account of a very practical appliance I have had made for steadying the head in operations on the eye. Its construction will be best understood by reference to the annexed figure:—



U, V are two uprights, concave internally, where they are lined with slightly-padded canvass; V is moveable at pleasure, horizontally, towards the fixed one (U) by a thumb-screw (T), which works through a nut let into the third fixed upright (W). P is an inclined, hard, padded pillow, sloping from between U and V downwards on to the operating-couch, to which the frame (F) of the apparatus is fastened, or unfastened, by two screws (S and S′). The patient to be operated on lies on the couch, with his head resting between the uprights (U and V), on the upper part of the pillow (P). The moveable upright (V) is then screwed up, till it meets the corresponding side of the head, and between the two uprights (U and V) the head is thus firmly fixed. I need hardly say every part of this apparatus must be made most firmly. The uprights (U and V) must thin off gradually upwards, as in the figure, so that their upper edges may not be in the way of the operator. By the space between their summits being less, than between their centres, the head is prevented moving forwards; the lateral compression prevents the head moving sideways; a ridge of the pillow prevents the head moving downwards; whilst a second hollowed wooden one prevents it moving upwards. In fact, if the apparatus is properly made, the patient's head is thoroughly and efficiently fixed.

I have now used this apparatus repeatedly, both in adults and children, with the best results, and am satisfied any other operators who may try it will find it most convenient. With it, when chloroform is not given, we need no longer the hands of an assistant, so often in the way of the operator, to "steady" the head; or if chloroform is given, we need not fear any of those convulsive starts of the head, not uncommon, especially when the patient is getting out of the influence of the chloroform. My apparatus was made for me by Mr. Gorvin, carpenter, 9, Nottingham-street, Marylebone, London, W.

30, Devonshire-street, W.

A CASE OF

PUERPERAL PERITONITIS, FOLLOWING CRANIOTOMY AND HÆMORRHAGE, SUCCESSFULLY TREATED BY LARGE DOSES OF OPIUM AFTER MERCURY HAD FAILED.

By KEITH N. MACDONALD, L.R.C.S., Edin.

The facts subjoined appear to me to be of especial interest, inasmuch as recovery, under such complicated and unfavourable circumstances, must be of rare occurrence, and also as demonstrating the relative value of certain lines of treatment which have hitherto been employed more upon empirical principles than with the view of discriminating the different effects of the remedies under consideration.

Catherine V., aged 32, unmarried, a stout, healthy-looking woman, was taken in labour of her first child on September 4, 1862, at 9 p.m. During the period of her pregnancy she had been leading rather an irregular life, consequent on being a victim to seduction and desertion, by dosing herself pretty freely with brandy, and entirely neglecting the state of her bowels for several weeks before her confinement. The result was, that the first stage was prolonged for forty-eight hours from extreme rigidity of the os uteri, which for some time resisted the action of tartar emetic and other appropriate remedies. But this was not all; delay was also occasioned in the second stage by the fœtal head becoming arrested at the pelvic brim from slight narrowing, where it remained stationary for sixteen hours longer, though the expulsive efforts were of the most violent character. By this time it appeared evident that the natural powers were inadequate to effect the delivery, and that constitutional symptoms were about to develope themselves by the pulse rising to 120, and the presence of a brownish discharge issuing from the vagina. Without further delay I applied the long forceps; and on using tractive efforts without making any impression on the head, the bed suddenly broke down, to the imminent danger of producing a laceration. Fearing the result of this unexpected interruption, I immediately unlocked the instruments, placed the patient on a mattress on the floor, and completed the delivery by craniotomy. On extracting the placenta, an alarming hæmorrhage took place, which was with difficulty arrested by ergot, the application of cold, and pressure by the hands' grasp over the uterus. Notwithstanding this, she recovered the shock tolerably well; but her attendants considered, contrary to my orders, that premature stimulation was necessary, and accordingly allowed her a liberal supply of wine and nourishing diet. The sequence may be readily imagined. An attack of peritonitis set in on the third day, with suppression of the milk and lochia, and exquisite tenderness on pressure, especially over the epigastric region, which soon occupied the whole peritoneal surface. Calomel and opium were immediately administered every three hours, and vaginal injections, hot fomentations, and poultices were applied locally, the bowels being at the same time kept open by emollient enemata. This constituted the mercurial part of the treatment, which was persevered in unremittingly for the next thirty hours, but without producing the slightest benefit. The only relief afforded was from the constant application of hot poultices to the abdomen. Without further detailing minutiæ, suffice it to say that under the above treatment all the symptoms continued to advance. The pulse became rapid and feeble; the tongue foul; the abdomen swollen and tympanitic, and there was great depression of spirits with slight delirium. Anticipating a fatal issue from these circumstances, as a *dernier ressort* I tried the effects of opium alone in large doses. Two grains were given the first hour, and one grain every succeeding hour during the day, which was to be doubled at bed-time, and repeated twice during the night. Its effects were narrowly watched, but the soporific action of the drug was not manifested in proportion to the doses administered. After pursuing this treatment for twenty-four hours a marked improvement took place. It was now diminished to half grain doses every three hours. This dose was continued until the pain, swelling, and tenderness had almost disappeared, which was effected on the 19th, or ninth day—dating from the period of the first rigor. Convalescence was now rapidly established, she left her bed on the 24th, and has since completely recovered.

In conclusion, I may remark among other points worthy of note, that during a period extending over nine days she had taken upwards of forty grains of opium, and this, moreover,

as we have seen, with the best results. At first I feared an injury might have been inflicted, but subsequent observation led me to conclude that such was not the case. That in this case the mercury had signally failed in staying the progress of the disease will be apparent to the greatest sceptic, but of the fact that the favourable issue was mainly due to the large and repeated doses of opium no doubt can be entertained. It may with good reason be questioned if mercury would exert any beneficial influence over inflammations of the sero-fibrous tissues without the aid of opium, but that the latter does so independently of the former must be admitted by all. If mercury is a specific in these cases, it ought to prove itself such unassisted. The only natural conclusion, therefore, to be drawn from the preceding is, that as mercury failed here it may fail in other cases also; and, in like manner, why not expect of opium in future results similar to those it has so beneficially manifested in the case before us?

Wrexham.

A CASE OF

ANEURISM OF THE PROFUNDA FEMORIS.

By Mr. SPENCER WATSON, F.R.C.S. Eng.

The profunda artery of the thigh has been rarely known to be affected with aneurism. Several cases, however, have been put on record. One occurred to Mr. Cock at Guy's Hospital. This and another case are related by Mr. Erichsen; and at a recent meeting of the Medical Society of London a third was mentioned by Mr. Peter Marshall as having occurred in his practice.

The history of the patient whose case I am about to relate did not throw any light on the origin of the disease. She was an unmarried lady, 39 years of age, of very spare habit, pallid, and prematurely aged. She had suffered from menorrhagia at various times, but very much more severely during the six weeks previously to my seeing her, on June 30, 1864. She had then a pulsating, painful, obscurely-fluctuating tumour occupying the greater part of Scarpa's triangle of the left side and extending a little beyond the outer and upper boundaries of that space. It was tender when pressure was made on it, and the pain extended down the inside of the knee and calf of the leg. The latter was slightly œdematous. A loud bruit was heard over the tumour.

My first impression of the case was that it was an aneurism of the femoral artery. On subsequent occasions, however, there appeared to be distinct pulsation in the superficial femoral, independently of that in the tumour itself, and the diagnosis was thus rendered very doubtful. A very eminent Surgeon, who was called in, after two very careful examinations, was unable to arrive at any certain conclusions, but was inclined to look upon the disease as of a malignant character, and the pulsation to be due to the large size of the vessels by which the growth was supplied. The patient died on Sept. 10, apparently of acute tuberculosis, after an attack of sudden and urgent dyspnœa, which lasted only a few days. For the last ten or fourteen days it was observed by my friend, Dr. Ablett, who was in constant attendance, that the bruit could not be heard in the tumour, and that the pulsation gradually ceased.

On a post-mortem examination, the lungs were found infiltrated with purulent matter, and one of them more solidified than natural. The tumour was with difficulty dissected out from the surrounding tissue, to which it was at many points closely adherent, and it was found to extend some distance upwards beneath or in the sheath of the psoas and outwards beneath the sartorius. The superficial femoral artery was lying in front and to the inner side of the tumour, and was pervious in its entire length. The profunda, however, from the commencement of which the aneurism sprung, was obliterated on the distal side. The opening by which the communication with the artery was kept up was of one-eighth of an inch diameter. The aneurism was firm, and unfluctuating, of the size of two fists, and of an irregular pyriform shape. On section it presented concentric layers of fibrine occupying the whole of its cavity, with the exception of a space of the size of a walnut in the centre, which was occupied by recent clot. The profunda vein on the distal side of the tumour was completely obstructed by laminated fibrine. In the walls of the uterus were found several fibrous tumours, one of the size of a walnut and the others varying in size from that of a pea to that of a pin's head. Dr. Symes Thompson having kindly examined these tumours microscopically, ooks upon them as ordinary fibrous tumous.

Preparations of the aneurism and of the uterus are now in King's College Museum.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. GEORGE'S HOSPITAL.

ACUTE RHEUMATISM, QUICKLY SUBSIDING ON THE OCCURRENCE OF INFLAMMATION OF THE TONSILS AND THROAT.

(Under the care of Dr. JOHN W. OGLE.)

Margaret M., a young woman, was brought to this Hospital with unusual redness of the fauces and structures at the back of the mouth, and difficulty in swallowing, and slight feverishness. She had been told that it was diphtheria. Under the use of ordinary salines and a senna aperient these symptoms abated, but three days after admission a decidedly acute rheumatic attack came on—swelling and redness and very painful condition of the knuckles and joints about the wrists, and excessively acid-smelling perspiration. For all this Dr. Ogle prescribed half-drachm doses of bicarbonate of potash with small doses of chloric æther and water, Dover's powder of a night, and occasional senna purges; afterwards bark was added. At the end of seven days, quite suddenly, all the rheumatic symptoms disappeared, and as suddenly acute inflammation of the tonsils and back of the throat came on. Bark and chlorate of potash were substituted for the other medicines, and bark and hydrochloric acid gargle used, and ordinary diet substituted for fish and meat. Subsequently the tincture of sesquichloride of iron with quinine and port wine. She gradually recovered in all ways. No return of rheumatic symptoms recurring, she left the Hospital on the fifteenth or sixteenth day after the sharp attack in the throat came on. Dr. Andrew Clarke holds that enlarged tonsils are frequently associated with rheumatism. About the same time as the above the following case occurred:—

ACUTE RHEUMATIC FEVER — SUBSIDENCE OF SYMPTOMS ON THE OCCURRENCE OF EXTENSIVE HÆMORRHAGE FROM ULCERATED TONSILS.

(Under the care of Dr. JOHN W. OGLE.)

Henry C., aged about 30, was admitted under Dr. Fuller's charge with acute rheumatic fever, for which large doses of acetate and bicarbonate of potash were prescribed, with occasional doses of Dover's powder and brisk purges. Of the details of the case Dr. Ogle was ignorant, but in Dr. Fuller's absence Dr. Ogle had to attend the patient after he had been in the Hospital three weeks. He went on with alkalies and bark for three weeks, when his rheumatic symptoms somewhat abated, and a sharp attack of tonsilitis came on. He was very low and prostrate, very pale, with a soft, perspiring skin. Dr. Ogle gave him six-grain doses of the sesquicarbonate of ammonia with chloric ether, and a gargle with chlorate of potash, myrrh, and dilute hydrochloric acid, and strong beef-tea and much milk. The inflammation of the tumour, however, went on to ulceration, and on the third day he was affected by sudden hæmorrhage from the tonsils, and was said by the nurse and those around him to have lost at least a pint and a-half of blood. This left him very exhausted and pale, with a small, quick pulse, but all the rheumatic affections of the joints quite suddenly vanished, and never showed themselves again; neither was there any return of the hæmorrhage in any quantity, and the throat gradually recovered under the use of quinine and steel and good food.

Whatever may be the *rationale* of the changes in this and the preceding case, there was no doubt that the acute rheumatic symptoms were resolved quite coincidently with the establishment in one case of the inflammatory throat symptoms; in the other, partly then, but especially when the loss of blood was experienced.

MIDDLESEX HOSPITAL.

THE BLISTER-TREATMENT OF RHEUMATIC FEVER.

(Cases under the care of Dr. GREENHOW.)

With reference to the following cases, Dr. Greenhow remarked

that the use of blisters in cases of acute rheumatism was not altogether new, but that it had been comparatively rare, and had never been relied on as the chief remedial measure. Dr. H. Davies had, however, in the recent volume of London Hospital Reports, strongly advocated the application of blisters in the immediate neighbourhood of the affected joints, in the belief that the discharge caused by them would eliminate the *materies morbi*, and cure the patient without the aid of any of the medicines usually employed, and had supported his belief by the publication of an interesting series of cases treated in this manner. The success of the plan in Dr. Davies' hands had appeared to be so great that he (Dr. Greenhow) had been induced to try it in these two cases, combined, however, with a moderate use of the alkaline salts. It was certain that these two patients had begun to mend in a much shorter time than was usual in such severe cases of rheumatic fever, and had escaped relapses in that respect contrasting favourably with other cases which had come under his care shortly before the admission of these two, and some of which had remained in the Hospital a considerable time after their discharge. In both cases there was cardiac complication, and in the first case irreparable endocardial mischief, before the patients came under treatment, and therefore it was not possible to judge from them whether Dr. Davies' plan could, as he supposed, avert the cardiac symptoms; but in neither case did those symptoms increase after the application of the blisters.

George M., aged 18, admitted October 13, 1864. Had been healthy until three days before admission, when he was seized with pain in both knees, which soon extended to his ankles and feet, and then attacked his wrists, hands, elbows, and shoulders, and he lost all power of movement in his limbs.

On admission, his face was flushed, his skin hot and moist, and he had pain and tenderness in ankles and knees. A soft systolic murmur was heard below left nipple. Pulse 116; tongue very much coated with white fur at sides, and brown in centre. He had no appetite. Bowels had not been open for several days; urine, specific gravity 1028; no albumen. Pil. coloc. c. hyoscyamo, gr. x., statim sum. et capiat in 4 hor. Haust. sennæ co. Curtains to bed.

14th.—A louder blowing murmur heard at apex of heart. Complains of pain in every limb, and of much thirst. Lips very much parched. Pulse 120. Has been well purged by the pills and draught. Ung. potass. iod. ext. belladonnæ, partes æquales, reg. cord. app. Mist. rubr. 6tis hôris.

15th.—Complains of very great pain in wrists. Haust. potass. nit. c. potass. acetat., gr. x., 4tis hôris. Pil. ipecac. co., gr. x., h. s. s. Blisters, two inches in width, to be applied round both arms above the wrists.

16th.—Blisters have risen, and are discharging freely. Pains gone from elbows and wrists; but much pain in right shoulder. A blister two inches in width to be applied round right arm below shoulder.

17th.—Had a restless night; but there is no pain in shoulders nor in any other part. Systolic murmur still heard below nipple; still has considerable heat of skin, and perspires freely; tongue cleaner and moister; urine neutral, paler coloured, and not turbid. Omit haust. Blisters to be dressed with unguent. zinci.

18th.—Quite free from pain. Skin much cooler, but still perspiring; tongue cleaner; no appetite; urine in good quantity, alkaline, normal. Pil. coloc. c. hyoscyamo. gr. x. hac nocte.

19th.—Has no pain or stiffness in limbs; systolic murmur still heard below left nipple and also at base of heart; pulse 86; tongue coated at sides; still much thirst; appetite improving; bowels open once this morning; urine abundant and slightly acid. Fish diet.

22nd.—Has no pains either in joints or limbs; heart sounds as before; tongue coated at sides; bowels open yesterday. Blisters healed.

24th.—Continues to improve. ℞. Syr. ferri. iod., ʒss.; aq. menth., ʒj.; M ter. die. sum. Mutton chop daily.

29th.—Ol. morrhuæ, ʒj.; t. d. sum. ℞. Syr. ferri. iod., ʒj.; aq. menth., ʒi.; M. t. d. sum.

November 5.—No pain; pulse 76, very feeble; still sweats a little at night; urine clear, of normal appearance, slightly acid. Pt.

10th.—Free from pain, and gaining strength; systolic murmur still heard below left nipple, and at base of heart. Pt.

14th.—Discharged convalescent.

Thomas E., aged 18, potman. Admitted October 26, 1864, having been taken ill three days before. On admission he had pain and swelling in both feet, ankles, and knees, also in right hand, wrist, and elbow. There was loud friction sound at apex of heart; respiration rather hurried; breath-sounds normal; great heat of skin; profuse acid perspiration; pulse 120, full and hard; tongue slightly coated; much thirst; bowels open; urine high-coloured, specific gravity 1025, slightly clouded by heat; no albumen. Pil. coloc. c. hyoscyamo., gr. x., h. s. s.; mist. rubr. 6tis hôris. Curtains to bed. Blisters two inches in width to be applied round both legs immediately above ankles and knees, and also round right arm above wrist, and to be dressed with warm poultices when they shall have risen.

28th.—Blisters have risen well, and pains are much relieved, especially in ankles and wrists. Friction-sound still heard at apex of heart; still profuse acid perspiration; pulse 120; tongue furred; much thirst; bowels have been moved freely; urine high-coloured, transparent, and acid. Blisters to be dressed with unguent. zinci.

29th.—Complains of pain both in knees and shoulders, and of stiffness in knees, ankles, shoulders, and right wrist. Pulse 108; tongue coated in centre, red at tip. Did not sleep well. Capiat haust. potass. nit. c. ʒj. potass. acetat., 4tis hôris.

30th.—Complains still of pain in ankles and knees, which prevented his sleeping. Friction sound as before. Pulse 120. Skin less hot; still sweating profusely. Urine neutral. Pt.

31st.—Pains in legs much relieved. Pains in both shoulders and arms, but almost exclusively felt on movement. Friction sound continues. Pulse 96. Bowels confined. Pt. haust. Pil. coloc. c. hyosc., gr. x., h.s.s.

November 2.—Still complains of pain, or rather of stiffness in ankles, knees, and wrist, but can move all these joints freely. Pulse 94. Skin warm and moist. Tongue cleaner and moist. Urine slightly alkaline. Omit haust.

3rd.—Pains much relieved. Friction sound at apex of heart fainter. Skin warm; perspiration slighter; slept well. Urine clear, faintly acid. Fish diet.

5th.—Still occasional pains, but only in ankles and knees. Has slept throughout the last two nights. Friction sound still fainter. Pulse 72. Skin cool; perspiration much diminished. Tongue clean. Urine abundant, very faintly acid.

9th.—Quite free from pain, but still has stiffness in knees Pulse 84. Skin cool; perspiration has ceased. Tongue moist. Bowels regular. Urine copious, pale-coloured, faintly acid. Is very pallid, and complains of feeling weak. ℞. syr. ferri iod. ʒss.; aq. meuth, ʒi. M. ter die sum. Mutton chop daily.

12th.—Going on well; complains only of weakness. Pt.

16th.—A number of boils have appeared on the blistered surfaces. In other respects patient still improving.

19th.—Boils to be dressed with ung. bals. Peruv.

21st.—Going on well. Pt. syr. ferri. iod. Capt. ol. balenæ, ʒj. ter die.

23rd.—Has been quite free from pain for some time. Boils are nearly healed. Has gained flesh; is less pale, and feels stronger. Pt.

26th.—Discharged well.

ENCEPHALOID TUMOUR OF THIGH RECURRING TWICE IN SIX MONTHS AFTER REMOVAL.

(Under the care of Mr. DE MORGAN.)

[Communicated by Mr. G. E. PYLE, late House-Surgeon.]

E. C., aged 56, schoolmistress, a short, stout, and exceedingly healthy looking woman, applied for admission on September 15, 1863, on account of a rapidly-growing tumour of the right thigh.

Her history was a peculiarly good one. Her parents were healthy and long-lived, and she had never heard of a tumour existing in any member of her family. She had always resided in Yorkshire, chiefly in a small sea-port town, where she was schoolmistress. Had been married, and had had two children, both of whom were dead. She had herself enjoyed remarkably good health up to the autumn of 1863.

Between four and five weeks previous to her application at the Hospital, she first noticed a small swelling just below the right groin; it was then about two-thirds its present size. She had felt pain of a trifling character in various parts of the thigh before she discovered the tumour, but it gave her no particular inconvenience either then or after the discovery, and she was induced to consult her Medical attendant only when the tumour was found to increase. Iodine was prescribed, but the growth continued, the general health remaining unimpaired.

When admitted, there was a tumour about the size of a

hen's egg at the outer part of the right thigh, just below Poupart's ligament. It felt elastic, and was tolerably moveable. The following day (16th) the tumour was removed by Mr. Lawson. It was found to be entirely confined to the fat and cellular tissue, and proved, as was conjectured, to consist of soft medullary cancer tissue. She recovered from the operation without a bad symptom; the wound cicatrised perfectly in less than a month. She was discharged on October 13, and resumed her duties in the country.

After this she remained in perfect health up to November 23, when she noticed the return of the disease.

On Christmas-day she was readmitted under Mr. De Morgan, when the following note was taken:—

"There is now a nodulated tumour, the size of a walnut, below the skin, just at the inner end of the cicatrix left by the operation; one or two of the nodules feeling as if they contained fluid. It is freely moveable, and has little connexion with the skin. To the outer side of this and below it are some scattered small nodules deep beneath the skin, and barely moveable. The cicatrix is generally soft, but towards its outer end is a fulness as though the disease were forming beneath it. Running up from the larger mass, towards the spinous process of the ilium, is a harder deposit beneath the skin, more doughey than elastic, and not moveable; it seems to lie on, and to be connected with, the fascia, but cannot be traced dipping into or below the muscles; its breadth in the widest part is about two inches and a-half. The patient has no pain; has gained flesh since she went out; has a quiet pulse, and no appearance of constitutional disturbance."

26th.—Under chloroform, an incision was made ten inches in length below, and following the line of Poupart's ligament. The old cicatrix was first dissected away; then another incision was made from the centre of first obliquely upwards for two or three inches towards the outer side. The tumour felt towards the inner side was first removed; then the nodular masses towards outer side. Numerous small nodules were found during the dissection, especially to the outer side, imbedded in the fat, which was very abundant; in some places they were adherent to the fascia, but none of the growth dipped between the muscles; it was deemed advisable, however, to remove some of the fascia covering the adductors. The operation of necessity lasted some time, and several small arteries had to be tied. The incision was closed by metal sutures, and a large compress and spica bandage applied.

For several days after the operation there was considerable oozing of a thin sanious fluid from the wound; and on the 29th a good deal of swelling above and parallel to it. Her general condition evinced the effects of the operation; she was drowsy and thirsty, with a dry tongue, and a quick, small pulse.

On the 30th the countenance became very sallow; the face pinched; and the pulse sharp and up to 120. Some sloughing of the edges of the wound took place, and she remained in this condition until January 8 or 9, when suppuration was freely established, and she gradually rallied. The swelling, too, above the wound, which had remained, and which at one time threatened to suppurate, disappeared. During this time she took a mixture containing tincture of the sesquichloride of iron, chlorate of potass, and hyposulphite of soda; had generous diet, and a good quantity of wine daily.

On the 21st the wound looked perfectly healthy; the discharge was becoming gradually less, and her general health was much improved; but on the 28th the discharge became thin and sanious again, and continued so for some days.

After this the wound gradually closed, and cicatrised in almost all its extent, the general condition of the patient resembling what it had been before the operation. She had grown stout again, and, indeed, seemed to be gaining flesh every day.

This state of things did not last very long. The following note dated February 27 indicates the second recurrence of the disease:—

"For some days past there has been swelling and hardness above the outer part of the wound, which has healed in the whole of its extent, except the extreme outside. This swelling is increasing, but there is no tenderness."

Still, in spite of this, the swelling decreased again after a few days, suppuration having taken place, and the pus finding an exit at the outer end of the wound. New disease began to appear, however, about the cicatrix; and at the end of March there were numerous masses of soft fungoid growth cropping up, and hæmorrhage frequently took place from them.

As nothing more could be done for the patient, and she was anxious to go home, she was discharged on April 11. The last note taken is as follows:—

"For some weeks past masses of the old kind of tumour have been developing themselves in the course of the cicatrix. They assume a rounded form, are purplish, soft, grow rapidly, and bleed easily. Besides the separate masses, there is general hardness about the cicatrix. The patient's general health has changed; she is thinner, and rather sallow, has some shooting pain now in the tumour, and does not sleep so well as she did."

After her return home she lost a great deal of blood from time to time, and the tumour increased, but she lingered on till May 17, gradually growing weaker and weaker. The fungoid growths attained the size of a large peach; then withered away, sloughed off, and were succeeded by others.

Remarks by Mr. Pyle.—This case receives its interest chiefly from the rapidity and virulence in the growth of the tumour, and its occurrence in a woman whose previous health had been so remarkably good, and who, as far as could be known, was so peculiarly free from hereditary taint of any kind. It is seldom, probably, that cancer occurs with so few outward signs, except of the actual tumour itself, which was palpable enough, its destructive progress, and so little clue to the reason of its appearance. It was remarkable, too, that the disease seemed to have its seat entirely in the adipose tissue. When the tumours were removed by the second operation, numerous as they were, they were all found in this situation; and for a considerable distance around the principal masses were small points of disease, looking as if they were enclosed in capsules of fat tissue. Numbers of these were so small that they were unnoticeable without the aid of a lens. But the glands were little affected, and with the exception of the adhesion to the fascia and to the tensor vaginæ femoris, no other parts above or below the fat were involved. Rapid, moreover, as was the return of the disease after the first operation, there was no indication that the cicatrix was involved in it.

The microscopic characters were throughout those of rapidly-growing medullary cancer.

The plan of treatment adopted—*i. e.*, its removal, prolonged the patient's life probably some little time, and inflicted less suffering upon her than if the tumour had been allowed to remain either at first or at its reappearance. The absence of pain and cachexia were doubtless in part connected with the rapidity of development, although pain seems by no means an essential symptom of malignant growth.

LIVERPOOL SOUTHERN HOSPITAL.

LITHOTOMY—PERFORATING ABSCESS IN THE CHEST WALL—RECOVERY.

(Under the care of Dr. NOTTINGHAM.)

For the notes of the following cases we are indebted to Dr. Gulston Wollaston:—

J. K. was admitted on August 13, of last year, under the care of Dr. Nottingham, in order to be operated on for stone in the bladder. He was a thin, pale boy, of 8 years old, and had been all his life exposed to the effects of insufficient food, dirt, and bad ventilation. Lateral lithotomy was performed on the 18th; there was nothing peculiar about the operation; the stone was of moderate size, and composed of lithic acid. All went on well for three days; but on the night of the 21st, without any previous warning, he was suddenly seized with intense pain in the region of the bladder, became deathly pale, pulse very frequent and almost imperceptible, breathing rapid and intermitting, and he, in fact, presented all the appearance of speedy dissolution. During the day there had been some slight hæmorrhage from the wound, but nothing of importance. The bladder appeared to be somewhat distended, but he could not bear the least pressure on that region. A catheter was passed per urethram, and a small quantity of urine, slightly tinged with blood, evacuated. Stimulants were administered, etc., and by morning he had rallied. The following night, the 22nd, the same symptoms showed themselves, but in a milder degree, and at this time accompanied by distinct rigors and severe pain in the left side of the chest. The lungs were examined, and nothing abnormal detected. He was put on generous diet—wine, eggs, etc.—which he took freely. The pain in the chest continued, but became more confined to one spot—the left nipple. About three days afterwards (26th) there was pointing at this spot, and about three drachms of healthy pus were let out. A few

days afterwards it again became evident that there was more matter: the wound, which had healed, was reopened, and about two ounces of curdy pus evacuated. At this time there was a free entrance and exit of air during inspiration and expiration; the lungs continued acting well. The wound was closed, so that no more air could enter. In three days the wound was again opened, and three or four ounces of fairly healthy pus let out; air entering the chest during expiration and being expelled during inspiration with a whistling sound. There were no bad symptoms: in fact, during this time the little fellow was gaining flesh rapidly. In three or four days the wound, which had been kept closed, was reopened, and a few drachms of pus oozed out; air ceased to enter. The opening continued to discharge for two or three weeks, and then healed; during which time the wound in the perineum cicatrised, and the boy was discharged cured in the end of October.

LITHOTOMY FOR THE REMOVAL OF CALCULI FORMED ROUND A FOREIGN BODY.

(Under the care of Mr. HAMILTON.)

Another case of stone, operated on in this Hospital during the past year is worthy of notice.

T. M., aged 47, a labourer, presented himself in the out-patients' room about the middle of June. He stated that a few hours previously, feeling some irritation in the urethra, he was induced to pass a feather some distance down the canal, when it slipped from his fingers. He described the feather as an ordinary one out of a fowl's wing, but with much of the quill part removed. Several attempts were made to remove it, but without success, and he departed, refusing any further treatment. He remained well till the end of October, when all the usual symptoms of calculus in the bladder came on. He refused all operative interference until he could bear the pain no longer, the 27th of January following, when he was admitted an in-patient under the care of Mr. Hamilton, who operated in the usual manner the next day, and removed five calculi of small size, and composed of phosphates, in the centre of each of which was found a piece of the identical feather passed into the urethra more than seven months previously. He made a good recovery, and was discharged cured three weeks after the operation. He has since enjoyed good health.

STOCKPORT INFIRMARY.

KICK ON A SCROTAL HERNIA—ENTERITIS—DEATH.

(Under the care of Mr. MASSEY.)

For the notes of the following case we are indebted to Mr. J. Peeke-Richards, House-Surgeon:—

Charles W., aged 25, a hawker, was admitted into the Infirmary on January 12, 1865, suffering from the effects of a kick upon a scrotal hernia.

On admission he stated that about noon on the preceding day, as he was about to enter a beerhouse, a man who was standing in the doorway, and with whom he had had some slight difference, kicked him on the "privates." He staggered across the road and fell down, but, with the assistance of a passer-by, was enabled to walk home—about five minutes' walk. He complained, when he reached home, of great pain in the hernia and lower part of belly, and this continued until the following day, when he was seen by the visiting Surgeon of the Infirmary, who ordered him into the house. He likewise stated that he had been ruptured for the last fifteen years, that the hernia was scrotal, and was down at the time of the receipt of the injury, and that he never wore a truss.

On examination a large, hard, and tense swelling was found on the left side of the scrotum, in the situation of a scrotal hernia, the surface of which, as well as the perineum below, was considerably bruised and discoloured; and on applying pressure, a portion of intestine was found to return into the abdomen with a gurgling sound, but without much diminishing the size of the swelling, which was extremely painful, and in a high state of inflammatory action. His pulse was quick and thready, and his countenance betrayed the utmost anxiety. Vomiting came on soon after the receipt of the injury, and continued incessantly up to the time of his death, becoming stercoraceous about the second day.

Leeches, calomel and opium, hot fomentations, poultices, enemata, etc., were tried, but without avail, his bowels remaining unopened until his death, which took place on January 18, seven days after he received the kick.

Autopsy, Twenty-four Hours after Death.—Nearly the whole of the scrotum, the perineum, and the inner and upper part of the left thigh were much discoloured, the scrotum having a sphacelated appearance, which, on being laid open, showed that the whole of the tissues of which it was composed, as well as the hernial sac it contained, were in a complete state of inflammatory disorganisation. The tunica vaginalis contained about two ounces of a bloody serum. On opening the sac, a coil of gangrenous intestine was brought into view, but was found to be readily returned into the abdomen, there not being the slightest indication of stricture in any part of the inguinal canal. The gangrene was not limited to the portion of intestine contained in the sac, but had extended to the contiguous bowel to the extent of twelve or fourteen inches. It was completely gangrenous, and its calibre was considerably diminished. The intestines above were much dilated, and showed evidences of extensive enteritis. There was no peritonitis, and not any source of constriction could be found in the abdomen.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 11.

CONTAGIOUS DISEASES BILL.

We have been given to understand that some difficulties attend the practical working of the above Bill, which will, we trust, be overcome. These are of a kind that may be readily imagined. In the first place, our soldiers and sailors manifest a strong disinclination to indicate the sources of contagion, or the exact localities in which they have contracted their diseases. The other obstacle relates to the treatment and cure of the unfortunate women. No real good whatever can accrue from treating a case of syphilis in Hospital for a few days, or even a week or two. The fact is that the sooner we enlarge our views and dismiss the idea from our minds that the contagious powers of syphilis are exclusively limited to the primary stage the better. No doubt the secretions are most active then, but so long as any manifestations of syphilis are conjoined with uterine lesions and discharges, these women cannot be at large with impunity or entire safety to the health of the community.

It appears to us, therefore, that the observation and treatment of diseased women require to be very carefully and efficiently done, and our efforts must be directed to the detection and the *cure* of their affections; and for this it is clear that a short stay in Hospital is inadequate.

We hope that all members of our Profession who may have it in their power will put their shoulders to the wheel, with an eye to the great advantages which must arise from an honest and systematic effort to control the evils of prostitution. As Professor Parkes has remarked, the State is bound to step in and deter individuals from endangering the lives of their fellow-subjects; and a prostitute affected with syphilis, and at large in our streets, is effecting an incalculable amount of disease and injury.

The detention of these unfortunate women in Hospital is a

work of great mercy to themselves. Morally, it offers some of them a chance of retracing their steps, and of effecting a change of life; while, physically, it may be the means of saving them an immense amount of present and future suffering, to say nothing of the control it has over the dissemination of one of the most lethal agents among our civil and military populations. It is, to our minds, a truly Christian work, if looked at from a proper point of view. It certainly is our duty to guard our soldiers and sailors from evils to which they are, of all men, the most exposed by reason of their occupation. Let it be remembered that these men are compelled to lives of celibacy on our behalf. We cannot shut our eyes to the fact that temptation must assail the young sailor or soldier—shut out as he is from a married and domestic life—with a very different force to that with which it attacks the civilian, returning to his wife and children, or, at any rate, with the prospect before him of possessing these.

THE GOOD SAMARITAN AT WINCHESTER.

What a magnificent institution is an English County Hospital! How superior in its well-ordered benevolence, in its broad and Christian charity, in its scientific resources, in the cleanliness, skill, and quiet that govern it to anything those dark, dirty, superstitious middle ages could show! With what internal gratulation and self-satisfaction must every Briton look at it! How proud he must feel at belonging to the same nation as the President, Vice-Presidents, the Chairman, the Deputy Chairman, the Committee, the Honorary Secretary, the Treasurer, and my Lords, Ladies, and Gentlemen, the Governors! What ornaments to the neighbourhood must these good people be! How unselfish the interest they take in the welfare of the sick poor! How careful are they never to turn the charity to their own purposes by filling up its wards with their own dependants! Are not my lady's maid and my lord's coachman, and the parson's butler, and the squire's groom, when ill, tenderly nursed in the castle, the rectory, or the hall, and doctored by the family Apothecary, with, if needs be, the help of the well-fee'd county Physician? Is not the Hospital solely for the hard-handed children of the soil? Is not the pleasure of doing good the only reward the supporters of such a noble charity propose to themselves—with perhaps the occasional harmless, natural, and in itself highly philanthropic, gratification of playing the patron to some obsequious Doctor who humbly solicits their vote and interest?

Such were some of our thoughts a few days ago when, being detained for some hours in the classic town of Winchester, we found ourselves "doing its lions," and amongst them the old Hospital of St. Cross and the County Hospital. After spending some time thus, and feeling mightily comforted and refreshed with our reflections on ancient and modern schemes of national philanthropy, we returned to our inn. Our little dinner over, which we enjoyed the more appetisingly from our satisfied patriotic frame of mind, we called for a modicum of the true British port, which is the proper beverage on such occasions; and, turning to the fire and reposing our feet on the fender, we began to think over an article in which we intended to give our readers the benefit of some new and striking reflections on the subject of mediæval and modern Medical charity. Our reverie was broken by the entrance of a semi-inebriated waiter, who stumbled into the room with the county newspaper. There was no help for it; we could not reconstruct the broken circle of our thoughts; and we soon allowed ourselves to gravitate into an account of an agricultural dinner and the witty and original speeches which were delivered on the occasion by a number of orators whose names are unhappily unknown beyond their own too limited circle—when, on turning the page, an article caught our attention, headed "Important Inquiry at Alresford." In the first line we saw the word "workhouse." "Ah!" we thought, "something of the Timothy Daly kind, though with such a fine institution as that County Hospital it is hardly possible that many bad cases can find their way into the union workhouse. The Poor-law system is doubtless not perfect, but better far than those monasteries with the lazy almoner and the buttery hatch, the lazar house and the ignorant leech friars; in fact, in country districts like this, where the poor have the benefit of a good Hospital, we suspect they are best off when they are ill." However, as we feared that some Professional reputation might be implicated in the matter, we commenced reading.

The article was an account of a coroner's inquest which had been held on the body of one Sarah Pearce, aged 22, the wife of a railway excavator. The following were the particulars:—Her husband had been employed on the new line of railway from Alton to Winchester. They had been married about a year, and up to two months ago she had been in good health. She then caught a violent cold, and was attended by Mr. Lipscomb, Surgeon, of Alresford, who was sent to her by Mr. Harrisson, the contractor. Mr. Lipscomb saw her several times, and sent her medicines. At that time the man and his wife lived at an inn at Alresford, but three weeks before her death they removed to a temporary hut, built of loose bricks and sand, near a bridge which was being erected at Itchen Stoke. This hut had a door and a chimney, but no window. As might be expected, the woman, unprovided with proper clothes, bedding, and necessaries, became worse, and lost the use of her limbs. In this state she was again visited by Mr. Lipscomb, who found her partially paralysed, and considering that it would be folly to endeavour to treat her in such a hut as that, he recommended that she should be removed to the County Hospital and took his leave. For a week or ten days afterwards it appears that she had no Medical attendance and no nursing. She was occasionally visited by the wife of another railway labourer, and by a scripture reader named Brown. The latter at last got an in-patient's recommendation for Winchester Hospital for her. The husband borrowed a horse and open cart from the time-keeper of the line, and at 8 o'clock on a Wednesday morning in January, with the ground hard with frost, the poor paralysed wretch, wrapped in the few tattered clothes and blankets she possessed, was hoisted into the cart by her husband and some of his fellow-workmen, and, lying on straw, was driven off to the County Hospital. The journey took two hours, for it is six or seven miles from Itchen Stoke to Winchester; yet she survived it. The husband drove straight to the Hospital. The letter of recommendation was duly inspected, and the sick woman was taken into the waiting-room. After a delay of a quarter of an hour, two porters carried her upstairs into a ward, where she was stripped, and had a clean chemise put on her. She was then placed in bed. A clergyman and a lady came into the ward and looked at her. The clergyman, it appears, was the Rev. E. Stuart, the Chairman of the Hospital. He said he did not think she was fit to stop there. He then went to Mr. Yeo, the House-Surgeon, and said, "You must go up into No. 1 and see about getting that woman out of the Hospital that I have just seen there; for she is in a most filthy and disgusting state, and never ought to have been sent here." He also asked the House-Surgeon to write to the lady who gave the admission to say that the woman was not in a fit state to be admitted, but that if she were sent clean she should be taken in. In a county Hospital who would dispute the benevolent commands of a Rev. Chairman? They were carried out to the letter. The woman was taken out of bed, her wretched filthy rags were put on her again, a few spoonfuls of broth, at the suggestion of the House-Surgeon, who noticed that she was "extremely pale, but not very cold," were poured down her throat, and, after waiting half-an-hour in the waiting-room until one of the porters could help her, again she was hoisted on the straw in the open cart. They returned, the husband and the wife and a woman who had accompanied them. The sick woman complained of her head—she seemed much worse than in the

morning. On arriving at their village they met a clergyman, the Rev. E. A. Young. When Mr. Young saw them the husband was crying. The poor fellow told the tale of his wife's admission and dismissal; he seemed anxious to do what he could for her. Mr. Young advised that she should be taken to the Union, and himself went with them to secure her admission. When they arrived, she was lifted from the cart into a room downstairs. She could hardly sit up, and upon a blanket being removed from her she seemed almost naked. The Governor of the Union ordered a fire and gave her some broth. She only spoke once, saying, "I can't," when they gave her some of the broth. "She died in the chair about twenty minutes after she was brought to the Workhouse. She went off quietly, as if fainting, and made no noise at all."

The further particulars elicited at the inquest were that the woman was undoubtedly dirty. The House-Surgeon of the County Hospital said that her hands were black, that she smelt, and that she had vermin about her. This, and the laws of the Hospital, which enact "that no person shall be admitted as an in-patient without a change of linen," and "that no person apprehended to be in a dying state or incurable shall be suffered to remain," were apparently, in the eyes of the Coroner and jury, ample justification for consigning this poor, dying girl, in her nakedness and weakness, to the open cart in the cold, biting January wind. Mr. Lipscomb gave it as his opinion that her death was caused partly by the paralysis from which she was suffering, and partly by the exhaustion caused by the journey to Winchester and back, which was more than she was able to bear, and terminated in fatal syncope after her arrival at the Union. The Coroner blandly recounted the evidence, and summed up in general terms "that every one appeared to have acted according to the best of their judgment," and "that he did not see that any one was responsible for the result." The jury concurred, and returned a verdict "that deceased died from syncope occasioned by the causes and circumstances detailed in the evidence, but not by reason of any neglect or ill-treatment of any person whomsoever."

When we finished reading this account, we must confess that our mental condition was one of intense bewilderment. We looked at the heading of the paper, to see in what century and in what country it had been published. But there were the date and the place staring us full in the face. We were completely puzzled. Altogether a change had come over us —the room seemed dark and cold, our dinner had evidently disagreed, and we had some most uncomfortable sensations in the region of the waistcoat. We rang the bell, called for our bill, rated the waiter soundly for the execrable cookery, and declared the Port to be the vilest Hambro'. We started immediately after by the night train, but did not recover our equanimity until we had been carried far past the borders of Hants, and were quietly dreaming that we were in Winchester Cathedral listening to an eloquent sermon, on Christ cleansing the lepers, from the Reverend the Chairman, in aid of the funds of the County Hospital.

THE WEEK.

THE CASE OF TIMOTHY DALY.

We do not reproduce Mr. Farnall's report on this case, which has already, doubtless, been read by most of the Medical readers of the *Times*. As it embodies the principal of the conclusions on the case which have been already advanced in this journal, we shall dismiss it with the remark that it appears to us completely borne out by the evidence adduced. Dr. Carr's report, which is appended to that of the Medical Inspector, was not published in *The Times*, and we therefore republish that portion of it which relates what he himself observed at the Holborn Workhouse Infirmary, only adding that we trust his recommendation to increase Mr. Norton's salary to £150 per annum, to provide drugs at the expense of the Board, and to appoint two salaried nurses in the Infirmary, will be carried into effect by the parochial authorities:—

"On my visit to the workhouse, I was perfectly satisfied with the general aspect of the entire building, making allowance for the original defect of the limited space it occupies. No house for Medical or Surgical treatment, or for the occupancy of the poor, should be built on all the sides of a square. A current of air and the admittance of the direct rays of the sun are essential to a well-constructed Infirmary.

"The wards of the house are generally spacious and well ventilated, making allowance for the comparatively low ceilings. Sufficient space was allowed to each bed. The bedsteads were all of proper length, and that which Daly occupied was in all respects well adapted to the treatment of his case. The bedding and bed-clothes were also good and proper. The floors of the wards were clean; and proper arrangements existed for regular washing of the floors. The walls were painted for three feet from the floor, and above coloured. The ceiling was also clean. The ventilation was good, and the temperature well regulated. In an adjoining room was a properly appointed bath, with an abundant supply of hot and cold water.

"I visited the kitchen and stores; examined the various provisions, and found everything good and wholesome. The bread was excellent. During an ordinary dinner, and when I was not expected, I went into the dining-hall, and tasted all the various dishes provided for the paupers, young and old, and approved of everything on the tables; as well also of the plan of serving the numerous and various grades. Altogether, I cannot withhold my general approval of the whole establishment in its domestic relations."

The following is a copy of the letter which has been addressed to the Guardians of the United Parishes of the Holborn District by Mr. Gilpin, the Secretary to the Poor-law Board:—

"I am directed by the Poor-law Board to inform you that they have received and considered the report of their inspector, Mr. Farnell, on the official inquiry which he recently held, by direction of the Poor-law Board, as regards the treatment which Timothy Daly, deceased, received while an inmate of the Workhouse of the Holborn Union, and that they have also received a Medical report from Dr. Carr upon the same subject, to which they have given equal consideration. The Board have also examined the whole of the evidence in this case; but they do not think it necessary to dwell upon the details of that evidence, because the report adverted to sets forth very fully all the material facts of the case. After the most careful consideration of the evidence the Board feel justified in stating that, in their opinion, Mr. Norton, the Medical officer of the Holborn Workhouse, was not guilty of either neglecting or ill-treating Timothy Daly while under his care as a patient in the Infirmary of that workhouse. The Board, however, observe that Mr. Norton has systematically neglected to keep that portion of the workhouse Medical book which he is directed to keep by the regulations of the Poor-law Board, and they also observe that no reliance can be placed on the entries of that book, so far as they afford evidence of Mr. Norton's visits to the sick poor under his charge in the workhouse; and, though evidence of these visits in the case of Timothy Daly has been furnished by the officers of the workhouse, the Board cannot refrain from expressing their great displeasure at the neglect of the Medical officer in this particular, and they must request that the Guardians will convey their opinion of this misconduct to Mr. Norton. The Board have further to state that they expect that this part of Mr. Norton's duty, to which they attach considerable importance, be strictly adhered to."

SANITARY PROCEEDINGS IN EAST NORFOLK.—"CLARKE *v.* BURROUGHES."

The following letter shows how easily parochial authorities can, by indifference and a "masterly inaction," render useless and inoperative existing sanitary enactments. It is true that "A Barrister" has written to *The Times* to point out that there is a legal remedy for such cases as Mr. Clarke describes, for he remarks,

"By refusing to obey such order (the order of the justices), the party against whom it is made commits a misdemeanour at common law, for which he may be indicted at either the Quarter Sessions or assizes, and, on conviction, be punished with

fine or imprisonment, or both, in the discretion of the Court." But it can hardly be expected, or intended, that the Sanitary Inspector should incur the risks and expense of indicting an offender, when the guardians refuse to move in the matter:—

"*To the Editor of the Times.*

"Sir,—Permit me through your columns to draw attention to the termination of the above case, alluded to in *The Times* of the 7th of September last.

"It will be remembered that the defendant, Mr. H. N. Burroughes, a county magistrate and an ex-M.P., was summoned before the magistrates at Blofield Petty Sessions for neglecting to provide proper privy accommodation for his cottages, and an order was made by the justices to abate the nuisance. Notice of appeal was given. Your readers may not be aware that he did appeal at the Quarter Sessions, but the appeal was dismissed.

"Having again inspected the premises, and found them in the same neglected state, I then applied to the Board of Guardians for authority to proceed for a penalty, but the guardians did not consent.

"I subsequently appeared before the magistrates, and stated that their order had not been complied with, and asked them to grant me another summons; but on being asked by the Bench if I had authority from the guardians to proceed for a penalty, I stated that I had no authority beyond the original one, authorising me to summon the defendant and proceed thereon to judgment and execution. The magistrates consequently refused the application, and the nuisance remains unabated, consisting of dilapidated old buildings and twenty-one human beings without any privy accommodation. Fever prevails, and one death has occurred.

"Under these circumstances there was no alternative but to place my resignation in the hands of the Board of Guardians, which I accordingly have done.

"I can see no remedy to this state of things, unless it be by an exposure through the columns of *The Times*.

"I am, Sir, your very obedient servant,

"Samuel Clarke, Sanitary Inspector.

"Inspector's-office, Dereham-road, Norwich, Feb. 3."

THE ARMY MEDICAL SERVICES.

The Competitive Examinations for Her Majesty's Army Medical and the Indian Services are at hand. Our readers will, naturally, look to us for our advice. Presuming, then, that the Indian Medical Warrant be a *bonâ fide* one and uncancelled, we can recommend this as an excellent opening for those of our young Medical friends who desire to pursue their Profession in one of the public services. With regard to the other—Her Majesty's army—we wish we could urge it in the same way. Until something be done we shall certainly abstain from doing so; because we are well assured of this—that so long as candidates are forthcoming, no changes will be effected. If any well-educated young Medical man will take up an "Army-List," look at what will be his position in it, and his chances of promotion within a reasonable limit of time, we think he will discover that there are hundreds of openings in civil life wherein he can pursue his Profession with more pleasure and self-respect, and with much more hopeful prospects of success.

PARLIAMENTARY.

Parliament has again met, but, judging from the tone of Tuesday night's debate, it has determined, like a servant after giving warning, to get through the smallest possible amount of work with the least possible trouble. As in previous years, we shall furnish our readers weekly with a short report of any debates which may have reference to Medical interests, or to the great social and scientific questions of the day. The debate on the Address does not require particular notice: its most salient feature was Lord Derby's opening, in which the noble lord, comparing the Session to the last hours of a dying man, described with great humour the consultation of the Physicians over the moribund patient,—showing clearly that his versatile talents have neither been exhausted by Homeric translation nor dimmed by his long occupancy of the Opposition benches.

FROM ABROAD: THE RIBERI PRIZE—ACTION FOR THE RECOVERY OF MEDICAL CHARGES—RESIGNATION OF PROFESSOR LUDWIG.

In January, a marble statue of the late Professor Riberi, raised by private subscription, was inaugurated amidst great ceremony in the courtyard of the Turin University. Perhaps the greatest Surgeon Turin has yet produced, Riberi, died some five or six years ago, possessed of great wealth, and left a large sum for the foundation of a Riberi prize, to be awarded by the Academy of Medicine. Instead of establishing a prize of moderate amount for perpetuity, he left a large sum to be divided into seven prizes of 20,000 lire (£800) each, one to be decreed every three years. This is a somewhat questionable procedure, as it is very doubtful whether Surgical works calling for so costly a recognition will appear at such short intervals seven times in succession. However, the triennial period for the second prize is comprised in the years 1865-67, and the Academy has announced that all candidates must forward their works or communications before December 31, 1867. Original manuscripts, whether with or without their authors' names, and any printed work upon *operative Medicine* which has been published for the first time during these three years, are competent to contend for the prize; but they must be written in the Italian, French, or Latin languages, and the authors are requested to point out to the Academy the portions to which they attach most importance.

An action brought by Dr. Dumont, of Caen, for the recovery of fees was decided the other day in his favour, and is of interest by reason of the liberal view which the Tribunal of Bayeux, before which it was tried, took of the elements which should be considered in determining the justice of a demand. Dr. Dumont claimed the sum of 2500 francs of M. Bannelois, the legatee of a lady who had been his patient. The original claim was 3500 francs, which was made up of 3200 francs for sixteen journeys from Caen to Isigny, a distance of sixty-four kilometres, at 200 francs the journey (£8 for about forty miles), and 300 francs for accompanying the patient to Paris in order to consult M. Nélaton. 1000 francs had, however, been paid, leaving 2500 francs, the subject of action. Bannelois declared that the price of the journeys was exorbitant, and refused to pay it. The Tribunal delivered the following judgment:—

"Different elements enter into the determination of what is just to pay a Medical Practitioner. For example, his position, his rank in the Medical body, the distances his patients compel him to traverse, and the prejudice to his ordinary practice caused by long and frequent journeys. Then we have the nature and gravity of the disease which he has undertaken to treat, and lastly the position and fortune of the person at whose hands the remuneration is sought. The distinguished position held by Dr. Dumont at Caen cannot be contested, and it is proved that his practice in that city is considerable. The disease from which the lady suffered was a severe one, necessitating much attendance, and especially frequent Surgical interference, an operation of great delicacy having been practised by Dr. Dumont. This operation, and the complications which followed it, compelled frequent absences from home, often for an entire day. With respect to Bannelois, of whom this payment is claimed, as the residual legatee of the deceased, he is a person in easy circumstances; and, moreover, it is to be borne in mind that he is not a direct heir defending his legitimate patrimony, but a legatee, a stranger to the family, and ought in any case to consider himself fortunate in any advantages he may reap from the succession. For these reasons Bannelois must discharge the claim made by Dr. Dumont, and pay all the expenses of this action."

The Professors of the Joseph Academy of Vienna have long felt it to be a great grievance at being peremptorily compelled to attend the meetings of the Military Sanitary Committee, where they have to consume much valuable time in considering details of which many of their number, such as the Professors of the Theory of Medicine, of the various Specialties, and of the Exact Sciences, are entirely ignorant. To such a point has this reached that the celebrated physiologist, Ludwig, who came from Zurich to Vienna, and has acquired

great popularity among the scientific circles of this last city, has found himself compelled to give up his chair and retire to Leipzig. The military authorities, who are paramount at Vienna, will hear of no compromise, and doubtless before long others of the Professors will follow Ludwig's independent course.

ROYAL EPSOM COLLEGE.

Although we do not agree with Mr. Cattlin in his self-abnegation, we willingly call attention to a letter from him, written with much good feeling, which will be found in another part of our columns.

REPORT ON CHEAP WINE.—NO. XI.

(By our Special Empirical Commissioner.)

(Continued from page 126.)

NOTE ON THE PHOSPHATES.

Phosphorus — Hypophosphites — Phosphoric Acid: its Use in Medicine—Phosphates side by side with Sulphates—Good enough for Physic, but too bad for Wine—Testimony of Dr. Wallace.

In compliance with the desire of some valued correspondents, I take the liberty of adding a few words on the compounds of phosphorus used in Medicine, and on the hypotheses on which that use is supposed to be founded; also on the soundness of making "richness in phosphates" a test of the goodness of wine.

Let me ask your readers to bear in mind the double class of virtues ascribed to this element and its compounds, viz.—1, a peculiar faculty of *stimulation*, and 2, peculiar *nutritive* virtues.

First comes phosphorus itself, a body which in the state commonly met with is self-inflammable in contact with air, and is, in any considerable dose, a most dangerous irritant poison. The highly irritant and inflammatory properties of phosphorus have caused it to be resorted to, on one of the commonest hypotheses of physic, in diseases which seem to be of an opposite class—as intense debility, paralysis, chronic rheumatism, and other *cold* diseases, the blue stage of cholera, and possibly as a random shot in other hopeless, or seemingly-hopeless, diseases. I believe that the administration of phosphorus is now almost unknown; it has died out through want of good results. And taking wine as the matter to which my observations have reference, probably no one, except by a juggle of language which Dr. Kletzinski, whom I have charged with it, would, like a man of honour, be the first to explain away, would affirm that he has found phosphorus, as phosphorus, in wine. My chemical friends tell me that there are processes of great certainty and precision for determining the existence of unoxidised phosphorus, such as distilling, and observing whether there is any phosphorescence in the distillate. I say, then, if any one finds phosphorus in wine, let him come forward and show it.

2. There is a set of compounds of phosphorus of unstable composition, because susceptible of further union with oxygen. Such are the *hypophosphites;* a set of compounds answering in their degree to the sulphites, hypochlorites (*alias* the well-known chloride of lime), etc. A Physician, who has conceived the idea that the tubercular diathesis depends on a want of phosphorus in the system, has, with considerable ingenuity, recommended the hypophosphites of lime and soda as medicines capable of communicating phosphorus somehow to the alleged insufficiently phosphorised tissues of the scrofulous and phthisical. Yet, as to the exact *modus operandi*, some of the devotees of this system hold opposite views. Monsieur Van Esschen believes that the hypophosphites, when taken into this air-breathing, oxygen-devouring system of ours, part with their oxygen, and give phosphorus in a nascent state to the tissues! Monsieur Churchill, on the contrary, believes that they communicate to these tissues a disposition to oxidation, or an affinity for oxygen, in which, he alleges, they are morbidly deficient.(a) Mighty tall talk, which will last a long time if it last till it is proved! Probably there are not many Physicians who put faith in the hypophosphites as specifics for phthisis; nevertheless, it is said on the testimony of patients—the only evidence which is worth anything in such a case—that the use of these substances, in *very small* doses, *with* gentian and other drugs, has seemed to invigorate the stomach and improve the appetite. And this is quite possible to believe, from the action of stimulating substances, without any notion of phosphorising the tissues. The taste of these hypophosphites is acrid and nauseous beyond all human conception, and if they do exist in wine, I should think it must be in such as they drink in the kingdom of Pluto. But no one, I believe, has yet produced any phosphide, phosphuret, hypophosphite, or other compound of phosphorus in an oxidisable state in wine. I am ashamed to hear that such things are talked of in Medical consultations. I have been told that an eminent Physician, in consultation, asked, "Don't you think we had better order our patient to drink Carlowitz wine?" "Why?" "Because it contains phosphuret of iron." "Who says so?" "Why, have you never heard that it was ordered for the Lady Dulciana, and for the rickety eldest son of the Marquis of Carabbas, because it contains phosphide of iron?" My informant bowed in grim silence, hoping the day would come when Physicians would discard the logic of Mrs. Gamp. For our parts, let us wait till the phosphide of iron is produced from wine.

Now we come to phosphoric acid, in which the element is combined with its fullest equivalents of oxygen. And what an instructive lesson! How it shows our utter dependence humbly, step by step, upon observation and experiment, and how surely we get bemired if we shut our eyes to fact, and trust to *à priori* speculation and rationalistic argumentation. Look at phosphorus and sulphur, two kindred bodies. One virulently poisonous in its common condition, the other so mild that it is a common physic for babes. Yet look at their analogous acids and salts. Sulphuric acid, however largely diluted, is austere, styptic, and pungent—a very valuable medicine in the right cases. Phosphoric acid, on the contrary, mild, more like a vegetable acid, soothing to irritated throats, useful in the coughs and ulcerated throats even of the phthisical, for whom the sulphuric would be too acrimonious. I have proved this over and over again; but it never could have been guessed *à priori*. Physicians have a most valuable remedy in phosphoric acid; but its value is just that which on hypothesis it ought not to have. It is mild, soothing, and quieting, whilst it might have been expected to be fiery, hot, and acrid.

Just in like manner is the contrast kept up between the salts of the sulphuric and the phosphoric acids in their reactions on the human body. The sulphates are, as a rule, bitter, austere, astringent; the phosphates, as a rule, mild, tasteless, and cold. Most likely these differences are founded on the fact that phosphates, as such, are present in the animal fluids, and, therefore, are not uncongenial to them. Sulphate of soda, or Glauber's salts, is a purgative so bitter that it has almost passed out of use. Sulphate of potass, or Polychrest salt, is a most valuable purge in small doses, as was well established by that eminent empirical Practitioner of the last century, Dr. W. Fordyce, but in large doses is so severe as to be employed for procuring abortion, and to be reckoned amongst poisons. Phosphate of soda is sold as the "Tasteless Aperient Salt," and can be taken in any dose without serious harm, though, if not enough to purge, it "sits heavily on the stomach," possibly through its very insipidity. Sulphate of iron irritates a ticklish stomach; phosphate of iron in any shape is as mild as a salt of a vegetable acid, and may be smuggled into an irritable stomach in almost any case in which iron is tolerated at all. If we want a still more conspicuous instance of the fact that the salts of phosphoric acid are, of all others, the most unstimulating, the most tasteless, characterless, and innocuous, let as look at the salts of ammonia. The chloride is a most pungent salt, and burns the tongue if a little crystal be tasted incautiously. The sulphate is bitter and

(a) See a pamphlet, "De la cause immediate de la Phthisie Pulmonaire, des Maladies Tuberculeuses, et de leur traitment specifique par les hypophosphites, d'aprés les principes de la medicine stoechiologique. 2e edition, par T. Francis Churchill. Analyse publiée dans le *Scalpel* par M. le Dr. Hippolite Bareller. Liège: J. D. Carmanne. 1864."

nauseous. The nitrate tastes cool. The phosphate very cool and almost insipid.

I am ashamed to say that I have heard of Physicians ordering *phosphate of ammonia* as a "stimulant"! as a "nervine tonic"! as "food for the nervous system"! &c., &c. Some may do so, on the notion that what phosphoric acid and ammonia each is alleged to do separately must be done by both in combination, just like the Practitioner who always gave sulphuric acid with lead because each would stop spitting of blood. Some may do so on some other theory, but will any one come forward with the results of practice? Even the rottenest theories may, like dung, promote good practice if they lead to repeated experiments and trials; but I ask again, has any one any experiments to record on this point?

All these things are humiliating enough when we discuss them in the innermost circles of Physic. They make one say to one's juniors, "Vides, mi fili, quantulâ sapientiâ curantur ægri." But we ought to sit in sackcloth and ashes when we find such hollow rationalisticism creeping out of the domain of physic and invading the counting-houses of our wine merchants by our vicious example. What will become of us if wine merchants take to arguing like Physicians!—if, when we remonstrate, and say that our wine is hot, or sour, or flat, or flavourless, or else perhaps polluted by some horrid earthy taste, we are presented with a certificate assuring us that the horrid liquid is perfectly good, because it is particularly "rich" in bone earth and in the salts that give its value to guano?

Alas! they have begun it, as I shall show directly. But now for a few words about "phosphates." Utterly devoid as they are of all stimulating properties, still they are, like many other mineral substances, absolutely necessary to animal and vegetable life; and without them no vegetables grow, nor can animals live on vegetables without them. But they are found everywhere; and in all common vegetables, as vegetables, and without reference to specific virtues. They are found by M. Terreil in mallows and dandelions. Bread contains much; bran more. The vine sap contains them; so does the grape juice; so does wine; but they are in wine as in all other vegetable juices in common, and are not the cause of the proper virtues which distinguish wine as wine. In fact, the more perfect the wine, the less does it contain of those earthy matters which cling to it through its vegetable origin.

In order to set my readers' minds at rest, I beg to subjoin two analyses, by Dr. Hofmann, the able director of the Royal College of Chemistry. One, of the Carlowitz, whose character has been damaged by injudicious Medical friends; another, of Como, a wine full of all the grape elements, but less perfectly fermented, fruity, and like young Port wine.

Max Greger's Carlowitz, selected, at 32*s.*

	Grammes.
I. Total solid matter (dried at 110° C) .	2·2720
Ash.	·29995
Phosphoric acid	·04162
Iron (met)	·0027

Denman's Como, at 20*s.*

	Grammes.
II. Total solid matter (at 110° C) . .	8·0216
Ash.	·5201
Phosphoric acid	·0735
Iron (met)	·0034

Of course the more concentrated grape juice shows itself in the Como, as it does in Tokay.

Now, what are we to think of the matter-of-fact character of a Profession which can recommend wine because of its phosphate of iron, and Carlowitz for its supposed excess of that salt?

I should not take up your time in demolishing this *phosphor myth* were it not that the ridiculous chemical eulogium of Kletzinski, and his use of the word "phosphor," backed, as they were, by the most unfortunate opinion of Liebig, as to the value of *richness in phosphates*, threaten to be the germ of a prolific crop of quackery.

The reputation of Tokay as a nervine stimulant is, I believe, established. Nor need I mince matters and refrain from saying that "when childless families despair" (I quote from Tate and Brady's version of the Psalms; Brady was chaplain to Apothecaries' Hall, *temp* William and Mary, and translated the Psalms as such), when January is wedded to May, and when old men wish to have the privileges of young ones, then Tokay is in request. It was, as I am told, a favourite drink at the court of King George the Fourth.

Well, by some absurd delusion, the restorative virtues of Tokay were inscribed to *phosphorus!* and hence the subtle attraction of the word. Any wine rich in phosphorus must be equal to Tokay at half the price! But there are lower depths still. As we displace Dr. Henery, up come another class of advertisements! See!

"The restorative effects of Tokay wine on impaired constitutions are well known, but its high price debars its use. A cheap but equally efficient substitute may be found in the celebrated Stogumber pale ale. In both the beneficial effect is due to the presence of phosphorus, Nature's great agent in the repair of the ravages of time and excess. This ale derives its remedial properties from the water of Harry Hill's Spring, from which it is brewed. While acting as a tonic and an alterative, it is unequalled for general use, being as grateful to the healthy sportsman as beneficial to the debilitated."—*Morning Star.*

Now, all this quackery has sprung up in Medical circles. We have ourselves to thank for it; and every one who has lauded Carlowitz wine because of its alleged phosphate of iron is an *à priori* ally of the gentry who puff their phosphorescent swipes.

P.S.—Let me quote from the last number of the *Dublin Quarterly Journal of Medical Science* what Dr. Wallace says in his *Contributions to the Volumetric Analysis of the Urine.* But now let us hear Dr. Wallace:—

"It has become the practice with some to give phosphates in cases of disease of nervous tissue, and the plan was followed at the commencement of the treatment of Case I. Further reflection, however, led to giving up the practice. If the phosphates are wanting in the urine, it is not because they are not supplied in sufficient quantity to the system, for there is always abundance of them in the food. Either they are not assimilated at all, and are passing off some other way, in which case there is no reason to suppose that phosphate of zinc or iron would be better assimilated than the phosphorus normally present in the food; or, possibly, they are being used up in the construction of some abnormal growth, as chloride of sodium seems to be in the hepatising lung of pneumonia, and then an additional supply of them would be positively injurious if absorbed at all. It may, however, be well doubted whether it is possible to supply phosphorus or sulphur to the tissue of either nerve or muscle by putting phosphates into the alimentary canal. It is probable that the phosphorus contained in the phosphates which are in the blood is on its way *out of* rather than *into*, the tissues, and that it is introduced into them as an elementary part of the albuminoid components which pass into the blood as chyle. If this be true, then the administration of phosphates with a view to their being assimilated is useless."

REVIEWS.

Statistical Report on the Health of the Navy for the Year 1861. [Ordered by the House of Commons to be printed, July 1, 1864.]

In some "Preliminary Observations" by Dr. Mackay, with which this Report opens, he dwells forcibly upon the paramount importance of those duties of a naval officer which are included under the term "sanitary duties;" and as might, after this exordium, have been anticipated, the Report is occupied to a great extent with questions relating to etiology and practical naval hygiene. To one or two of these questions we shall briefly allude.

It appears that during the year 1861, seventeen cases of tænia occurred on board the *Melpomene* on the Mediterranean station; and the following extract from the report of the Surgeon tends to confirm, if it now requires any confirmation, the current belief among European observers of the mode in which this parasite gains access to the human body:—"I was led to pay increased attention to the frequent occurrence of tænia in the ship, with the view of ascertaining the truth of a report that the water obtained from the Cat river at Beyrout contained the ova of the worm. The impression was derived from the fact that children, as well as adults, in the population of Beyrout are very commonly the subjects of the affection; but the practice of eating uncooked pork, to which our men in particular were addicted, I think explains the frequency of the complaint, and disposes of the belief that the water of Beyrout was the vehicle of its introduction."—P. 38. This gentleman gave to different patients the fresh ground root of the kousso and the oil of male fern, with a view to test their relative

value. He found that while with the former the disease reappeared after a few months, the very dose was so large as to produce vomiting, and its powerful action brought on troublesome prolapsus of the rectum. The male fern oil, on the other hand, he says, is free from the objections which lie against the kousso, and the worm and any joints expelled after the first portion showed no signs of vitality.

It is satisfactory to find that the system of inspection of prostitutes at Malta has been so successful that, although leave was twice granted to the crew of the *Agamemnon* at that place, not a single case of syphilis occurred. Contrast this with what we read of the condition of the men on the stations in China and Japan:—"The virulent character which this fearful scourge of the naval service assumes in China is probably dependent as much upon the more or less debilitated constitutions of the men who suffer as upon the miserably cachectic objects from whom the disease is contracted. Be this as it may, there is, perhaps, no place where, within the last twenty years, the reception of the syphilitic poison has been fraught with more disastrous results than on this part of the station; and it is therefore all the more necessary that there should be no relaxation whatever in the exercise of that wholesome surveillance which has been for some time instituted over the prostitutes in those localities where we can exercise any control. The Japanese local authorities may have the power, but they certainly do not as yet seem to have the will, to check the ravages of this disease, although the fact of prostitution being with them a government monopoly would appear to give greater facilities for almost entirely eradicating it than can be possessed by any other nation."—P. 178.

The portion of the report relating to the North American and West India stations contributes some important facts relating to the origin of yellow fever in certain ships on that station, in infection. We quote some remarks upon this outbreak, which also show some of the difficulties which surround the investigation of a subject which has given rise to much controversy, at the same time that they tend to explain the discrepant conclusions of the controversialists themselves.

"Such is the history," Dr. Mackay writes, "of the outbreak of yellow fever in these ships. The cases occurring in the *Rinaldo*, few though they be, are a very valuable addition to the numerous records which already exist demonstrating the infectious nature of this fearful disease. We have here an instance of a ship direct from England, touching only at Madeira on the way, arriving in a harbour in a temperate region (Halifax), the climate of which is looked upon as the antidote to which yellow fever-stricken ships fly. While there a ship (H.M.S. *Spiteful*, from the Havanna) arrived with many yellow fever cases on board. Every precaution that can possibly be taken to prevent communication with the infected ship is adopted; but from the nature and exigencies of the service this cannot be done effectually; working parties from the two ships meet in the dockyard, and the sick in hospital with ordinary complaints are brought into contact with convalescents from yellow fever. The result is, that a boy, one of the Dingey's crew, in constant communication with the shore, and mixing freely, doubtless, with the working parties from the infected ship—a man whose work was altogether in the dockyard, and who, although he denies having had any communication with the *Spiteful's* men, was doubtless in such circumstances as to render it more than improbable that he had not some intercourse with them—and another man, who had been a patient in hospital, and had only been brought on board his own ship on the day of her sailing for New York—are stricken down with undoubted yellow fever; and of these three two die, one on the third and the other on the fourth dry of the attack. Would these cases have occurred had not yellow fever been imported into Halifax? Reason and experience are alike opposed to such a supposition. That the disease did not spread amongst the ship's company is probably entirely attributable to the temperate climate of the locality in which it made its appearance."

"The difficulty of tracing epidemics to their sources is frequently very great; and, singular to say, on board ship it appears to be particularly so. Even when epidemics of such diseases as small-pox, scarlatina, and measles make their appearance, the source from which the first case derived the infection can, in a large number of cases, only be inferred. Sailors, as a race, are so thoughtless that some if they were disposed to give evidence as to where they had passed their period of leave on shore, it is very questionable whether they could accurately do so. Their tendencies are, however, to give a direct denial to anything which they think may implicate themselves; and viewing all questions of this nature with suspicion, even when the object of the inquiry is fully explained to them, they will often so withhold or vitiate their evidence as to render it utterly valueless. It may be accepted, however, as a general rule, that the haunts of the seaman on leave are those very localities in which pestilential diseases most frequently abound; and to these sources, therefore, in default of other evidence, epidemics of the exanthemata on board are commonly and with justice referred.

"When such difficulties are met with in tracing the source of disease familiar to every one, and which, in the majority of cases are marked by features easily recognisable, it will not be matter of surprise that the difficulties will be much increased in tracing such a disease as yellow fever, which need not present any other appearance than that of the most ordinary febrile seizure, and which may be closely simulated by another form of fever, not so fatal in its nature, and not capable of being conveyed by infection from one person to another. In the history of the epidemics on board these ships we have an instance of this difficulty. In the case of the *Firebrand*, that ship had for fifty-eight days been lying in the inner anchorage at Carthagena, where leave had been given, and daily communication was had with the shore. Fever, it was stated by the inhabitants, did not exist in the place, and had not for seven years. This statement may be taken for what it is worth; to an inquirer desiring accuracy it will be of little value.

"The Surgeon of the *Firebrand* states it as his opinion that the disease was contracted at Carthagena. On this point he has no doubt; but he says it was occasioned by malarious emanations from the neighbourhood of Carthagena. Malarious emanations, however, do not give rise to specific yellow fever. A reference to the state of the squadron on the West Coast of Africa in this report will afford abundant evidence to this effect;"—and a most interesting report it is, showing the powerful influence of quinine and careful guarding against exposure at night as prophylactics. "In the month of July," proceeds Dr. Mackay, "yellow fever was raging as an epidemic, not only in Havanna, but all over the island of Cuba. During this month the harbour was visited by the *Jason*, the *Barracouta*, the *Spiteful*, and the *Racer*, all of which ships contracted the disease. The *Mersey* contracted the disease there in September and the *Challenger* in December. It is not necessary to look to the offensive state of the harbour or the smell of bilge water on board ship as a cause for so specific a disease as yellow fever, when that disease was prevailing with such severity on shore. Even with the utmost care it is impossible to prevent a large amount of communication between ships' companies and the shore when ships are lying in harbour. Bumboats, washerwomen, the slaves employed in coaling, all form means of communication between the ships and the very localities on shore where the disease is most likely to be prevalent; and to these there may be added the daily communication on the part of officers, men-servants, and the crews of boats employed to convey them on shore."—P. 69.

The only other part of the report to which we shall now allude is that which relates to the outbreak of dysentery on board the *Gorgon* and *Lyra* on the Cape of Good Hope station. Twenty-five cases occurred on board the *Gorgon*, which the Surgeon attributes to the use of water from the Seychelles Islands at a time when the streams were low and a few heavy showers had stirred up the infusorial and vegetable matter in the water. It seems that the inhabitants were suffering in a similar manner. The dysentery on board the *Lyra* arose in a different manner. It seems that this vessel was employed in the suppression of the slave trade about Zanzibar, and had captured several Arab dhows engaged in the trade. "From the dhows taken at different times 200 slaves were removed to the *Lyra;* some of these were suffering from dysentery, and one or two were in a dying state. The dhows from which they were taken were reeking with the stench from their bodies and from the evacuations which had been suffered to collect in the hold in which the poor wretches were stowed. In the dhow which was sent away with the officer and crew the stench was so overpowering from the stirring up of the accumulated filth in the hold when the vessel began to roll about at sea, that every one on board was sickened by it, being seized with vomiting and purging. On board the *Lyra* every endeavour was made to keep the ship as clean and wholesome as possible, but the apathy of the slaves and their extremely filthy habits rendered this a most difficult and offensive task. From this time diarrhœa and dysentery became epidemic."—P. 153. Out of a complement

of 113 there were 58 cases of these complaints between April 1 and May 31. On arrival at Mahé, in the Seychelle group, on May 13, the slaves were landed, and the worst cases in the ship's company removed to sick quarters, and on this being done the disease was arrested.

There is very much in all these reports calculated to throw light upon those complicated questions of etiology which arise so often amongst ourselves on shore. The questions are often, indeed, identical which have to be solved by naval officers and by sanitarians labouring in large towns at home; but to the former the conditions bearing upon the outbreak of disease are often simplified, while the scale on which they operate is vastly greater. In fact, we are enabled to view many of our own problems thus almost ready solved for us.

FOREIGN CORRESPONDENCE.

AMERICA.

(Continued from page 129.)

Near Petersburg, Va., December 28.

We will now go to Rainey's, and ascertain how it fares with the operating staff of the Medical departments.

The scene here differs widely from that we have just left. There is no excitement here; there is collapse. The neighing of a restive horse or groan of a wounded sufferer is about all that breaks the silence. In front of the house, hitched to the rail-fence, are the horses of the Medical officers. Behind it the ambulances are drawn up in line. They are not in use; the distance between the Hospital and the front is so small that the stretcher-carriers can do the work more tenderly, and withal as expeditiously. Still further behind is an army of horses; they belong to the cavalry, who have dismounted to defend the line in front of the house.

The kitchen garden is filled with wounded, and every few minutes their number is increased by fresh arrivals. Poor fellows! Theirs is a dreary present, for their future is uncertain; and they are faint, chilled, and wet—yes, drenched to the skin. The excitement and suspense of the day has until now prevented us from observing it, but of a truth it is, and has been since early morning, raining heavily.

Most of the Medical officers are engaged in attending to the patients—in marking out those that must be brought to the operating-tables when their construction shall have been completed. One or two are under the porch, extemporising them from doors that have lately been wrested from their hinges. They are just about finished, when some scattered musketry rings sharply through the woods in front. Every hand is arrested, and every pulse beats quicker at the sound. Soon it swells into one loud, continuous rattle, while the song of travelling bullets throws a sense of danger over all the inmates of the Hospital, which the confusion among the cavalry horses, as they are being led out of the line of fire, does not tend to allay, nor the wild shrill yell of the rebel line as it strives to drive our gallant troopers back. What if they should be driven back? Yes; the wounded must be got out of this. Activity now prevails. The ambulances are ordered up, and each, as it is loaded, drives off to the right to be out of danger. It is soon evident, however, that the transportation is insufficient. Some of the wounded must be left. Three Medical officers volunteer to remain with them in case the worst anticipations should be fulfilled. Gallant fellows! Does not that yell, echoed from mouth to mouth along a line of foes, daunt you? It requires a bold heart or a bullet-proof shelter to carry one through what you volunteer to do—to lie tamely upon a contested field while friend and foe alike throw death towards you.

A new sound breaks through the confusion that fills the air; it is a lusty cheer,—a long exultant hurrah, that warms each drooping heart around the Rainey House, and tells of victory. The enemy have been repulsed.

As the infantry fall back after their unsuccessful attack, a rebel battery opens a spiteful fire of shell upon the cavalry line. Nearly every shot passes over the Hospital, and bursts harmlessly three or four hundred yards beyond. They fire too high, and have their fuse too long. One crashes through the house, and as it makes its exit explodes, sweeping a mass of withered leaves and twigs from a dwarfish tree that stands in its course, luckily without injury to the wounded man reclining at its foot.

Darkness begins to thicken; the explosion of each rebel gun lights up the horizon with a momentary flash, and every shell streaks the sky with a line of fire as it is hurled towards us. The firing slackens, and soon after ceases.

An hour and a-half drags tardily along. Nothing of importance could be done to alleviate the sufferings of the wounded, as the only orders the Surgeons have is to do nothing, but await further orders. They come at last. The struggle is not to be resumed on the morrow. The troops are to return to camp. The loaded ambulances will take the lead in the homeward route, accompanied by a regiment of infantry to protect them from straggling parties of the enemy's cavalry. They will halt at the Gurley House, where the medicine waggons are parked, and a temporary Hospital will be formed there. No time is directed to be lost after arrival at that point, as it is desirable that all operations be performed and the wounded lodged by rail at City Point Depôt without delay.

The wounded at Rainey's, for whom there is no transportation, are to be left there, under charge of the officers who volunteered to remain with them earlier in the day. The only supplies at their disposal are the contents of two or three of the field companions.

Nearly two hundred wounded were carried along; the number left to the care of the enemy is uncertain—perhaps a hundred and forty—perhaps not so many. The captured Medical officers are still within the limits of the confederacy.

One Surgeon was wounded in this affair, several stretcher men were hit; every member of the squad attached to one brigade was at one time during the first assault in the enemy's hands, but when their captors were thrown into confusion by our flank attack they, with the exception of two, succeeded in effecting their escape.

It is very gratifying to have to record that in the ingathering of the crop of laurels, of which this season has been so productive, the Profession has been well represented among the successful reapers. The following officers in the army of the Potomac have been appointed by the President to brevet rank for meritorious services rendered in the field during the present campaign before Richmond:—Major Y. A. McParlen, Surgeon, U.S.A., Medical Director A. of P., to be brevet lieut-col.; Major A. N. Dougherty, Surgeon, U.S.V., Medical Director 2nd corps, to be brevet lieut.-col.; Major J. J. Milhaw, Surgeon, U.S.A., Medical Director 5th corps, to be brevet lieut.-col.; Lieut. C. Smart, Assistant-Surgeon, U.S.A., Medical Inspector 2nd corps, to be brevet captain.

The Medical officers of this army are in expectation that Congress during its present session, by recognising in some way the services of those of their number who have been in the field since the commencement of the war, may succeed in retaining them until its termination. The best Professional men we have here connected with State organisation are those who, at the outbreak of the rebellion, from purely patriotic motives, threw up lucrative practices and volunteered for three years. This term has now expired, and they are being mustered out of service in squads. They prefer this course to volunteering for another term. They have had enough of war and its life of hazards and hardships, and long for the quiet and comfort to which they were accustomed before the commencement of this unexpected chapter in their lives. They consider they have done their duty to their country. "Let others go and do likewise." Were they by profession military Medical officers, as are the members of the Staff Corps, they would no doubt prefer to stay in the field in order to enjoy the opportunities of improving the art of military Surgery and themselves in it which the present offers, and which may, it is to be hoped, at no very distant day become unattainable. But they are not such. They are men who have heretofore driven around in their quiet practice, thoughtless of the mighty struggle in which they were soon to become participators. The long-gathering storm burst. Friends, country, humanity called upon them to haste to the succour of suffering thousands, and they did so. They served at first *con amore*, but as months rolled on changes took place in the regiments to which they were attached, and these very often exercised a most pernicious influence upon their future course. The colonel, lieutenant-colonel, and major became disabled or killed; so with the line officers. Campaigns such as that of the past summer make promotion wonderfully rapid. A former sergeant, wearing the silver leaf or outspread eagle of a field officer, may now command. A fine soldier he no doubt is and an honourable man, but a number of petty annoyances do come home to the Medical officers out of this state of matters. Although these be but trivial, it is such that during

the monotony of a winter camp make up the sum of life. Hence they become irritable; a distaste for their position creeps on them; they long for the expiration of their term; and although they do not fail in the line of duty, they do it simply because it is a duty.

No promotion is held forth to them as an inducement to perseverance in the cause. They commenced their career as majors, and as such it is ordained they shall terminate it. No higher rank, under existing circumstances, is before them, were they to serve for three times three years. Not that they are dissatisfied with a majority, They look upon that rank as the proper position for a Medical officer; it is their regimental connexion they dislike. They would have held forth to them as a reward for long service the probability of a staff appointment. They would wish a transfer to one or other of the Staff Corps, U.S.A. or U.S. Vols., without being subjected to the examination now required, and without loss of rank, for under the present rule Medical men joining these corps must enter as assistants, and serve anew for the Surgeonship.

In July of this year the War Department attempted to compromise matters by instituting an acting staff grade, for which all Surgeons who have been honourably reported after two years' service are eligible. The pay and emoluments of a Major of cavalry are offered, but no rank and no commission. The numbers that have remained under this order are fewer than could have been wished, for it is not a contract between Government and themselves as civil Surgeons that they desire.

Members of the Staff Corps feel this want of rank much less acutely than the State regimental officers. Their positions in charge of general Hospitals are more analogous to those of civil life. Yet those of them in the field do growl occasionally that they are but majors, while men holding similar positions in the Commissary and Quartermaster Departments are lieutenant-colonels. They also live in the hope that some Legislative Act during the ensuing session may affect their interests.

The Medical Department in the U.S. service is quite a complex structure. At the present time a new variety of the military Medical species is undergoing development at Washington. A body of troops is being organised and recruited, consisting of men who have seen at least two years' service, and have been honourably discharged. The Medical men to officer this force are required to be veterans also. They are to be commissioned by the President, and assigned to regiments,—this assignment constituting the difference between them and other officers commissioned by the same authority.

No less than seven classes of corps exist: four of these are commissioned by the President, one by the Governors of States, and two do not hold commissions.

1. Surgeons and Assistants of the U.S. army, the organisation that existed at the outbreak of the rebellion. These officers are now employed on staff duty.

2. Surgeons and Assistants of the U.S. Volunteer Corps.—A class of officers established for staff duty, when, after the war had fairly commenced, it was found that the regular army officers were insufficient to fill all the positions developed by its progress.

3. Surgeons and Assistants of coloured troops, commissioned by President, and on duty with the black regiment to which they have been assigned, ineligible for staff positions.

4. The officers of the veteran corps now in course of formation.

5. Regimental Medical officers of State organisations, commissioned by the Governor of the State to which their regiment belongs.

6. Acting-Staff-Surgeons.—Veteran Surgeons under contract as mentioned above.

7. Acting-Assistant-Surgeons, U.S. Army.—Civil Surgeons under contract, with pay of 1st lieutenant. No previous service is necessary to obtain this appointment. They are chiefly employed in Northern Hospitals.

The following story is told by Mr. G. A. Sala in his "Diary in America:"—"A Doctor went to settle in a village out West, and the first night of his arrival was sent for to attend a sick child. He looked at the little sufferer very attentively, and then delivered this oracular opinion,—'This hyar babe's got the small-pox, and I ain't posted up on pustules. We must approach this case by circular treatment. You give the little cuss this draught; that'll send him into fits; then send for me, I'm a stunner on fits.'"

GENERAL CORRESPONDENCE.

PRYCE *v.* BOWEN.

Letter from Mr. Essex Bowen.

[To the Editor of the Medical Times and Gazette.]

Sir,—It is my gratifying duty to ask for space in your columns for a word of true thankfulness to my Profession generally for its hearty sympathy and its most practical support in the difficulties and anxieties with which I have had so recently to contend.

I beg to express my gratitude for, and very high appreciation of, the ready and able advocacy of the cause of right which has been so generously rendered by your influential paper.

To the numerous members of the Profession, and others, both far and near, who, in addition to their kind sympathy and valued advice, have already completely indemnified me from the heavy expenses which the well-timed bankruptcy of my late adversary has rendered me liable to,—to these gentlemen I am most grateful; grateful not only for their pecuniary aid, but also for the assurance thereby given that those who are the only qualified judges hold me guiltless of the charge which has been thus maliciously brought against me. This assurance will henceforth enable me, as hitherto, fearlessly to undertake and conscientiously to perform every Professional duty which may devolve upon me. I am, &c.

Birkenhead, February 8. Essex Bowen.

ROYAL EPSOM COLLEGE.

Letter from Mr. W. A. N. Cattlin.

[To the Editor of the Medical Times and Gazette.]

Sir,—The interest you take in the prosperity and usefulness of the Epsom College has led you to place far too high a value on the part which I have taken in helping to bring about the alterations lately made in the "bye-laws relating to the school" of that institution. Having worked only as a member of a committee of some forty governors of the College, who were all as anxious and earnest in the matter as myself, and knowing as I do how much of the good effected has been due to the steady and long-continued influence in the Council of Mr. Ray, of Dulwich, Dr. Cholmeley, Mr. Hird, and other members of that body, it is with great pain and regret that I observe the marked prominence you give to my name in your last leader on the subject, or that you have mentioned me at all in connexion with it; and I earnestly wish that my rejection of the credit you have attributed to me could be made as prominent as was your award of it. I am confident that I may, at any rate, rely upon your courtesy for the insertion of this letter in your next number.

The Profession is deeply indebted to you for the untiring zeal with which the claims of its "less fortunate" members has ever been advocated in your valuable journal; nor will it be less grateful to the Council of the College for the boon which has been conferred upon it by the new bye-laws—bye-laws which, I hope, we shall all heartily and earnestly help the Council to make actively and efficiently operative.

I am, &c.

Islington, February 6. W. A. N. Cattlin.

OUGHT BUBO TO BE RESOLVED?

Letter from Dr. Harries.

[To the Editor of the Medical Times and Gazette.]

Sir,—Some time must necessarily elapse before we can derive the full benefit from the researches now being instituted into the nature and proper management of syphilis. I should wish, therefore, through your pages, to direct the attention of the Profession to what appears to me to be a great and widespread error of treatment; I refer to the usual management of the groin complication.

Whether or no there be at least two distinct lesions coupled under the name of chancre, the one infecting the bearer with syphilis, but never producing a suppurating bubo, the other not followed by secondary symptoms, and usually giving rise to a suppurating bubo, it is not necessary now to determine. Suffice it that it is a fact that a chancre followed by a discharging bubo is not followed by secondary or constitutional symptoms. The real exceptions to this rule are not more than occur to all fixed

laws. And it is at least as likely that the suppurating bubo prevents the passage of the poisons into the system, and thus decides that the chancre shall be a chancroid, as that the sore by this means proves its original nature.

The application of a certain material to the skin of the genitals produce a certain local change. This change is probably accompanied by the reproduction of the original poison, which, not being adapted for tissue building, is carried away by the lymphatics. These may or may not display irritation thereat. At the groin, however, the lymphatics communicate with a more complex gland, and here a new inflammation is set up. The self-made virus is to the lymphatic gland what the foreign poison was to the skin, and at this time the system generally is as little contaminated by the syphilitic poison as the skin of the penis was before its application. Practically it is still without the body, and now the question of syphilisation has to be decided. In one case the inflammation in the gland increases, the gland swells, matter is formed therein, the surrounding tissues are involved, the skin is reached, and the pus evacuates. The cavity then closes up, and the only mischief done is that an easily spared gland is destroyed. The extending inflammation has separated the sound from the unsound structures by an impervious wall of adhesion, so that not a trace of the poison has been able to pass into the system, and the mischief has begun and ended a local one. In another case the same course is pursued until the period when suppuration should occur; but instead of this, resolution follows, and the gland quietly subsides uninjured. Or suppuration may actually occur; and yet under the treatment employed, absorption and resolution may liberate the gland. What is the result? A poison that might have been thrown out here is allowed to enter the general system; a never-ending series of constitutional symptoms follows; and we remark that while that case was a chancroid, this must have been a chancre.

Seeing, then, that so much depends on the ejection or non-ejection of the poison at the groin, what would be the rational treatment? Clearly, by all means in our power, to promote suppuration there, and thus to save the patient from the other ills. When matter has fully formed, the sac should be fully laid open, and then stuffed with tow and kept discharging freely until it is entirely healed. There is no need for absolute rest. No mercury should be given for a sore on the penis as long as there is a chance of suppuration in the groin; for while removing the induration or inflammatory adhesion on the penis, it is also dissolving away the line of safety round the gland in the groin. The former is no harm; the latter is a great good. Some cases thus treated will, of course, do badly, but the percentage of secondary affection will be less than under the usual method.

Now refer to the treatment advocated by Surgeons generally. Druitt is a fair exponent of the most common views. In his "Manual," eighth edition, page 196, he thus lays down the law for the treatment of acute bubo:—"The first indication is to produce resolution by rest, aperient and saline remedies, low diet, leeches, and fomentations." "As soon as the tenderness is relieved, pressure by means of a compress and bandage, or by placing a weight on the part as the patient lies in bed, is useful. Even if matter does form and does not seem inclined to come to the surface, the iodine paint, cold lotions, aperients, tonics, and pressure will sometimes cause it to be absorbed." Is it credible that the "it" in this case is a deadly poison, whose absorption is the thing most to be dreaded? Fancy Surgeons laying down similar rules for ensuring the absorption of the poison of hydrophobia! Twenty years hence shall we find a man who bedaubs an advancing bubo with iodine?

To multiply quotations is useless; the same instructions you have in all the guides, the same practice you see everywhere. If by way of a change the Profession would but second the efforts of Nature to eliminate the poison—they have "promoted its absorption" long enough, goodness knows!—the melancholy ranks of syphilitics might be somewhat thinned. Craving their serious reconsideration of this point,

I am, &c. GWYNNE HARRIES, M.B. Lond.

NEW MEDICAL CORONER.—We are informed that Mr. Garrington has been elected Coroner for the Borough of Portsmouth.

THE Duke of Beaufort has lost nearly forty head of deer from their browsing on a yew, the boughs of which were bent down within their reach by the snow.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JANUARY 4.

Dr. OLDHAM, President, in the Chair.

THE following gentlemen were elected Fellows:—Mr. J. H. Bridgeman, Dr. E. Copeman, Mr. Fairbank, Dr. Hodder (of Toronto), and Mr. Whitehead.

Dr. PLAYFAIR read a case of Extra-uterine Fœtation, on which Dr. PRIESTLEY made some remarks.

Mr. WILLS, through Dr. GRAILY HEWITT, described the Mode of Birth of a Double Monster, and exhibited a photograph of the same.

Dr. PARSONS exhibited a specimen of Pulmonary Embolism, of the Tubular Kind, after Ovariotomy, and described the case.

Dr. RICHARDSON entered at considerable length into the question of these fibrous deposits.

Mr. NAPPER read a case of Amputation of Arm during early Pregnancy.

ANNUAL MEETING.

The business of the annual meeting then commenced. The report of the auditors of the accounts of the Treasurer for the year ending December 31, 1864, was read, from which it appeared that the balance in the hands of the Treasurer is £262 6s. 5d., and that during the year a sum of £181 10s. was invested in Consols in the name of the trustees of the Society, making a total now invested in Consols of £731 10s. The balance-sheet showed that the Society had received during the year the sum of £469 7s. as subscriptions from the Fellows, and £40 9s. 6d. from the sale of *Transactions*.

Mr. MITCHELL, in proposing the adoption of the report, congratulated the Society on its financial prosperity. Mr. NICHOLS having seconded the resolution, it was carried unanimously.

The SECRETARY having read the modifications of the laws rendered necessary by the opening of the library, Dr. MEADOWS proposed their adoption. This being seconded by Dr. HALL DAVIS, was unanimously adopted.

It was then announced that arrangements were now completed for the lending of the books of the library to the Fellows at Mr. Hardwicke's, publisher, 192, Piccadilly.

Dr. PRIESTLEY moved with great pleasure, and was seconded by the whole meeting, the following resolution:—"That the thanks of the Society be, and are hereby, given to the President and officers of the Society for their services during the past year. That they be particularly given to the retiring President, Dr. Oldham, for the able and efficient manner in which he had presided over the Society; and also to Dr. Graily Hewitt, on his retiring from the office of Honorary Secretary, for his zealous aid rendered to the Society from its commencement."

The list of donations to the library were then read.

The following gentlemen were then elected officers for the ensuing year:—*Hon. President*—Sir C. Locock, Bart., M.D. *President*—Dr. Barnes. *Vice-Presidents*—Dr. Gream, Dr. Greenhalgh, Mr. F. S. Haden, Mr. Robert Hardy (Hull), Dr. Tanner, Dr. J. G. Wilson (Glasgow). *Treasurer*—Dr. Graily Hewitt. *Hon. Secretaries*—Dr. Braxton Hicks, Dr. Alfred Meadows. *Hon. Librarian*—Dr. A. Meadows. *Other Members of Council*—Dr. Aveling (Sheffield), Dr. Clay (Manchester), Dr. John Hall Davis, Dr. Gervis, Dr. Alfred Hall (Brighton), Mr. I. Harrinson (Reading), Dr. Madge, Mr. Josh. T. Mitchell, Dr. Gustavus C. P. Murray, Mr. Edward Newton, Dr. Oldham, Dr. W. O. Priestley, Mr. Edward Ray, Dr. Samuel Richards, Dr. Thomas Skinner (Liverpool), Dr. Tyler Smith, Mr. Fred. Symonds (Oxford), Mr. James Reeves Traer.

The PRESIDENT then delivered the

ANNUAL ADDRESS.

He referred to the prosperity and activity of the Society, as shown by the balance-sheet, by the *Transactions*, and by the number of its Fellows, who now were to be found in Australia, New Zealand, India, and Canada. He lamented, however, the deaths of six Fellows during the past year. He congratulated the Society upon the formation of the Lending Library, which had long engaged the attention of the Council. The tone in which the discussions had been carried on in the Society was very satisfactory, although subjects had been brought before them upon which there had been strong diversity of opinion.

Dr. Oldham pointed out that it was to the interest of the Society to continue to maintain this spirit unimpaired. He thought it desirable to establish a committee of two *experts* to report to the Society upon the results of any new line of practice which might prove of serious consequence to the patient. It was one of the duties of the Society not only to bring forward new suggestions for improving practice, but, by the light of modern science, occasionally to revise the older rules and opinions; and he noticed, among other subjects, the advantage of the careful and intelligent investigation of the influence of the ergot of rye on the mother and fœtus, and on the uterus in functional or organic diseases. He alluded to the possibility of improving the education of women as nurses to the lying-in room, by instructing them in public institutions to a competent knowledge of their duties, which would save a vast amount of the injury and misery inflicted by incompetent nurses. Referring to the revival, in a recent case, of a jury of matrons to decide upon the pregnancy of a condemned criminal, he hoped the Society would take an early opportunity of endeavouring to induce the Legislature to alter this rule, and refer in future to obstetric Practitioners. The President, in conclusion, expressed his warm acknowledgments for the assistance rendered him by the honorary secretaries; and thanked the Fellows for their support, which had rendered the performance of his office one of the most agreeable recreations of his Professional life.

Dr. Tyler Smith proposed, and Dr. Greenhalgh seconded, a vote of thanks to the President for his valuable address, which was carried unanimously.

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

At the meeting of this Association on Saturday evening, January 21, Dr. Druitt in the chair,

Dr. Letheby, gas analyst to the City of London, delivered a lecture, with experimental illustrations, upon the means of testing the illuminating power and chemical quality of coal-gas. At the commencement he stated that the object he had in view was not a scientific discussion of the various subjects which were to occupy their attention: his intention was to give a brief and simple account of the practical means to be used in estimating the illuminating power and chemical quality of coal-gas, so as to meet the requirements of recent legislation in this matter. The four points which were generally set forth with more or less precision in almost all modern Acts of Parliament relating to the supply of gas were—first, that when the gas is burnt in a particular manner, it shall have at least a certain minimum illuminating power; second, that it shall not contain more than a certain portion of ammonia; third, that it shall be free from sulphuretted hydrogen; and fourth, that it shall not contain more than a certain proportion of sulphur in any form. With regard to the means or appliances for estimating the illuminating power of gas, he observed that they were founded upon the principle that the intensity of light decreases as the distance of the luminous object from the observer increases, and, as the light radiates in all directions, the diminution of intensity is in proportion to the squares of the distance. Bearing this law in mind, the next and only remaining consideration was how to measure or judge of the relative intensities of two lights. Various modes had been adopted, the first being the simple plan proposed by Count Rumford, in 1794. It consisted in placing a rod before a white screen, and then so adjusting the position of the lights that the two shadows of the rod cast side by side on the screen are exactly of equal depth. The distances from the rod to the lights are then measured and squared, the numbers so obtained representing the relative intensities of the light. Another and common method of judging of the intensity of two lights was to observe at what distance from each of them a given object, such as small print, was clearly—equally clearly—perceptible, and then measuring the respective distances and squaring them. As far back as 1760, M. Bouguer directed attention to the fact that the eye could perceive very small differences in the intensity of the light from two objects, if the illuminated surfaces were close together; and the late Professor Ritchie, taking advantage of this suggestion, and improving the photometer of M. Bouguer, contrived an instrument for judging very accurately when the light from two objects is exactly equal. It consisted of two reflecting surfaces so placed as to throw the light from the two sources side by side upon a piece of tissue paper, and this being enclosed in a dark box, the equality of illumination could be accurately judged of. The lights being so arranged as to give a like intensity of illumination, the distances between them and the discs were measured and squared, as in the other cases. But the most ingenious of all the contrivances hitherto used was that of M. Bunsen. It consists of a piece of white filter-paper saturated with wax or spermaceti, except upon a small spot in the centre. When this paper is looked at by reflected light the centre spot is white, and the rest of the paper dark or greasy; but when looked at by transmitted light the waxed part is translucent, and the central spot dark or opaque. When this paper is held vertically between two unequal lights, it shows a dark spot and a light ground on the side of the lesser light, and a white spot with a dark ground on the side of the stronger light. By moving the paper nearer and nearer to the weaker light, the spot gradually disappears, until there is an exact equality of reflected and transmitted light on each side. The lights are then equal, and the distances of each from the disc being measured and squared, their relative illuminating power is determined. After referring to a contrivance of Mr. Wheatstone, in which the reflections cast by a silvered glass bead moving rapidly in a planed or eliptical direction between two lights was employed for a similar purpose, the lecturer stated that he had himself contrived, and was now perfecting, a photometer which, he thought, would enable them to dispense with a good deal of the complicated machinery required for testing the illuminating power of gas, and would enable them to ascertain the amount of light evolved from any gas flame in any position, as, for example, from a street lamp. It consisted of a wedge of dark glass, which was made to pass across an eye-piece placed at a given distance from the light; and according to the intensity of the light would be the thickness of the wedge through which it could be seen. This is graduated to a scale indicating the value of the light. After glancing at some other contrivances having the same end in view, the lecturer said the only two which were in practical operation were—1, A modification of Bouguer's and Ritchie's plan, which is in use in France, and the plan of Bunsen, most generally followed in this country, several forms of which instrument were employed. Having described and illustrated the mode of using the photometer, and indicated the standards of comparison, he proceeded to treat of the conditions to be observed in testing the illuminating power of gas for the purposes of the Metropolis Gas Act. In the 1st place, the gas should be accurately measured, and the rate of combustion should be steadily kept at five cubic feet per hour. This was best done by means of a contrivance by Mr. Sugg, of Westminster, in which a clock was introduced into a meter, the hand of the clock and the meter going together. 2. The gas should be delivered to the burner at a uniform pressure, which was effected by means of a governor, the invention of Mr. King, of Liverpool, and which was placed after the meter. 3. The gas should be burnt from an argand burner, having fifteen holes and a seven-inch chimney. The rule was, to select that burner which burnt the gas so as to bring the apex of the flame exactly on a level with the top of the glass. 4. To use a very delicate Bunsen disc; for although made in the same way and at the same time, not one in a dozen is sufficiently delicate to indicate the tenth part of a candle. 5. To have all reflected and diffused light completely excluded from the disc, which was best accomplished by having the disc in a dark box with conical ends. 6. To have contrivances, as small mirrors, for seeing both sides of the disc at the same time. 7. To have screens before the gas and the candle to keep the light from the eyes, and so to preserve their sensitiveness when viewing the disc. 8. To work with two sperm candles, taking care that they are free from paraffine, and that they burn nearly at the rate of 120 grains per hour each. 9. To light the candles as well as the gas ten minutes before making the experiment, and to balance the candles and weigh them while they are burning. 10. To continue the experiments for ten minutes, making observations of the disc every quarter or half minute. 11. To take care that the temperature of the room does not rise much above 65° F. 12. To reduce the experimental results to the required or standard proportion either by means of the printed tables or by multiplying the observed illuminating power by the observed combustion of the candles, and dividing by 120. The next consideration related to the means of testing the purity of gas. The Metropolis Gas Act of 1860 directs

that the gas shall be so far free from ammonia and sulphuretted hydrogen that it shall not discolour turmeric paper or paper imbued with acetate or carbonate of lead when these tests are exposed to a current of gas issuing for one minute under a pressure of $\frac{5}{10}$ths of an inch of water. These impurities were so easily recognised, and the process for detecting them so clearly described, that it was not necessary to make many observations upon the subject. He would only say that in order to obtain the required pressure, a small sheet governor, manufactured by Mr. Sugg and adapted by himself for this purpose, should be used; and that, in applying the turmeric test, care must be taken that the turmeric was of good quality and of a deep orange-yellow colour, and that it was melted with water immediately before being employed. When it was necessary to determine the exact amount of ammonia present the gas was made to pass through a glass tube about eight inches long and one inch in diameter, filled with fragments of broken glass, moistened with a known quantity of a solution of oxalic acid or dilute sulphuric acid. By having a piece of litmus paper in the distal end of the tube, the period at which the acid was saturated was readily seen; for while the ammonia was being absorbed the paper was red, but directly the acid was saturated the paper became blue. Thus by knowing the quantity of acid in the tube and the quantity of gas which had passed through it, the proportion of ammonia was easily estimated. A more accurate mode was to stop the process a little short of saturation, and then to estimate the quantity of unsaturated acid in the tube, and deduct it from the quantity originally used. This would give the exact proportion of acid neutralised by the ammonia of the gas, and, therefore, the quantity of ammonia present. In testing for sulphuretted hydrogen, the solution of sugar of lead should always be applied to one end only of a strip of white filter paper at the time of using; for unless there was a portion of the paper untouched by the lead, a slight discoloration from the presence of a small quantity of sulphuretted hydrogen would not be perceived. If, however, a part of the paper remained of its original whiteness, it gave by contrast a means of detecting the slightest discoloration of the lead. But as sulphur existed in coal-gas in other forms than as sulphuretted hydrogen, and was not discoverable by lead paper, the Legislature had in recent Acts provided for this impurity by fixing the proportion of it in gas, in any form, at less than a certain maximum amount. In the Newcastle-on-Tyne bill of last session the maximum was fixed at 10 grains per 100 cubic feet of gas, but in the Metropolis Gas Act it was fixed at 20 grains per 100 feet. Several processes had been contrived for the discovery of this impurity, but time would only suffice to refer to the process which Parliament had recently sanctioned. The gas was made to pass a very delicate meter, which registered accurately to the hundredth part of a cubic foot. After this it was delivered to a sensitive governor, constructed on Mr. King's principle. It was thence conducted to a Leslie burner, where it was consumed at the rate of not more than half a cubic foot per hour, and the products of combustion were carried by a bent trumpet-shaped glass tube into a glass cylinder, where they were condensed. As they passed from the burner through the tube, they met with a large quantity of ammoniacal gas, which was conveyed into the tube by means of an inverted funnel that passed up through the centre of the burner to about two inches above the flame. The ammonia was supplied by about two fluid ounces of the strongest liquid ammonia (sp. gr. ·880) placed in a beaker or wide-mouth bottle under the funnel. In this manner the sulphurous acid produced by the combustion of the gas was fixed by the ammonia and condensed in the cylinder. After burning the gas for twenty-four hours, the products of combustion were removed from the cylinder and put into a graduated glass. A given fractional quantity of the liquid was then taken, and evaporated in a beaker to dryness so as to get rid of the excess of ammonia. The residuum was a white crystalline mass of sulphate of ammonia. This was dissolved in a teaspoonful of water, and then treated with about three or four ounces of a saturated solution of nitrate of baryta in water, containing about a-tenth of its bulk of pure nitric acid. By this treatment a copious precipitate of white sulphate of baryta was formed, and on allowing the beaker to stand quiet for twelve hours, the sulphate of baryta would fall to the bottom of the vessel, leaving the liquid clear and colourless. This liquor was to be carefully poured off, and transferred to the solution bottle ready for another operation. The white precipitate must then be poured into a small bottle (three inches in diameter), placed on a funnel, and washed well with two or three drenchings of distilled water. When the filter and precipitate were quite dry, they were put into a balanced platinum crucible, and burnt quite white over a Bunsen gas-burner. The crucible with the white sulphate of baryta were then put into the balance, and the quantity by weight of the precipitate carefully ascertained. From this the amount of sulphur was easily calculated, for every 100 grains of the white sulphate of baryta represented 13·7 grains of sulphur. The lecturer then described the apparatus known as "Erdmann's gas-prover," and exhibited the magnesium light. He closed a very able and instructive address by expressing his obligations to Mr. Sugg, of Westminster, who had kindly placed upon the table and superintended the arrangement of the various apparatus by which the processes he had referred to were illustrated.

A conversation ensued upon the lecture, and many questions were proposed by the Medical officers present and replied to by Dr. Letheby.

The PRESIDENT, in the name of the Association, having presented a vote of thanks to Dr. Letheby, the proceedings terminated.

OBITUARY.

THE LATE R. D. GRAINGER, ESQ., F.R.S.

RICHARD DUGARD GRAINGER was born at Birmingham in 1801, where his father, Edward Grainger, Esq., long practised in repute as a Surgeon. At the Grammar School of King Edward in that town he received his early education. Having chosen the army for his Profession, he was sent to the Military Academy at Woolwich. He was, however, induced by circumstances, as well as by inclination, to abandon the military for the Medical Profession, and joined his highly gifted elder brother Edward, who had established a private anatomical school in the Borough, and rapidly attained extraordinary popularity and success as an anatomical teacher. Edward Grainger's brilliant talents, devotion to the science, and aptitude for the practice of his Profession, gave early promise of his attaining great future distinction as a Surgeon; but he was cut off in the bloom of his reputation and success. Thus, his younger brother Richard, when little more than 22 years of age, succeeded to the school and to the Anatomical Chair at Webb-street. Here Richard Grainger laboured long and successfully, for although as a lecturer he was inferior in brilliancy and eloquence to his more gifted brother, he was scarcely less popular with his large class of students. Associated with Armstrong, Southwood Smith, Marshall Hall, Pilcher, and Risdon Bennett, who, among others, successively lectured at his school, he maintained its popularity and usefulness till, like all the rest of the London private schools, it gradually succumbed to the superior advantages possessed by the large Hospitals. In 1842 he amalgamated his school with that of St. Thomas's Hospital, in which he occupied the Chair of Anatomy and Physiology until 1860. His labours in the dissecting-room and in preparation for his lectures during the period of his holding the Webb-street School were unremitting, and no man ever more conscientiously devoted himself to the welfare and advancement of his pupils. He had moreover, a pure and enthusiastic love of science and an ardent desire to extend its bounds. By his original investigations and experiments, especially in the departments of developmental anatomy, and the anatomy and physiology of the nervous system, he gained for himself a permanent place in the records of his favourite science. In 1837 he published his "Observations on the Structure and Functions of the Spinal Cord," and shortly after was elected a Fellow of the Royal Society. It would be impossible, in a brief sketch like the present, to attempt anything like an accurate estimate of Mr. Grainger's labours in connection with the intricate questions raised at the time of the controversy on Dr. Marshall Hall's doctrines of the nervous system. Suffice it to say that Grainger took no unimportant share in the investigations and discussions on the reflex theory, and contributed by his independent labours greatly to the elucidation of some of the most important points then warmly discussed.

Endowed with a spirit of warm and genuine philanthropy, he early ranked himself with the pioneers in the path of sanitary and social reform, at a time when such subjects met with little more than cold approval, and their advocates, for the most part, were viewed as little better than visionary enthusiasts On the appointment of the "Children's Employment Commission" in 1841, he was nominated one of the Inspec-

tors, and discharged the duties of an office demanding no small share of tact and discretion with equal zeal and ability.

In 1845 he was elected on the Council of the Royal College of Surgeons, and in 1848 he delivered before that body the Hunterian Oration. The subject which he selected for his address was "The Cultivation of Organic Science." It may be taken as a very fair illustration of his style of writing and of his philosophical spirit. It dwells chiefly on the importance of recognising "the triple combination of design, unity, and law" in all researches illustrative either of structure or function, and closes with an eloquent peroration claiming for the moral nature of man the application of the same principles.

In 1849 he was appointed, under the then Board of Health, as an Inspector to inquire into the origin and spread of cholera. His published reports to the Government on these subjects sufficiently prove the conscientious fidelity, as well as the intelligence, with which he fulfilled the arduous and often perilous duties assigned to him. In these, as well as in some of his public addresses on sanitary topics, there are some questions – *e.g.*, that of contagion—respecting which the soundness of his views may be questioned; but no one can fail to see and admire the manly honesty with which they were expressed.

On the passing of the "Burials Act," in 1853, he was again selected as one of the Inspectors for carrying out a measure, the importance of which he had long recognised and urged on the attention of the Government. This office he held up to the time of his death, and often fulfilled its duties in spite of languor and physical weakness, under which a less ardent and buoyant spirit than his would have succumbed.

On vacating the Physiological Chair at St. Thomas's Hospital in 1860 his former pupils and friends determined to present him (as had been more than once done before) with a testimonial. This, however, he declined to receive, desiring that it might be appropriated to the founding of a physiological prize in the School of St. Thomas's. To this testimonial Lord Shaftesbury and many other well-known philanthropists contributed, and the address presented to Mr. Grainger expresses the high estimation in which he was held, and the value entertained of his philanthropic labours.

In 1862 a second "Children's Employment Commission" was issued, and R. D. Grainger was nominated one of the Commissioners. This honorary appointment was a source of gratification to him, not only as being a graceful acknowledgment of his merits and the value of his services, but also as affording him opportunity for furthering by his knowledge and matured judgment the objects of the Commission, in which he took the deepest interest.

In the course of these his varied public and official duties, his attention had been strongly drawn to the evils and cruel consequences to the young females employed, attendant on the system pursued in the large milliners' and dressmakers' establishments. Having secured the ready co-operation of many of the influential members of the aristocracy, he succeeded in forming a society for the protection and succour of the young women employed in those branches of trade. To this institution he for some years devoted much valuable time and no little labour. Though grievously disappointed in not securing the full amount of success he hoped for, he received as his reward the blessing of many who were ready to perish, and obtained some diminution of the evils he had sought to remedy.

To those to whom R. Grainger was not personally known, it would be difficult to describe the peculiar charm of his private character. And it is not too much to say, that on those who knew him most intimately he exercised a species of fascination which almost unfits for making an attempt at a faithful portrait; the more so since this was the fascination of goodness, of love, proverbial for blinding the judgment. Numerous, indeed, were the friends that he made, amid all ranks and classes of society; but no one ever heard of his making an enemy, even in the discharge of duties calling for the exercise of firm, inflexible fidelity. Of tall and spare form, with an habitual stoop, his fine, expanded forehead and bright, quick eye betokened a man of superior intellect and culture; whilst his courteous, quiet, retiring, semi-bashful manner indicated the modesty and humility which are ever the associates of true greatness of mind. Once entered on conversation, for which he was always ready, he was lively, energetic, and earnest, always giving the impression that he was not only sincere, but even enthusiastic in his views. His peculiar, emphasised, earnest mode of speaking characterised his teaching, so that his pupils were always impressed with his thorough honesty and his own conviction of the truth and importance of what he was endeavouring to teach. This, though often giving a somewhat slow and laboured character to his speaking, not infrequently raised his public addresses and writings to a degree of eloquence, especially if the subject was one which called forth his deeper feelings of philanthropy or reverence.

His love of Nature amounted to a passion, and he took the deepest interest in every branch of natural science. Each new discovery was hailed by him with delight, and every new proof of unity of design gave him the most exquisite pleasure. The wisdom and goodness of the Creator as evidenced in all His works, Grainger delighted to discover and dilate on, and he could always find "sermons in stones, and good in everything." He was a man of decided opinions and deep convictions, but these he held in the utmost charity towards all men who might conscientiously differ from him. His love of truth, however, was paramount, and oppression, in every form, he hated. Those who would maintain their views at the expense of truth, and all who sought their own selfish ends and interests, regardless of others' freedom and welfare, he would denounce in no measured terms of indignation and scorn. In the discussion of scientific questions, he was eminently candid and discriminating, ever ready to acknowledge and proclaim merit in the humblest fellow-worker in the field of science or philanthropy. His liberality was bounded only by his means, and a poor brother or a struggling student he was ever ready to aid. Helpless misery and woe called forth his deepest sympathy and gave him unfeigned pain.

His health, never very robust, had for many years been failing, and latterly his life was one of great weakness and distress, though not of much actual pain. About five years ago he consulted his friend Dr. Risdon Bennett for dyspeptic symptoms, from which he had then suffered for some time, when it was discovered that he was labouring under renal disease, with albuminuria. The disease, however, for a long time appeared to make but little progress, and he pursued his avocations, with interruptions, increasing in frequency, till a few months before his death.

Fully aware that he was the subject of a fatal malady, his equanimity and cheerfulness of mind never forsook him. He was precluded from social intercourse (which he had always greatly enjoyed) except in his own house. There, however, amid languor and wasting sickness, painful to witness, he continued to manifest that humble, cheerful, consistent, Christian spirit which was at the foundation of his lovely character. For he had not contented himself with searching after scientific truth, but had long been a devout and earnest student of the Sacred Scriptures, had bowed his heart to their teaching, had sought to drink into the spirit, and walk in the footsteps of Him of whom they testify. They were not mere words of eloquence with which he closed the peroration of his Hunterian address, but were the expression of his deepest conviction, when he said: "We must turn to the sacred volume of revelation, wherein we shall discover laws as perfect, and principles as fixed, for the guidance of the spiritual nature of man, as those which rule the phenomena of the material world,—where, in fine, aided by the Divine grace, and prepared by a fitting humility, each and every one of us may hope to come to that 'true Light which lighteth every man that cometh into the world.'"

Heartfelt, though unobtrusive, as was his piety, he could not but recommend religion by his life and conduct. He was, however, too deeply impressed with its value and importance to admit of his failing on every legitimate occasion, whether public or private, to commend it to the attention of others. The warm and active interest which he took in the Christian Medical Association, and the beautiful, simple, and earnest addresses which he delivered before that Society, sufficiently testify how anxious he was that those who are entering on the study of that noble science to which he had devoted his life, and of which he was so great an ornament, should recognise and feel that the claims of revealed truth, whilst superior, are not antagonistic to scientific truth. His last end was not only peaceful, but cheerful and happy. He longed to be released, for to him the unseen world had no terrors. He died February 1, 1865, aged 63, and was interred at Eltham on the 7th inst. He left no children. But one survives him whose faithful love cheered his life and soothed his last hours, and whose deep sorrow may, perhaps, be in some small measure mitigated by the assurance, that not in her memory alone will Richard Dugard Grainger long live, as a bright example of all that was noble, and pure, "lovely, and of good report" in the Christian, philosopher, and friend.—J.R.B.

SECOND EXAMINATION
FOR THE
DEGREE OF BACHELOR OF MEDICINE.
OXFORD, DECEMBER 2, 1864.

Examiners.—Dr. Acland, Dr. Chambers, Dr. John W. Ogle.

PATHOLOGY.

Medical, Surgical.

1. Describe the microscopical appearances of typical specimens of encephaloïd carcinoma, and fibro-plastic growth.
2. Describe the condition called leucocythemia.
3. Distinguish between what are termed typhus and typhoïd fever.
4. What causes may produce general anasarca?
5. Under what several conditions is the urine found to contain (1) albumen, (2) sugar, and (3) pus globules?
6. By what conditions is jaundice produced? and in which may it be considered remediable either by nature or by art?
7. Enumerate the characteristics of what is termed "general paralysis of the insane;" and state the diseases for which it may be mistaken.
8. By what symptoms would you form a diagnosis of hæmorrhage into the spinal cord?
9. Enumerate the varieties of hernia that occur in the abdomen; and enumerate the swellings which may occur in the inguinal and scrotal regions, besides inguinoscrotal hernia.
10. Describe the various modes of growth in fibrous tumours of the uterus.

Materia Medica, Pharmacy.

1. What officinal preparations of the British Pharmacopœia contain opium, and in what proportions?
2. Mention the chief diuretics used in England, and give the doses of their several preparations.
3. Enumerate the "mixtures" for which directions are given in the British Pharmacopœia, and state their composition.
4. What is the composition of the pulvis jalapæ compositus, of the pilula scillæ composita, of the liquor morphiæ hydrochloratis, and of the liquor strychniæ of the British Pharmacopœia?
5. Name the medicines which impart colouring matter to the excretions.
6. What are the preparations of iron in the British Pharmacopœia? For what purpose is ferri peroxidum hydratum used? How is it ordered to be made?
7. What classes of medicines are fitted for preparation by means of decoction and of infusion respectively? How are liquid extracts made?
8. What is the temperature at which linseed, mustard, charcoal, and yeast poultices are to be made?
9. Explain the principle of volumetric analysis.
10. Give the equivalents of the weights and measures employed in the British Pharmacopœia in French weights and measures.

THERAPEUTICS.

1. Give an outline of the mode of treatment you would employ in a case of acute rheumatic fever.
2. How would you treat a case of pneumonia supervening upon delirium tremens, and what would probably be the result of your treatment?
3. What steps are required by the law of England to be taken before a person of unsound mind can be put under bodily restraint?
4. What would be your line of treatment in a well-marked case of pyæmia?
5. Bearing in mind the several causes of uterine hæmorrhage, what ought to be the treatment of the various forms of this affection?
6. What steps would you take if a woman, previously healthy, were seized with convulsions during labour?
7. What measures would you adopt in treating a case of spasmodic stricture of the urethra?
8. What are the indications for the use of, and contra-indications against the use of, elaterium, digitalis, aloes, and copaiba, severally in various diseases?
9. What are poisonous doses of the officinal preparations of opium respectively? How do you treat deep narcotism from that drug?

FORENSIC MEDICINE AND HYGIENE.

1. By what symptoms would you seek to form a diagnosis between intoxication from alcoholic drinks and concussion of the brain?
2. How would you proceed for the purpose of testing the contents of the stomach of a person suspected of having been poisoned by arsenic?
3. What are the symptoms of a poisonous dose of belladonna and of hydrocyanic acid?
4. What are the symptoms of poisoning by oxalic acid, and what the post-mortem appearances?
5. What evidence would satisfy you that an infant found dead had not breathed?
6. What are the several ways by which a room, or a ward, may be ventilated?
7. What impurities have been detected in the air of sick rooms?
8. How is typhoid fever said to be propagated?
9. Under what conditions is drinking water usually contaminated by lead?
10. Can you state any diseases which make butchers' meat wholly unfit for human food?

CLINICAL EXAMINATION.

(*a*) *At the Radcliffe Infirmary.*

1. Write a report on the case of
, Ward,
and
, Ward,
giving with care the history, diagnosis, and prognosis of the cases, and also the treatment you would recommend. Add such general remarks as occur to you by way of clinical comment on such cases.

(*b*) *At the Museum.*

2. Examine (writing a methodical account of your plan of examination) the urine marked A.
3. Describe and sketch from microscopical examination the object marked B.
4. Describe the morbid product marked C.

Translate from *Morgagni*. De Sed. Mor. II., 27, 8.

Relate any similar case which you may have seen or heard of; and state the probable condition of the cardiac muscular fibres.

Translate from Aretæus. Χρον. Παθ. Α. *s'*.

Translate:—Ἐν τροφῇ γὰρ κείσεται τὰ φάρμακα. Ib.

Illustrate this aphorism from modern experience.

LEGAL INTELLIGENCE.

COURT OF QUEEN'S BENCH.—MONDAY, FEBRUARY 6.

TAMPLIN V. COSENS AND ANOTHER.

THIS was an action by the eminent Surgeon, a Fellow of the Royal College and senior Surgeon of the Royal Orthopædic Hospital, against the executors of a gentleman of the bar to recover the amount remaining due for fees in respect of attendance upon his daughter. The young lady had laboured under the disease of "double lateral curvature of the spine," and in November, 1861, her father took her to the plaintiff (who, it appeared, had peculiar skill and experience in that species of disease), and placed her under his care in the hope of his effecting a cure. Mr. Cosens paid him the usual fee of a guinea, and nothing was then or at any time said as to fees. The plaintiff, however, intimated that his process of cure would probably take a considerable time—at least six months, if not longer. This was in November, 1861, and he continued to attend the lady until July, 1863, when her father died, and the claim in the present action, of course, could not extend beyond that date, though, in point of fact, the plaintiff continued to attend her, and in the result succeeded in effecting a cure, so that she had perfectly recovered, and, indeed, had since married. The peculiar feature of the plaintiff's process consisted chiefly in the application of a species of mechanical pressure, by means of a machine which required almost daily nice and skilful adjustment. Hence he saw her daily, inspected the spine, and adjusted the instrument. The total number of visits came to 218, for which he charged at the rate of one guinea for each visit. And thus the amount of his claim up to the father's death came to the sum of £228 14s. The executors, however, conceived that the deceased gentleman, whose income, it appeared, was limited, could not have intended to pay so much, and they, therefore, only acknowledged the claim to the amount of £129 13s. The principle upon which this particular sum was calculated did not appear. The plaintiff, however, declined to be satisfied with it, and prosecuted his action for the residue—about £100.

Mr. Lush, Q.C., and Mr. Needham appeared for the plain-

tiff; the Solicitor-General and Mr. H. T. Cole were for the defendants, the executors.

Surgeons of the highest eminence, such as Mr. Travers, Mr. Holden, etc., were called for the plaintiff, and stated that one guinea a visit was the usual rate of charge for a Surgeon of the plaintiff's undoubted eminence, and especially of his peculiar eminence in this kind of practice; and he himself positively stated that he never charged less, although in cases of poverty he would sometimes, out of charity, remit his fees and charge only for alternate visits. And, although he was pressed as to whether it was usual to let the fees run on so long, he stated that it was not usual to ask for the fees so long as the case continued.

In the result,

The Solicitor-General said he did not think that after this evidence it would be becoming in him to keep the case up longer, and he, therefore, yielded to a verdict for the sum claimed.

The Lord Chief Justice said he quite concurred in that course, which was such as might have been expected from the Solicitor-General. The case started with the payment of a guinea, and nothing had been said as to a reduction or abatement. In such a case the Medical attendant being a gentleman of high eminence, it could not be doubted that the charge was as stated, and if there were any reason, on account of the length of the case and the circumstances of the patient, to ask some abatement, it was for the patient or the relatives to request it, and throw themselves upon the liberality of the Medical man.

A verdict was then taken for the plaintiff for £99.

NEW INVENTIONS.

NELSON'S INHALER.

We have tried "Dr. Nelson's Improved Earthenware Inhaler," and believe it to be a cheap and convenient instrument. It serves both for simple hot water or for hot water medicated with the extracts of soothing plants such as are suitable for acute catarrh and quinsey, as well as for the various medicinal substances which are tried in the advanced stages of phthisis, in spasmodic asthma, etc. The instrument is easily cleaned, and cannot well be misused.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following Members of the College, having undergone the necessary Examinations, were admitted Licentiates in Midwifery, at a meeting of the Board, on the 8th inst.:—

William Domett Stone, M.D. St. Andrews and L.S.A., Lincoln's-inn-fields, diploma of membership dated April 10, 1861; George Clements, L.S.A., Brixham, Devon, January 24, 1865; and Charles Edward Heron Rogers, Westmeon, Petersfield, July 27, 1864, Students of the Middlesex Hospital; George Cox Douglas, Ware, Herts, May 24, 1864; John Coryton Roberts, Peckham, July 26, 1864; and Henry James Dwelly Wandsworth, July 26, 1864, of Guy's Hospital; Patrick William Dillon, M.D. St. And., and L.S.A. Dub., Ennis, Co. Clare, July 11, 1851; Ferdinand Albert Purcell, M.D. Queen's University, Ireland, Cork, January 26, 1865; and Hutchins Williams, L.R.C.P. Ed., Southampton, May 27, 1853; of the Irish Schools; William Owen Jones, L.S.A. Bala, North Wales, August 1, 1861, of Manchester; Edward Hyde, Witney, Oxon, July 30, 1863; Walter Smith, Bognor, Sussex, May 11, 1864, of University College; Edward Roberts Smith, Dudley, Worcestershire, May 24, 1864, of St. Bartholomew's Hospital; and Henry Reginald Hatherly, Derby, November 16, 1864, of the Westminster Hospital.

Royal Colleges of Physicians and Surgeons, Edinburgh.—Double Qualification.—The following gentlemen passed their First Professional Examinations during the recent sittings of the Examiners:—

William G. W. Thompson, Ballymoney; J. Leman, Montreal; Albert W. Coppinger, Cork; Robert Stewart, Edinburgh; Arthur Roche, Cork; James Lindsay Mason, Montreal; John Thomas Richardson, Wotherspoon, umfriesshire; John T. Budge, Caithness; James Henry Oswald Goulden, tockport.,

And the following gentlemen passed their Final Examinations, and were admitted L.R.C.P. Edinburgh, and L.R.C.S. Edinburgh:—

Robert Beresford, Dublin; James Dods, East-Lothian; Daniel Mackay Forbes, Edinburgh; Robert Turner, Antrim; Samuel Hague, Ashton-under-Lyne; Alexander Hunter Miller, Edinburgh.

Royal College of Surgeons, Edinburgh.—During the recent sittings of the Examiners, the following gentlemen passed their Final Examinations, and obtained the Diploma of the College:—

Edward Hoggan, Meerut, India; Robert Thin, Kilconquhar; James Ingram, Orkney; Thomas James Higgins, Lisson; William Ellis, Clendinnon, county Wicklow; Alexander Wallace Jamieson, Derbyshire; James Mason, Rutlandshire.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, February 2, 1865:—

Arthur John Mahony, Glencarre, Co. Kerry, Ireland; James Francis Hamilton Richardson, Downe, near Bromley, Kent; Moreton Stevenson Wightman Wilson, Mowsley, Rugby; Tudor Hora, 27, Bloomfield-street.

The following gentlemen, also on the same day, passed their First Examination:—

George Crowe, University College; Robert Willmot, Sydenham College, Birmingham.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Davies, Redfern, M.R.C.S. Eng., has been elected Surgeon to the Free Surgical Cottage Hospital, Walsall.

Firth, J. T. Forbes, L.F.P.S. Glasg., has been elected Medical Officer to the Workhouse of the Parish of Rotherhithe.

Rigden, George, M.R.C.S. Eng., has been elected Assistant House-Surgeon and Dispenser to the Kent and Canterbury Hospital.

Roche, John, M.D. St. And., has been elected Medical Officer for the Workhouse of the Fermoy Union.

Sutton, Frederick, M.R.C.S. Eng., has been appointed Assistant Medical Officer to the Norfolk County Asylum, Thorpe, near Norwich.

Syme, Professor James, has been appointed one of the Examiners of the College of Veterinary Surgeons of Scotland.

Weller, George, M.R.C.S. Eng., has been appointed House-Surgeon to the London Hospital.

DEATHS.

Adams, George Hill, M.D. Edin., at 5, Mall-terrace, Notting-hill, W., on February 6, formerly of Geelong.

Bartlett, J. Bickford, M.R.C.S. Eng., at Teignmouth, Devon, on January 17, aged 72.

Campbell, Alexander, Surgeon, at Dunse, N.B., on the 30th ult., aged 56.

Conway, Joseph, M.D. Glasg., at West Blackhall-street, Greenock, on January 26.

Foxwell, James J., L.R.C.P. Edin., of Park-row, Bristol, on January 24, aged 33.

Girdwood, James, L.R.C.S. Edin., of Falkirk, Stirlingshire, on January 29, aged 67.

Gordan, Dr. J. A., at Fordanbridge, Fyvie, Aberdeen, on January 26, aged 58.

Hoile, Henry, M.R.C.S. Eng., at Market-street, Montrose, N.B., on January 31, aged 81.

Hoile, David Ogilvy, M.D. Edin, at Royal Victoria Hospital, Netley, on February 3, aged 34, Staff Assistant-Surgeon.

White, Dr. J., at Downpatrick, Co. Down, on January 19.

Wingett, William B., M.D. Edin., at Broughty Ferry, Forfarshire, on January 25.

At the last meeting of the Berlin Obstetrical Society Dr. Barnes was elected a foreign member.

The Late Mr. Belfour.—The remains of this gentleman were interred on Saturday last in the cemetery of Hackney old church. Beyond the immediate mourners, the only gentlemen who attended out of respect to the venerable Secretary of the Royal College of Surgeons were—Messrs. Arnott of the Council, McWhinnie of the Fellows, Fairless of the members, Lyne of the Medical students, and Messrs. Flower, Trimmer, and Stone of the College. *Sic transit gloria Collegii!*

Presentation to Dr. Anderson and Mr. Bracey.—Dr. Anderson having resigned his situation as Resident Medical officer of the General Hospital, Birmingham, and Mr. C. J. Bracey, who has filled the situation of House-Surgeon at the same institution for the last three years, having also vacated his office, the students of the Sydenham College and the General Hospital availed themselves of the opportunity of expressing their obligations to those gentlemen by presenting them with farewell testimonials. The testimonials consisted of handsome timepieces, and were presented at a social meeting of the students, held at Nock's Hotel. Mr. Hickenbotham, a late student of the College and Hospital, occupied the chair.

Death of Dr. Falconer.—We regret to have to announce the death of the eminent geologist, Dr. Hugh Falconer, F.R.S., F.L.S., F.G.S., etc., which took place at his residence in Park-crescent, on Tuesday last. Dr. Falconer was a native of Scotland, and graduated M.D. at the University of Edinburgh in 1829. He shortly afterwards accepted an appointment in the Medical service of the East India Company, and during a lengthened stay in Bengal devoted himself to those scientific researches, especially in connection with the fossil remains of the sub-Himalayan district, which have made his name so well known. He also held the post of Director of the Botanical Gardens and Professor of Botany in the Medical College of Calcutta. Since his return to England he has chiefly been engaged in investigating the geological evidence afforded by bone-deposits in caves, and within the last few months he made a voyage to Gibraltar for the purpose of examining, conjointly with Mr. Busk, the remarkable caverns recently opened in that rock. His knowledge of palæontology, especially of the higher forms of animal life, was most extensive, critical, and accurate, and his death will be a severe loss to science, as large stores of information, gathered through many years of an industrious life, are still unpublished, and will probably perish with him. The remains of Dr. Falconer were interred at Kensal-green on Saturday last.

Royal Institution of Great Britain.—General Monthly Meeting, Monday, February 6, 1865.—William Pole, Esq., M.A., F.R.S., Treasurer and Vice-President, in the Chair. The Countess of Tankerville; Francis Woodhouse Braine, Esq.; James Brogden, Esq.; William Henry Harrison, Esq.; Thomas Lucas, Esq.; John Lambert Mears, Esq.; William Miller, Esq.; James Romanes, Esq.; Edward Young Western, Esq.; and Henry Westropp, Esq., were elected Members of the Royal Institution. The Chairman announced a legacy of £100 to the Institution from the late George Dodd, Esq., and a donation of five guineas from Mrs. Barlow, and the following additions to "The Donation Fund for the Promotion of Experimental Researches:"—The Rev. John Barlow, second donation, £10; Henry Vaughan, £21; Edmund Packe, Esq., £5 5s. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

The Small-Pox and Vaccination Hospital.—The annual meeting of the governors of this Hospital was held on Friday last in the institution, which is situate on Highgate-hill. Mr. S. Turner occupied the chair. From the report it appeared that 836 patients had been admitted during the year—498 males and 338 females, of which number 728 had been discharged cured, and 108 cases had ended fatally. During the same period 268 out-patients had been vaccinated, and 648 charges of vaccine lymph had been supplied to Medical Practitioners. Dr. J. F. Marston, the resident Surgeon, reported that of the number of in-patients 17 were not cases of small-pox, and of the 819 cases of that disease 130 occurred to unvaccinated persons. The remaining 685 had been previously vaccinated; and the curious fact was shown that whereas there were 60 deaths among the 685 vaccinated patients, the vastly increased percentage of 47 deaths occurred to the 130 unvaccinated. It was stated that a sum of £187 10s. had been received from the Lords Commissioners of Her Majesty's Treasury, being a portion of the bequest of Mrs. De Lilley to Her Majesty, and Cardinal Wiseman, Captain Phillimore, and Messrs. W. Tomlin, J. Whittaker, and H. Herbert were elected life governors.

The Alleged Assault upon Mary Lamb by Dr. Carpenter.—The following letters have appeared in the *Durham Chronicle*:—

"*To the Editor of the Durham Chronicle.*

"Sir,—My letters to the Commissioners in Lunacy, published in your last week's *Chronicle*, relate a series of acts on the part of Mary Lamb which no sane man could attribute to a person 'not a lunatic.' As these letters follow one after the other, so do they contain a description of some insane act, not related before, and tending to show more strongly than its predecessor the unsound state of Mary Lamb's mind. That all these acts justify the conclusion that she is a lunatic must be evident to the meanest understanding, from the fact that the Commissioners in Lunacy formed an opinion upon only a few of them—communicated to them in my first letter—'That it was obvious she ought at once to be removed to an asylum.' That I was in regular attendance upon her from November 24 last, to the day after the alleged assault, and that the tying of her hands was by the express desire of her husband, who three days before had unsuccessfully attempted to do so himself, will be amply proved in two questions I am at once going to try. Until they are over I will refrain from all comment, being desirous of saying nothing which could create prejudice against the defendants. I therefore, for the present, simply enclose a copy of the letter I received from the Commissioners in Lunacy in reply to my first communication, and assuring you that all I have done for this poor woman has been with my best intention towards her, and for her sole benefit, I remain, Sir, your obedient servant,

"Carville, Durham. "R. H. S. Carpenter.

"P.S.—Mr. Sutherland deposed to having seen Mary Lamb and her husband at my house on the day following the alleged assault. I then dressed her finger as I had on several occasions previously done. The above fact is omitted in the published report of the case.

"[*Copy.*]

"Office of Commissioners in Lunacy, 19, Whitehall-place, London, 29th Nov., 1864.

"Sir,—I am desired by the Commissioners in Lunacy to thank you for your letter of the 25th instant, in reference to the case of Mary Lamb. From your statement it is obvious that she ought at once to be removed to an Asylum. It does not appear, however, that you have yourself given notice of the case to the relieving officer, and to place this officer's neglect beyond dispute, the Commissioners request you to be so good as to give notice to him in writing under the 68th section of the Lunatic Asylums' Act, 1853, that Mary Lamb is a person deemed to be a lunatic and not under proper care and control. Should he not within three days of receiving such notice take the necessary steps for bringing her before a magistrate with the view to her removal to an Asylum, on your communicating the fact, and also the name of the relieving officer, the Commissioners will themselves take measure to ensure his compliance with the law.—I am, Sir, your obedient servant,

"(Signed) "W. E. Spring Rice, Secretary.

"R. H. S. Carpenter, Esq."

The amount of absinthe drunk in Paris, with fatal effect on intellect and nerves, is hardly to be calculated. Switzerland alone sent last year 7,500,000 gallons to Paris.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

The late Dr. Jones Quain.—Many old pupils of Dr. Quain will be interested in the following additional facts as to the latter days of their distinguished teacher:—For three years, we have learnt, and until recently, he lived in the house of Dr. Marris Wilson, who formerly had been his prosecutor. During his residence in Dr. Wilson's house, and for many years previously, he had been in delicate health. The late cold damp weather severely distressed him, and kept him in his rooms. He had not been out for nearly a fortnight before his death, though actually unwell for no more than four or five days. The last time he left his residence was to go to church, where, when in London, he had long been noticed as a constant attendant. In his illness, Dr. Quain was attended, at his own request, by Dr. Marris Wilson. With respect to our notice of last week, we desire to state that we had no intention to attribute anything unbecoming to University College, or to any one connected with it, respecting circumstances which occurred nearly thirty years ago. Dr. Quain was never married. He was the eldest of many brothers, of whom three, all, we understand, that survive him, are members respectively of the clerical, the legal, and the Medical Profession.

Erinensis.—To Dr. Valentine Mott, of New York, says Sir Philip Crampton, is due the merit of having been the first to suggest, and the first to effect, the ligature of the common iliac artery.

The Royal Touch.—Consult Pettigrew's "Medical Superstitions." Aubre relates that Avise Evans had a fungous nose, and it being told to him that the King's hand would cure him, he awaited Charles in the park, kissed the royal hand, and rubbed his nose with it, which disturbed the King, but cured Evans.

Pryce *v.* Bowen.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—You will oblige me by stating that the following subscriptions have been added to the Bowen Fund, which is now closed.

I am, &c., H. D. Scholfield, M.D., Treasurer.

14, Hamilton-square, Birkenhead, February 7, 1865.

Dr. Garstang, Blackburn, 10s. 6d.; Joseph Toynbee, London, £1 1s.; Dr. M. Adams, London, £1 1s.; John L. Jardine Capel, Dorking, 10s. 6d.; Preston, per Dr. Hammond, £9 7s. 6d.; Messrs. Roberts and Williams, Festiniog, N.W., £1 1s.; Liverpool, per Dr. Stokes, £53 12s.; Dr. Dyster, Tenby, £5.

Candler *v.* Peat.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—We have the pleasure of forwarding you a list of the subscribers to the Peat Defence Fund, and a statement of receipts and expenditure. At Mr. Peat's request the subscription is now closed, and we append a note received from that gentleman.

We remain, Sir, your obedient servants,

C. R. Bree, M.D., Treasurer.
D. P. Morris, Secretary.

Colchester, January, 1865.

Manningtree, January 17th, 1865.

My dear Sir,—Allow me to offer you, and all the subscribers, my sincere and best thanks for the £100 received from you to-day, towards my law expenses in the late action, and for the great sympathy and kindness shown to me throughout the whole affair by my Professional brethren.

I remain, my dear Sir, yours sincerely,

Dr. Bree. Thos. Peat.

Subscriptions.

	£	s.	d.
Philbrick, Samuel, Esq., Colchester	2	12	6
Bree, Dr., Colchester	2	2	0
Cock, E., Esq., Sen. Surgeon Guy's Hospital	2	2	0
Daniell, W., Esq., Nayland	2	2	0
Evans, B., Esq., Brixton	2	2	0
Easson, J. W., Esq., Fairfield Lodge, Slough	2	2	0
Fenn, T. H., Esq., Nayland	2	2	0
Image, W. E., Esq., Bury St. Edmunds	2	2	0
Morris, D. P., Esq., Colchester	2	2	0
Nunn, R. S., Esq., Colchester	2	2	0
Osmond, T. Esq., Thorpe	2	2	0
Partridge and Son, Messrs., Colchester	2	2	0
Squire, S. N. Esq., Wivenhoe	2	2	0
Tomkin, Messrs. T. and W., Witham	2	2	0
Manning, S., Esq., East Bergholt	2	0	0
Manthrop and Son, Messrs., Thorpe	2	2	0
Worts and Son, Messrs., Colchester	2	2	0
Waylen, Messrs. W. and E., Colchester	2	2	0
Meadowcroft, W., Esq., Great Bentley	1	11	6
Brough, S. A., Esq., Colchester	1	1	0
Brown, Dr., Colchester	1	1	0
Bird, Dr., Chelmsford	1	1	0
Bentley, G., Esq., Halstead	1	1	0
Bartlett, A. H., Esq., Ipswich	1	1	0
Beeker, Dr., Colchester	1	1	0
Brinton, Dr., London	1	1	0
Cocke, T. G., Esq. (the late), Chappel	1	1	0
Copland, Oswald, Esq., Chelmsford	1	1	0
Carwardine, H. H., Esq., Colne Priory	1	1	0
Cobbold, R., Esq., Dedham	1	1	0
Durrant, Dr., Ipswich	1	1	0
Dalby, Dr., Newington-place, London	1	1	0
A Friend (per S. Philbrick, Esq.)	1	1	0
Fraser, Dr. J., C.B., Medical Staff, H.M.'s Forces, Ceylon	1	1	0
Fitzpatrick, Dr., Bayswater	1	1	0
earis, James, Esq., Bradfield, Essex	1	1	0
Freshfield, Messrs., Harwich	1	1	0
Growse, Dr., Brentwood	1	1	0
Giles, H., Esq., Coggeshall	1	1	0
Growse, R., Esq., Bildeston	1	1	0
Green, H., Esq., Mersea	1	1	0
Gimson, Dr., Witham	1	1	0
Gurdon, T. G., Esq., Boxford	1	1	0
Hilton, John, Esq., London	1	1	0
Hair, Dr, Bures St. Mary	1	1	0
Heane, J. P., Esq., Gloucester	1	0	0
Havens, P., Esq., Wivenhoe	1	1	0
Johnson, Walter, Esq., Colchester	1	1	0
Ling, W. S., Esq., Brightlingsea	1	1	0
Latten, R. Esq., St. Osyth	1	1	0
Lynch, J. C., Esq., Sudbury	1	1	0
Mingaye, C.P., Esq., Dedham	1	1	0
Maclean, A., Esq., M.D., Colchester	1	1	0
May, Dr. G. P., Maldon	1	1	0
Martin, R., Esq., Ipswich	1	1	0
Mann, C., Esq., Boxford	1	1	0
May, James, Esq., Lawford	1	1	0
Newham, S., Esq., Bury St. Edmunds	1	1	0
Page, J., Esq., Manningtree	1	1	0
Quennell, J., Esq., Brentwood	1	1	0
Rodiek, S., Esq., Halstead	1	1	0
Symmonds, R. F. Esq., Colchester	1	1	0
Sinclair, D., Esq., Halstead	1	1	0
Strong, H., Esq., New Kent-road (per B. Evans, Esq.)	1	1	0
S. (a Friend at Wix)	1	1	0
Taylor, J , Esq., Colne	1	1	0
Thorpe, Sydney, Esq., Sible Hedingham	1	1	0
Varenne, E. G., Esq., Kelvedon	1	1	0
Wallace, Dr., Colchester	1	1	0
White, Benj., Esq., Feering	1	1	0
Walker, Dr., Tolleshunt D'Arcy	1	1	0
Waterworth and Sons, New Kent-road (per B. Evans, Esq.)	1	1	0
Washbourne, Dr. B., Gloucester	1	1	0
Williams, Dr., Colchester	1	1	0
Brook, W. F., Esq., Ashford, Kent	0	10	0
Bore, G. H., Esq., Stanway	0	10	6
Colambell, C., Esq., Lambeth-terrace	0	10	0
Dixon, C., Esq., Braintree	0	10	6
Goodwin, C., Esq., Copford	0	10	6
Holmstead, G. C., Esq., Bocking	0	10	6
Harrison, J., Esq., Bocking	0	10	6
Harrison, J. S., Esq., Braintree	0	10	6
Johnson, W. F., Esq., Hospital, Colchester	0	10	6
F. F. L., Maeclesfield	0	10	6
Rand, J., Esq., Walton, Suffolk	0	10	0
Simms, F., Esq., Twickenham (per Ed. of *Lancet*)	0	10	6
Spurgeon, C., Esq., Stratford St. Mary	0	10	6
Whitfield, H., Esq., Ashford, Kent	0	10	0
Taylor, T. Esq., Bocking	0	10	6
Sharpe, Dr., 42, Grange-road, Bermondsey	0	5	0

Cr.	£	s.	d.
Amount of Subscriptions	105	10	6
Due to Treasurer	0	19	7
	£106	10	1

Dr.	£	s.	d.
1864. Printing circulars (four issues, including the present statement)	3	5	2
Postage & Envelopes	3	4	11
1865. Jan. 16. Cash to Mr. Peat	100	0	0
	£106	10	1

Army Medical Department.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—If there has been for some time past no external manifestation of dissatisfaction, but rather a studied suppression of latent discontent, it is to be ascribed to a general belief that certain measures are in contemplation intended to redress existing grievances and place the Medical Department of the Army more on a level with the Indian branch of the service, the position and prospects of which have lately been so much improved. A warrant, it is believed, is under consideration, the provisions of which will ensure promotion to Assistant-Surgeons after twelve years' service. There will probably be a retirement at twenty years, and, we hope, a full-pay retirement after thirty years' full-pay service; while promotion to the administrative ranks will be strictly guided by seniority, as in the scientific corps of Artillery and Engineers.

Such measures would afford general satisfaction to the executive ranks, and procure for the Director-General the lasting gratitude of his subordinates.

I am, &c, A Regimental Surgeon.

The New Medical Coroner for Portsmouth.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The election of a coroner for this borough took place to-day. Mr. Garrington, the Medical candidate, had at last no opponent, one other Medical and three legal gentlemen who started in the contest having, one by one, withdrawn from it. The contest here has not been between Doctor and lawyer in the usual sense, and therefore the election is not a triumph of a cause or principle. Mr. Garrington owes his election to his high character. The highest testimony that could be given to a public man from his own Profession was rendered to him, a few days before his election, when the Medical men free of the borough met, and by a resolution expressed "their sense of Mr. Garrington's fitness for the coronership, founded on their knowledge of his honourable reputation, both in Professional and private life, his sound judgment, independent character, and long experience in public affairs." This resolution was entrusted to one of his colleagues—Dr. Miller, a counsellor—to use in proposing Mr. Garrington to the Town Council. Happily, the retirement of the other candidates made it unnecessary to use this testimonial, which was well spoken to by the fact that neither of his most respectable opponents could make any head against him from the first; and therefore the judgment of the Town Council was one with that of the Medical Profession here. Mr. Garrington has been invited by the Medical men of the borough to a dinner, to be given in his honour, on the occasion of his election, on Tuesday next, which, if health allows it, will be presided over by Mr. Seale, the senior Practitioner in the borough, who is himself much respected, and an Alderman, Justice of the Peace, and past Mayor, like Mr. Garrington. Whilst the Council of the College of Surgeons are at their annual dinner, after the Hunterian oration, we shall be cementing the bonds of good fellowship, and doing honour to a worthy brother here. We have given up pretty much the practice of quarrelling with each other, which prevailed some years since here, and with scarcely an exception we meet in public and in private on the happiest terms. May this state of things continue and grow stronger, not only here, but everywhere! This is the devout wish of yours, &c.,

Portsmouth, February 6, 1865. Nemo.

P.S.—If any neighbouring Medical man who may see this has not received a private invitation to the dinner, and is disposed to come to it, he will be most welcome. We trust that this dinner may be the starting-point for an annual social gathering of the kind at Portsmouth.

Indecent Quack Advertisements.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I beg to enclose you an advertisement which has been put in each of the Manchester papers, and which you may, perhaps, think fit to reproduce by way of example elsewhere.

I am, &c.

184, Oxford-street, Manchester, Feb. 7. J. Thorburn.

"Manchester Medico-Ethical Association.—At the Annual General Meeting of the Association, held on Wednesday, the 25th inst., at the Clarence Hotel, Sir James L. Bardsley, M.D., President, in the chair, it was unanimously resolved:—

"'That this Association has great pleasure in publicly expressing its thanks to the Proprietors of the *Manchester Guardian* for having excluded licentious and immoral quack advertisements from a paper so influential and of such extensive circulation; also to the many other journals which have given up the somewhat lucrative but dishonourable practice. The Association begs to express its high sense of a proceeding which, though inseparable from an honourable press, has yet too few imitators.'

"Jon. Wilson, F.R.C.S., } Hon.
"Jno. Thorburn, M.D., } Secs."

The Treatment of Malarious Fever.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—While in a late communication, which you kindly gave room for in your valuable columns, I was desirous to correct the misapprehension as to the non-depletory and quinine mode of treating malarious fever in all its stages being of so recent a date as contemplated by Deputy-Inspector Hare, I had no wish to include what I conceive to be a very extravagant mode of exhibiting so scarce and valuable a medicine, believing that every advantage to be expected may be obtained from two-grain doses in clear solution, with the aid of dilute sulphuric acid; nor continuing it after two or three o'clock of the afternoon: it is by far most beneficial in the earlier parts of the day. It is not equally useful, however, in every variety of remitting fever, but the more these have a tendency to ultimately assume, as in the beginning of the cold season, the intermitting type, such as of Scinde and Ghuzerat.

Dr. Hare says he never saw abscess of the liver but as consequent upon ulceration of the colon. Dr. Harcourt could have set him right on that point—at all events, as to the inference. Nor does Dr. Hare seem to have noticed the vastly greater frequency of hepatic abscess in the older resident, increasing with the period of residence; in some years, too, without any obvious cause, and at certain seasons, rather than at others, except when a complication of fever. For instance, as we have elsewhere shown long ago,—from the time we joined the 2nd or Queen's Royal, in May, 1831, to the rainy season of 1836, with the exception of three officers, all over 40 years of age, who had previously served in the West Indies, there were not as many cases more in the regiment altogether. The average age was then about 26 to 31, and the period of tropical service five to eleven years. Yet from that period to the May following, at Bombay and Belgaum, there were not less than fifteen or twenty cases, including women and officers. The mortality in the regiment from fever that

year had been almost *nil* among the soldiers, and *nil* among the officers or their families, though prevalent and of bad type in November and December, several followers rapidly succumbing.

Nor did this inordinate loss by hepatic abscess in the winter months prove peculiar to the 2nd or Queen's. From a letter from Assistant-Surgeon Jackson, of the 6th or Royal Warwickshire, then stationed on the Island of Colaba, inquiring as to our experience on that island, it appeared they had lost about thirty by abscess of liver, I think he said, in the three months. Of course, he had included all—men and women of all ranks. In the 57th, too, at Cannanare, I found, after joining that regiment, the mortality from abscess of the liver that season had been nearly as remarkable there where there had been no unusual fever. The number, I think, was as great as they had previously lost by it altogether. Dr. Hare may have been misled by abscess of liver with dysenteries, as these occur as sequels of endemic autumnal remitting fevers, where both (separate and conjoined) are so numerous as to leave no doubt in my mind that they equally depend upon one and the same cause—the malaria with the asthenia from the preceding fever, which, as shown in a report from Deesa, in Vol. V. of the *Transactions* (not now in my possession) is usually favoured by depletory measures in those fevers. But abscess of the liver frequently occurs sporadically, without either previous fever or dysentery in the older residents, while amongst the younger, in the western coast dysenteries of the rainy season, even with extensive ulceration, we do not remember a case. Indeed, after seven years' residence in India the liver would appear to undergo changes of structure, rendering it peculiarly liable to abscess, even from slight causes. Nor does a change of climate to Europe of less than five years seem manifestly to diminish it; on the contrary, I have thought such persons more liable after their return.

Then as to remitting fever. So varied is this in its complications and tendencies, as well, perhaps, as in its hidden causes, that no stereotyped mode of treatment can be equally applicable in all times and localities. Statistics, too, are deceptive, and egregiously so, if the mortality be reckoned from the number of the admissions, as we showed in a report long ago from the West Indies, where one year in Demerara it exhibited no deaths from fever in 800 cases under the treatment then in vogue, of scruple doses of quinine united with calomel. That report is in the *London Medical Gazette* of August, 1849, page 191, and shows that with the strength only 200, and three fatal cases of complication and sequel, explained, as these had been, away, the mortality was above the average, both of the East and West Indies, exclusive of the pestilential yellow fever. In the Madras command I found, from documents furnished me by the Inspector-General (Nicholson) for statistical purposes, that the ratio of deaths from fever to strength was only 4·8 per 1000, for a period up to 1840 of sixteen or eighteen years, with an aggregate strength of 76,419 European troops, or scarcely one in 200 of strength. Were the strength shown in Dr. Hare's paper, with the number who died in May and June under the head of apoplexy, and in November and December of dysentery and abscesses of the liver, the main result might not be so favourable.

And now may I claim your further indulgence, for those who may not have access to the Bombay *Transactions*, and quote Vol. 1st, page 234, of a report for 1836-7? "In the gastro-hepatic (bilious remittent of Bombay Island), circumstances may no doubt occur which demand venesection; but more harm than good seems to us generally to accrue from it. . . In the catarrhal (constitution or tendency) we found the sooner the quinine was exhibited the better, even without perfect apyrexia; but in the gastro-hepatic it did not answer so well. When the mouth becomes sore, however, there is an apyrexial period, and if quinine is then administered convalescence proceeds rapidly." . . . . The Bombay fever, unlike the Ghuzerat, does not haunt the individual afterwards as an intermitting.

Vol. 3, page 175, for 1838-9, in Scinde and Affghanistan. (Prevailing tendency, diarrhœa and dysentery.) "The fever was treated upon similar principles, only after the first day or two, instead of the hyd. c. crêta and Dover's powder, calomel and opium and saline mixture (camphor mixture, with liq. acet. ammoniæ) during the paroxysm. In the intermission, quinine, even from the earliest period, not waiting for a perfect remission; and this seemingly with the very best effects. Sometimes, in the very bad cases, we mixed the quinine with hyd. c. crêta, or gave quinine and opium. This plan of beginning as early as possible with quinine in remitting fever I have been led into gradually for some years back." April, 1840.

Vol. 3, page 189. (Complicated with pleuro-pneumonia. At first very and quickly fatal, treated as idiopathic.) "We clearly perceived the chief part of the disease with which we had to contend was the fever, and, in consequence, immediately returned to the treatment by quinine on the least remission, preceding it, of course, by a moderate bleeding. . . . . But we had few cases that resisted the quinine for more than one or two paroxysms. . . . . The fever checked within the first two or three paroxysms, we found no difficulty with the pleuro-pneumonia—(a hint, perhaps, to our veterinary brethren, but where the quinine?) At least, as far as life was immediately concerned, nor has one died yet of the effects." (At this period three cases just convalescent, with whom we had suffered shipwreck the month previously, and who had been thus exposed for about ten days, only out of the water, without medicine, and partly without clothes, were in a very doubtful state, evidently with extensive adhesions, but they ultimately all recovered in four to six months.)

For complication with abscess of the liver, and that and dysentery as sequels, we must refer to the 5th volume.

Then, for the more healthy localisation of the European troops, beginning then to be agitated (1840), we might refer to a "Statistical Report," at the desire of Dr. Morehead, then the editor of the *Transactions*, quoting a single passage to show its drift. Here, however, we may premise the West Indian statistics of Tulloch we found subsequently to be erroneous when in the West Indies in 1848-9, owing to his tables having been made up from the official returns, where the pestilential yellow fever had been mixed up with the native remitting, and a number of cases of consumption, separated under pneumonia, bronchitis, and chronic catarrh. I carefully examined the records there with the autopsies, abstracts of which had regularly been attached to the quarterly reports or returns. This was from the practice of never changing the name of a disease after the first admission, when it had to be diagnosed, as it were, at the first glance.

Vol. 4, page 82. "Fifty miles from Deesa is Mount Aboo, a famous table-land, etc. Would any advantage be derived from having the military cantonment removed there? . . . . It would be *in fact* (as) a removing from Ghuzerat to the Deccan. . . . . It is true we might expect the mortality by consumption and liver (idiopathic) to be considerably increased—say, united, 5 per 1000 of strength annually. . . . . Fever, however, we find 15· to 20· with sequelæ, exclusive of invalided, but say 20· in all; from which deduct the estimated increase by liver and consumption, and we have a saving of at least 15 lives annually per 1000 of strength." . . . . .

In 1844 we recommended, in a similar way, Bangalore for the Madras troops, but to this it was objected that those already there were on sufferance of the Rajah of Mysore.

I am, &c.

Dollar, December 30, 1864. R. H. A. HUNTER, Staff-Surgeon.

COMMUNICATIONS have been received from—

Dr. J. R. BENNETT; Mr. R. F. SNAPE; Mr. CAMPBELL DE MORGAN; Mr. J. PEEKE RICHARDS: Mr. JOHN FORMAN; Dr. JOHN BEDDOE; Dr. C. R. BREE; APOTHECARIES' HALL; Dr. BENCE JONES; A REGIMENTAL SURGEON; ROYAL INSTITUTION; Dr. JOHN PATTERSON; Mrs. M. WALKER; Dr. H. D. SCHOLFIELD; Dr. J. THORBURN; Dr. W. CARR; NEMO; Dr. POSNER; Dr. PARSON; Dr. ESSEX BOWEN; ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Dr. JOHN WHITMORE.

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 4, 1865.

BIRTHS.

Births of Boys, 1175; Girls, 1102; Total, 2277.
Average of 10 corresponding weeks, 1855-64, 1923·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	852	921	1773
Average of the ten years 1855-64	698·0	693·2	1391·2
Average corrected to increased population..	..	..	1530
Deaths of people above 90	..	..	7

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	4	3	6	..	8	12	3
North ..	618,210	5	5	12	2	19	32	1
Central ..	378,058	1	1	4	1	22	15	3
East ..	571,158	1	9	10	1	23	18	6
South ..	773,175	5	10	14	1	14	18	3
Total ..	2,803,989	16	28	46	5	86	95	16

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·144 in.
Mean temperature	39·3
Highest point of thermometer	52·1
Lowest point of thermometer	19·9
Mean dew-point temperature	36·7
General direction of wind	S W.,S.S.E.
Whole amount of rain in the week	0·43 in.

APPOINTMENTS FOR THE WEEK.

February 11. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Marshall, "On the Nervous System."

13. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

14. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. Meeting.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY (Ballot, 8 p.m.), 8½ p.m. Dr. Morell Mackenzie, "On Inhalation of Atomised Liquids in Chronic Disease of the Lungs." Mr. J. W. Hulke, "Ichthyosis of the Tongue." Dr. Hillier, "On Congenital Hydronephrosis."

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, F.R.S., "On Electricity."

15. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Lettsomian Lectures—Lecture II. "On Stricture, Cancer, and Polypus of the Rectum," by Henry Smith, Esq., F.R.C.S.

16. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.: Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

HARVEIAN SOCIETY OF LONDON, 8 p.m. Mr. J. Z. Laurence, "On Certain Functional Diseases of the Retina;" and Discussion resumed on Dr. Drysdale's Paper on Phthisis.

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, F.R.S., "On Electricity."

17. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 8 p.m. W. Huggins, Esq., "On the Physical and Chemical Constitution of the Fixed Stars and Nebulæ."

THE NEW SYDENHAM SOCIETY.

The Council has the great pleasure to be able to state that, in addition to the three works which have already been issued for 1864, the funds of the Society admit of the production of a small FASCICULUS of the ATLAS of PORTRAITS of SKIN DISEASES.

A FASCICULUS, consisting of Life-size Portraits, representing

LEUCODERMA, and | MORBUS ADDISONII.

will be ready in a few weeks, and will be supplied to the Members for the year just concluded (1864).

THE VOLUMES ALREADY IN THE HANDS OF MEMBERS FOR 1864 ARE,—

Vol. 21.—A HANDBOOK of the PRACTICE of FORENSIC MEDICINE, BASED upon PERSONAL EXPERIENCE. By J. L. CASPER, M.D., late Professor of Medical Jurisprudence in the University of Berlin. Translated by G. W. Balfour, M.D. Vol. III.

[The next Volume (Vol. IV.) will conclude Professor Casper's Work.]

"Casper's great work, based as it is upon a minute and laborious observation of facts, must prove the most trustworthy guide in the interpretation of the ofttimes difficult questions which the Medical jurist is called upon to solve."—Lancet.

Vol. 22.—ON the ANOMALIES of ACCOMMODATION and REFRACTION of the EYE; with a Preliminary Essay on Physiological Dioptrics. By F. C. DONDERS, M.D., Professor of Physiology and Ophthalmology in the University of Utrecht. Translated from the Author's Manuscript by W. D. Moore, M.D.

"This splendid monograph, from the hand of the accomplished Professor of Physiology and Ophthalmology of Utrecht, will be hailed as a boon by all lovers of ophthalmic science."—Lancet.

Vol. 23.—A YEARBOOK of MEDICINE, SURGERY, and their ALLIED SCIENCES, for 1863.

WORKS FOR 1865.

Vol. 25.—A YEARBOOK of MEDICINE and SURGERY for 1864.

Vol. 26.—THE FOURTH and CONCLUDING VOLUME of CASPER'S MEDICAL JURISPRUDENCE.

Vol. 27.—A FASCICULUS of the ATLAS of PORTRAITS of SKIN DISEASES.

Whether, in addition to the above, any other work will be brought out for the commencing year will depend upon the state of the Society's funds.

A List of Suggested Works is in preparation by a Committee of the Council, and will be submitted to the Members generally in the course of a few weeks, in order that opinions may be expressed. On this occasion it is intended to again take the votes of the Members as to the desirability of continuing the Yearbook.

The Council regrets that, notwithstanding every effort, considerable arrears still remain unpaid, and earnestly invites the attention of Local Secretaries and Members generally to this matter.

The subscriptions for 1865 (seventh year) are now due. All payments should be made to Mr. H. K. Lewis, 15, Gower-street North, the Society's Agent, who is empowered to receive subscriptions and give receipts. Cheques, money orders, and bankers' drafts to be made payable to the order of the Treasurer, Dr. W. Sedgwick Saunders.

Full sets of the Volumes published by the Society are in stock, and can be obtained by new Members. A Prospectus, containing list of Books, &c., can be had on application to Mr. Lewis, 15, Gower-street North, or to the Secretary.

4, Finsbury-circus, E.C., Jan. 20, 1865.

JONATHAN HUTCHINSON, Secretary.

ORIGINAL LECTURES.

LECTURES ON CHEMICAL AND MECHANICAL DISEASES AND THEIR RELATIONSHIP.

By H. BENCE JONES, A.M., M.D., F.R.S.

Lecture II.

DISEASES OF SUBOXIDATION—ON ACIDITY, OR THE ACID DIATHESIS.

Acid and sugar, chemically, are as closely related as parent and child; and hence a great similarity exists between the symptoms that arise from an excess of sugar and an excess of acid. The nature of the acid disease, the symptoms it produces, the means of detecting it, the consequences it occasions, and the treatment requisite to cure it, are all essentially chemical questions. A most important difference, however, exists between the sweet and sour disease, namely this: the sweet disease is mostly free from secondary mechanical diseases; whilst acidity continually gives rise to mechanical complaints. Two of these secondary mechanical, or mechanico-chemical, complaints—gravel and gout—are the frequent lot of those who, living more by nerve than by muscle work, disarrange the healthy balance between the carbon and oxygen which go in and come out of the body.

Acid is essential for the performance of the functions of the body. Without acid the albuminous food could not be dissolved; the excretions from the blood could not be safely removed. If no acid was produced in the body, there would be no digestion and no depuration of the blood, and probably bony matter would accumulate everywhere. The vinegar cruet is only less essential to man than the salt cellar, because the animal machine is itself an acid factory. Very often more acid is made than is useful or beneficial; then chemical errors occur, and these set up mechanical diseases as surely as the effect of the cannon-ball depends on the combustion of the gunpowder. The mechanical results are vastly more serious than the original chemical action; but they are directly proportioned the one to the other. As the motion of the mass depends entirely on the motion of the molecules, so the mechanical disease arises solely from the chemical disorder.

It would be useless, even if it were possible, to give a list of the mineral, vegetable, and animal acids, between carbonic acid (CO_2) and uric acid ($C_{10}H_4N_4O_6$), which may be formed from changes in the textures of the body, or from the food. It is far more important to consider how an excess of acid may arise or accumulate in the system. This may occur in two ways—1st, by over-production; and, 2nd, by insufficient evacuation. When these causes co-operate the excess of acidity reaches its maximum.

First, on the production of acid in the body from the textures and food.

The living human body is, chemically, a varying mass of more or less complex carbonaceous matter, each portion being exposed to the action of oxygen. The chemical products everywhere vary according to the substances acted upon, and according to the time during which the oxidation is continued.

Outside and inside the capillaries, in every part of the body, in cells and out of cells, chemical changes are taking place. The oxygen of the air, the organic fluid, the catalytic membrane, act and re-act each on the other; and the products of the chemical action are reabsorbed into the blood, or are thrown upon the inner or outer surface, to be taken up by the alimentary mucous membrane, or to be removed by the lungs, the skin, or the kidneys.

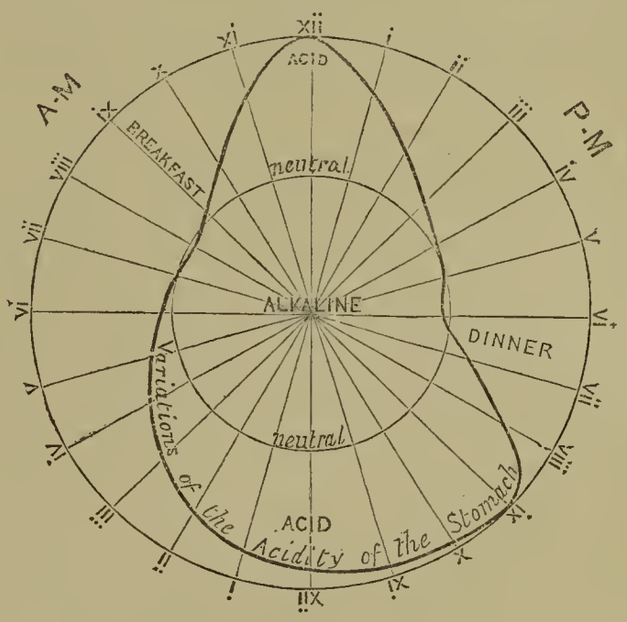
At present, the chemical changes which take place in the textures are very imperfectly known, and the variations of action which occur in health and disease are only beginning to be observed. The healthy muscle, during the circulation of the blood through it, has no acid reaction; but for a time after death chemical actions continue, and sufficient acid is produced, and remains unneutralised by fresh alkaline liquor sanguinis, so that markedly acid reaction can be obtained. Even during life, in tetanus, sufficient acid may be formed to give an acid reaction, and after violent epileptic convulsions excess of acidity may be found in the urine. Even the nerves and the electric organs of fishes show signs of acidity when the alkaline blood ceases to flow.

The production of some healthy and less complex secretion may enable us, from its chemistry, to obtain greater clearness on the production of acid in the body. The gastric juice furnishes by far the most striking example of the formation of acid in the body. Until the chemical acid factory in the stomach is fully understood, the chemical changes which are going on outside the capillary vessels throughout the body cannot be realised.

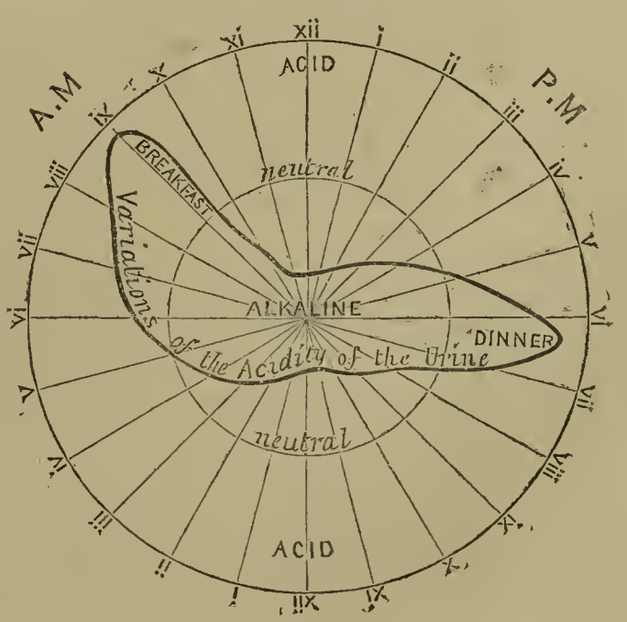
There can be no doubt that the formation of gastric juice occurs outside the capillaries of the stomach. Its rate of secretion depends on the rate of passage of the blood through the capillaries; and this is directly under the control of nerves that open or shut the blood vessels. In the fluid poured out of the capillaries chemical changes occur, acids are formed—perhaps Dr. Marcet's colloid acid; or by the oxidation of sugar, among other acids, oxalic acid may be produced, and this may decompose the chloride of sodium, and the most diffusible hydrochloric acid may be poured out on the free surface of the tubes; whilst the alkali passes with the organic acid, or its products of combustion, back into the blood.

That the blood increases in alkalescence during digestion can easily be proved by careful observation of the secretion of urine before and after food, or by the effects of severe or constant vomiting. The following diagram will best show you the contrast which can be traced between the acidity of the gastric juice and the acidity of the stomach. You will perceive that when the gastric juice is most acid the urine at that time is least acid, or most alkaline; and when all the gastric juice is absorbed, then the acidity of the urine is at its highest point.

Curve of variation of the acidity of the stomach.



Curve of variation of the acidity of the urine.



In the Medico-Chirurgical *Transactions*, Vol. 35, p. 41, you will find a paper "On the Alkalescence of the Urine from Fixed Alkali in Some Cases of Diseased Stomach." I shall here give you only one example in order to fix this inverse relationship of the acidity of the stomach and urine firmly in your minds. A man, aged 46, was admitted into St. George's Hospital with sarcinæ ventriculi. The eruption from the stomach occurred at irregular periods, once and sometimes twice daily; the quantity vomited each time was from one to four pints of intensely acid fluid. The urine was usually passed about six times in twenty-four hours, when the vomiting was most. The urine was acid twice, or at most thrice, daily before the sickness occurred; and for the rest of the day after the vomiting the urine was strongly alkaline from fixed alkali. The patient remained in the house for a month, and during the last week he had only one attack of sickness; then the urine became markedly acid each time it was passed, and remained so throughout all the day.

After digestion is finished, when the food is dissolved in the stomach, the intensely acid fluid is in part returned into the blood. The serum might almost cease to be alkaline but for the neutralising action of the bile; thus the degree of alkalescence of the blood must be continually changing, and the fluid effused from the capillaries, and out of which the secretions are formed, must become less alkaline after the food is absorbed than it is whilst digestion is going on in the stomach.

An oxidation similar to that which occurs in and around the stomach cells must occur to a greater or less degree everywhere throughout the body; carbonic acid or other acids, arising from a less perfect combustion, must be formed outside the capillaries of the body. In the muscles and nerves, and in every other texture, power must be set free by the mutual action of the carbon and the oxygen, and the acid products would quickly neutralise the alkalescence of the blood if the acids did not pass off by the lungs, the skin, and the kidneys.

On the Removal of Acid from the Body.

Without cessation night and day free acid continues to pass into the air vesicles of the lungs from the blood, thus rendering it more alkaline than it would otherwise be, and counterbalancing not only the acid produced by oxidation in the different textures, but also the residue of the acid from the gastric juice and food which is not neutralised by the bile.

If the combustion in the body were complete, the whole of the products, except the ashes, might escape by the lungs; free respiration might carry off readily all the acid produced in the system, but imperfect oxidations do occur, and then other acids besides carbonic acid are formed and give rise to neutral or to acid salts which are not volatile, and these being unable to pass off by the lungs are thrown out by the skin and the kidneys.

There can be no doubt whatever that acid is produced outside the capillaries of the skin and kidneys in the same way, although to a much less degree than in the stomach cells. The chemical composition of the substances that pass into the urine and the sweat depends not only on the amount of action of the oxygen, but also on the chemical composition of the fluid poured out of the capillaries to form the secretion.

If the serum of the blood is at its highest point of alkalescence, the acids formed by oxidation during the secretion of urine may be too feeble to neutralise the alkali poured out, and alkalescent urine may result. If, on the contrary, feebly alkaline or acid salts are effused from the capillaries, a very small amount of additional acid produced by oxidation in the secreting structure of the kidneys will set free some of the acid from the acid salts, and thus free uric acid may appear in the urine.

The same formation of acid occurs in the secreting structure of the skin, and although it is not possible to demonstrate the daily variations of the acidity of the sweat, yet the extraordinary increase in its acidity with strong exercise, or in some diseases, as in rheumatic fever, shows that it is subject to great variations.

The variations in the alkalescence of the saliva were long since shown by Dr. Wright to be influenced by the digestion. —*Lancet*, 1841, p. 787.

The smallest amount of acid is thrown out of the system when the respiration is impeded, whether from insufficient exercise or from imperfect supply of air; then carbonic acid accumulates, and the less perfect products of combustion are increased in the serum. If these can escape by the kidneys and skin the system is relieved, and no secondary symptoms are produced; but if these vents are closed, and if by acid diet and an irritable stomach an excess of acid is poured into the blood, then an outburst must take place, and chemical and mechanical diseases—that is, unusual molecular or massive motions—occur until the healthy condition of the blood is again reached.

Excess of acidity or the acid disease may shortly be defined to be a want of free oxidation and an insufficient escape of the products of imperfect combustion.

On the Means of Detecting Acidity.

It is not easy for the Physician to determine accurately the escape of an excess of acid by the lungs, and still less so by the skin; but by both chemical and microscopical evidence he can follow the minutest changes which occur in the acidity of the urine, and thus he may know something not only of the state of the blood from which that urine is secreted, but he may obtain some information regarding the activity of the processes of oxidation and nutrition outside the capillaries. Different litmus papers vary so much in composition and delicacy of reaction that no satisfactory conclusion can be reached by this test alone. A standard solution of soda furnishes the surest chemical proof of the amount of acid in a given quantity of urine, and thus variations may be proved and comparisons made with the utmost accuracy. But a readier method of coming to a practical conclusion exists in observing by the microscope the state in which the uric acid exists in the urine. The delicacy of this test for free acid far surpasses any other; indeed, litmus paper and standard solution cannot enable you to distinguish between acid salt and free acid; but the microscope by showing more or less free uric acid crystals tells at once the greater or smaller amount of free acid in the urine. As long as free uric acid crystals do not exist in the urine no very great amount of acidity is present. When acid urates alone are passed there may be very great effect on the litmus; but as long as the microscope and chemistry show that free uric acid is absent, the chief secondary mechanical disease, uric acid stone, is not likely to be set up.

Hence the determination of the presence or absence of free uric acid in the urine is a question of great importance.

A small bottle or test tube should be filled with fresh urine and examined by transmitted light. Uric acid crystals can be easily seen. If no red sand is present in twelve hours another examination should be made. Very frequently a deposit occurs as the urine cools, then the microscope must be used to see whether crystals of uric acid are mixed with the granular deposit. The amount of free acid may be known by the rapidity with which the uric acid crystals appear, by the size of the crystals, and by the more or less perfect decomposition of the granular urates.

When the free acid is in very great excess the uric acid may crystallise in the renal tubes or in the pelvis of the kidney or in the bladder. When very little free acid and very little uric acid has been present, I have seen the crystals of uric acid appear on the eleventh day after the water was passed.

Professor Scherer long since stated that an acid fermentation took place in the urine soon after it was passed; but I have been unable to satisfy myself that any increase of acidity occurs. His experiments were not made on healthy urine. When he made them, the state in which the uric acid existed in the urine was not known. The slow deposition of uric acid from a feebly acid solution of urates was not taken into account.

Very frequently, when examining the same specimen of urine day after day for uric acid crystals, I found that no free acid was deposited; until at last I was led to make exacter experiments to determine whether the free acid in the urine was increased after the water was made. But first a series of twenty-seven experiments were made on healthy urine to determine how often, and how soon on standing, uric acid crystallised out. Four times only were these crystals found by the microscope twenty-four hours after the water was made; and five times the acid crystallised out in two days. Eighteen times no uric acid was found free. In other words, eighteen times out of twenty-seven the urine under the microscope did not show this evidence of an increase of acidity. In the other nine times the uric acid might possibly have been set free by an acid fermentation, although another explanation was probable, namely, that the crystals only formed slowly because no great quantity of urates were present, and because the liberating acid was very weak. For determining between these views, a standard alkaline solution of caustic soda was prepared, and the acidity of the urine was measured as soon

as possible after the urine was made, and then from time to time afterwards the acidity of the same urine was again noted. Thus the following experiments were made:—

June 7,	Fifty cubic centimetres of healthy urine just passed were neutralised by	1·8	c.c. of standard solution of soda.
„ 10,	„	1·8	„
„ 12,	„	1·8	„
„ 14,	„	1·8	„
„ 17,	„	1·2	„
„ 19,	„	0·8	„
„ 13,	Fifty cubic centimetres passed by another healthy man neutralised by	1·5	„
„ 15,	„	1·5	„
„ 15,	Fifty cubic centimetres passed at different times neutralised	1·6	„
„ 17,	„	1·6	„
„ 19,	„	1·6	„
„ 21,	„	1·6	„

The total quantity of urine made in twenty-four hours was collected, and the acidity determined.

June 17,	Fifty cubic centimetres neutralised	3·8	c.c. of standard solution.
„ 19,	„	3·8	„
„ 21,	„	3·8	„
„ 22,	„	3·8	„
„ 27,	„	2·6	„

These are examples from many others, all showing that no change in the acidity occurs for some days after the urine is passed, and that then the acidity diminishes.

When it was proved that sugar existed in small quantities in healthy urine, I thought that some evidence for or against an acid fermentation might be got by determining the amount of sugar in the urine, first when fresh, and afterwards when it had stood some days.

Three litres of healthy urine were divided into two equal parts. The one half was examined for sugar immediately; and the amount of sugar was 2·4 grains. The other half was left for twenty-five days, until it became feebly alkaline, and then the sugar was determined, and the amount was 1·9 grain. A loss within the limits of error in the method of analysis.

These and many similar experiments are opposed to any acid fermentation; and when the formation of uric acid crystals in the urine occurs, it may be taken as a proof that same free acid is secreted by the kidneys, and that this, sooner or later, has set free more or less uric acid from the acid urates in the nrine.

The longest time in which I have seen uric acid crystallise out has been eleven days, but usually the first, second, or third day after the water is made the crystals form, if they form at all; and the formation of these crystals is the only certain and delicate test of the presence of free acid in the urine. I had hoped that the form of the crystals, varying as it does so greatly, might enable me to determine the nature of the liberating acid; but after a long series of experiments I can as yet come to no satisfactory conclusion in this respect.

(To be continued.)

THE PUBLIC HOSPITAL, JAMAICA.—The demon of discord seems to have crept into this establishment. The *Colonial Standard* of January 24 is filled with a letter from Mr. Alexander Fiddes, F.R.C.S.E., detailing the circumstances which led himself and Dr. Andrew Dunn, the other ordinary Medical officer of the Hospital, to resign their appointments. As we have only seen one side of the case, we are not in a position to offer an opinion as to the course pursued by Dr. Bowerbank and Governor Eyre. There can be no doubt, however, that Messrs. Fiddes and Dunn believed themselves to be aggrieved by the interference of Dr. Bowerbank, who was Chairman of the Board of Visitors, in Hospital matters; and injured by a judgment given by the Governor on statements made by Dr. Bowerbank. They believed that they could not, under the circumstances, continue to discharge their duties with honour to themselves, and they have, therefore, like high-minded men, resigned offices to which salaries were attached.

ORIGINAL COMMUNICATIONS.

ON THE

ADMINISTRATION OF CHLOROFORM IN OVARIOTOMY.

By E. PARSON, M.D., Lond.

SINCE the subject of administration of chloroform has been so recently and so ably discussed by the Committee for that purpose of the Medico-Chirurgical Society, and as the capital operation of ovariotomy is being almost daily performed, the results of my experience in the large number of cases performed by Mr. Spencer Wells at the Samaritan Hospital for Women, where I have had the subsequent care of the patients, as well as in many of Mr. Wells's private cases, may possibly be of some use to others in similar subsequent operations.

The apparatus I have used of late has been "Skinner's," consisting, as most people know, of a piece of domet flannel spread in a tent-like manner over a wire frame, the base of which is somewhat oval, so as to include the nose, mouth, and chin of the patient under this tent-like expansion. The handle is a piece of stout wire about seven inches long, bent into a loop, and can be moved and fixed at any convenient angle with the frame that supports the domet. Hence, the handle balancing the frame, the latter will generally lie easily wherever it is placed on the patient's face. This allows the right hand to hold the bottle of chloroform, enabling the left hand to feel the patient's pulse. The bottle containing the chloroform holds about two ounces, and allows the chloroform to escape drop by drop through a very small tube. This is Skinner's inhaler and dropping bottle, slightly modified for the Samaritan Hospital by Weiss and Son.

Its employment is equally simple; the tent-like inhaler is allowed to lie over the lower part of the face, and the chloroform is sprinkled drop by drop over it, and rarely does more than one minim of chloroform at a time escape from the bottle.

The advantage of this mode of giving chloroform appears to be that as only one minim of chloroform escapes at a time, and as the successive minims are distributed over the expanded domet, it ensures a much more regular dilution of the vapour with the air inspired than is usual with almost any other apparatus I have seen, except Clover's, whose methodical dilution is certainly the safest of any, and I know of no one who has presented anything as yet so decidedly accurate as his; but the incumbrance and the appearance of the large inflated bag, and the intricacy of the apparatus, will always, I fear, be an obstacle to its general adoption.

Now, the domet inhaler is possibly the next nearest approach to perfection in the simplicity of its use and regular dilution of the vapour, for it follows that if the drops fall regularly, and the inspirations be about the same in frequency and depth, that a regular dilution must be ensured, and hence a nearly equable inhalation, and those I believe to be very important facts for the safety of the patient.

The time usually required to produce anæsthesia thus, varies from ten to fifteen minutes, differing in different persons; but I observe in ovariotomy that the slower its administration the less is the subsequent distress after the operation; that a state of collapse rarely occurs, and the patients generally awake tranquilly and collected soon after the operation; and there is much less vomiting and retching (in no case is solid food allowed before the operation); the preliminary stage of excitement is also very much less; and lastly, there is rarely any spasm of the larynx, which, by the bye, does sometimes occur in hysterical women. The patients generally go quietly into a profound sleep without a struggle. Now, this infrequency of vomiting and retching is of immense importance to the ovariotomist, for vomiting tends to force the small intestines out of the abdomen through the wound, unless the wound be firmly grasped by an experienced assistant, or another assistant presses his hand upon the epigastric region to prevent the descent of the diaphragm, and the operator has to wait till the vomiting is over. And also after the wound is closed by the sutures and strapping, any effort of vomiting is exceedingly painful for the patient, by stretching the abdominal wound, straining the pedicle, and disturbing the small intestines and mesentery that have been more or less irritated by the necessary manipulation in the removal of the tumour and the subsequent sponging and wiping out the cavity of the peritoneum when necessary. Hence, the utmost quietude of the abdo-

minal viscera greatly increases the patient's chance of recovery after ovariotomy.

Cutting through the skin of the abdomen is certainly the most painful part of ovariotomy; next to this appears to be the sponging out of the pelvis; and hence the greatest amount of insensibility is required at the very outset of the operation, and very little chloroform is required whilst the adhesions are being broken down and the time occupied in tapping the cyst or cysts. During the sponging out the pelvis of any fluid that may have collected there, there is almost always a spasmodic action of the legs, which I believe is due to the direct pressure of the sponges over anterior crural nerves, and hold that chloroform should not be given to such an extent as to destroy the irritability of those nerves, and that an assistant should always be placed at the patient's knees to keep them down during this part of the operation. Possibly some of this spasmodic action of the legs may be reflex, and as the patient is unconscious of it, it is much better that those motions of the legs be restrained by an assistant than have the patient prostrated by chloroform. I have also observed that this very sponging the peritoneum has a very depressing effect on the heart's action; frequently the pulse sinks not only in force, but becomes small and slow. In one case I counted it only 30, whereas before it was beating at the rate of 68 in the minute. This woman, aged 32, had a mitral murmur and a large heart, and accompanying this failing of the pulse a death-like sweat broke out over her face; and as I have several times observed this, I fancy the hypogastric plexus has been pressed upon by the sponge, and that this dangerous state is through the medium of the sympathetic; and hence in those cases it becomes the more important not to have the circulation much reduced in power when there is this depressing ordeal to go through.

The chief drawback to chloroform in ovariotomy seems to be that the enormous distension of the abdomen so presses up the diaphragm that the apex of the heart is, I often find, tilted upwards and towards the left axilla—not unfrequently found beating under the third or fourth rib,—and the lungs so compressed upwards and backwards, that the power of making a deep and full inspiration is utterly impossible. I believe the muscular power of the diaphragm to be almost for the time paralysed, comparatively speaking; and hence in almost every case of ovariotomy there is an exceedingly feeble inspiratory power; and as ovarian cases are almost all greatly reduced in muscular power and tone, the state of the respiration during the operation is also a cause of great anxiety, for I have found that when the patient's mouth is shut, and she breathes solely through the nostrils, that the inspirations are less frequent and less deep than when the mouth is kept open; in fact, in some very feeble old women with ovarian dropsy of some years' standing, one can scarcely see that they inspire at all; and, further, I believe this defective inspiration to be greatly embarrassing to the right side of the heart, for I find that when the inspirations are shallow, the heart beats with less force and less frequency; and in those ovarian operations more attention should be even paid to the respiration than even to the pulse; and hence I have of late, when insensibility has been produced, slipped one of my fingers between the patient's teeth, and, throwing her head slightly backwards and to the right side, by this means the tongue does not fall backwards, and the stertor, if it has existed, is generally immediately prevented. I find also that where there is a tendency to spasmodic inspirations, too, and closure of the rima glottidis, it is very effectual in affording a free inspiration.

When the circulation is feeble, notwithstanding that air enters the chest freely, gentle rubbing the region over the apex of the heart is sure to increase its action; so, also, is rubbing the neck from the ear to the clavicle over the course of the phrenic and pneumogastric. But I find that this sometimes provokes vomiting; also a cold hand on the hot skin, or a rough, cold towel, has always been sufficient to stimulate the flagging circulation in even protracted operations. Occasionally, when the tumour is very large, immediately the abdomen is emptied the circulation has lost its accustomed pressure, and a temporary fainting occurs. Now this is best avoided by immediately removing one or two of the pillows that have been propping up the patient's head and shoulders, and allowing her to lie perfectly horizontal; and this has to be done whilst the operation is going on, for before removing the mass in the abdomen the patients cannot breathe at all if they are placed horizontally—their diaphragm cannot push down the mass in the abdomen unless their shoulders are raised, and the tumour allowed to gravitate away from the thorax. Mr. Spencer Wells, in a recent case, to avoid the chance of syncope, tapped the patient whilst on the table with a small trocar and canula, and emptied the largest cyst, and thus greatly equalised the pressure before any incision was made into the abdominal parietes.

The average amount of chloroform used is about three drachms. The objection that the chloroform thus administered affects the bystanders I have found to have been of very little importance, and is certainly more a theoretical than a practical objection.

Lastly, I beg to recommend operators *not* to have their patients too profoundly narcotised; for, however pleasant it may be for them, it is highly unpleasant for him who has the life of the patient in his more immediate charge, and I know of no cases so critical as those who are the subjects of ovariotomy.

3, York-street, Portman-square.

ON THE VARIOUS MODES OF ESTIMATING THE NUTRITIVE VALUE OF FOODS.

By JOHN BEDDOE, B.A., M.D., &c.,
[Physician to the Bristol Royal Infirmary.

In discussing before the Physiological Sub-section of the British Association the comparative merits of several modes of reckoning the nutritive value of foods, Dr. Edward Smith gave the preference to that which he has adopted in his official reports—viz., the statement of the quantity of carbon and of nitrogen contained. He advocated it as being at once most simple and most complete. Simple it certainly is; but I shall endeavour to show that in completeness and in general utility it is inferior to other methods.

I agree with him in reprobating the coarse, unscientific, and utterly misleading practice of estimating the value of food by its weight alone, with the slight discrimination of solids and liquids; and I find the method of reckoning the uncombined hydrogen as carbon, and adding it to the rest of the carbon, to be somewhat too clumsy and cumbrous for ordinary use, though its superiority in correctness to his own favourite plan is very marked when it is applied to dietaries abounding in vegetable or animal fats.

There remain two other methods. The first of these I will discuss briefly, as it has not met with general acceptance and was not mentioned in Dr. Smith's paper. It has, however, been employed by some German writers on dietetics. I may, perhaps, claim the authorship of it myself, as it was proposed by me to Dr. Robertson, of Buxton, about sixteen years ago, when he was publishing his work on diet. I subsequently communicated it to Professors Christison and Gregory; but do not think it was ever published in this country. This method is founded on the fact that almost all the carbon and hydrogen, and by far the greatest part of the nitrogen of the food, are excreted in the forms of carbonic acid, water, and ammonia, urea being equivalent, in this point of view, to a dehydrated carbonate of ammonia. Assuming that the calorific value of any substance is to be measured by the quantity of oxygen with which it will combine, it is only necessary to ascertain, in each instance, how much oxygen is required for the conversion of the carbon, hydrogen, and nitrogen into carbonic acid, water, and ammonia; and the respective quantities of oxygen expressed in terms relative to the weights of the substances examined will indicate, so far as elemental chemistry alone can do it, the respiratory value of food.(a)

For example, let the respiratory value of pure dry fibrin be required. It contains about 54 per cent. of carbon, 7 of hydrogen, $15\frac{3}{4}$ of nitrogen, and 22 of oxygen. Of the hydrogen, about 3·4 may be subtracted in order to convert the nitrogen into ammonia, and 2·75 to form water with the constituent oxygen. There remain 54 of carbon and about ·85 of hydrogen. These require for their conversion into carbonic acid and water 144 + 7 = 151 of extraneous oxygen; and 151 accordingly represents the calorific or respiratory value of 100 parts of fibrin.

Pure dry starch containing 44·4 per cent. of carbon requires for its combustion 118 per cent of oxygen (for 44·4 ÷ 3 × 8= 118·4); and 118 represents its calorific value. And if we take the composition of animal fat, in its purest forms, to be 79 of carbon, 11·5 of hydrogen, and 9·5 of oxygen, its value, similarly calculated, will be—

(79 ÷ 3 × 8=)210·4 + (11·5 × 8=)92—9·5=293.

(a) I purposely neglect the sulphur and phosphorus.

In the same manner may very easily be calculated the calorific value, expressed in terms of the oxygen required for its combustion, of any aliment, simple or compound, of which we possess either an ultimate or a proximate analysis. This mode of estimate (which I shall call for shortness "the oxygen way") is but little more troublesome than that of reckoning the free hydrogen as carbon ("the hydrogen way"), from which it differs considerably in its results when applied to nitrogenised substances, but not in other cases. The results of both differ widely from those obtained by the rude plan of reckoning the carbon only as calorific. This last I shall call Dr. Smith's, or "the carbon way." These differences may be most clearly shown by the following table, in which I have taken starch as a standard, and employed such quantities of it as will yield a calorific value of 100 on each of the three plans above mentioned:—

	Quantity of each substance.	Starch.	Fat.	Fibrin.
Oxygen way .	85	100	251	129
Carbon way .	225	100	179	123
Hydrogen way	225	100	251	151

All three methods agree in estimating the plastic value of substances by the amount of nitrogen; and all agree also in being based upon the results of ultimate chemical analysis. I shall now proceed to discuss two other methods, both founded on the results of proximate analysis; of these, one simply distinguishes the nitrogenised or albuminoid elements of food from the carbonaceous, and states the quantity of each, while the other further divides the carbonaceous elements into amylaceous or saccharine and fatty. The former has been employed by some of the best writers on the subject, but has little except its simplicity and easiness to recommend it; in accuracy it is inferior even to the coarse plan which I have called "the carbon way," for it altogether ignores the superiority, weight for weight, of fat over starch, which the other partially and imperfectly recognises. The latter is the most complete and perspicuous of all modes hitherto proposed; and I shall endeavour to show why I prefer it to all others, including the one described above, and to the invention of which I have laid claim.

In the first place, it not only does full justice to the higher calorific value of fatty as compared with starchy substances, in which respect it is equalled by the "hydrogen" and by the "oxygen" way; but it alone of the five methods enables one to see at a glance what proportion the former bears to the latter class of substances, thus affording us a kind of knowledge which is of much service in the estimation and formation of dietaries, and which may prove of still more use when we have more perfectly learned the respective parts played in the economy by the two classes. For though we know that among carnivorous races, such as the Eskimaws, the hydrocarbons may entirely replace the hydrates of carbon in the dietary, without apparent detriment, it has not yet been proved, nor does it seem probable, that the converse is the case. There are few vegetables copiously used as food which do not contain traces of some form of fat or oil, and in those who are usually confined to an almost exclusively amylaceous diet (*e. g.*, the cassava-eating tribes of central Africa) the longing for grease of some kind is, as I am informed by Dr. Kirk, of the Zambesi expedition, equally or more intense than that for albuminous food. And it is certainly not without good cause that the young animal of our own species, as well as of other mammals, has been so freely supplied with fat in the food of its infancy. But as the cereals most commonly used in this country (wheat and the potato) are extremely deficient in this respect, and as all fatty substances are comparatively expensive, so that there is some temptation for rigid economists to do without them; it is surely important to ascertain their presence and quantity in any dietary whose value we attempt or pretend to estimate. Again, the method under consideration enables us to exclude from calculation innutritious or indigestible substances, such as cellulose and chlorophyll, which according to Dr. Smith's method take equal rank with sugar and starch. These two advantages are sufficient to render this superior to any other method in accuracy and completeness; but its merits are not yet all told. In simplicity and intelligibility also it stands high; and its results can, I think, be carried in the memory with as much ease as those of any other plan. Thus it is quite as easy to remember that ordinary wheaten bread contains about 54 per cent. of amylaceous, 1 of fatty, and 8½ of albuminoid matter, as that it yields 28·3 per cent. of carbon and 1·29 of nitrogen; and the amount of information contained in the former series of statements is far more valuable than that in the latter, not to mention that is easy to deduce, with tolerable correctness, the elementary from the proximate constitution of a substance, while the converse process is impossible where fat is present in any quantity.

HOLIDAY NOTES ON CONTINENTAL SPAS.

(Second Series.)

ON SOME OF THE PRINCIPAL PYRENEAN SPAS.

By HERMANN WEBER, M.D., F.R.C.P.,
Physician to the German Hospital.

The Pyrenean Spas are by no means unknown in England; they are, however, as yet much less resorted to by English invalids, excepting those usually resident in the South of France, than the Spas of Germany. And yet it cannot be denied that in many conditions they offer advantages which are nowhere else to be obtained.

The number of mineral springs in the Pyrenees is very large; most of them are sulphurous or sulphuretted, but some of them belong to the muriated or the sulphated saline, the mixed saline, the carbonated alkaline, or the chalybeate waters.

The prominent feature of the Pyrenean spas consists, however, in the sulphurous springs, which are, with few exceptions, more or less thermal, some of them belonging to the hottest mineral waters in existence. My present notes refer principally to these sulphurous springs.

In order to avoid repetition, it appears advisable to premise some remarks on sulphurous waters in general, and especially on those of the Pyrenees.

The signification of sulphurous or sulphuretted waters is generally given to those waters which contain sulphur, sulphuretted hydrogen, or sulphurets of metals in perceptible quantities, which, however, may contain many other principles besides, but none of them in such quantity as to derive from it their predominant physiological or therapeutical action. They are divided, according to Fontan and other hydrologists, in *sodic* sulphuretted waters, containing sulphuret of sodium, and *calcic* sulphuretted waters, containing sulphuret of calcium; the former of these are also designated as *natural* sulphuretted waters, because their elements are considered as formed in the rock itself, without the intervention of decomposing organic substances; while the latter (the calcic) are regarded as *accidental* sulphuretted waters, because their sulphur is considered as derived from the decomposition of sulphates through the action of putrescent organic substances with which the waters have come in contact. Although Fontan's division is perhaps rather too systematical, yet the two groups offer marked differences in their character.

The Pyrenean sulphuretted springs belong almost all to the sodic or natural sulphuretted waters, and may be regarded as the principal representatives of this class of waters; in fact, almost all the known springs of this nature belong to the Pyrenees.

These waters are limpid at their origin, but become turbid through the contact of the air—some sooner, some later. When fresh, they do not exhale much sulphuretted hydrogen; most are even quite free from it at their source. The intensity of the odour, at all events, bears no relation to the amount of sulphurets they contain. The accidental sulphurous waters, on the contrary, as it is well known, emit a very strong smell of "rotten eggs."

The quantity of solid substances contained in the Pyrenean sulphuretted spas is very small, amounting only to a few grains in the pound. They are alkaline; and their principal basis is soda in combination with the sulphuric, silicic, muriatic, and hydrosulphuric acids. Almost all the sources contain also small quantities of potash, magnesia, chalk, iron, and organic substances.

Their composition is, however, as yet, not completely known, which is due in part to their rapid alteration under the influence of various agencies; and probably the very fact of this rapid decomposition is of great importance in their action on the animal organism.

According to the researches of Filhol, the presence of silica seems to be very important in this process of alteration. Thus it may be presumed that under the influence of the atmospheric air the silicic acid deprives the sulphuret of sodium of a por-

tion of its sodium, and that the sulphur in excess is transformed into sulphuretted hydrogen, which again, under the further influence of oxygen, may be changed into sulphur and water; but various ways may be imagined in which these alterations take place, and probably the decomposition is not quite so simple as it appears at first sight. The different springs exhibit considerable differences in this respect. Thus I have seen at Luchou a phenomenon which is called "blanchiment," the water becoming opalescent soon after exposure to the air, which phenomenon I have not seen either at Barèges, Cauterets, or Eaux-Chandes, and which seems to be due, according to Dr. Lambron and other hydrologists, to a precipitation of sulphur in substance. Filhol, who has examined this "blanchiment," found it caused by the suspension of sulphur, silicic acid in excess, and various silicates; and he ascribes its occurrence to the presence of a large proportion of silicic acid. The baths in the waters which offer this "blanchiment" feel softer to the skin than those in other sulphuretted waters. The manner and rapidity of decomposition which the waters undergo, it will be seen from this, is of some importance, and it is not the mere amount of sulphuret of sodium contained in them which is to be taken into consideration. Possibly some of the elements which are scarcely looked at in the analysis—as, for instance silica—exercise indirectly as great an influence as the sulphurets themselves.

From the changeable nature of these waters we must also at once conclude that their action must be very variable, according to quality and amount of decomposition which has taken place in the water when the bath is taken. The surrounding atmosphere, too, which is, no doubt, of great importance, the nature and influence of which has been, however, as yet, but little examined into, must widely vary according to the degree of the decomposition of the waters themselves.

The sulphuretted waters of the Pyrenees are all characterised by the presence of various organic substances, which, up to a very recent period, were thrown together under such significations as matière bitumineuse, humus, matière humique, matière gélatineuse, glairine, barégine, Pyrénéine, etc. The researches of Fontan ("Rech. sur les eaux minérales," 1853), Filhol ("Traité des eaux des Pyrénées," 1853), Lambron ("Annales de la Société d'Hydrologie," 1854), and others have shown the complicated nature of these organic substances, and especially the presence of the vegetable organism called "sulfuraire." It would be out of place to enter here into a description of the various organic substances, on the nature of which, as far as our present limited knowledge goes, excellent articles are contained in Lambron's valuable work, "Les Pyrénées et les eaux Thermales Sulfurées de Bagnères-de-Luchon" (vol. i., p. 473, 1862), and in the "Dictionnaire des eaux minerales" (vol. ii., p. 467, 1860). Lambron divides the organic substances into three groups: 1. Substance dissolved in the water, which is contained in all waters, but is different in the different kinds of mineral waters, and in the sulphuretted waters is called by him "sulfurose;" 2. Substance suspended in the water causing the various deposits of such waters, designated by him "sulfurine;" 3. Organised substance belonging to the vegetable kingdom, designated by Fontan "sulfuraire" (Leptomitus sulfuraria). The second kind of organic substance, viz., the "sulfurine," is, according to Lambron, the product of the transformation of the third, viz., the vegetable "sulfuraire."

Our knowledge of the physiological action of the sulphuretted waters is, as yet, very imperfect. Trustworthy researches on the action of these waters on the metamorphosis of tissue in healthy persons, on the elimination of carbonic acid through the lungs, or of urea, uric acid, and other products of tissue-change through the urine, are altogether wanting; and without knowing how these processes are influenced, we must consider ourselves ignorant as far as the physiological actions are concerned. Such researches are difficult, but they can be made, and ought to be made, and it would be very proper if the Société d'Hydrologie, or some other scientific society in France or Germany, would make them the subject of a prize essay.

It is, however, to be acknowledged as a valuable fact that the sulphuretted waters when taken internally in moderate quantities, and also when used as baths, do not, as was formerly believed, increase the frequency of the pulse, but, on the contrary, diminish it. Lambron says on this subject:—"L'elément sulfuré des eaux prises en boisson et en bain tempéré a une action hyposthénisante très-marquée sur le system circulatoire; les contractions du cœur sont moins énergiques et moins nombreuses, le pouls, pendant pleusieurs heures après être sorti du bain, offre une diminution de 5, 8, 10, ou 12 pulsations sur le nombre normal et habituel, compté soit au réveil, soit avant le départ pour le bain. Depuis 1855, j'ai maintes fois répété ces observations chez des personnes de deux sexes, de tout âge et de constitutions différentes et les résultats ont été les mêmes dans plus des $\frac{4}{5}$ des cas."—(L. c., vol. i., p. 526.)

Lambron quotes the researches of Gerdy on the calcic sulphuretted waters of Uriage; those of Hertwig, the Professor of Veterinary Medicine at Berlin, made with sulphuret of potassium and sulphuret of sodium; and those of Ferran (on the sodic sulphuretted waters of la Preste) as being in harmony with his own experience.

Although I place perfect trust in these researches for the special waters which have formed the subject of the examination, yet I hesitate in applying them to all the sulphuretted waters, as some of them, especially those of Barèges, have the general reputation, shared more or less by all the Medical men of Barèges, of being exciting to a high degree and unfit for cases prone to hæmorrhage or disturbance of circulation in general.

Filhol, Mialhe, Lambron, and others maintain that the sulphur, which is absorbed through the skin and intestinal mucous membrane, enters the blood and abstracts oxygen from the blood globules, forcing them through this to take up more oxygen from the air. Thus, the elements for an increased or more perfect tissue change are given, and this is probably the meaning of the expression generally used by the learned Physicians at the Pyrenean Spas, that their waters promote the "nutrition interstitielle," or that they exercise an immediate influence on the "fonctions plastiques."

I do not deny the probability of this theory, yet I can scarcely consider the view of the manner in which the sulphur acts on the blood, and through this on the tissue change, as sufficiently proved; and it would be, as stated before, very desirable if its correctness were to be examined into by researches on the products of this tissue change.

Some authors attribute to the sulphuretted waters also a fluidifying influence on the albuminous substances of the blood and tissues.

The more tangible excretions are apparently but slightly influenced by a moderate use of the waters. The fæcal excretions are, in some cases, at first retarded, but become afterwards more regular; only in few persons the waters cause colie and diarrhœa, perhaps, as Lambron suggests, on account of too great acidity of the intestinal secretions, which prevents the absorption of the sulphur. The appetite becomes in general increased.

The quantity of urine is said to be increased, but how much of this is due to the internal and external use of the warm water, and how much to the sulphurets admixed to it, is impossible to decide without a course of carefully instituted experiments. The same remark may be applied to the assertion "that the action of the skin is augmented, that the perspiration becomes increased, and that even copious sweats are produced," (Lambron, l.c. p. 540). There is, however, more proof of an increased activity of the skin, as the perspiration according to the author just quoted, contains sulphur, and the occurrence of cutaneous eruptions during the treatment is by no means rare. The mucous membranes in general, and those of the respiratory organs in particular, appear to be similarly influenced as the skin.

The action of the sulphurets on the nervous system is described as exciting, and has been compared to that of coffee. Lambron expresses his view on this subject in the following words:—"En fin, entré dans l'économie par n'importe quelle voie, le principe sulfuré excite à la manière du café (Bordeu) le système nerveux dans toutes ses parties, cerveau, moelle épinière, nerfs, et sans donté aussi le grand sympathique; mais it parait doué d'une action spéciale ou, tout au moins, plus prononcée pour activer les functions du cordon rachidien."—L. c., vol. i., p. 541.

A fact which has been mentioned to me by many—I may say by the majority of bathers—is a certain feeling of lassitude after the first three or four baths, which afterwards disappears, and is followed by a sensation of increased strength and activity. Another phenomenon, which is likewise often complained of, is a feeling of feverishness and nervous excitement a few days after the commencement of the treatment.

The question of the therapeutic actions of the sulphuretted waters I will discuss more fully in describing the principal Pyrenean Spas, limiting myself, at present, to merely naming

the morbid conditions for which these waters are most frequently resorted to. At the head may be placed diseases of the skin, and especially those which the French comprise under the term "diathèse herpétique," or "herpétisme" (Fontan); chronic affections of the respiratory organs and of the fauces; chronic rheumatism in its various forms; scrofulous disease; residues of traumatic affections; diseases of the bones; chlorosis; leucorrhœa from ulceration and abrasion of the os uteri; constitutional syphilis and mercurialism; chronic catarrh of the bladder and urethra; dyspepsia.

In how far the sulphuretted waters may be considered as real remedies against the pathological conditions just mentioned I shall endeavour to explain under the head of the different spas.

I shall begin by giving an account of Bagnères de Luchon, and intend to describe this Spa more fully than the others, because the beauty of its situation, the superiority of its accommodation, the composition, the variety and abundance of its springs, and the excellence of its bathing establishment, render it the Queen of the Pyrenean Spas, which will probably sooner or later become a favourite resort for English invalids as well as it is now for the French.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

LACERATION OF THE RECTUM—PERITONITIS—RECOVERY.

(Under the care of Mr. PARTRIDGE and Mr. SMITH.)

We are indebted for these notes to Mr. E. Atherstone, the dresser of the patient:—

William C., aged 25, on the night of December 25, 1864, climbing over a wall, against which a broom was standing, he slipped down, and the broom-handle pierced the seat of his breeches, entering his anus. He felt very faint for a few minutes from the intense pain, but recovering, he withdrew the handle, the blood flowing freely for a short time. He was soon afterwards brought to the Hospital, and seen by the Assistant House-Surgeon. There was no external laceration, but a small wound of the rectum about an inch and a-half above the anus. The hæmorrhage had ceased, and his pulse was very low and weak.

On the 26th vomiting set in, with pain over the hypogastric region. He had a natural motion, and passed no blood. His pulse 96, and weak. Ordered brandy, ℥ij.

27th.—Slight tympanitis set in, increasing on the 28th, when Mr. Henry Smith saw him, and made a rectal examination. He found a valvular wound of the rectum, sufficiently large to admit the index finger with ease, and extending upwards about an inch and a quarter on the right side, between the mucous and muscular coats of the gut. The vomiting still continued. Pil. opii, gr. j., t. d. s.

30th.—Pulse 85; vomiting gone; countenance free from anxiety; abdomen still tympanitic and painful.

31st.—The vomiting recommenced, and continued more or less every day until January 3, when it finally left him. Ices and effervescing mixtures were given to stay the vomiting; turpentine stupes and hot flannels applied to the abdomen; and ℞ Sp. ammon. aromat., ♏xx.; chlorodyne, ♏xv.; infusi. cinchonæ, ℥j. ft. mist., t. d. s., for a troublesome cough.

4th.—Pulse 90; tongue clean; abdomen very tense and tender about umbilicus; no vomiting.

9th.—Pulse 102; abdomen soft and of the natural size. An abscess has formed behind ramus of lower jaw. To omit pil. opii, and to take quinæ disulph., gr. iss.; acid sulph. d., ♏x.; infusi cinchonæ, ℥j. ft. mist., t. d. s.

14th.—The wound of rectum has almost healed, so that the tip of the finger cannot go into it. On pressing on back part of rectum there is hardness either from condensed cellular tissue or effusion of blood not yet absorbed. The abscess discharges freely.

18th.—Difficulty in passing water, most probably from nervous debility. Pulse 78.

23rd.—Site of wound in rectum barely to be distinguished in the form of a small depression. Abscess healed.

29th.—Abdomen tympanitic, with slight griping. ℞. Pil. opii, gr.j. Hot flannels to abdomen.

30th.—No tympanitis this morning; tongue clean; bowels open; pulse 62.

February 4.—Convalescent.

REMOVAL OF PORTION OF SCAPULA FOR FIBROID TUMOUR.

The patient whose scapula was partially removed by Mr. Fergusson, as described in a recent number of the journal, left on February 8, with the wound perfectly healed and in excellent health.

LIGATURE OF THE COMMON CAROTID ARTERY FOR A WOUND BEHIND THE RAMUS OF THE JAW — DEATH FROM ŒDEMA GLOTTIDIS — AUTOPSY.

(Under the care of Mr. PARTRIDGE.)

A man, aged 21, was brought into King's College Hospital on April 2, 1864, who had been stabbed behind the ramus of the jaw with a long, narrow, thin-bladed knife. Arterial blood was coming freely from the wound; at first the bleeding was arrested by a graduated compress, which controlled the bleeding for a few days, when one morning, whilst straining at stool, the coagulum gave way; a pulsating tumour formed, which was cut into, and the clot turned out, and an attempt made to secure the bleeding vessel or vessels, but without success. The hæmorrhage was controlled until Mr. Partridge's arrival at the Hospital, when he determined to ligature the common carotid. This was performed in the ordinary way by a longitudinal incision above the omo-hyoid. Some branches of the facial nerve were divided by the original wound, so that the patient could not close the eyelid. Pulsation was felt in the temporal artery two days after the operation. The ligature came away on the eleventh day.

The wound bled freely on the least exertion, and a severe attack of pneumonia came on. A large, deep-seated abscess formed behind the angle of the jaw; but it was not deemed advisable to open it at first, as its exact position was doubtful. He died suddenly, from suffocation produced by the pressure of the abscess.

Autopsy.—There was a large, deep wound behind the jaw, passing downwards and backwards. A large abscess was formed, extending deeply behind the ramus; considerable œdema of the glottis, involving the epiglottis. One of the larger branches of the external carotid to the parotid gland had been divided by the stab, but the trunk was untouched. The lungs were much gorged, the other organs were healthy.

GUY'S HOSPITAL.

LIGATURE OF COMMON CAROTID ARTERY FOR HÆMORRHAGE FROM A MALIGNANT TUMOUR OF RAPID GROWTH CONNECTED WITH THE SUPERIOR MAXILLARY BONE—DEATH FROM SECONDARY HÆMORRHAGE—AUTOPSY.

(Under the care of Mr. POLAND.)

For the following notes we are indebted to the operator, Mr. E. Reynolds Ray, late House-Surgeon:—

John T., aged 55 years, a farm labourer, admitted into Lazarus Ward, Guy's Hospital, October 26, 1864, under the care of Mr. Poland. Has had good general health; of steady sober habits, but of a malignant sallow aspect. About twelve months ago he felt a pricking sensation in the left eye which continued and increased. About six months ago he noticed a slight swelling of the left side of his face, and projection of the left eye, and found he could not see so well as formerly; the pain also increased about this time, and is now much more acute, extending down the face; at first there was a discharge from the nose, but there is an almost daily slight loss of blood. The left eye is now so protruded that the lids do not nearly meet when he attempts to close them. There is chemosis, the conjunctiva very injected, and the sight misty. On examining with the ophthalmoscope nothing is observed but a very injected state of the vessels. The nasal bone on the left side bulges, and the cheek rising to it, forms with it more or less a continuous plane, giving on manipulation a semi-elastic sensation. On looking into the left nostril, the septum nasi with bones attached are seen pushed to the right, out of the median line, the nostril itself being partially blocked up by the tumour. In the right nostril there is a polypus. On looking into the mouth the tumour is seen encroaching on the soft

palate, but limited to the left side, extending forward to the teeth, slightly loosening and displacing some of them, and again is felt in the angle between the lips and teeth, giving everywhere a hardened elastic sensation to the touch. On the left side the mouth is drawn up. The skin over malar bone and superior maxilla is purplish, and has given way in one small place below the inner angle of the eye, which place bleeds slightly from time to time.

On November 1 the glands below the angle of the jaw began to enlarge, though not rapidly. Several attacks of hæmorrhage from the nose occurred.

About the 10th the glands began rapidly to increase.

On the 11th there was a severe attack of hæmorrhage, checked by injection of a strong solution of alum up the left nostril. The man was suffering acutely, and daily becoming weaker.

At 5 a.m. on the 14th, Mr. E. Reynolds Ray, the House-Surgeon, was sent for to him; he found he had just vomited nearly two pints of dark-coloured blood (which afterwards coagulated), The patient said he had felt it trickling down his throat all night. He was faint; pulse rapid and weak. Though there was but little hæmorrhage then going on, it was thought advisable not to leave him with a chance of another severe attack, so Mr. Eastes administered chloroform, while the House-Surgeon proceeded to tie the common carotid. So rapid had been the growth of the glandular tumour that, though sixteen hours before it was thought possible to tie the artery in the upper part of its course, now it was found to be quite impracticable, the tumour extending nearly to a level with the cricoid cartilage. For this reason the artery was tied below the omo-hyoid muscle. Here but little difficulty was experienced, the patient losing during the operation but a few drachms of blood. The wound was closed by strips of plaster. 10 a.m.—Drowsy; has no paralysis either of motion or sensation; has great difficulty in swallowing; pupils equal and acting; has throbbing pain in head. 3.30 p.m.—Has sudden twitchings of his limbs, caused, the patient says, by sudden short paroxysms of pain in his head on the left side, causing him to jump; has occasional hiccough. 7 p.m.—Bowels have been twice relieved; passed water twice; swallows with less difficulty; motion and sensation perfect; pupils equal and acting; face has an erysipelatous blush on left side; has taken plenty of beef-tea; no paralysis.

16th, 3 a.m.—Sleeping; breathing easily. 9 a.m.—Quiet; no pain or paralysis; pulse 90, very small. Erysipelas has extended down his neck beyond the wound.

18th.—Better. There is a red, hot, painful swelling at the back of the right wrist joint and hand. The erysipelas about the face is dying away, though extending from the wound over the neck and chest.

24th.—An abscess over the back of the right hand opened; erysipelas gone.

26th.—An abscess opened below the jaw on the left side.

27th.—In pain last night about the right hand and arm. Fluctuation a little above the right wrist at back; opened; not communicating with former abscess; the wound is looking very healthy, and nearly closed. There is a strong pulse to be felt in the course of the carotid; less than an inch above where it was tied. There is also a very strong impulse to be traced from below quite up into the wound. Ever since the operation the man has been much more comfortable than before it. Is very anxious to get up. There has been no hæmorrhage; the glandular enlargement has been steadily decreasing, and the face is now much less distorted. He has since the operation had as much beef-tea as he could take, fish, chop, etc.; and after the first few days six ounces of wine daily, and from time to time a little opium. The erysipelatous surface was every day painted with the tincture of the sesquichloride of iron.

December 1.—Is not so well, weaker, pulse small, varying from 98 to 116: ordered brandy, 6 oz. Pupils equal; no paralysis.

2nd, 3·30 p.m.—While being lifted up to drink sudden arterial bleeding from the wound came on; died in two or three minutes; lost not more than two or three ounces of blood.

Post-mortem Twenty-three Hours After.—The artery was completely divided, though the ligature was still hanging by a few fibres to the upper extremity of the artery. The lower end was quite patent, and not the slightest appearance of a clot could be found in the lower part of the artery, nor was there anything like the cast of a vessel found in the blood lost at the time of death. The upper part of the artery was impervious to beyond the superior thyroid artery. The ascending pharyngeal and lingual and all other branches were free and looked enlarged. There was suppuration going on within the artery nearly up to the bifurcation. It is a strange fact that this man had no arteria innominata—the carotid and sub-clavian on the right side coming off direct from the arch of the aorta.

WEST LONDON HOSPITAL.

COMPOUND FRACTURE OF THE TIBIA, AND SIMPLE FRACTURE OF THE FIBULA—REDUCTION EFFECTED BY SAWING OFF THE END OF THE TIBIA—RECOVERY WITHOUT SHORTENING.

(Under the care of Mr. TEEVAN.)

For the notes of the following case we are indebted to Mr. Alderson, House-Surgeon.

David C., aged 49, a thin, wiry, and healthy-looking drayman, was, on September 17, thrown from his dray by his horses suddenly starting. When he was brought to the Hospital, it was found that he had met with a simple fracture of the right fibula in its upper part, and a compound fracture of the right tibia about the middle. The leg was greatly bruised and swollen, being nearly twice the size of the sound one, and it was evident that in several places the skin had lost its vitality. The fracture of the tibia was very oblique, so that, even after extension, the upper fragment continued to override the lower fragment considerably. The leg was placed in lateral splints; the wound was closed with a piece of lint; and an evaporating lotion applied to the limb. As the man was a free drinker, and it was clear that there would be considerable suppuration, he was placed on a liberal diet, and ordered brandy.

September 19.—On the night of his admission he slept well, and was tolerably comfortable the next day; but had no sleep last night, and complains of considerable pain at seat of fracture. The leg is in places of a deep purple colour, and has a shining look. The patient is suffering from considerable constitutional irritation. Ordered opium at bed time, and tonic infusion with sulphate of magnesia every day. The lateral splints were replaced by sandbags, and as the wound was inflamed a poultice was applied.

24th.—The constitutional irritation has subsided; the skin round the margin of the wound has sloughed considerably; and free suppuration is taking place, as also from two fresh wounds on the upper and outer part of the calf.

29th.—The patient has regained his appetite, and now sleeps well. Mr. Teevan effected reduction to-day by sawing off about one inch of bone from the upper fragment of the tibia. The leg was placed in a MacIntyre, and a pad put over the ends of the tibia, water dressing having been first laid on.

October 6.—Leg is still very boggy in places, and pus wells out freely from all the three apertures.

10th.—Granulations are now springing up from the periosteum and bare ends of the tibia, which had been denuded to the extent of about two inches, by the sloughing of the skin.

21st.—A mass of callus envelopes the bones. The wound is rapidly filling up. Limb kept well extended.

November 28.—Wound almost closed. Union seems tolerably firm. MacIntyre splint discontinued, and a short lateral wood splint applied.

At the end of December the patient left the Hospital, with the wound quite closed. He shortly afterwards was able to walk about with the aid of a stick only; and when he presented himself at the Hospital last week (February 8) there was no apparent shortening, and he declared that his leg was just as useful and as supple as the uninjured one.

A Doctors' Strike at Totnes.—The members of the Medical Profession in Totnes have declined to be any longer connected with the Phœnix Friendly Society in the capacity of Medical attendants, on the ground that the members of the Society generally are not the class of persons who ought to avail themselves of the boon granted by the Profession to the labouring and working classes. It is expected that similar notice will be given to the other societies.—*Western Daily Mercury.*

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Medical Times and Gazette.

SATURDAY, FEBRUARY 18.

MEDICAL ERRORS.

The late terrible and fatal accident in Westminster has, very naturally, excited a great amount of public attention. Some hundreds of persons were assembled together in a school-room one evening, when suddenly part of the flooring gave way, and about an hundred and fifty men, women, and children were hurled pell-mell into the basement story beneath. Now, besides the pity and sympathy excited by such a calamity, nearly everybody is in the habit of more or less frequently attending gatherings together of different kinds in upper rooms, and nearly every one becomes, therefore, personally concerned in the trustworthiness of beams, girders, and other floor supports. We doubt not, then, that the inquiry into the cause of this accident has been very generally and carefully read. But Medical men must, we think, have perused it with special interest, and with, we venture to say, not a little amusement. We are, as a Profession, constantly taunted with the character of the evidence we give in courts of law and justice; it is confused, incorrect, theoretical, contradictory; all kinds of epithets expressive of ridicule and contempt are freely and constantly hurled at it. Well, very anxious to learn how to do better, we look out for examples that may teach us what evidence ought to be, and in the Westminster inquiry we expect to find a perfect lesson. The case is extremely simple. A beam of wood supporting a floor gives way under the superimposed weight of a crowd of people. Why did the beam break? Here are no conflicting forces to deal with, no unknown and mysterious powers and quantities, no complex combination of circumstances and influences, as there are in disease in the living body. All the elements to be dealt with here can be measured, weighed, and counted. The only laws to be considered are the laws of physics, which are well and accurately determined. Here, then, we naturally exclaim, we shall get a perfect lesson in scientific evidence. But lo! when we come to read, we find the professional evidence of the experts contradictory, theoretical, confused, and insufficient to a degree that no Medical evidence ever surpassed or equalled! Still, Medical men may, we think, learn a lesson from it, and we draw attention to it, not, as our readers may well suppose, simply to show that very bad "scientific" evidence may be given by others than Doctors, but because it seems to us the errors and fallacies of the evidence are just those to which Medical men are most prone—just those which vitiate so frequently our writings and arguments, and lead us to adopt ill-considered and really unfounded modes of practice. Let us look, then, a little at the evidence in this Westminster accident case. A beam of wood twenty feet long and a foot square, forming one of the supports of a room full of people, and which was calculated to support any amount of weight that could in the natural use of the room be put upon it, gave way; why did it break? An eminent architect gave evidence that he had examined the beam, and found that it was of American pine, while it ought to have been of Baltic timber; the contract under which the building was taken required timber of the latter kind to be employed, and a beam of such dimensions and of the right material would have borne a weight of forty tons, but American pine was utterly untrustworthy, and had broken down under a weight of less than four tons. The explanation seemed perfectly clear and simple. But the contractor and his foreman proved that the timber was actually Baltic, and not American! And then the architect having again examined the wood, confessed that he was "a little perplexed," that he was not quite sure about the matter, and that he thought the wood might really be genuine Baltic. Here, then, was an instance of hasty and imperfect observation. The architect's fact on which he based his whole theory and explanation was no fact at all; his reasoning was correct, but his premises were wrong. Is not this kind of error far too common in Medical reasoning? Do not Medical facts too often turn out to be not facts, and Medical arguments to be based on hasty and imperfect observations?

But the beam being of Baltic timber, it ought not, according to "Barlow's Tables," to have broken down under the weight it did. How did it come to contradict the standard tables? A builder and surveyor attributed its failure to the fact that the joists of the floor were morticed into it to a depth which reduced it to 12 inches by 6 in size, instead of 12 by 12. The "district surveyor" utterly repudiated this explanation. There was a stove in the room, and one authority thought that the heat of the stove had so desiccated the beam as to destroy its strength; but the "architect to the Committee of Privy Council on Education" rejected altogether this theory, as it is common enough for stoves to be used in such rooms, and the floors do not commonly give way. Both these explanations are examples of "post hoc ergo propter hoc" argument, which, we need hardly point out, is sadly too frequent with ourselves. The beam had been partly cut through for the morticing, and the accident followed; therefore, etc. The stove was there, and the accident followed, and therefore, etc.; but the morticing is common enough, the use of the stove is common enough, and the accident, happily, is not common; the cause alleged very frequently exists, the alleged result very rarely follows; so that the connection of the two as cause and effect is completely erroneous. But would it not be the easiest thing in the world to adduce examples of a similar hasty and imperfect argument from Medical writings? Or we might, perhaps, call the two last theories instances of generalisation from insufficient data; and this, again, is a most frequent error with us. A new or unusual means is tried in a few cases of disease, and recovery follows; and immediately they are published as proofs of the discovery of a new remedy. More extended experience shows the "remedy" to be utterly worthless, and, after vexing us for a longer or shorter time, it is consigned to oblivion. Everybody is but too familiar with instances of this kind.

We will not, however, any longer use the evidence given in the Westminster inquiry to "point a moral;" our purpose is only just to make it serve as an opportunity for pointing to some of the most common mistakes and shortcomings in Medical inquiries and arguments, and to direct the attention of our readers to Dr. Barclay's little work on "Medical Errors."(a) This is a reprint of Dr. Barclay's "Lumleian Lectures," delivered at the College of Physicians last year, and is well worthy of a careful perusal. It might, indeed, we venture to think, be, with but a little labour and trouble, made more generally valuable and useful, and we hope that when a new edition is called for the accomplished author will somewhat enlarge it, and will add to it a table of contents, and an index; at

(a) "Medical Errors: Fallacies Connected with the Application of the Inductive Method of Reasoning to the Science of Medicine." By A. W. Barclay, M.D. Cantab. and Edin, F.R.C.P, Physician to St. George's Hospital, etc. John Churchill and Sons. 1864.

present it has neither, and the want, we think, seriously detracts from its usefulness; but even as it is, and treating very briefly, in three hours'-time, so to speak, of a very large subject, it is a valuable and instructive work. Dr. Barclay speaks of the general "ignorance of the inductive method," of the "laws of induction," and of the "province of logic;" of "statistics and averages," of "the numerical method," "the application of statistics," the "legitimate inferences" to be drawn from them, and the common abuse of them. In treating of statistical investigations and the method of averages, he very truly, to our thinking, observes that "the fundamental error into which Medical writers are prone to fall is the idea that induction is almost synonymous with the enumeration of a large number of instances, and that any reasoning from such a collection of cases is properly called inductive reasoning." "A Medical treatise," he elsewhere remarks, "is too often estimated merely according to the number of cases, and especially successful cases, occurring in the author's practice." While the truth is that "from a very large number of cases trustworthy averages may be obtained, and that from these, under proper restrictions, correct inferences may occasionally be drawn; but that this does not give such collections of cases the character of inductions. A legitimate induction does not demand any lengthened series to prove its truthfulness, but while it assumes a certain familiarity on the part of the observer with the facts bearing on the subject, its distinctive character, as has been already explained, consists in the discovery of some law which will stand the test of experimental inquiry, and is found true for every case which comes under its operation. If the law fail in any case where the special circumstances to which it relates are present, we ought to be able to show that some higher law interfered with its operation, or else we must abandon the law, or at least hold it in suspense. This is never the case with an average; for, supposing we have ascertained that the basis of calculation is sufficiently large, and that the results are perfectly correct, we can still only say that in another series of a similar kind a like result will be obtained. It does not apply to individual instances. It is of the very nature of averages that certain circumstances are acknowledged to vary in most individuals in the series, and consequently that the majority of them are exceptions to the average result; and what is true of the whole is not absolutely true of any individual except by accident." The author also explains what is meant by a "law" and an "empirical law," and what is the value and use of each; and speaks of the employment and real worth of the deductive process of reasoning in Medicine.

This is enough to indicate the scope and aim of the book, and we only add that Dr. Barclay enforces and illustrates all that he says by telling examples drawn from Medical practice and Medical writings. The essay is, we fear, too compressed, and assumes too much previous familiarity with logic on the part of the reader to be of very wide usefulness; but perhaps these objections might be removed to a great degree if Dr. Barclay would add, in an appendix, the "canons of induction" to which he is obliged to refer his readers, and some definitions and explanations of the processes of induction and deduction.

THE WEEK.

ACUPRESSURE IN EDINBURGH.

It was some century and a-half after Paré proposed the arrestment of arterial hæmorrhages in Surgical operations by silken ligatures instead of red-hot irons, before the plan was adopted or even tried in the Hospitals of his own city of Paris. Acupressure, or the temporary metallic compression of bleeding arteries, seems destined to meet with a happier fate. In all his late operations at the Royal Infirmary of Edinburgh and at Chalmers' Hospital, Dr. Heron Watson, lecturer on Surgery, and one of the most expert and able operators in the Medical School of the northern metropolis, has employed acupressure to stem the accompanying bleeding. He has thus used it in amputation, excision of the knee-joint, extirpation of the mamma, etc.; and always, according to the reports of the eye-witnesses, with perfect facility and success, and with much greater expedition than he could have applied the ligature. Besides, the wounds themselves seem to be all healing with less irritation and more rapidity than when the ligatures and their inevitable arterial sloughs are left imbedded in the closed interiors of the wounds. Another Edinburgh Hospital Surgeon (Mr. Edwards) has used acupressure successfully last week in two cases out-of-doors—one of amputation and one of excision of the knee-joint. Professor Pirrie, and Drs. Leith and Fiddes, the Surgeons of the Aberdeen Infirmary, have, for some months past, adopted the practice with, it is stated, the most successful results, and have applied acupressure to the largest arteries opened in Surgical operations, as to the femoral artery in several cases of amputation of the thigh.

GEORGE VICTOR TOWNLEY.

The convict George Victor Townley committed suicide at the Pentonville Convict Prison on Sunday last. From what we have been able to gather, it appears that recently two letters addressed by him to his friends, in which he commented unfavourably upon the conduct of an officer of the prison, were not permitted to proceed to their destination. This seems to have annoyed him, and on Friday last he opened several veins in his arms while in bed. Having failed in his object in this way, he selected another more effectual method. He went to chapel as usual on Sunday afternoon, and, while coming out, leaped from the top of a staircase, upon which the door from the chapel opens, down to the asphalted pavement below, a distance of twenty-three and a-half feet. This was at five o'clock. Mr. Bradley, the Surgeon of the prison, was sent for, who found him unconscious, with symptoms of fracture of the base of the skull and of the left knee-joint. He died about eight o'clock the same evening. A post-mortem examination has been made. The skull was found badly fractured both over the frontal region and at the base, and the bones of the left knee-joint smashed. There was also some laceration of the brain at the base. With the exception of the lesions resulting from the fall, the organs of the body were found perfectly healthy, and there were no abnormal conditions either of the brain or its membranes, or of the bones of the cranium.

The tendency in the public mind to regard all suicides as the result of mental unsoundness is, doubtless, natural and charitable; but in such a case as this, which, a year ago, gave rise to much difference of opinion, it will be incumbent upon those whose business it will be to inquire into the cause of death, to sift with more than usual carefulness any evidence adduced in favour of Townley's insanity during the period of his residence at Pentonville, and prior to the fatal act.

COTTAGES IN CAMBRIDGESHIRE.

The following letter, which appeared in a late number of the *Times*, is additional evidence of the wretched sanitary condition of some agricultural districts, and of the passive resistance which the stolidity and short-sighted parsimony of small rural proprietors and parochial authorities oppose to any reforms which demand outlay:—

"Sir,—Mr. Clarke, the sanitary inspector, whose letter appears in the *Times* of the 7th inst., need not consider himself singular in the grievance he complained of, as there is a case here almost exactly similar to his. In June last I took a house in this parish, which contains about 185 inhabitants, and as I hold the curacy of it I soon became acquainted with the wants and sicknesses of the people. For the last two or three years there has been much illness in the place, chiefly diphtheria and malignant sore throat. Between June and October there were thirteen cases of the former, three of which proved fatal. Being anxious to get at the cause of this fearful disease in a parish which was formerly very healthy, I found on personal investigation that by far the

greater number of cottages had no privy accommodation whatever; and that in consequence small holes were dug in the ground, in some instances quite close to the doors of the cottages, into which everything in the shape of nightsoil and refuse was thrown, there to accumulate until considered sufficiently fermented to be laid over their different gardens.

"There is standing now in this parish a lot of thirteen cottages, many of which, from their dilapidated state, are wholly unfit for human habitation. To these there are only two privies pertaining. This fact speaks for itself. In order to get this state of things remedied, I wrote to complain of the danger to health caused thereby to the Board of Guardians of this district, upon which the parish Doctor was sent to make an investigation, and I accompanied him. This was thoroughly done, and the report sent in. One or two official warnings were then sent to the landlords, who, except in one instance, have done nothing. Finding no improvement, I wrote again to the Board of Guardians as well as to the magistrates' clerk. Official papers were then again circulated, and the matter dropped as before, while sickness goes on increasing.

"Will any of your readers, then, as nothing seems intended to be done, kindly tell me what steps ought to be taken in so disgusting a state of things, as it seems only through your powerful columns that those whose duty it is to remedy such evils can be induced to do so?

"I remain, Sir, yours obediently,

"Feb. 9." "W. J. Tillbrook, Curate of Newton.

THE METROPOLITAN SEWAGE.

Probably the most important work that Parliament will achieve this Session will be a thorough ventilation of the sewage question. The high hand with which the Metropolitan Board of Works have carried the matter, and the coolness with which they have sold the ratepayers of London to Messrs. Hope and Napier, has, at all events, had the effect of rousing a considerable spirit of resistance. The only fear we have is that the whole thing may be made a party question, and that the real scientific and economic character of the issue may be merged in the disputes of angry boards and rival engineers. Our readers will scarcely need reminding of the condition in which the question stands. The scheme of Messrs. Napier and Hope adopted by the Board of Works proposes to carry the whole sewage of the north of London to the sea coast of Essex, where it is to be expended in converting into grass land a large area of sands which is to be reclaimed from the sea, and to be defended from incursions of the watery element by the erection, at an enormous expense, of a huge sea-wall. This scheme is opposed by the Corporation of London and by Lord R. Montague, on the following grounds:—That the area over which the sewage is to be expended is vastly too small for its remunerative utilisation; that instead of its being poured by gravitation from an open culvert over an area of 20,000 or 40,000 acres, it should be distributed by pumps and hose over 500,000 or 600,000 acres. That such experiments as that at Rugby, by Mr. Lawes, prove that when liquid sewage is poured over a small area, instead of fertilising, it converts the land into a mere swamp. That the real value of the sewage of London has been entirely under-estimated by Messrs. Napier and Hope, but that, to obtain its value, it should not be expended on grass, but on arable land. These views are supported by the opinion of Baron Liebig, and it is to his conclusions, as embodied in the recent report of the Corn, Coal, and Finance Committee, that we now call attention.

"The Committee find that Baron Liebig's analysis of the various fertilising matters found in sewage and in Peruvian guano have led him to the conclusion that in 828 tons of the London sewage, taking its total annual amount at 266,000,000 tons, there is as much ammonia as in one ton of Peruvian guano; and estimating the value of the ammonia, phosphoric acid, and potash found in a ton of guano to be worth £7 14s., he is of opinion that the fertilising matter contained in one ton of sewage is worth 1·84d., and the annual amount of the metropolitan sewage is worth £2,049,715. He, however, further states,—'If the ammonia be reckoned at the price that the farmer pays at present for it in Peruvian guano, the ton of sewer water would be worth something more than the double of that price.' This would give £4,081,430 as the annual value of the metropolitan sewage—a sum somewhat larger than that arrived at by the Committee, basing this estimate on the analysis of Messrs. Hofmann and Witt and the present retail price of Peruvian guano, which price must necessarily rule that of every other manure. The Committee further find that Baron Liebig points attention to the power of soils to abstract from sewage the fertilising matters therein contained, but that of all soils pure sand possesses this power in the smallest degree; and with reference to the dilution of the sewage he states:—'A series of experiments with artificial sewer water proved that a dilution with water as great as that of the sewage of the metropolis in no wise diminishes the absorbing effect of the soil. I found, moreover, last summer, by experiments regarding the growth of plants, that a soil completely saturated with manuring matter did not, as might be supposed, further the development of the plants' growth, for to many, on the contrary, it was prejudicial.' The Committee also find that Baron Liebig conclusively proves the fitness of sewage as a manure suitable for arable land and general farming purposes, and emphatically points attention to the error of continually applying one description of manure to the land. He states:—'No one will ever think of supplying the full effect of farmyard dung by the employment of phosphates or guano; nor is it to be done either by the use of sewage. The chief value of sewage lies in this, that by its application the effects of phosphates, guano, and stable dung are made sure and lasting, and the crops raised to that maximum which the soil can produce, because, by means of sewer-water, those elements are given which are wanting in those other manures, or are present in them in but small quantities.' Baron Liebig, however, shows, by a comparison between the constituents of sewage and those required for the proper nourishment of grass, that although it will undoubtedly benefit that crop, yet that it is less suitable for it than for any other to which it could be applied, and will yield a much less profitable return, and that whereas the fertilising matter contained in a ton of the London sewage, if applied 'to arable land' would be worth 1·84d., taking guano sold at £7 14s. per ton as the standard of value, it would only be worth 2·8 farthings if used for grass, that being, as Baron Liebig states, 'three-eighths of that which I have computed its absolute value to be. The reason of this difference is that sewage water contains an excess of ammonia and phosphoric acid, which is without effect on the growth of grass, and for this reason is not paid for.' And further on, speaking of the application of sewage to the same crop, he states, 'In all localities which by nature are adapted for the employment of sewage, its use is unquestionably an advantage. But if a large capital be required, in order first to adapt the ground for this purpose, the speculation would hardly profit anything, even though he obtained the sewage for ¼d. a ton.' But, with reference to its peculiar fitness for general farming purposes, he observes, 'The full value of sewage, and of its separate constituents, can only be got out of it when it is employed on arable land. While, in the case of a meadow, the whole of that which has been taken from it in the harvest must be replaced in order to make the yield constant, it is sufficient in the system of farmyard manuring to give the farmyard manure those ingredients in addition which were taken from the ground in the preceding harvest in the seeds and meat sold. The component parts of the straw remain on the farm, and, therefore, need nothing to replace them. By means of Peruvian guano and phosphates, the farmer replaces only a portion of these constituents. By means of sewage, on the contrary, he is fully enabled, with the proper addition of phosphates, to restore all of them to his field, and to increase those particular ones which the field most wants, for giving higher and more constant crops. Sewage, as a never-failing source of ammonia, will prove to him of the greatest value when the supply of Peruvian guano is at an end.' Turning from the examination of the admirable report of Baron Liebig to the scheme of the Messrs. Hope and Napier, the committee find that they not only propose to apply the sewage in enormous and wasteful quantities to grass exclusively, for which crop, in their opinion, it is alone suitable, but that, as their plan is one of gravitation from first to last, the manure being applied by flooding the land from open gutters, it would be impossible by their plan to use it on arable land and for general farming purposes, as for such it must of necessity be applied by the hose and jet, which system those gentlemen entirely repudiate and hold up to ridicule."

*

PARLIAMENTARY.

On Thursday, February 9, in the House of Commons, Lord R. Montagu obtained leave to bring in a bill to amend and better to administer the laws for the protection of waters in rivers and streams in England; and a bill for facilitating the more useful application of town sewage in Great Britain and Ireland.

On Friday, February 10, Mr. Scully obtained leave to bring in a bill to amend the law of evidence in criminal cases.

On Monday, February 13, in the House of Lords, Lord Houghton moved for a return of the number of unions and parishes that have availed themselves of the new Act for the relief of the casual poor of the metropolis, and of the expenditure under the Act.

Lord Fortescue thought the relief of these classes of vagrants should be in the hands of the police. The system adopted had not worked well.

Lord Longford attributed the increase of the vagrant poor to the numerous evictions enforced by railway companies under the authority of the Legislature.

The motion was agreed to.

In the House of Commons, Viscount Enfield asked the hon. Member for Bath, as a member of the Metropolitan Board of Works, what progress had been made in the main drainage of the metropolitan district, and when the same would probably be completed.

Mr. Tite said that on the Surrey side the drainage works, with some slight exceptions at Putney and Crosness, were entirely completed. On the Middlesex side the high-level and middle-level sewers were finished, and were in complete operation, and carrying out the intentions of those who devised them. The only work remaining to be performed was the construction of the sewer under the Thames Embankment. A considerable length of that sewer had been completed, and upon their last inspection the Metropolitan Board passed through 300 or 400 feet of it. As to the exact time at which the works would be finished, the engineer stated in a report, dated February 2, that the works, both on the north and south side, would, with the exception of the low-level sewer, come into operation by March 29 next, but that the low-level sewer might probably not come into operation for a couple of years. The construction of the sewers was commenced in the year 1859, and they would cost about four millions of money.

Sir G. Grey moved for leave to introduce a Bill to consolidate and amend the law relating to prisons. He had bestowed, he said, much consideration upon this subject during the recess, and this Bill was the result of that consideration. It proposed to consolidate as well as to amend the existing law as regarded the construction of prisons, the appointment of prison officers, and the treatment of prisoners. He gave a general outline of the provisions of the Bill, especially as to the last-mentioned head—prison discipline, the definition of hard labour, an improved code of prison rules, the dietary of prisoners, and other points—observing that the details would be better understood when the Bill was printed. He proposed that it should be referred to a Select Committee.

After a short discussion, in which Sir F. Goldsmid, Mr. Norris, Mr. Walter, Sir B. Leighton, Mr. Neate, Mr. Adderley, and other members, took part, leave was given to bring in the Bill.

In the House of Commons on Tuesday, February 14,

Mr. R. Long asked the President of the Poor-law Board whether he proposed to re-appoint the Select Committee on the Poor Laws, with a view of further inquiry into the position and the grievances of Medical officers of Poor-law Unions.

Mr. Villiers replied in the negative. The Committee had before it the evidence taken in the course of two previous inquiries in that House, and came to the conclusion not to take further evidence.

It is clear that the Profession must exert the large amount of moral force they can unquestionably wield at the coming general election if the position of the union Medical officers is not to remain a disgrace to a civilised and wealthy nation. It is useless to expect anything from the present Parliament; but let it once be known that no candidate for borough or county, whatever be his politics, will receive the personal or collateral support of the local Medical Practitioners without a distinct pledge that the grievances of the union Medical officers shall receive at his hands the attention they demand, and that he will do his best to remedy them—and there will not only be a hope, but a certainty, that an active measure of reform will be carried by the next Parliament.

Mr. Vansittart asked the Secretary of State for India whether anything had been done to improve the sanitary state of Calcutta; if so, whether he had any objection to produce papers relating to the same; and whether it had been determined to relieve the European troops serving in India by the overland route; if so, whether any and what arrangements had been made for their transmission.

Sir C. Wood said, in reply to the first question, that a sanitary commission had been some time ago appointed, and that they had made a report on the subject to the Government of India. He, however, had as yet received no account of what had been done in consequence of that report. It was, he might add, the intention of the Government to send out the troops to India overland.

FROM ABROAD.—A HORSE-FLESH BANQUET—DISTRIBUTION OF PRIZES AT THE ACADÉMIE DES SCIENCES.

The grand "hippophagic banquet" has just been celebrated with great *éclât* at the Grand Hotel, Paris, under the patronage of the French Humane and Acclimatisation Societies. M. Quatrefages occupied the chair, and there were 130 guests present, a good 30 of these being members of the Medical Profession. In the face of the continued increase of the price of butchers' meat at Paris, these efforts of philanthropists to bring another variety of animal food within the scope of the poor man's purse are highly laudable. Of course, at this celebrated hotel all the resources of the culinary art could be drawn upon, and if palatable food could not be there produced from the material in question, it would be a hopeless task to seek to procure a general acceptance of horse-flesh as an article of diet by those whose means of preparing it are so limited. A chief point to be ascertained was the kind of soup it is capable of producing, this being an indispensable, and, indeed, the main, article in the dietary of the French lower classes. This was pronounced to be good; but M. Latour, who has, by perseverance, advanced himself to the position of a critical, and almost an epicurean, hippophagist, declares that he has tasted much better soup when this has been prepared for a smaller number of persons, and especially at snug little horse-flesh parties which he is in the habit of entertaining at his own house. The late M. Renault, indeed, at the celebrated Alfort dinner, made his guests the vehicle of exact experimentising, having soups prepared from horse and ox, in a manner precisely similar, placed before them in such a manner that they were not aware of which they had partaken until they had delivered their verdict. The horse won by a whole neck! At this banquet, where the cook had more scope, he evinced his power by producing boiled horse and cabbage and horse *à la mode*, which were pronounced perfect, and absolutely undistinguishable from beef similarly treated. But it seems that the more elaborate dishes, as the *hachis de cheval à la ménagère*, the *filet de cheval roti*, and the *paté de foie de cheval*, did not give the same amount of satisfaction as the simpler viands, possibly because the appetites of these hardy investigators had become by this time rather blunted. This is of little consequence, as these are not likely to be sought for by the poor, who, notwithstanding the eulogiums passed on the new food, will constitute the only hippophagists after the fashion has passed away. The banquet, upon the whole, was pronounced a splendid success, and the prefét of police has authorised the sale of horse-flesh, subject to the sanitary regulations which prevail in France with regard to the vending of flesh-food, and of which we stand so much in need in this country.

The Academy of Sciences made last week its annual distribution of prizes, and we may notice those of them which relate to Medicine. First, then, Prizes in Experimental Physiology have been awarded to three candidates—one of 1000 francs to M. Balbiani for his "Researches on the Constitution of the Germ prior to Fecundation;" a similar amount to M. Gerbe for his observations on the "Reproduc-

tion of the Colpodea;" and 500 francs to M. Sappey for his "Researches on the Structure of the Ovary, and especially the Seat and Number of the Ovules." An "honourable mention" is also decreed to M. Knoch, of St. Petersburg, for his researches on the *Bothriocephalus latus*, awaiting the completion of these. A prize would also have been certainly accorded to M. Leon Dufour for his great work on the "Anatomy of the Lepidoptera" had not the researches on which it is founded been already rewarded. This beautiful monograph will, however, be published in the *Memoires des Savants Etrangères* of the Academy. The Committee, with M. Claude Bernard as their reporter, preface the account of their award of the Montyon Prizes in Medicine and Surgery with the following remarks:—

"The Committee for these prizes receives and examines each year a large number of works and memoirs. Besides the services which these annual *concours* render to the progress of Medical science in stimulating by recompenses the zeal of labourers, they impart to the Committee itself a special interest and a species of instruction. It will, in fact, be understood that the choice of questions and subjects of the works transmitted each year to this *concours* being left free and spontaneous, the nature of these works themselves and the mode in which they treat of their subjects may, to a certain point, indicate the actual direction of Medical science and reflect its tendencies. Now, it is easy to perceive that the various portions of Medical science—physiology, pathology, and therapeutics—more isolated and separated in their origin, tend, in proportion as they augment and become developed, to come into closer approximation, so as to furnish mutual support in a common scientific conception. At the present time, more than at any other epoch, most of the pathological questions in human Medicine are treated by the light derived from comparative pathology and experiments made upon animals. The great majority of the works which the Committee is called upon to recompense this year present, in fact, this character; and the Committee congratulates itself upon this, as it is solely by means of analytical and experimental investigations that Medicine, the most difficult and complex of all the sciences, will become gradually extricated from the domain of empiricism, and brought within that of the experimental method which is the sole way common to all the Physical and Natural Sciences."

Three prizes, each of 2500 francs, are adjudged this year to M. Zenker for his investigations on Trichiniasis, to M. Marey for his work on the Medical Physiology of the Circulation, and to MM. Martin and Collineau for their memoir on Coxalgia. Additional recognitions, accompanied with 1000 francs each, are awarded to M. Ollivier for his Experimental and Clinical Researches on Saturnine Albuminuria, to M. Lemaitre for his on Atropine and Daturine, to M. Willemin for his experiments upon the Cutaneous Absorption of Water in Baths, to M. Lancereaux for his Anatomo-pathological Researches on Cerebral Thrombosis and Emboli, to M. Faure for his Experimental Researches on Fibrinous Coagula of the Heart, and to M. Grimaud for his works on Applied Hygiene. Other works deemed calling for simple honourable mention without recompense are M. Petrequin's memoir on the Treatment of Aneurism by Galvano-puncture, M. Abeille's treatise on Albuminuria and Glucosuria, M. Delioux's treatise on Dysentery, M. Courty's memoir on Organic Substitutions, M. Foley's memoir on Compressed Air, M. Millet's treatise on Laryngeal Diphtheritis, M. Jacquart's memoir on the value of the "Epactal Bone" as a character of race, and M. Schnepf's work on the Climate of Egypt. The Academy Prize of Medicine of 5000 francs is adjudged to M. Roussell for his History of Pelagra, a supplementary prize of 2000 francs being accorded to M. Cortallat for his work on the same subject.

While upon the subject of Academical prizes we may notice an action brought by M. Guillon against the Academy of Medicine in consequence of two of their awards. The Marquis d'Argenteuil instituted a valuable prize to be awarded every six years to the author of the greatest improvement in treating stricture of the urethra. In 1850, when M. Guillon was a candidate, M. Gerdy, the reporter, declared that the committee had not had time enough to sufficiently try the new procedures of M. Guillon. Again, in 1856, M. Langier, the then reporter, declared that no procedures or instruments which had been presented to the notice of preceding *concours* could compete. It is against these, what he considered contradictory decisions, that M. Guillon appealed. Moreover, he had another action in the matter of the Barbier Prize, the object of which is to recompense those who discover the means of curing a disease reputed incurable. M. Guillon was prevented submitting his claim for this prize by the decision that internal diseases, not Surgical affections, were contemplated by the testator. The Tribunal decided against M. Guillon with respect to both prizes, declaring that learned bodies should be allowed the free appreciation of the conditions necessary for a *concours*.

REPORT ON CHEAP WINE.—NO. XII.

(By our Special Empirical Commissioner.)

(Continued from page 151.)

Austrian Voeslauer Wine, Red and White—Mead or Metheglin —A Digression on Housewifery.

I was unwilling to put my notice of Mr. Schlumberger's very excellent Voeslau wines at the end of my last report, since they fully deserve a more prominent place. They also, as I believe, furnish an answer to a question which is sometimes put to me. It is all very well, it is said, to bring these cheap wines into notice, but the moment a public demand arises for them they will cease to be cheap, for the demand will be greater than the supply, and then prices will rise. Or else adulterations and dilutions will be perpetrated which will disgust the consumer, and so the public will be worse off than ever. To which it is replied, that even supposing the vineyards of France, and Greece, and Hungary were to fail—stimulated as their proprietors would be by the diffusion of greater taste and knowledge amongst the English—there is every probability that the Austrian vineyards at Voeslau would supply the deficiency. They belong to Mr. R. Schlumberger, who was one of the jurors of the International Exhibition, 1862, in London, and who is said to have devoted his life to the introduction of the best vines, the best vine culture, and wine making into his vineyards. Large quantities of these wines are said to be exported to Italy, the Danubian Principalities, Russia, etc., and it is my belief that they will meet with a steady sale in England so soon as they are sufficiently known. I am told that large quantities were taken in the Austrian frigate *Novara* in her cruise round the world, and that, after two and a half years in a great variety of climates, that part of it which was brought home was found greatly improved in flavour.

Of these wines, some are still, some sparkling. The subject of sparkling wines, and their use in medicine and diet, is serious enough to deserve a special article; and, as they do not come under the category of cheap wines, I must pass them by with the remark that the samples of Sparkling Voeslauer which I have tasted, and which range from 46s. to 64s. per dozen, will hold their own against any of the liquids called "champagne," of equal price; and that a man who does not want to give an extravagant price for "champagne," and who does desire the juice of the grape, and not of the rhubarb or gooseberry, will be well suited by Sparkling Voeslauer. It is really ridiculous to throw away money on a worthless liquid because it is called "Champagne," whilst a genuine wine may be had at less cost. The only way to check the fabricators of "champagne" will be to bring some other sparkling wines into vogue.

The Still Voeslauer wines are red and white; there is no complexity about them, and there are only three or four sorts of each.

The *Red Voeslauer*, the lowest quality, costs £15 per hogshead, in bond, or about 14s. 6d. per dozen, duty paid, but exclusive of bottles and bottling charges. It is 24s. per

dozen retail; but I need not repeat that the man who buys in *quantity* may save 25 per cent. It is a good stout, full-bodied, serviceable, and, I believe, economical wine, as its stoutness renders it more satisfying than most Bordeaux of equal price. There is no complaint of thinness, sourness, coldness, or poverty; it is a good sound wine, with just roughness enough to be clean.

The *Voeslauer Goldeck*, at £25 in bond, or 30s. per dozen retail, is a smoother, finer wine; whilst the *Goldeck Cabinet*, at £31 per hogshead in bond, or 27s. 10d. per dozen, minus bottles, or 42s. retail, is a much smoother, softer, more finished wine, which would be pronounced a "Burgundy," and would suit any roast meat at dinner, or might be sipped as an "after-dinner" wine.

What I have said of the red applies *mutatis mutandis* to the white. The *White Voeslauer* at 30s. is a good clean amber wine; very sound, not likely to offend John Bull by its acidity, and fit to appear at any dinner with fish and *entrées*, or at any evening party for young people *vice* Hambro' sherry, or at the family dinner in hot weather of economical persons, who think it bad economy to deny themselves the means of healthy nutrition. The white *Voeslauer Goldeck* at 36s. is a better wine, and the *Steinberg Cabinet* at 42s. fuller flavoured. Of course, large purchasers have the advantage of lower prices. The lower qualities possess *grapiness* (without too mueh perfume, without the muskiness of some light wines, which though agreeable in its place is not liked by every one at all times) with some vinosity; and some samples I have tasted of the higher kinds have a true Burgundiacal aroma. They would be ranked with Chablis, but are fuller. The agent for these wines is Mr. F. Andres, of 12, Mark-lane. I take the liberty of looking upon the occupations of human beings from a higher point of view than that of mere £ s. d. The man who makes two blades of corn grow where one grew before, or who introduees a new food or luxury, enlarges the field for the operation of the human mind, and helps forward the designs of Providence. If Mr. Schlumberger be ready to send us, as I am told, 1000 hogsheads of wine, let us think of him as a public benefactor, for it is quite as much to our interest to get good wine as it is that of the growers to sell it.

In the next place let me say a few words on that ancient liquor called *Meade*, *Meth*, or *Metheglin*. I do not want my readers to drink it, but some account of it may be a contribution to that part of anthropology which consists in the history of fermented liquors.

An American once asked me if the English knew a drink called *cider!* thinking it was peculiar to America! (He sent me, by the way, a cask of superb cider from New York, whieh, after a long voyage, turned out particularly well). Just so do I notice that Bence Jones's translation of Mulder's "Chemistry of Wine" says that "Honey wine or mead is prepared in Poland, Galicia, and some other parts (!!) from honey-water and ferment." Gracious heavens! is it come to this, that the drink of our Anglo-Saxon fathers, and of their British predecessors, which warmed them in fight and feast, and which they hoped to drink for ever in Hades out of their enemies' skulls;—the true wine of the English yeoman, shall be talked of as if it were peculiar to Poland, Galicia, and "some other parts" !!

Mead is one of the oldest drinks in the world. It forms one variety of the liquids classed together as *sicera* in the Vulgate, σἰκερα in the LXX. and Greek Testament, and under the name "strong drink" in the English Version. The Nazarites were forbidden to drink wine and "strong drink." Wine stands out by itself as the noblest of fermented liquors, as the highest gift of the kind to man, and as the type or symbol of the Divinest Influenees that ean be veiled under the Sacramental Elements. The "strong drink" or *sicera*, whence our word *sycer*, or *cider*, included every fermented liquor except grape-juice; such as palm wine, beer, cider, fruit wine, and mead.

Good mead is a liquid of very variable sweetness, according to the quantity of unfermented honey whieh may remain in it; if nicely made it is nearly dry, *i.e.*, not sweet. By age it aequires a remarkably luscious perfume, like that of Tokay. I have examined many specimens, *ex. gra.*:—

1. Mead sent me twenty years ago by a Medical friend in Hampshire. Most likely from having been boiled in an iron pot, it is so strongly impregnated with that metal that it has quite a chalybeate taste, and is undrinkable except to taste as a euriosity. Bottle after bottle has gone, as I have given it to some policeman or other person of West Saxon descent, who forgives the iron for the sake of the liquor. Carelessly corked, standing upright in my eellar for years, it is nearly dry, quite free from aeidity, sound as possible, and has alcoholic strength 20·5.

2. A specimen about five years old, vilely made, full of unfermented honey, also standing upright in a earelessly-corked bottle; very sweet; sp. gr. 1080; alcoholic strength 18.

3. A specimen from a Medical friend in Hampshire, made last year; sp. gr. 1020; alcoholic strength about 20; bright, clean, well fermented; strong tasting.

4. From a cottage on Poole Heath, made 1864; bad condition, actively fermenting, aeid, sweet and heady; sp. gr. 1050; alcoholic strength 23.

5. From a cottage in Holt forest, Dorsetshire, of 1864; clear and pleasant, not quite well fermented; sp. gr. 1027; alcoholic strength 24.

6. From a cottage on a heath near Cranborne, Dorsetshire; very clear, well fermented, and pleasant; too sweet for my palate, yet perfect as a specimen of a sweet fermented liquor, and very fragrant; sp. gr. 1050; alcoholic strength 22.

7. A magnificent specimen from an eminent tradesman at Christchurch, Hants, made in 1814, and consequently more than fifty years old; sp. gr. 1080; alcoholic strength 16. Marvellously soft, full flavoured, and fragrant; a little drop perfumes a glass so that it is diffieult to wash off.

Why, it may be asked, do I occupy your readers' time by deseanting on these barbarous liquors? Because they tell us two things.

In the first plaee, they set aside the notion that any large quantity of alcohol is necessary for the maintenance, or preservation, or development of a fermented liquor. When we think of these specimens of mead that have been literally lying about, without any eare, for periods varying from one to fifty years, and yet in perfect preservation;—and when I add to them two samples of *elder wine* which I received from the same gentleman that gave me the fifty-year old mead, one made in the year 1815 and one in 1818, each of low alcoholic strength, and yet perfectly preserved and marvellously nice, considering what they are—not to speak of cider from Ameriea tossing about for weeks in all weathers—when I add to these a specimen of Oxford ale that has been in my cellar for years, upright in bottle, alcoholie strength 19, we may well demand from the wine growers of Portugal, Spain, Sicily, and the Cape, that if they are to eontinue to supply the English market, they shall do upon scientific principles what the poor West Saxon peasants do by rule of thumb. Grape juice is but honey, and ferment, and water in a different shape; and what can be done with the one ought to be possible with the other. We ought to have firm and stable wines of the eountries above named, without the addition of brandy.

Secondly, it is worth while for the Medical philosopher to glance at the habits of a people, and at their luxuries, as evidences of their moral and social position. The cottager who ean brew a small stock of mead, and keep it for feast days, or friendly gatherings, cannot be very low in the scale of humanity. He has evidently a little surplus, a little fore-thought, and some notion of those snatches of rest and enjoyment which distinguish the labouring man from the slave or beast. But I suspect that the custom of making mead is, like other branches of housewifery, dying out amongst the West Saxon peasantry. When I was a boy, brought up in a part of the ancient Wessex, a drop of mead was offered on ealling at a better elass cottage. Now, it was with the utmost diffieulty that the messengers who were good enough to undertake the task, and who trudged long distances over a eountry less visited than usual by change, could collect a few driblets of the liquor. Bees are more scarce; cottagers, if they keep them, sell their honey, and buy beer; but in all these matters *housewifery*, or the cost of keeping house comfortably, is dying out. Homemade and homespun are displaced by manufactures (or machino-faetures) and shoddy. Formerly, *baker's* bread and *brewer's* beer were despised as unworthy to be set by the side of home made—*butcher's* meat, too, was distinguished, but as a thing of superior class from common meat, *i.e.*, pig meat—but the progress of events makes our whole population less housewifely, and more dependent on the shop. On this point Cobbett's "Cottage Eeonomy" deserves to be attentively studied. Young cottage girls had better brew or bake than do crochet. Cobbett says, with more than his usual elegance, "Give me, for a beautiful sight, a neat and smart woman heating her oven and setting in her bread! And if the bustle

does make the sign of labour glisten on her brow, where is the man that would not kiss that off rather than lick the plaster from the cheeks of a duchess?" We, as Medical men, may ask whether the woman who is accustomed to bake and brew, and who has a bottle or two of this fragrant honey wine to set before a guest, is not more likely to be self-dependent, able to nurse the sick, rear a family, and pay a humble Doctor's bill, than the woman who gets her cordials from the publican and her food from the shop, and who, when ill, goes straightway as a pauper to the parish or dispensary?

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BATH.

The history of Bath is essentially Medical. It is based on the fame of the waters, around which the city has been built—their fame as remedies for mortal evils great and small. Whoever, therefore, would know Bath must know well all about its waters, why they were first rendered famous, why they are still famous, and on what their fame depends.

Connected with the discovery of the baths of Bath, legend, hard history, and harder science have many words to say. Legend travels through the air like a swift bird of fine plumage that now is here dazzling the eye with its simple beauty, and anon is gone cleaving its way in the invisible and leaving no track behind. History comes to us from and over the surface of the earth, toiling and toiling in packets and parcels, each labelled "with care," and filled too often, when opened, with broken bricks, singularly carved stone, or ancient pottery, not of much practical use in these days to any except the artist in clay, who is, and seems always to have been, busy at his wheel. Science, harder still, ascends to us from the waters under the earth, speculates as to the depth from which the currents rise, imagines gigantic subterrestrial furnaces, of which the mind can scarcely form a conception, in which the fluid is heated, and having taken the water as it flows out of earth, tears it to pieces and calculates its constituent parts.

All these phases in the history of the Bath waters have their interest, but the legendary is by far the most fascinating, haply because it is most imaginative; for we creatures of imagination love alway the wonderful beyond the actual, cling to it more closely in our heart of hearts, and build on it aspirations which cheer us when all else fails. Disbelieving, we are willing to believe, and laying down legend as unreliable, place it still within arm's length, and feel we would not like to lose it when the worst that may be said against it is said.

With regard to the legend—I may say the Medical legend of the Bath waters, for it is all connected with healing—there are many grim historians who dub it unreasonable, but who still, twisting according to their tastes, tell it reluctantly and with many apologies. I tell it neither reluctantly nor with apology; the legend is to my mind an exquisite little story, in which true and noble character is pourtrayed so simply, and a directing influence towards ultimate good is depicted so clearly that, whether fact or fiction prevail, I would not lose the narrative on any pretence, nor hesitate to record it in turn, according to my interpretation of it, as best I can, and in all its simplicity.

THE LEGEND HISTORY OF THE BATH WATERS.

To begin with the beginning, the reader must go back a long, long way in the marvellous past. He must stop only a century or two short of the siege of Troy, must imagine the Trojans still a race, but dispersed and conquered as the Poles are now, and must, for the moment, transport himself to Italy, then a young and rude country. The start will now be fair and the journey pleasant.

At the time named, then, there resided in Italy many fugitives—representatives of dismantled Troy,—and among them one Ascanius, a direct and immediate descendant of Eneas himself. The daughter of Ascanius married one Sylvius, and in due time was presumed to have conceived. Grandfather Ascanius, very proud of his origin, and anxious for an ancestral line in continuance, wished to know at once whether a male or female child was to come, and what was to be the fate of the expected stranger. To determine this point, therefore, he called together all his magicians, and bade them answer his inquiries. The magicians consulted and decided. They told their master the child to be born would be a boy, but, sad forecast! they added, he would cause the deaths both of his mother and father, would then suffer many troubles, but would ultimately become extremely wise and powerful, attain great glory, and be the founder of a new kingdom. Time went on, and a boy was born, but, in giving him birth, his mother died, and the first part of the prediction was thus fulfilled. The boy, placed in the care of a nurse, was named Brutus; he grew up a fine boy, and beloved. When he was fifteen he went out to the forest one day to hunt, and, in discharging a shaft, accidentally shot his father Sylvius, who died on the field. Thus the second part of the prediction came to pass.

The accident made known, poor Brutus, by virtue of the inexorable laws then in force, was expelled the Italian land as a parricide. He fled into Greece, and there, never resting, set himself vigorously to work in order to release the posterity of fair Helen from slavery. He raised an insurrection, fought Pandrasus, the King of Greece, on his own soil, beat him, made him captive, and took his daughter Imogen to wife. Brutus, however, was not a tyrant, and had no ambition to reign over Greeks; and so, after making Pandrasus liberate, with many presents, all the Trojan captives, he restored the crown to the defeated King, and with his wife and followers, entered on board a large ship, and set sail on adventure. After sailing three days and three nights, the adventurers came to anchor at an island called Laogecia, where Gerion, the first minister of Brutus, landed with a few men to make exploration. Gerion returned to report that not a living soul was to be found on the island, but that there existed upon it, in solemn and magnificent silence, a temple, with an oracle, dedicated to Diana. So soon as he heard this news, Brutus alone left his ship, and, proceeding to the temple, invoked the goddess to tell him his fate. Quickly, as he reclined on the green sward, sleep crept over him; and in a dream the oracular voice, in softest music, told him that if he proceeded beyond Gaul he would find in the Western Ocean a new land—an island rich in beauty and fertility—an island on which he would build a second Troy, and establish an empire the domain of which would know no limit, which time should never destroy, nor space confine.

On the following day Brutus and his followers re-started on their voyage; they passed the pillars of Hercules, and after a long journey landed in Aquitaine. There the King of the country—one Goffar or Goffarius—tried to make prisoners of the Trojan band, but the design failed; a battle occurred near to what is now called Tours, and Goffar was overthrown. Again Brutus and his band embarked, and making onward in their destined course came to Albion, where they landed at Totnes.

Wandering in the Island the exiles explored the banks of the Thames, and finding a favourable spot they rested and built a city which they named New Troy, and Brutus was made King. Over his kingdom thus founded Brutus reigned twenty-four years, and then full of days and honour died; so the last part of his horoscope was also fulfilled.

The King at his death left three sons all born to him by Imogen, the daughter of the Royal Greek Pandrasus; the sons were named respectively Locrin, Albanact, and Cawder. Locrin, the eldest, succeeded to the throne and reigned ten years; he was followed by his son, and from him a line of seven kings in direct succession. The eighth King of the line was named Liel, and was of great power; it is assumed that he was a contemporary of Solomon the Wise, and that while the hammers were ringing on the great temple of the Jews, Liel was the chief monarch in the White Island of the Western sea. Liel dying left his crown to Hudibras, his son, also a mighty potentate, very much loved for his virtues and feared for his justice. It was in this reign the curative qualities of the waters of Bath were discovered.

King Hudibras had one son, the Prince Bladud, who, young, handsome, generous, and just, was naturally the pride and pet of the court, and was very happy. While he was still a

youth, there came, with her retinue, on a visit to King Hudibras, from the court of the King of Aquitaine, a beautiful damsel, the Princess Tassel-Wassel. It was but for the Prince Bladud and the Princess Tassel-Wassel to meet to be enamoured of each other; and everybody said how fortunate their highnesses were, and what a glorious match theirs would be. Did everybody say so? No; unfortunately, that is not quite true. There was one man in the train of the Princess who did not think so, if he said so; for he, too, loved the Princess, and had reason to hope to win her. A noble by birth, this man had much influence, and he used it effectually. To oppose Prince Bladud directly were impossible, so he 'bided his time, and did nothing but watch and wait. At length he one day discovered that poor Prince Bladud had a spot of leprosy on his skin; and now it was time to act promptly. In those days the very name of leper was held in abhorrence; the leper was cast out of society as venomous, and his own friends forsook him. As quickly, therefore, as the rumour was set afloat that Prince Bladud was a leper the courtiers, one and all, claimed that his rank should in no way interfere, but that he should be exiled from his father's house.

On examination by the Physicians, the rumour was confirmed, and miserable Bladud was indeed pronounced a leper. He would infect the King, the Queen, the Princess, the court altogether; and so he must go. It was very hard for the King to say it, but he did. The court met in full assembly, and Bladud, in tears, bent his farewell. On his own part, he asked for no remission of his sentence, but held it to be a solemn duty to leave his home and be an outcast; but ere he left the Queen, his mother, not touching his body, poured into his hand, from a goblet, a ring: "That," said she, as she wept and still hoped, "keep very safely; if fate bring thee back well and cleansed of leprosy, how much soever thou art changed, I shall know thee, my dear son, by that token."

It is impossible to describe the emotions that were exhibited, and if not exhibited, felt, in the court when the Prince departed. The King, as was the custom then, turned his face three days to a blank wall, took no food, saw no dancing, and refused to let his royal bard even string the harp for the evening song: the bard himself composed what we now should call a dirge: the Queen and her train went into black, mourned for the living as for the dead, and to kill time and care, following the pattern of Andromache, took to the loom and spindle, and wove the battles of their ancestors in rich designs: the noble who had caused all this misery first rejoiced at the removal of his rival, and then sorrowed: while the Princess Tassel Wassel, unable to meet the blow, held on in silent grief, hating with all her heart the false suitor who craved her hand, and determining that when her years for waiting were past she would dedicate herself as a last resource to vestal rites. In course of time the external signs of sorrow declined, but the court of Lord Hudibras was no longer the same; their loss sat on the hearts of King and his Queen, and their smiles only gilded their despair. But we must return to the Prince, and follow him, poor leper, in his weary way.

Bladud, with his little wallet of cake and grout, and his dear mother's pledge, set forth on foot over the plains, he knew not whither, and cared little. For five days and nights he wandered on, and then, pining and drooping, he wished to die. In his despair he met a shepherd, who spoke kindly, asked him to eat, and gave him a bed in his mud hut. Next morning the shepherd, seeing he had a lad of good parts before him, but never dreaming of his rank, entrusted his sheep to the care of Bladud, and himself went to the forest to cut wood. This was continued for several days, and at last Bladud was installed as the servant of the shepherd, and much to his delight. Here, not far from his father's palace, he might, he hoped, pass in disguise until he was cured; and here he could now and then gather from the solitary traveller whom he had entertained with plain cheer and a merry song, something about the court and the King and the Queen and the Princess. Alas! the hopes were vain. Not long had the Prince held office as the servant of the shepherd when, to his horror, he discovered that his master was becoming affected with leprosy. Wretch that he was, not to have known that a leper is a curse to friend and foe alike! He would have wished to have told the good man of his offence, but his leprous tongue clave to his mouth, and so, leaving no sign or word, he fled.

He fled until he reached what is now called Keynsham, and there, as the lowest occupation he could hold, he took charge of swine. Four hundred swine were placed under his care by a swineherd named Norton; now he was free of communication from all human kind, and harm he could not do more. He was again deceived; not many weeks had he tended his herd when behold! the swine showed leprosy. In those days it was fully believed that swine could take the diseases of men, and Bladud had no doubt that again he was the offender. What should he do? He determined to try change of scene, and to take his herd over the Avon to some plains beyond where grasses and acorns were more abundant; there, perhaps, they might recover before his master should discover him. The Prince accordingly drove his swine over the Avon at what has since been called Swinesford, and having accomplished this difficult feat halted for the night. To his surprise, the next morning, as he was praying and adoring the rising sun according to his pious wont, his swine were all taken in commotion, sniffing and snorting as though consulting among themselves, and seeming to care not an iota for him. At last, to his still greater surprise, they set off in a body in one direction and at full run. The swine ran and the Prince ran; the swine snorted and the Prince shouted, but neither stopped until they came to, what is now called, Bath. There they all stopped very tired, the Prince angry and the swine apparently content.

On the following day, Bladud, who was an observant youth, noticed that a terribly leprous sow was moving about with her litter as if in search of some particular spot. At last she came to a pool in which water was issuing from the earth, and no sooner was she there than she plunged into the water with all her little ones, and wallowed for a long time with infinite satisfaction. As for the Prince, he merely noticed on the occasion that the water was warm.

Next, he saw that the sow at an early hour every morning returned to the pool with her young, and wallowed as before; and surely, said he, Nature must have given her a reason for going there; he therefore watched more closely, and discovered that under the process the animal and all her young were cured of the leprosy. To test the merits of the cure were a task speedily carried out: Prince Bladud drove daily all his sickly animals into the pool; he saw them, to his great joy, recover; then he himself bathed, and was soon free of spot or taint. His joy hereupon knew no bounds: to hasten back to his friend the shepherd, and bring him to the pool to be cured, was the work of a few weeks, and to restore to the swineherd his animals in sound condition was not less agreeable and easy.

But the wheel of fortune having once again turned in favour of Prince Bladud, went, as it usually does, turning on his side so fast that at last it gained a momentum which surpassed ordinary calculation. The Prince soon gained repute far and wide as a healer of lepers; outcasts from all parts rushed to him to be cured, and the name of Swineswick was given to his place. At length it became necessary to build a town, and Bladud was, of course, made first man, or Lud; and so he progressed until he promised to become, in his own province, as great as Lord Hudibras himself.

The court of Hudibras had meanwhile remained in the half desolate state in which we left it, for seven years; the King and Queen still mourned, the bard had failed to re-string his harp, and thumbed on three cords only; the ambitious noble had been sent to his own country to die broken-hearted on his journey; and the Princess, who would never return to Aquitaine, though still not more than twenty years old, was staid, womanly, and sad. Except during the time when, with due ceremony, the festival to Pan was held, mirth was rarely heard; but there was this that compensated for mirth, the King was always good and just, and the people asked but one question—Who shall succeed Lord Hudibras, and reign as he reigns? And every one answered with a heavy sigh—Who, indeed?

One fine night in the autumn the court had met before sunset in a small amphitheatre without the palace, in which in early days their majesties had seen Greek dramas enacted, and had themselves taken part in the sport. They had met now to sup, the King and Queen being in the places of honour, the Princess at their feet, and the courtiers around. For reasons that none could assign, the sadness that usually prevailed passed away; the King sent about the wine-cup to his friends, and conversation flowed until at a distance it was as a soft murmuring hum of Æolian sweetness. Suddenly, descending the steps of the amphitheatre, a group of boys and girls appeared. They bore in their hands wreaths of flowers, which they strewed before the dais, and then with one voice exclaimed, "Happy be thou, great lord and king! Timæus the Bard hath found his harp in the temple new strung and

attuned. Blest be Diana!" As they spoke they dispersed like shadows, and lo! on the upper steps of the raised mound stood the Bard himself, his harp in his hand. The rays of the setting sun clothed him in golden spray, and his face shone with joy that words cannot express. Straightway athwart the cords he drew his hand, and the sound that the instrument uttered was hardly mortal. He repeated the act three times, and then, while yet the whole court was motionless with wonder, and the very birds, it is whispered, ceased to twitter, he pointed into the distant space eastward, as though he descried something that to none other was visible, and, as if enchanted, sang,—

"Though fast sinks the sun to his glorious rest,
Let hope gild our brow and faith fill our breast.
Make merry! make merry! and spoil not the feast,
For he sinks in the west but to rise in the east.

And lo! as he goeth 'mid shades of the night
He knows that there cometh a brother of light.
Make welcome! make welcome! and keep up the feast,
For he who fled westward now comes from the east."

As the sounds died away, all rose and followed the eyes of the bard. Soon they saw a little cloud moving in the distance as towards themselves, and then it was discerned that over the plain men were advancing. Nearer and nearer they came, so that their voices were heard. A little longer, and in the presence of King Hudibras was another king with his retinue of great state and power. In simple words, Prince Bladud once more stood before his royal parents, but none knew him except Timæus the bard and the Princess, who leaned on him, and could not speak. Removing his helmet, the Prince approached the Queen, and, bending his knee, presented the ring that she had given him in a chalice of wine; then she, and the King, and the court, knew who it was that had returned, and had the sun actually re-arisen that night, he would not have caused greater wonder or more life.

The legend must soon close. The reader will feel assured that the Prince and Princess were married in due time; but he requires to be told a little more. The Prince, in order to gain wisdom at its prime source, travelled, refusing state and equipage, to Athens as a student. Returning home skilled in many useful arts, he ascended the throne on the death of his father, and reigned for twenty years. Cultivating the arts of peace only, he invited to his court all sorts of cunning and able workmen, and made various engines of singular power. At last he attempted to construct a flying machine, and succeeded so far as to make several voyages through the air. In one of these adventures he was lost or destroyed; some say that in his flight he was absorbed by the sun and was deified; others vulgarly affirm that he fell, broke his neck, and found his grave at a temple near a town afterwards named Solsbury. Anyway, in the course of his reign King Bladud proved himself very wise, very good, and generous to every one who had aided him. He gave Norton the swineherd an estate, from which sprang the place known as Hog's-Norton, and on the town of the waters he conferred special privileges. There he built proper baths or pools, a noble palace, and houses of state for his ministers. It is also said that he named the spot Caerbren; but it is more likely that having discovered the healing waters while offering his devotions to the god of day, he called them "the waters of the sun," whence afterwards the beautiful name long held to designate them and the town—Aquæ Solis.

THE COMMON HISTORY OF BATH AND OF ITS WATERS.

The belief in the legendary history of Bath, differing only in details, and founded on Prince Bladud, was accepted with little hesitation and little qualification until the present century. In guide-books and the local histories a hundred years old the legend is substantially given as matter of fact, and there can be no doubt that Leland, who travelled as Antiquary Royal in the reign of Henry the Eighth, accepted it with all his heart. The name of Bladud was thus retained as an ancient and respectable designation, and eighty years ago Dr. Falconer, then *the* Physician of Bath, resided in Bladud's-buildings. The tradition began to lose ground owing to a popular comedian turning the story into caricature; and in the first year or two of this century it was, *pro formâ*, excommunicated by an historian of repute, named Warner.

Unfortunately for the antiquarian scholar, the facts on which, exclusive of tradition, he would build a history of Bath are very few; and, indeed, I find little that is more reliable than the tradition. Leland heard or read that baths were first erected at Caer Baden, or Bath, by Julius Cæsar, but he repudiates the notion, and leaves the story of the old British origin unmolested, thinking, probably, that it was more natural for the warm springs to be known to the ancient native inhabitants of western Britain than for the Romans to have made the exclusive discovery of so remarkable a phenomenon. However, the first we really read of Bath belongs to the Roman period, and is from a writer named Solinus, who doubtless had visited the place, and who was well acquainted with the fountains or baths. Solinus probably lived in the reign of Titus Vespasian, but the springs had evidently been resorted to long before his time, since he found a town well constructed, with many architectural embellishments and a famous temple dedicated to Minerva. The fountains at that period also flowed into sumptuous baths, and the better classes resorted to them after the luxurious manner of wealthy Roman people.

The foundation of the city has been attributed to the Emperor Claudius during his short visit to Albion in the first century of the Christian era. But this statement, it must be admitted, is rather inferred than proved. Claudius visited Britain to second the labours of his general Plautius, who, landing in the year 43, defeated Caractacus and conquered a large portion of the western part of the island. Claudius marched triumphantly through the western district, and, it is assumed, became acquainted with the waters and built a town, or more correctly, ordered a town to be built near them. On this hypothesis, therefore, which is stoutly maintained, if not invented, by Warner, Bath came into existence in the year 44 of this era. Suffice it that previous to the close of the first half of the first century there was a Roman settlement or station at Caer Baden, Aquæ Solis, or, as we now call it, Bath. There is tolerable evidence that Agricola about the year 61 dedicated there a temple to Minerva, and that thirty years later Adrian had erected an armoury there at which the arms of the Roman legions were fabricated. Early, too, during the Roman occupation baths were formed such as were common in Rome, baths with the modern appliances of the hot-air bath and with more beauty. Four roads also were laid down, one leading to Cirencester, a second to Westbury, a third to Ilchester, and a fourth to Amesbury. Further, there was a large population governed by the laws of imperial Rome, and strong ramparts and fortifications of earthwork and stone around the town. It is probable that until the Romans began to leave Britain Bath continued to be a place of much importance, for in the year 208 Geta, the son of Septimus Severus, lived there in great state as a lieutenant or deputy ruler.

In the history of nations, no greater calamity is recorded than the cessation of Roman dominion in this island; every town, every man, felt the loss of that strong and wise government. In Rome itself, Roman rule was spoiled by the luxuries of wealth and power; in the provinces the law made itself known, and no luxury tainted or corrupted it; hence, when the Roman governors forsook their petty thrones there was political chaos, none to rule by right, and none to rule well. Bath, like other towns, suffered; when the last legions left, the old Britons who had been so long dispossessed resumed the right of government, and, under the famous King Arthur, they kept their foes the Saxons at bay for many years. At last Cuthween won the place from its native lords, and in the year 600 Caer Baden was a Saxon town, bearing the name of Akmanchester, or the city of sick people, the place being clearly at this time a centre whither the sick resorted for health.

In 676 we find the church of the Christian faith introduced, under the reign of Osric. Then on the site of the temple of Minerva, the abbey church of St. Peter and Paul raised its head, and hooded nuns took the places of the vestal servitors of the heathen goddess; later, the nuns were excluded, and secular canons were put in their stead; and, again, the canons had to give way to a levy of Benedictine monks, who remained in place and power until the monastic system was dissolved under the Tudor supremacy.

After the landing of the Conqueror, Bath easily fell under Norman rule. The Saxon kings had honoured it by repeated visits, and the Norman sovereigns were not backward to do the same; the result was that a bath, at a very early date, was set apart for the sovereign, and took the name of the king's bath.

Under the protection of John de Villula, Bishop of Bath and Wells, who flourished in the first part of the twelfth century, the state and reputation of the baths of Bath, or Bathes Ayde, as the place was also called, were transmitted downwards. In 1138, the then bishop built a leper house, and opened a leper's bath, which house, according to Dr. Falconer, remained until 1773. This Hospital, together with

all the baths, were held by the monks until the Reformation. My friend Dr. Falconer, in an excellent little work on the "Baths of Bath," gives us, from old Leland, a look at the town just prior to the dissolution of the abbey, and also tells us how the baths were disposed of when the dissolution had been effected:—

"There be 2 Springs of whote Wather in the West South West Part of the Towne. Wherof the bigger is caullid the *Crosse Bath*, bycause it hath a Cross erectid in the midle of it. This *Bath* is much frequentid of People diseasid with Lepre, Pokkes, Scabbes, and great Aches, and is temperate and pleasant, having a 11 or 12 Arches of Stone in the sides for men to stonde under y^{n} tyme of Reyne. Many be holp by this *Bathe* from Scabbes and Aches.

"The other *Bathe* is a 2 hunderith Foote of, and is lesse in cumpace withyn the Waulle then the other, having but 7 Arches y^{n} the Waulle. This is caullid the *Hote Bathe;* for at cumming into it, Men think that it wold scald the Flesch at the first, but after that the Flesch y^{e} warmid it is more tolerable and pleasaunt.

"Both these *Bathes* be in the midle of a lite streat, and joine to *St. John's Hospitale;* so that it may be thought that *Reginalde*, bishop of *Bathe*, made this Hospitale nere these 2 commune *Bathes* to socour poore people resorting to them.

"The *Kinges Bathe* is very faire and large, standing almost in the midle of the Toune, and at the West End of the Cathedrale Chirch.

"The area that this *Bathe* is y^{n} is cumpassid with an high Stone Waulle.

"The Brimmes of this *Bath* hath a litle walle cumpasing them, and in this Waul be a 32 Arches for Men and Women to stand separately y^{n}. To this *Bath* do Gentilmen resort.

"Ther goith a sluse out of this *Bath*, and servid in Tymes with Water derivid out of it 2 Places in *Bath* Priorie usid for *Bathes:* els voide; for in them be no springes.

"The Colour of the Water of the Baynes is as it were a depe blew Se Water, and rikith like a sething Potte continually, having sumwhat a sulphureus and somewhat a pleasant savor.

"The Water that rennith from the 2 smaul *Bathes* goit by a Dike into *Avon*, by West bynethe the Bridge.

"The Water that goith from the *Kinges Bath* turnith a Mylle, and after goith into *Avon* above *Bath*-bridge.

"In all the 3 *Bathes* a man may evidently se how the Water burbelith up from the Springes."(a)

"In 1542, Henry VIII., granted the 'late monastery or priory of Bath,' with all the property appertaining to it, to Humphrey Colles and his heirs: Colles disposed of it to Matthew Colthurst, whose son, Edmund Colthurst, gave the Abbey and a portion of the land adjoining it, to the Mayor and citizens of Bath; while the Abbey House and remainder of the property he sold to Fulk Morley in 1569, from whom it descended to the Duke of Kingston, and from him to the late and present Earl Manvers, who thus owns the Kingston or Old Roman Baths erected on the spot once occupied by the Abbey House. The King's, Cross, and Hot Baths appear to have been conveyed with the Abbey to the Mayor and citizens of Bath."

In the sixteenth century the celebrity of Bath and its waters declined. Towards the close of the century the mayor and citizens received from Queen Elizabeth a new charter of possession for the baths, and soon afterwards they built, or rather rebuilt two baths, known as the Hot and the Cross Baths. Later, in 1615, a Mr. Bellott, taking water from the King's bath, built a new bath, which took the name of the Queen's Bath, the wife of James I. having resorted to it. For nearly a century matters remained little changed. Bath was an important city, but not the Bath that it was to be—the Bath of fashion and beauty and wealth and wit, and, shall we say, wine? Yes, wine too. For these wonders it was forced to wait until 1704, in which year, long struggling for life, modern Bath was born. What it waited for is absurd: it was not for fresh air, not for curative waters, not for fine scenery—no, not for learned Doctors either, but for a pump-room. When Bath got a pump-room, it became Bath.

New Medical Knight.—Whitehall, February 11.—The Queen has been pleased to direct letters patent to be passed under the Great Seal granting the dignity of a Knight of the United Kingdom of Great Britain and Ireland unto Alexander Taylor, Esq., Doctor of Medicine.—From the *London Gazette*, Tuesday, February 14.

(a) Leland's Itin., by Hearne, vol. ii., pp. 30, 31.

THE HUNTERIAN ORATION AT THE ROYAL COLLEGE OF SURGEONS.

February 14, 1865.

The biennial oration in honour of John Hunter was this year delivered by Professor Partridge, F.R.S., of King's College. There was, as usual, a fair muster of the Council of the College and of other Professional magnates. Amongst the orator's non-Professional hearers we observed the Chancellor of the Exchequer. The following is a condensed report of Professor Partridge's oration:—

Mr. President and Gentlemen,—More than half a century has elapsed since this Lectureship was founded; and addresses in connection with this subject have been delivered by no less than forty-one orators. The difficulty, however, in preparing a lecture of this kind arises not so much from the scarcity of material as in making a judicious selection from the abundance of matter.

John Hunter was born in the year 1728, and became anatomical assistant to his brother William. Although his early educational advantages were few, yet his Professional advantages were unusually great. He became the pupil of Cheselden and Pott, and extended his researches into comparative anatomy. He made astonishing progress; but his health being impaired by intense study, he entered the army in 1760 as Staff-Surgeon, and served at Belleisle and in Portugal. On his return to London, he pursued his inquiries into comparative anatomy, and erected a menagerie for that purpose at Brompton; he also gave lectures to his private class. In 1768, when he was forty years of age, he was elected one of the Surgeons of St. George's Hospital. His income arising from practice was not large; for he never made £1000 a-year until he was fifty. His genius was illimitable. He had intense application and a vivid imagination; but, like most men of genius, he was in advance of his generation. In disposition he was kind-hearted and liberal. Although, perhaps, his manners were somewhat rough, yet we may truly say of him, in the words of the Spanish proverb, "Better one diamond with a flaw than a thousand pebbles." He had a great taste for pictures, and in his letters to Jenner frequently alluded to paintings he had purchased. He died in the year 1793. In the days of Hunter there were very few facilities for the study of human or comparative anatomy, and the difficulty in obtaining bodies for dissection continued up to the passing of the Anatomical Act in 1858. In order to prosecute his labours in connection with comparative anatomy, he used to purchase wild animals, and when not required by himself lease them out to showmen.

Scientific Surgery dates from the labours of John Hunter, and since his time it has made more rapid advances than during any corresponding period. In aneurism, for instance, much has been done, viz., ligature on the distal side, compression, position or flexion (introduced by Mr. Ernest Hart), and manipulation. The failure of the early cases of compression was mainly owing to the instruments employed; but Ireland claims, and is fairly entitled to, the first rank for having introduced into modern Surgery the practice of treating cases of aneurism by compression. Hunter concluded that gonorrhœa and syphilis resulted from one and the same poison; but Ricord, by his experiments, has proved, beyond the slightest doubt, that the gonorrhœal discharge, when inoculated on the skin, never produces a chancre. While on this subject, I may mention that Government has lately appointed a Commission to institute certain inquiries into the venereal disease, more especially with regard to its effect upon the naval and military services of this country. This is decidedly a step in the right direction, for the condition of our soldiers and sailors in this respect contrasts most unfavourably with the condition of those in the service of Continental nations; and in order to remedy the evil, we must either admit a larger number of married men into the army, and allow their wives to accompany them, or else bring prostitution itself more under the control of the State.

Death has been busy amongst our ranks during the past year. The Profession and the College of Surgeons sustained a great loss in the death of Mr. Green; and this was felt the more, as it happened so soon after that of Sir Benjamin Brodie. Green was a pupil of Cline, and became Surgeon to St. Thomas's Hospital on Cline's death. In 1834, Coleridge died, leaving to Green the charge of his literary remains. Green

was twice President of this College, and twice delivered the Hunterian Oration. Though distinguished as a Surgeon, he left no important Professional work behind him; but he will best be known to posterity by his System of Philosophy, now in course of publication; it is entitled "Spiritual Philosophy," and will consist of two volumes, one on general, and the other on religious philosophy. As an illustration of Green's assiduity and application, I may mention that when he was sixty years of age he commenced the study of Hebrew, finding a knowledge of that language necessary to the prosecution of his work. Mr. Green is not the only member of our Profession who has devoted himself to general literature; and, in the words of a well-known writer, I may remark, "How useful, how grateful a resource it is to turn from perplexed thoughts to classic lore; it is the first impulse of instinct to acquire one's native language, and not the less is it the impulse of reason to acquire the languages of the day." The Profession has also met with another loss in the death of Mr. Edmund Belfour, who was for fifty-four years the indefatigable secretary of this College, and who always managed its affairs with good sense, temper, and discretion.

Since the last oration a marble statue of John Hunter, by Weekes, has been placed in the Museum. Mr. Weekes has chosen the attitude of the painter in the well-known picture of Hunter by Sir Joshua Reynolds, rather than attempt an original attitude. In this I think he has done wisely; for the picture will not last many years longer, and the attitude in the painting is the one best known to us. After the discovery of Hunter's remains in the place where they had lain so long, permission was obtained to inter them in Westminster Abbey, where they now lie, between the resting-places of Wordsworth and Ben Jonson.

Hunter's collection was purchased by Government for the sum of £15,000; it was offered first to the Royal Society, then to the College of Physicians, and was afterwards accepted by the Corporation of Surgeons. The catalogue of the Museum is now nearly completed; its compilation has extended over a period of thirty-four years. It is proposed to form a new osteological series, from skeletons now in the possession of the College; and for this two things are necessary—firstly, the appointment of an additional assistant; and secondly, further space, in the shape of new show-cases. The histological collection has undergone a complete examination; some specimens that were too old have been discarded; while several new ones have been added; and I should like to ask for more assistance from the Profession generally in adding new specimens to this series, which now forms the finest Museum of Anatomy and Surgery in the world.

REVIEWS.

A Manual of Materia Medica and Therapeutics; including the Preparations of the British Pharmacopœia, etc. By J. Forbes Royle, M.D., F.R.S., and Frederick W. Headland, M.D., B.A., F.L.S. Fourth Edition. Pp. 776. Churchill and Sons. 1865.

Manual of the Medicinal Preparations of Iron; including their Preparation, Chemistry, Physiological Action, and Therapeutical Use. By Harry Napier Draper, F.C.S. Pp. 131. Fannin and Co. 1864.

The preface to the fourth edition of Royle and Headland's Materia Medica states that the book has been remodelled throughout on the basis of the British Pharmacopœia; that it contains descriptions of all the medicines contained in that Pharmacopœia, and explanations of its formulæ; that it retains descriptions of the medicines and preparations of the London Pharmacopœia of 1851, and that it points out the differences between the two Pharmacopœias, and corrects the mistakes of the British; that it also furnishes notices of all non-officinal remedies of value, whether of established reputation or of recent introduction.

It is quite unnecessary to attempt a lengthened criticism of a work which has done such good service and stood such a lengthened test as Royle and Headland. The present edition, modified according to the announcement of the preface, is in no whit inferior to its predecessors. On the whole, Dr. Headland seems to have fulfilled his task most laboriously and conscientiously. For its size the book is undoubtedly the most complete and the fullest work on Materia Medica which we have seen since the publication of the British Pharmacopœia. It is much fuller if not so original as the work of Dr. Garrod, which, it will be remembered, appeared under the modest title of "Essentials."

In the chemical and botanical descriptions the work of Drs. Royle and Headland leaves little to be desired; the chemistry is generally most accurate, and quite up to the latest standard. The botanical portion is rendered more useful and comprehensible by a number of beautifully-finished wood engravings. With regard, however, to the therapeutical portion of the work, we think that sufficient prominence has scarcely been given to it. For instance, if we take so important an article as chloroform, its action and therapeutical uses are summed up in about seventeen lines; nothing is said as to the mode in which it produces its physiological effects, the symptoms of danger arising from its use, or the precautions which should be observed in administering it, although three pages are devoted to an accurate account of its chemistry, preparation, and tests. Again, if we look for information on the subject of stimulants, which occupies so prominent a position in modern therapeutics, we find that they are treated with the same brevity and meagreness, and the article on alcohol and its preparations by no means supplies the deficiency. We should not have ventured on these criticisms had not the book been called a Manual of Materia Medica and Therapeutics. The former it is, and a most excellent one; to the latter part of its title we do not think it can assert an equal claim. We are quite aware that these remarks would apply with equal justice to most works of the same class, but that a fault is general does not make it less in any particular instance; and when we remember that no human being would ever have studied Materia Medica had it not been for the sake of therapeutics, that the whole artificial collection of knowledge which goes under the name of Materia Medica would be a very dry and utterly useless farrago were it not for its subserviency to the science of healing, which alone gives it coherence and utility, we do think that, as a rule, architects of books on "Materia Medica and Therapeutics" have justly incurred the charge of paying more attention to the scaffolding than to the edifice.

We have, in addition, three small criticisms to offer before leaving this work. They are not important ones, and have only occurred to us in a cursory perusal. The first is, that the old symbols are retained for the new Pharmacopœia weights—a mistake, we think, tending to make pharmaceutists and prescribers forget the important difference between the apothecaries' and avoirdupois ounce. The second is in reference to the direction given to examine Bismuthum Album for arsenic by Marsh's test. Experience has shown that this test is inapplicable—in fact, that the presence of the trisnitrate interferes completely with the process. The third is the use of such a phrase as "the lining membrane of the *aërial* passages," which seems, to say the least, a somewhat airy flight in the way of scientific phraseology. Although, however, like every other book containing such a mass of information, sharp criticism may detect here and there a slight blemish, we can conscientiously state that this edition of Forbes and Royle is one of the best, if not the best, handbook of Materia Medica that can be given to the student.

Mr. Draper's "Manual of the Medicinal Preparations of Iron" is evidently the composition of a chemist rather than of a Physician. In its way, however, it is excellent. It gives a description of between forty and fifty chemical preparations in which iron is the most important, or at least one of the principal ingredients. The Practitioner of Medicine cannot but be obliged by receiving in a small compass and readable form information which enables him to vary in so many ways—to suit every variety of stomach, taste, and fancy—the administration of one of the most important medicines in the Materia Medica. We know that it may be said that some of the preparations are not wanted, that they are the mere luxuries of prescribing, and that everything which iron will accomplish may be done with two or three of the old preparations. We are by no means so sure of the truth of the latter allegation. Such preparations as the syrup of the iodide, the syrup of the pyrophosphate, the ammonio-citrate, and the potassio-tartrate, seem to suit peculiarly certain cases, and cannot be substituted for each other. We utterly repudiate the pseudo-chemistry which would prescribe an albuminate of soda and iron because albumen, soda, and iron are contained in the blood; or a phosphate because phosphorus exists in nervous matter; but we are clinically certain that in particular cases some preparations of iron and other minerals agree well, and answer our expectations; whilst others unquestionably do the contrary. And it is a

self-evident truism that he will be the most successful Physician who, in addition to a profound acquaintance with disease, has acquired the most varied and minute knowledge of the means by which it may be combatted.

The Diseases of the Ear; their Diagnosis and Treatment. Translated from the German of Dr. Anton Von Troeltsch, and Edited by D. B. St. John Roosa, M.D., Assistant-Surgeon to the New York Eye Infirmary. Illustrated with wood engravings. New York. 1864.

This volume in the German edition was reviewed in our pages for July 11, 1863, and we need not, therefore, revert to it at length. The translation is fairly, although not elegantly executed, and a good deal of interesting matter in the form of cases is added by the American editor; one of these we briefly extract, since it adds another to the instances on record of exfoliation of the labyrinth without cerebral lesion:—"W. C., aged 38, had suffered from discharge from the right ear for the greater part of thirty-two years. Lately an attack of inflammation had supervened, inducing a total loss of hearing, and paralysis of the portio dura on that side. Pain and dizziness of the head were increasing. There was great swelling, involving the entire auricle, and a large polypus protruded from the meatus. Under chloroform the polypus was removed, and there was then found a mass of loose bone occupying the position of the tympanum. The swollen meatus having been incised, the sequestrum was withdrawn, and found to contain the parts of the cochlea and of two of the semicircular canals. The patient rapidly regained his health, and eighteen months afterwards was doing well, with no head symptoms, nor discharge, and with a minute canal in the position of the external meatus."—P. 211.

We are glad to see Dr. Von Troeltsch's work made more accessible to the English reader. The author stands high in Germany, and his work shows a large amount of care and industry, with a genuine capacity and zeal for observation.

GENERAL CORRESPONDENCE.

ROYAL EPSOM COLLEGE.

Letter from Mr. Burford Norman.

[To the Editor of the Medical Times and Gazette.]

Sir,—Being a constant reader of your journal, and taking a warm interest in all that concerns the welfare of our Profession, I have read with much pleasure all that has again of late appeared in your columns touching that noble monument to Mr. Propert's care for the "less fortunate" members of our fraternity, the "Epsom College," by which name I speak of it, thoroughly acquiescing in all that you and Dr. Sieveking have said on this head, hoping never to hear the old title "Benevolent" used again, and believing that if those who agree with us adopt, on all occasions, this latter name, we shall help materially to hasten into oblivion that to which we so much object. With the view of helping forward either the building fund for lay scholars, or the fund established for exhibitions and scholarships, I have sent up ten guineas to my friend Mr. Cattlin, to be applied as he and the Exhibitioners' Committee think best, and shall gladly contribute something more annually, whilst health and work continue in me.

It would be well now for all who hold the same views, whether in the Council of the College or out of it, seriously to consider how best the *lay* element may be added to the school—a most important step, and I believe essential to a great and grand future for this institution; and the sooner a practical result is arrived at the better. It will be a starting-point for an onward course of prosperity such as has not yet been likely to be seen. One thing in reference to this branch of the subject should be borne in mind, as a first principle. The larger payment must not obtain for lay pupils greater advantages than those enjoyed by the foundation scholars or others; and if my friend Dr. Sieveking's idea of "a new and separate foundation" for carrying out this part of the scheme means that boys who pay £63 per annum are to live apart from the others, and to be a sort of aristocracy, the object of mixing different classes together in their pupilage will be defeated, and we shall have a college of nobs and snobs instead of a college of young gentlemen; but I do not suppose that that is his meaning.

Mr. Hird says the estimated (annual) cost of each boy at Epsom is £40. I feel sure that there is, somewhere or the other, an error in the calculation on which this estimate is founded, and that this matter requires a closer examination than it has yet received; for if the estimate is correct, then the rate of expenditure is needlessly high. To me it appears plain, as I endeavoured to show in a former communication upon this subject, that with reasonable economy the smallest payment now proposed to be made by an "exhibitioner" (£30 per annum) ought so much to exceed the cost of his maintenance as to leave a very considerable balance to go towards his other expenses for masters, servants, etc. Indeed (the College being rent free to the whole Profession), I had no manner of doubt that if the school were increased to 300 boys, all the sons of Medical men could be thoroughly well boarded and educated at £30 to £35 a-year each.

I am not well acquainted with the school buildings at Epsom, but understand them to be, so far as they go, fairly built and arranged for their purpose. What other are required for the carrying out of the recently-proposed alterations I am scarcely in a position to affirm; but a strong opinion prevails, which I share, that the accommodation for sick boys is not so good as it should be. The Infirmary, should, no doubt, be *entirely apart from the school*, which, I am informed, it is not at present. True, the College has hitherto been remarkably healthy, but it is still liable to all the casualties that befall other large schools, and from which even healthy families are not exempt. As the number of boys there is increased, the liability to these casualties and the tendency to spread of any contagious or infectious disease, which may break out there, will be augmented, too; so that the means of at once, and completely, segregating the sick should be at hand.

One part of the buildings, I think with you, had better never been erected. I mean the Homes for Pensioners, and glad indeed should I be to learn that they were to be turned to a better use than their present one, and that their aged occupants could depart in peace, and enjoy their pensions amongst their respective friends and familiar associations instead of being gathered together in a sort of almshouse. To sum up, I rejoice in what has been lately accomplished as the *auspicium melioris ævi*. I give my hearty assent to the views propounded by yourself and Dr. Sieveking, with other good friends of the College. I hope an unanimous feeling will animate the minds of governors to promote the prosperity of our College, and that those who from time to time direct its affairs, even if they regard "dissentient governors" as enemies, will remember "*fas est et ab hoste doceri*," and have their minds open and ready to receive and consider suggestions which may not originate with themselves. For Mr. Propert and his family, who have laboured as if labouring for their bread to promote this great undertaking, I earnestly trust there will be realised at Epsom such a measure of success as shall more than repay them for all they have done in its behalf. Looking anxiously forward to see in your next issue what form the Propert testimonial is to take,

I am, &c.

Southsea, February 12. H. Burford Norman.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, February 7.

Dr. Peacock, President.

CONGENITAL SYPHILITIC DISEASE OF THE TESTES.

Dr. Wilks brought before the notice of the Society a case of a child, 5 months old, suffering from congenital syphilis, and in whom both testes were enlarged. The left was the larger, and very hard, and divided apparently into two parts, as the epididymis and body of testis were equally affected. The disease is not very common, but clearly shows that the affection of the testes is of that kind which occurs in the internal organs, being a chronic disease dependent on a constitutional taint, and in no way the result of a testitis associated with the primary affection.

Mr. Holmes had seen several cases like that brought forward by Dr. Wilks. In one case it was found at the autopsy that all the hardness was due to deposit outside the

testis. In another, under the care of Dr. Ingram, similar appearances were found. Mr. Holmes, however, had no doubt that disease of the testis itself did occur as a result of congenital syphilis.

REPORT ON MR. WINDSOR'S CASE OF BLACK CATARACT.

Mr. HULKE, in reply to the President, said that the lens fibres exhibited the usual senile changes, but he had not been able to determine the nature of the pigment to which they owed their black colour.

Mr. HENRY THOMPSON showed, for Dr. Keith, of Aberdeen, a specimen of

CALCULUS WHICH HAD BEEN ADHERENT TO THE WALLS OF THE BLADDER.

In showing this specimen, Mr. Thompson remarked that the evidence on which it was stated that calculus was sometimes adherent to the walls of the bladder was generally obtained during life at operations. There was so little post-mortem evidence that some do not believe in its occurrence. In this specimen, taken from the bladder of a girl who died of typhus fever, there could be no question but that the calculus was actually adherent to the walls of the bladder. Of course, a real union was impossible, but the two were fixed together by processes entering the pores and fissures of the calculus.

Mr. HOLMES did not think from what had been stated that there was greater evidence in favour of Dr. Keith's opinion in his post-mortem than was to be obtained in the operation for stone during life. He remembered a case operated on by Mr. Mitchel Henry. In trying to get away the stone, it first came forward and was then pulled back.

Mr. HENRY THOMPSON thought that in Dr. Keith's case the evidence was much stronger, the bladder being widely exposed at the post-mortem. In the instance alluded to by Mr. Holmes, the retraction might have been due to sacculation.

Mr. HENRY THOMPSON then exhibited

A HAIR-PIN REMOVED FROM THE BLADDER OF A GIRL BY THE HIGH OPERATION.

It had been introduced fourteen days before she came under care. At first, there were scarcely any symptoms. After a few days' rest in the Hospital, a sound was passed, and the presence of the pin ascertained. It was easily got hold of, but from its position, and the force required to move it, it was not possible to remove it by the urethra; it was therefore removed by the high operation. Mr. Henry Thompson said that an instrument had been invented in Paris especially for the removal of such foreign bodies; but he had not found this instrument to be strong enough to bend a similar hair-pin which he obtained for trial.

Dr. PLAYFAIR showed a specimen of

EXTRA-UTERINE FŒTATION.

It was removed from the body of a woman whom he had not seen during life. She had been admitted into King's College Hospital for vomiting, and her case had been diagnosed as gastric ulcer. She had not menstruated for four months. She died in collapse a week after admission into the Hospital. On examination there was found a tubular fœtation. The right Fallopian tube was ruptured, and a large quantity of blood had escaped into the peritoneal cavity.

Dr. JULIUS POLLOCK showed a specimen of

ANEURISM PRESSING ON THE PULMONARY ARTERY.

The interest in this case was from the difficulty of diagnosis during life. The aortic valves were found to be diseased, and besides the aorta was pouched, and pressed on the pulmonary artery, nearly closing it.

Dr. J. E. POLLOCK exhibited

AN ENORMOUSLY ENLARGED LIVER,

from a phthisical patient. When admitted, he had pneumothorax on the left side, the heart was to be felt beating in the third intercostal space, and the liver was as high as the fourth rib; and, besides this, there was a cavity in the apex of the right lung.

Dr. MORRIS TONGE exhibited specimens from a case of

RIGHT HEMIPLEGIA, WITH LOSS OF SPEECH—EPILEPSY.

The great interest of this case was, that although the symptoms during life betokened disease of the brain, this part was found at the post-mortem examination to be quite healthy. Several parts of the cord were found to be in a condition resembling that termed by Mr. Lockhart Clarke "transparent granular degeneration." There were a few small fibrinous heads on the aortic valves.

Dr. GREENHOW exhibited the tonsils, larynx, stomach, and ileum taken from the body of a boy, aged 15, who had died of

DIPHTHERIA,

in the Middlesex Hospital, under his care. About the eleventh day of the illness, when the patient had seemed to be recovering, and the local disease appeared to have become limited to slight superficial ulceration of the tonsils, a change took place, the throat and soft palate again became deeply congested, a large amount of albumen was suddenly found in the urine, and vomiting of a glairy mucus tinged with blood supervened. The boy sank in a few days. At the autopsy the tonsils were found to be greatly enlarged and hard, presenting on section a brawny appearance, with sloughing in the centres. The under surface of the epiglottis was covered by a slightly adherent yellow-coloured false membrane; the trachea and bronchi were intensely injected, and there were several masses of pulmonary apoplexy in each lung, the intervening pulmonary tissue being congested, but crepitant. The stomach contained black altered blood, and its mucous membrane was coated with a layer of viscid mucus tinged with blood; this membrane was also injected in patches and of a dark red colour, with some small extravasations towards the lesser end. The mucous membrane throughout the small intestines was reddened, and towards the lower part of the ileum vividly injected, with here and there small ecchymoses in its substance. The solitary glands were somewhat prominent; Peyer's patches appeared to be normal. Dr. Greenhow remarked that the interest of the case lay entirely in the condition of the stomach and its association with vomiting—a not unfrequent symptom in the more asthenic form of diphtheria, which comes on, for the most part, rather late in the illness, sometimes when the patient has previously appeared to be going on satisfactorily, and is always an alarming, and often a fatal, symptom. In several cases he had seen it had supervened, as in the present instance during the course of the second week, coincidently with a highly albuminous condition of the urine; and most frequently the viscid glairy mucus, which forms a considerable portion of the vomit in such cases, has been streaked or tinged with blood.

Dr. GREENHOW also exhibited the

SUPRA-RENAL CAPSULES

taken from the body of a girl aged 12, who had died under his care in the Middlesex Hospital of Addison's disease. The deceased had returned from a visit in the country last summer apparently sun-burnt. This slight duskiness of the face, neck, and hands continued to the end of life. Her father had observed her to be drooping, though without any definite symptoms of illness for three or four weeks previous to her fatal attack. On Sunday, January 15, she was seized with vomiting, but continued to attend school until the following Wednesday, when the sickness returned. On that evening her mother gave her a strong cathartic powder, which purged her copiously and produced intense depression. When brought to the Hospital on Friday, the 20th, she was scarcely able to move, had an extremely languid, listless, exhausted aspect, a pallid countenance, and a remarkably small feeble pulse. Her breathing was frequently interrupted by sighing and yawning, and she retched on the slightest attempt at exertion. Her eyes were large and prominent, and the conjunctivæ peculiarly white. Her skin was cool, tongue clean and moist, and there being no signs of any other serious disease the case was diagnosed as one of Addison's disease, notwithstanding the absence of sufficiently marked discolouration to confirm the diagnosis. She gradually sank, and died January 28, having retained her consciousness to the last. At the autopsy the discolouration was more apparent than during life from the contrast presented by the dusky hue of the face, neck, hands, and abdomen compared with that of the chest and legs, which had remained normal. The axillæ and the areolæ were also slightly dark. There were no definite patches of discolouration on the skin, and the general aspect was that of a person with a naturally dark complexion, but with a fair chest and legs. There was a moderate amount of fat beneath the skin of the thorax and abdomen, the muscles were firm and red, and the blood under the microscope showed neither a deficiency of red corpuscles nor an excess of white ones. There were some deposits of tubercle in the lungs, but no cavities. Peyer's glands were more prominent than usual, the mucous membrane of the ileum was congested, the solitary glands were somewhat enlarged, and here and there one was opaque and slightly yellow. The supra-renal capsules were both much enlarged, their fibrous envelopes much thickened

and firmly adherent both to the capsules and to surrounding organs. No trace of normal structure remained; it was replaced partly by a greyish semi-transparent tissue of tough consistence and partly by opaque yellow matter of a cheesy consistence. A report and sketch of the microscopical appearances by Dr. Sanderson was appended.

Dr. Gibb brought forward a

PATIENT WHO HAD RECOVERED FROM NECROSIS OF THE CRICOID CARTILAGE.

He was aged 49, and had expelled portions of the ericoid cartilage that had undergone necrosis. The openings through which these had escaped were observed with the laryngoscope, and a sketch of them, with the patient's history, appeared in the fourteenth volume of the *Transactions* of the Society. In August last there was much swelling of the false cords, with stridor, cough, and dyspnœa, which necessitated tracheotomy. As was anticipated, the rings were ossified, and the necessary precautions were taken to obviate this. His subsequent progress was most satisfactory, for all the laryngeal symptoms subsided, and the larynx became clear, with cicatrical contraction of those parts through which the necrosed fragments of cartilage had extruded. The voice was good, clear, and loud, as was made manifest to the Society. Dr. Gibb did not think it prudent to dispense with the silver canula at present, owing to the inclemency of the weather; but in bringing the case before the Society he stated that it was one of extreme interest from the fact of the progressive stages of the necrosis, the manner which nature took to get rid of the detached portions of cartilage having been watched with the aid of the laryngoscope.

Dr. Gibb exhibited

PORTIONS OF OSSIFIED TRACHEAL RINGS

expelled some months after tracheotomy, which had been resorted to for chronic disease of the larynx, with obstruction. The operation was one of the most complicated and difficult he had ever witnessed, from the extremely ossified condition of the rings of the trachea, resembling steel almost in its degree of hardness. The patient, an elderly gentleman, is doing very well, and expelled the fragments exhibited through the mouth of the tube some weeks back.

Mr. Francis Mason showed a specimen of

SCIRRHUS CANCER OF THE PROSTATE GLAND.

The subject of the specimen was a man, aged 54, who had been a patient under Mr. Mason's care at King's College Hospital. Five years ago he fell from a ladder, and got severely bruised, although he received no direct injury to the pelvis or urinary organs. From that time he had had occasionally some difficulty in micturition; and three years after he noticed that a little blood came with the urine. At the date of his application in August last, he was suffering the most intense pain, and each attempt to pass urine was attended with the greatest agony. There was no family history of malignant disease. He remained under treatment for about three months, the remedies employed having little influence over the disease, and ultimately died exhausted. At the post-mortem examination, the body was found emaciated to the last degree. The prostate was extremely hard to the touch, and cut like, and had to the naked eye the appearance of, ordinary scirrhus disease. The pelvic and lumbar glands were infiltrated with cancerous deposit; and in each inguinal region several similar hard nodules were observed. Dr. George Johnson had kindly examined the specimen, and agreed with Mr. Mason as to the nature of the disease.

Mr. Henry Thompson said that scirrhus of the prostate was an extremely rare form of disease. Cancer of the prostate was generally encephaloid.

Mr. Henry Thompson, Dr. Murchison, and Mr. Mason were requested to make a further report on the specimen.

Report by Mr. Toynbee, Mr. Thomas Smith, and Mr. Hinton on Mr. Hinton's case of

SEBACEOUS TUMOUR IN THE TYMPANUM.

The tumours were found to consist of layers of flattened cells corresponding with those which constitute similar tumours on other parts of the body. The peculiarity of the case was, that besides a larger tumour which had apparently penetrated the membrana tympani from without, two smaller ones were developed entirely within the tympanum, partially embedded in a mass of effused blood and fibrine.

MEDICAL NEWS.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, February 9, 1865:—

Edmund Farrington Boult, Bath; James Mason, Barrowden, Rutland; John Roberts, Festiniog, North Wales; George Welland Mackenzie, Tiverton, Devon; Arthur John Watts, Alfred-road, Harrow-road; Francis Tuck, Oxford; Charles Edward Heron Rogers, Westmeon, Hants.

The following gentlemen, also on the same day, passed their first Examination:—

Walter Owen Withers, King's College; Frederick Barton, University College; Gilmore Winton Croft, St. Thomas's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Adair, Ponsonby, M.R.C.S. Lond., has been appointed by the Government of Bombay to be Medical Superintendent of Establishments of Submarine and Mekran-Coast Sections of the Government Indo-European Telegraph; head-quarters at Kurrachee, Scinde.

Bell, Joseph, M.D. Edin., has been appointed Assistant-Surgeon in the Surgical Clinical Wards of the Royal Infirmary, Edinburgh.

Coates, Frederick T., M.R.C.S. Eng., has been elected House-Surgeon to the North London Consumptive Hospital, Russell-place, Fitzroy-square.

Coppin, Morney, M.R.C.S. Eng., has been appointed Surgeon to the Royal South London Dispensary.

Etheridge, Charles, M.R.C.S. Eng., has been appointed Resident House-Surgeon to the Halifax Infirmary and Dispensary.

Hampson, John D. C., L.D.S.R.C.S Eng., has been elected Dental Surgeon to the Samaritan Free Hospital.

Harrison, Charles, M.D., has been appointed Resident Medical Officer to the General Lying-in Hospital, York-road, Lambeth.

Haward, John W., L.R.C.P. Lond., has been appointed House-Surgeon to the Hospital for Sick Children, Great Ormond-street.

Jones, Frederick C., M.D. Edin., has been appointed Consulting Surgeon to the Royal South London Dispensary.

M'Williams, Mr. J. Mc., has been appointed Assistant-House-Surgeon to the Halifax Infirmary and Dispensary.

Mills, S., M.R.C.S. Eng., has been elected House-Surgeon and Apothecary to the Lincoln County Hospital.

Sandell, Henry W. A., M.R.C.S. Eng., has been elected Resident Medical Officer to the National Sanitarium for Diseases of the Chest, Bournemouth, Hants.

Scott, Mr. Herbert, has been appointed Assistant-Surgeon to St. Peter's Hospital for the Cure of Stone in the Bladder and Urinary Diseases.

Wintle, H. J., M.R.C.S. Eng., has been elected one of the Surgeons to the Bristol Dispensary.

DEATHS.

Burke, J., Dr., at Mount St. Joseph's Monastery, Clondalkin, Ireland, on February 4, late of Roscommon.

Campbell, Alexander, Dr., of Dunse, Berwickshire, on January 30, aged 56.

Colbourne, Robert, M.R.C.S. Eng., at Great Marlow, Bucks, on January 20, aged 66.

Costello, John, M.D. Edin., at Green Lawn, Miltown Malbay, Ireland, on January 29, aged 58.

Lowe, William, M.R.C.S. Eng., at Warboys, Hunts, on February 8, aged 60.

Masfen, George B., Surgeon, Bengal Civil Service, at Gondah, Oude, India, on December 6, aged 39.

McLimont, Robert, M.D., at 15, Catherine-place, Bath, on February 8.

Munro, J., M.D., Deputy-Inspector-General of Hospitals and Fleets, at London-street, Edinburgh, on February 4, aged 60.

Nairne, John, M.D. Edin., at High-street, Perth, N.B., on January 30.

Nicolas, Thomas, M.D. St. And., at Portland, Dorset, on January 27, aged 42.

Raleigh, E. W. E., F.R.C.S. Eng., late of the Bengal Medical Service, on January 23, aged 62.

Tatterson, Joseph, L.S.A., at Lepton, near Huddersfield, on February 3, aged 65.

Wavell, Robert M., M.D. Edin., at Newport, Isle of Wight, on February 8, aged 67.

Wilkinson, Charles, M.R.C.S. Eng., at Southgate, Middlesex, on February 9, aged 73.

Willders, Frederick W., M.D., at Stamford-street, Blackfriars, S., on January 29, aged 36.

Medical Charities.—The following Institutions will benefit under the will of the late Mr. George Dodd, F.S.A., formerly M.P. for Maidstone, and late of Grosvenor-place, who, in addition to liberal sums to other non-medical charities, has bequeathed to the St. George's, Middlesex, and Lock Hospitals £100 each, and £200 to the Royal Humane Society. The following act of seasonable benevolence was reported on Friday last at a meeting of the Committee of Management of

King's College Hospital, when an old friend and liberal supporter of the charity, who requested that his name should not be mentioned, attended and handed to the chairman the munificent sum of £504; representing sixteen new life governors' donations at thirty guineas each, in aid of the current expenses of the Hospital.

THE BLANE MEDALS.—These naval prizes, founded by the late Sir Gilbert Blane, have just been awarded to Charles Forbes, M.D., M.R.C.S., of H.M.S. *Topaze* (1860), and Andrew Graham, M.D., of H.M.S. *Agamemnon* (1861).

THE forty-sixth anniversary of the Hunterian Society was held during the last week. The annual general meeting for the election of officers and other purposes took place on Wednesday evening, the 8th, when the following list was unanimously agreed upon for the session 1865-6:—*President*—Alfred Smee, Esq., F.R.S. *Vice-Presidents*—Robert Barnes, M.D.; W. Sedgwick Saunders, M.D.; S. W. Devenish, M.B.; Sigismund Sutro, M.D. *Treasurer*—William Cooke, M.D. *For the Oration of* 1866—D. de Derdt Hovell, Esq. *Librarian*—Stephen H. Ward, M.D, *Secretaries*—H. I. Fotherby, M.B.; W. Allingham, Esq. *Council*—Henry Blenkarne, Esq.; Thomas Brown, Esq.; P. Lodwick Burchell, M.B.; F. M. Corner, Esq.; Esquire Dukes, Esq.; J. Braxton Hicks, M.D.; Thomas Mee Daldy, M.D.; Thomas B. Crosby, M.D.; G. Nelson Edwards, M.D.; Robert Fowler, M.D.; G. Lichtenberg, M.D.; Buxton Shillitoe, Esq. After the business meeting the annual oration was delivered by Mr. Hutchinson, before a very full audience, consisting of the members and numerous friends who had been invited, and who listened with great interest to an eloquent address, which occupied more than an hour in the delivery. On Friday the usual dinner took place at the London Tavern, when the retiring President, Dr. Daldy, occupied the chair, supported on either side by Professor Owen and Dr. Greenhalgh, the President of the Medical Society; several other guests were also present, and enjoyed with the members the social pleasures of the evening. The usual toasts were given, and the speeches were interspersed with some exeellent singing by Messrs. Montem Smith and Ransford.

THE POOR-LAW BOARD AND THE HOLBORN UNION.—On Wednesday, at the usual meeting of the guardians of the Holborn united parishes, the letter of the Poor-law Board, published in the last number of the *Medical Times and Gazette*, on the late inquiry on the death of Timothy Daly, came on for consideration. The guardians resolved themselves into a committee, and the portion of the letter of the Poor-law Board which censured Mr. Norton for remissness in keeping his books came under discussion. A desultory conversation arose on the letter, and on the recommendation of Dr. Carr, the Medical officer who assisted Mr. Farnall—namely, that the drugs should be found by the parish, and that the Medical officer's salary should be raised from £100 a-year to £150—it was stated that this would be a double "rise," as the Medical officer now has to find the drugs out of his salary of £100, and two or three of the guardians were of opinion that the salary of £100 was sufficient, as the Surgeon had fees which amounted to upwards of £50 a-year additional. After a long discussion it was resolved to recommend the Guardian Board to reconsider the whole subject of the Medical relief, both indoor and out, and when the Board resumed this was adopted. On the motion of Mr. Cullen, it was carried that the clerk should write to Mr. Norton and convey to him the censure of the Poor-law Board, with the expression of a hope that in future he would attend to his duty in respect to keeping the books. The proceedings then terminated.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—At a meeting of this Society on February 6, a patient was introduced by Mr. Ramsay wearing the apparatus invented by Dr. Kingsley for cleft palate, with the view of allowing the members to see the improvement resulting from the use of the apparatus. The patient was requested to read and speak. Pathological preparations were exhibited by Mr. Ibbetson and Mr. Fletcher. The Secretary read a paper by Mr. Cartwright and himself "Upon the Skulls at Hythe Church, Kent." The writers, after stating how the bones were arranged at the above church, gave reasons for disbelieving the traditionary account of how they had been collected—viz., after a great battle between the Danes and Saxons; the appearance of the skulls, and the number of them that had belonged to children and probably to females, were contrary to such a view. The maxillæ principally occupied their attention; the alveolar arches were all well developed, and the teeth were in quality much finer than are usually seen in the present day. Irregularities of any kind were uncommon amongst them. In many cases they were much worn, probably from food containing much of the outer husk of the grain, and grit from the rude utensils used in preparing it. Caries existed, but to a less extent than is seen in the present day; it occurred generally on the masticating surfaces of the teeth, and was attended in most cases with alveolar abscess. Mr. Coleman read a paper "On Certain Forms of Irregularity and their Treatment." The object of this paper, as stated by the writer, was to bring before the Society certain views propounded by Mr. Cartwright at a former meeting, and which had not been fully discussed. Mr. Cartwright's opinion was, that the increasing prevalence of contracted dental arches were ascribable to increasing civilisation with selective breeding. This view was fully adopted by the writer, who adduced a large number of observations which told in its favour; he also agreed with the same authority in the treatment of cases of contracted maxillæ, with irregularly placed teeth; but in some cases he advocated a line of treatment not commonly pursued by Dental Practitioners. The discussion was adjourned till the next meeting.

LECTURE DELIVERED BY DR. BROWN-SEQUARD BEFORE THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—The President of the College, Dr. Beatty, took the opportunity of Dr. Brown-Séquard passing through Dublin on his return from America, to invite him to deliver before the College a Lecture "On the Physiology of the Brain and Nervous System." The lecture was delivered in the splendid new hall of the College on the evening of Friday, the 3rd inst. On this occasion all Graduates in Medicine and Surgery were admitted on presenting their cards, and the result was a large attendance. The learned lecturer gave a most able and interesting discourse, proving the importance of a thorough knowledge of physiology to the practical Physician. He first brought forward a number of types of hemiplegia, showing the light which is thrown on them by physiology, concluding this part of his subject with some observations on those forms of this affection which depend upon hæmorrhage in the cerebellum, and upon lesion of the anterior lobes of the brain. In the first of these we have vomiting, hyperæsthesia in some parts of the body, and amaurosis—the last-named symptom being due not to pressure on the tubercular quadrigemina, but to reflex action. As to the anterior lobes of the brain, it is known that phrenologists have considered them to be organs of speech; but there are many cases—and such a one had been mentioned to the lecturer by Dr. Stokes a few days previously to the lecture—where destruction of these lobes had taken place without any loss of speech. This symptom, also, Dr. Brown-Séquard looked upon as a reflex phenomenon. A remarkable peculiarity attending it is, that the loss of speech is usually unaccompanied by any difficulty of movement in the tongue; it appears rather to be the result of a paralysis of the "organ of expression of thoughts." The learned lecturer next passed to a class of cases characterised by pain in the back, a pricking sensation in both arms, with some degree of itching, burning, or by a strange sensation of heat and cold alternately in the skin of both limbs. Such symptoms depend altogether on inflammation of the nerves at their exit from the spine in the lower part of the cervical region, and may be removed, or at all events greatly mitigated, by active blistering of the spine in the region of the injury, dry cupping, etc. Dr. Brown-Séquard next proceeded to describe two very opposite classes of symptoms, both produced by fracture of the cervical portion of the spine. He then dwelt at some length upon the great variety of symptoms presented in brain disease, adding some remarks upon asphyxia and poisoning. He showed that poisoning often proved fatal by producing a diminution of temperature incompatible with life, and that if two similar animals poisoned with the same quantity of opium were placed in a cold room, one being carefully covered with warm clothes, while the other was exposed to the cold, it would be found that, *cæteris paribus*, the animal which was kept warm would survive, while the other would die. This fact obtains with almost every poison of an organic nature, that considerable diminution of temperature is produced, if not in itself sufficient to cause death, enough at least to add a powerful cause to the other causes existing. Now, this diminution of temperature is a feature which we can combat, and it is therefore of the utmost importance, in cases of poisoning, to use every means to keep up the temperature of the body. On the conclusion

of Dr. Brown-Séquard's able address, which was listened to with the greatest attention, a vote of thanks to the learned lecturer was proposed by Dr. Stokes, and was carried by acclamation.

Belfast Branch of the Royal Medical Benevolent Fund Society of Ireland.—The annual meeting of the subscribers to this branch of the above Society was held on the 8th inst, Dr. Patterson, in the absence of Dr. T. H. Purdon (the permanent president), presiding as chairman. Resolutions were adopted, amongst other important business, urging the continued exertions of the friends of the Society in support of its invaluable and truly benevolent objects, and calling, in particular, upon every member of the Profession not hitherto subscribing to its funds to do so as a bounden duty, and the nobility and gentry to aid also in furtherance of its increased usefulness; as upon them, and the wealthy portion of the community generally, the Medical Profession had the strongest claims, its members admittedly being so liberal in affording their services, without fee or reward, for the public weal. Deputations were also appointed to visit the principal towns in Antrim and Down on behalf of the Society, in order to increase the number of its supporters. A committee of management for the current year, to meet quarterly, was now appointed, consisting of Drs. T. H. Purdon (the permanent local president), Patterson, Drennan, Moore, T. H. Reade, H. S. Ferguson, Cuming, and S. Reid, as town members; and Drs. Spearing (Antrim), Musgrave (Lisburn), Filson (Portaferry), Keown, R.N. (Sydenham), and Surgeon Patrick (Carrickfergus), as country members. Drs. Browne, N.N., and Stewart were re-appointed treasurer and secretary respectively, and a vote of thanks passed to them for their past efficient services in the discharge of the duties of their offices. Some further routine business having been disposed of, and the thanks of the meeting given to the chairman of the day—Dr. Patterson—the meeting separated.

*** [In inserting the following, extracted from the *Hampshire Telegraph and Sussex Chronicle* of February 11th inst., we venture to think that Mr. Howell will be found to have repeated an exaggerated and *ex parte* statement, and that, before this, the affair has assumed a different complexion. In the meantime the editor of a local paper gladly hails every little incident in the Town Council, particularly if it can, by any possibility, be made to sustain a sensation heading:—]

The Contagious Diseases Prevention Act.—Startling Allegations.

Mr. Howell said it would be remembered, perhaps, that at their last meeting he directed attention to this Act, and expressed a hope that the wise and valuable decision of the Legislature might be strictly carried out, as it must be productive of considerable good; and it was now his duty to bring before the consideration of the Board a most flagrant case which had been communicated to himself and Mr. Wells, and which, he thought, deserved their most serious consideration. The circumstances of the case appeared to be that one of the metropolitan police, by virtue of the authority conferred by the Act, removed an unfortunate woman to the Hospital, and after she had been there about six or seven weeks, about half-past five o'clock one evening she was ejected from the institution, very little better than when she went in. Having directed attention to the clause which provided that no such woman could be even discharged from the Hospital until the expiration of three months from the date of her admission, he submitted that it was a very unkind and unnatural act to force, and actually with violence, a woman from the Hospital in the condition she was then in at half-past five o'clock on a wet evening. The consequence of the case was that she was taken to Mr. Way, the relieving-officer, who took compassion on her, and on the following day (which was the 25th of January) she was admitted into that Union-house. She entered the Hospital in the name of Ann Perrier, and was admitted into the Union as Emily King, being a young woman, and having come, as she said, from Southampton; and he thought it was a disgraceful thing, for he had questioned the woman very closely upon the point, and she declared most positively that she was ejected from the building with violence. The Clerk: By whom? Mr. Howell: Mr. O'Brien, the House-Surgeon. If such was the case he thought that some special notice should be taken of it, and he, therefore, proposed that a letter be written to Mr. O'Brien requesting that he would explain the cause of the same. (Hear, hear.) Mr. E. M. Wells said he did not think Mr. Howell had gone quite far enough. (Hear, hear.) He (Mr. Howell) had made a very serious charge against the House-Surgeon at the Hospital, and he thought that they should write to the authorities, for it was a very serious matter. Mr. Howell was much obliged to Mr. Wells for the suggestion, and thought that was the proper course after all. He really thought it was but just that the House-Surgeon should be called upon to explain the reason why he ejected this poor woman. Mr. Wells then seconded the amended resolution, and after some further conversation, it was adopted unanimously.

New Employment for the Medical Profession.—The following extraordinary statement, if true, does not speak highly for the public estimation of morality in which the district concerned is held, however it may testify to the sensitiveness of its fair sex on the subject of their reputations. "The following advertisement appeared in the *Inverness Courier* of Thursday last:—'To the Editor of the *Inverness Courier*. —'Dores Free Manse, Feb. 7, 1865.—'Sir,—Two females from Lochend called on me this night with a view to the publication of the accompanying document as an advertisement in the *Courier*. I hereby give my concurrence to the foresaid proposal. Have the goodness to send the document to Dr. Campbell, that he may insert one or two words which are wanting in his certificate, which must have been hurriedly written. Yours very truly, A. Macpherson.'—'A rumour having been circulated tending to affect the character of the fair sex of Lochend, in reference to the body of a child lately found in Loch Ness, the inhabitants of the district deemed it expedient to get their character adjusted by Dr. Campbell, from Inverness, who on Monday last met all the young and unmarried females of the place in the vestry of the Free Church, and certified as to their character being free from reproach. A reward of £5 is hereby offered to any party who can give correct information to the Rev. Mr. Macpherson, Dores, of any one attributing the perpetration of the crime to any of the females within the bounds of Lochend. Lochend, January 25, 1865.'—'I hereby certify I have examined a number of young women of Lochend, and have no reason to believe that any of them have been recently confined.—W. A. Campbell.'"

Scurvy.—An inquiry has been recently held by Mr. Humphrey, Coroner, at the Albion Tavern, Shadwell, touching the death of Heinut Popper, aged 40, one of the crew of the American ship *Santee*, from Calcutta for London. The ship in question sailed from New Hampton, and was commanded by Captain Parker, of whom personally the survivors of the crew speak well. Some fourteen months ago she took on board at Bremen a German crew of fifteen men, with whom she sailed to Calcutta. She sailed thence for London with a cargo of linseed. Julius Meenoot said that on leaving Calcutta, five months ago, the hands were all well. The provisions were not clean. No one could eat the meat, it was so bad. The coffee consisted chiefly of peas ground up. There was no fresh meat, but there was *boulli* once a week, and latterly oftener, and the pork was not bad. No lime juice was on board, but a winebottle full of vinegar was allowed to eight men per week. The steward was the first who fell sick; he died from scurvy. That was three months after leaving Calcutta. Several men were attacked with scurvy after that; among others the witness and the deceased. While witness was on deck he could get something to eat, but when below he could get nothing but hard bread. The sickness was caused from the bad provisions. Alman Dalahe said that he fell sick as well as the rest. The meat had a strong smell. The rice was good, but was so badly cooked that it was unfit to be eaten. John Brown, a Prussian, gave similar evidence, and said that the cook would sometimes give and sometimes refuse the necessaries to the sick men. There was no medicine for scurvy on board. Barrels of the meat had to be heaved overboard. It appeared that out of the crew of fifteen men two died on the voyage, two more in port, and that one or two others were in a hopeless state. Dr. D. Ross said that the ship came into the Victoria Docks on Wednesday night, and the next day witness was called to the deceased and others of the crew at Austemeier's lodging-house, Shadwell. Deceased and another died at once, from impoverished condition of the blood from scurvy. Limejuice was a specific for scurvy, and according to recent investigations scurvy did not arise either from contagion, impure air, or living on salt provisions, all which causes had been assigned to it; but from deprivation for a length of time of fresh succulent vegetables, causing the loss to the blood of an

essential element—the salts of potash—which was found in sufficient quantity in citric acid or lemonjuice. Therefore if there had been lemonjuice on board the ship, and if the rice and pork had been properly cooked, the lives of the deceased men would in all probability have been saved. The coroner said that the vessel being a foreign one she was not bound by the Act of Parliament compelling lemonjuice to be carried by British ships. The jury returned a verdict, "That deceased died from scurvy, from natural causes, accelerated by the want of properly cooked provisions, and by the total absence of limejuice on board the ship *Santee*."

THE GENERAL PROVIDENT ASSURANCE COMPANY (LIMITED).—This is a Society which seems desirous of enlarging its sphere of operations, and amongst other "features" advertises a homœopathic referee, as well as a Medical adviser. Query, do these gentlemen meet? Is any higher or lower value set on a homœopathic patient's life? Are there new Homœopathic Life Tables? Are the profits to match?

BULIMIA.—The *Patria* of Naples states that there is at present in the Hospital of Incurables in that city an old woman who is suffering from a strange disease. She every day eats at least five portions of roast meat, seventy eggs, several loaves, and other food, of course including a good quantity of maccaroni. When attempts are made to reduce her diet she raves like a mad woman. Professor Zamoglia has recently undertaken to cure the poor woman; but up to the present time her appetite remains unimpaired.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Unfortunate must be seen by a Medical man. We cannot prescribe.

Non-Existence of Syphilitic Virus.—We are sorry that we cannot insert the venerable Dr. Macloughlin's letter on the non-existence of the syphilitic virus. His arguments are of the verbal order, and put us in mind of the old proof of the non-existence of motion.

Nelson's Inhaler.—In our notice of the above, last week, we omitted to state that it may be obtained of Messrs. Maw and Son, Aldersgate-street, E.C.

Poitrinaire.—All the benefits derivable from inhalation are well known to Medical men. The quack advertisements referred to are not issued by persons within the pale of the Profession.

Received for Mrs. Walker and family, of Crick, near Rugby—Dr. Bisset Hawkins, second donation, £5.

The French Medical Association and the Prosecution of Quacks.—In the *Medical Times and Gazette* of February 4, 1865, it is stated that the Editor of the *British Medical Journal* had asserted that the French Medical Association did not give energetic support to the prosecution of quacks. We are informed that the real meaning of the Editor of the *British Medical Journal* was, that the French Association advised and patronised the prosecution of quacks, but that it left the doing of it to the Medical Practitioner at his own risk and peril, without contributing any money. We believe that the encouragement of prosecutions is considered of the greatest importance by the French Association, and that it does all short of finding money—gives advice, employs a standing counsel, etc.

Oriental.—The following are stated as properties of the betel nut:—

"Betel nut is bitter, hot, sweet, spicy, binding, alkaline,
An emulcent, an astringent,—foes to evils intestine;—
Giveth to the breath a fragrance, to the lips a crimson red;—
A detergent and a kindler of love's flame which lieth dead.
Praise the gods for the good betel! these be thirteen virtues given,
Hard to meet in one thing blended, even in the happy heaven."

Erratum.—Page 161, in the paragraph on the late Dr. Jones Quain, line 5, *for* "prosecutor," *read* "prosector."

THE GRIFFIN TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscriptions have been further received on behalf of the above fund:—Dr. J. Cogan, Wheatley, £1 1s.; Dr. F. J. Sandford, Market Drayton, £1 1s.; Dr. J. S. Belcher, St. George's East, 10s. 6d.; amount previously announced, £114 8s. 6d.; received at *Lancet* Office, £7 17s. 6d.

I am, &c.

ROBERT FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, January 25.

THE PUFF OBLIQUE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As a native of Maidstone, I occasionally see the local papers, and am surprised to see continual puffs of the Ophthalmic Hospital and its Surgeon, a specimen of which I enclose.

I am, &c.

Kennington, S. A MAN OF KENT.

"'EYES RIGHT.'—We are happy to be able to state that the epidemic at the Ophthalmic Hospital has entirely abated, thanks to the prompt measures of Mr. Adams, the very able and courteous Surgeon. He has taken procautions to keep the out-patients affected with it entirely separate from those not affected, and by these means every trace of it has vanished. This admirable Institution has relieved this year as many, or rather more patients than last year, and is very fortunate in having so valuable and attentive a Surgeon as Mr. Adams, who puts eyes right with the quickness of a drill sergeant."

COMMUNICATIONS have been received from—

APOTHECARIES' HALL; AMICUS; ODONTOLOGICAL SOCIETY; Mr. R. FREEMAN; Dr. C. R. GOODMAN; Mr. R. BYWATER; Dr. JOSEPH BELL; Mr. W. HOOPER; Dr. MARTYN; Dr. H. J. FOTHERBY; Dr. STEWART; Dr. PRESTWOOD LUCAS; ROYAL INSTITUTION; Mr. H. J. THORP; Dr. USSHER; Mr. F. T. COATES; Mr. PONSONBY ADAIR; ETHNOLOGICAL SOCIETY OF LONDON; Dr. ROBERT FOWLER; Dr. J. A. BROWN; MEDICAL SOCIETY OF LONDON; Dr. BISSET HAWKINS.

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 11, 1865.

BIRTHS.

Births of Boys, 1171; Girls, 1165; Total, 2336.
Average of 10 corresponding weeks, 1855-64, 1944·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	764	825	1589
Average of the ten years 1855-64	678·5	688·7	1367·2
Average corrected to increased population..	..	..	1504
Deaths of people above 90	..	3	3

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	4	6	3	10	9	2
North ..	618,210	5	7	5	2	16	16	2
Central ..	378,058	4	..	6	..	14	9	1
East ..	571,158	..	8	18	2	22	11	3
South ..	773,175	3	11	10	6	20	20	6
Total ..	2,803,989	13	30	45	13	82	65	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·982 in.
Mean temperature	35·3
Highest point of thermometer	50·2
Lowest point of thermometer	24·7
Mean dew-point temperature	29·9
General direction of wind	N.E.
Whole amount of rain in the week	0·38 in.

APPOINTMENTS FOR THE WEEK.

February 18. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Marshall, "On the Nervous System."

20. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Mr. De Meric, "Clinical Experience in Syphilis."

21. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. John Crawfurd, Esq., V.P., "On the History of Cannibalism in Reference to Social Progress." — Travers, Esq., "On the Destruction of the Aborigines of Chatham Island by a Maori Invasion."

PATHOLOGICAL SOCIETY, 8 p.m. Meeting.

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, F.R.S., "On Electricity."

22. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

HUNTERIAN SOCIETY (Council Meeting, 7½ p.m.), 8 p.m. Mr. Maunder, "A Case of Pistol-shot Wound of the Chest Surgically and Medico-legally Considered." Mr. Couper, "Some Observations on Chloroform Inhalation, and Description of a New Inhaler."

MEDICAL SOCIETY OF LONDON, 8½ p.m. Lettsomian Lectures—Lecture III. "On the Treatment of Hæmorrhoids and Prolapsus of the Rectum," by Henry Smith, Esq., F.R.C.S.

23. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædie Hospital, 2 p.m.; West London Hospital, 2 p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, F.R.S., "On Electricity."

24. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 8 p.m. John Evans, Esq., F.R.S., "On the Forgery of Antiquities."

ORIGINAL LECTURES.

LECTURES ON CHEMICAL AND MECHANICAL DISEASES AND THEIR RELATIONSHIP.

By H. BENCE JONES, A.M., M.D., F.R.S.

Lecture II.

DISEASES OF SUBOXIDATION—ON ACIDITY, OR THE ACID DIATHESIS.

(Continued from page 167.)

On the Symptoms of Excess of Acidity.

As in diabetes, so in acidity, there are no symptoms when the disease begins. The over-acidity or the excess of sugar may come and go away without being observed. A little heartburn or a little urgency in passing water may last only for a few minutes, and be cured by nature as quickly as it was caused. Only when the skin or mucous membrane have become irritable by the continued action of the acid, do symptoms of acidity force themselves on the notice and require Medical aid. The amount of uneasiness or pain will vary with the sensitiveness of the membrane and with the degree of acidity. Slight degrees of acidity hardly irritate the skin; but itching, nettle-rash, eczema, and herpes are the outbursts of an over-acid state.

The mucous membrane of the stomach is less sensitive than that of the pharynx, œsophagus, and bowels. When 162 grs. or even 81 grs. of dry tartaric acid in four or six ounces of water are taken, the acid hurts the mouth and the upper part of the food-tube, and then ceases to be felt for three hours or more, when it causes violent griping pain for an hour or two. When the mucous membrane has become irritable the stomach becomes much more sensitive, and acidity causes pain, cramp of the muscular coat, and vomiting; the bowels feel more and move more strongly, and violent pain, colic, tormina and tenesmus come on.

If the sensitiveness of the mucous membrane of the urinary organs is increased, the nerves and muscles become irritable; urgency and frequency of passing water gradually increase into constant pain and violent spasm of the bladder. In the urethra a scalding pain is felt, and constriction of the mucous membrane causes a complete stricture whilst the spasm lasts.

When the acidity is excessive, the skin, stomach, and urinary organs may all be simultaneously irritated. In other words, the amount of acid formed may be so great that it is thrown out everywhere. Most frequently the acidity only shows itself in the stomach and in the urine; and the symptoms produced in the stomach and urinary organs are so closely dependent that the same treatment that does good to the one mucous membrane will be found to do good at the same time to the other.

I might here, if time permitted, give you innumerable cases of acidity illustrating the great persistence and intractability of the deposit of uric acid, and its great liability to return as soon as the alkalies are omitted, unless the strictest diet is observed. The resemblance of these cases to cases of diabetes is very striking; and, moreover, in slight diabetes or intermittent diabetes the production of excess of acid is very frequently to be met with.

I must, however, give you two cases illustrating the rarer consequences of this excess of acidity. A gentleman, aged 40, consulted me for constant deposit of urates and uric acid in the urine. He had been subject to these deposits for years; for the last few months occasionally, from one to five hours after a late dinner, he was attacked by pain in the stomach, which in a short time became intermittingly spasmodic. The intensest pain was reached in half a minute, it then relaxed, and returned as badly as before in two minutes. His suffering lasted about an hour, when the pain gradually abated, leaving a tenderness on pressure and an irritability after food for two or three days. The urine passed after the attack gave on standing uric acid crystals. I advised him when another attack occurred to fill the stomach with hot water and then to reject it. This he did, and a considerable quantity of nearly clear acid fluid was thrown up; on repeating the emetic later during the same attack, a much more intensely acid fluid was obtained, showing that probably an hour-glass contraction of the stomach had existed. By careful diet and anti-acid medicines the attacks entirely ceased. In another patient, six or eight hours after food, attacks of violent cramp used to occur in the rectum, and last from half-an-hour to an hour. Relief at the time was obtained by pressure on a hard seat, and by careful diet and alkalies the attacks entirely ceased.

Before speaking of the treatment, a few words must be said

On the Consequences of Excessive Acidity.

In all I have hitherto said of diabetes and acidity a parallel might be drawn between the two diseases, with this difference—that the bland sugar acts as a diuretic, whilst the irritating acid affects the nerves and muscles, causing pain and spasm; but in the consequences of the two diseases an entire divergence must be noted. Diabetes causes a painless weakness and atrophy. Acidity is the cause of from 60 to 50 per cent. of all the cases of stone that occur in England. Dr. Prout says—"If a uric acid nucleus had not been formed and detained in the bladder, two persons, at least, out of three who suffer from calculus would never have been troubled with that affection."—P. 583 "Stomach and Renal Disease."

In the 26th vol. of the Medico-Chirurgical *Transactions* for 1843, I have given the analysis of the calculi in St. George's Hospital. In 233 calculi, 89 consisted of uric acid alone; that is, 38 per cent. of these stones were caused *solely* by acidity. Whilst 135 consisted of uric acid; uric acid and oxalate of lime together; and of these substances mixed with urates; that is, 58 per cent. were wholly or *partially* caused by acidity.

Gravel is still more frequently caused by over acidity. Seventy-five per cent of all renal calculi are uric acid, caused by acidity alone. Hence three out of four renal attacks, giving rise to almost as violent mechanical suffering as the human body can endure, are caused by a slight chemical disorder which often continues unobserved until the mechanical disease is set up.

On the Treatment of Acidity.

The relation that exists between diabetes and over acidity is even more evident in the treatment than in the causes and symptoms of these diseases. The best diet for diabetes is the best diet for over acidity. The same medicines are most useful in both complaints. The same immediate effect can be produced by treatment, and there is the same disposition to a relapse after the symptoms have entirely ceased when wrong food is taken.

The treatment of acidity must be considered under two heads: First, the diet; and secondly, the medicines.

With regard to the diet. All that has been said against saccharine and farinaceous diet in diabetes might be repeated here, inasmuch as these substances give rise in the system to various acids in their progress to carbonic acid and water. Hence, as regards the action of sugar, dextrine, and starch, I may refer to the lecture on diabetes; but as the acid diathesis arises from a slighter check to the chemical actions of the body than the saccharine diathesis, therefore a less strict diet will give a greater improvement in this disease than in diabetes. Moreover, medicines effect a more decided good in over acidity than in the saccharine complaint, and on this account, also, greater liberty may be given in diet provided the acidity from the food is neutralised by alkaline medicine.

Another difference must be made in the diet of those who suffer from these complaints. In diabetes, fatty substances, cream, butter, fat, and oil check the wasting of the body; but in excess of acidity these articles of food often give rise to great uneasiness in the stomach; they are very liable to cause a peculiar feeling of irritation, which is known as heartburn. Thus, over acidity and heartburn often can be removed and kept away by leaving off sugar and butter. In severer cases, potatoes, rice, arrowroot, and a considerable portion of the daily bread must be given up. Fruits of all kinds are mostly highly flavoured ether mixtures of starch, sugar, and acid. Wines and beer chemically differ from fruit only by containing alcohol instead of some starch and sugar. Alcohol itself, very probably in the stomach as well as in the air, gives rise to acid, and the weak spirit and sugar of half-fermented beer and effervescing wine more easily undergoes this acid fermentation than fully fermented wine and pure spirit. Hence, in extreme cases of acidity small quantities of lean animal food, including fish, flesh, fowl, game, and eggs, and brandy-and-water, constitute the best anti-acid diet. All fluids containing sugar should be avoided; and alkaline gaseous mineral water, natural or artificial, will neutralise a portion of the acidity which the imperfect combustion continually produces.

Exactly the opposite diet was advised at the dawn of animal chemistry, on the ground that the ash of vegetables containing alkalies, these would neutralise all the acid that should arise from the starch and sugar. But take, for example, potatoes: the amount of acid-producing substances is from 20 to 30 per cent; the amount of alkali at most will not reach to 1 per cent. Or take bread: the ash of bread would neutralise at most 1 per cent. of acid. The amount of acid-producing substances in bread is 46 per cent. Any other fruit or vegetable would give equally good evidence against a vegetable diet in over-acidity.

The object of medicines in this complaint may be divided into—first, the removing, and secondly, the neutralising of acid.

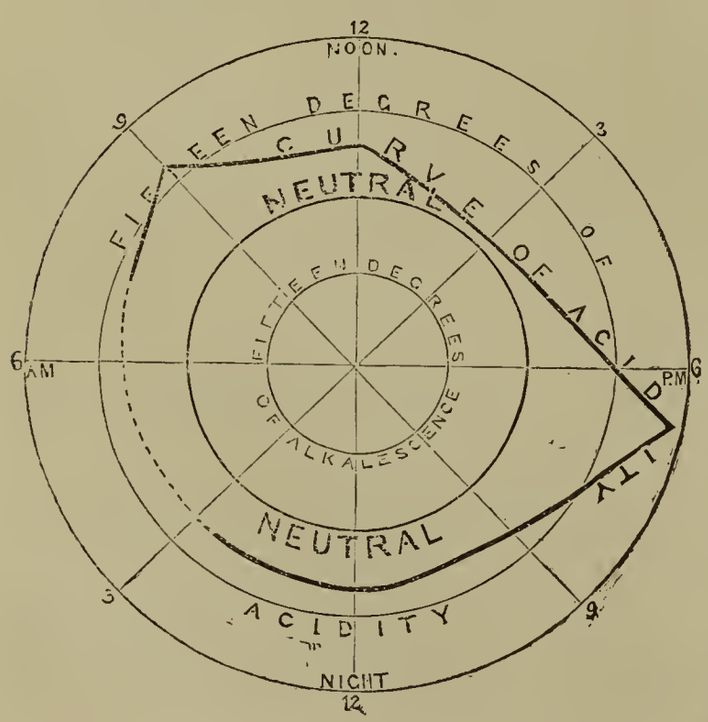
The removal of acid is effected most immediately and directly by emetics, emptying the stomach at the time when the greatest quantity of acid is present, that is, during the digestion of a full meal. In the treatment of the acidity of children, this is the shortest and readiest way. Hot water, mustard and water, ipecacuan will remove more acid than would be neutralised by the usual amount of alkali that could be taken daily. The repetition of the emetic should depend on the re-appearance of uric acid crystals in the urine.

The free action of the skin by baths, especially Turkish baths and vapour baths, or by strong exercise, removes acid quite as effectually, although more slowly, than by taking away the gastric juice. Moreover, an increased natural action disarranges the system less than a stomach catastrophe, which, though scarcely felt by the young, is a shock unfitted for advancing years. Of all the methods of exciting perspiration strong exercise is the best, because this generally implies a freer respiration, and this means the greatest possible conversion of acids into carbonic acid and water. The more bracing the air is, and the more free from mechanical and chemical impurities in the form of dust, smoke of all kinds, fogs, and noxious gases, the more vivid is the combustion, and the greater is the amount of acid that is removed from the system through the lungs.

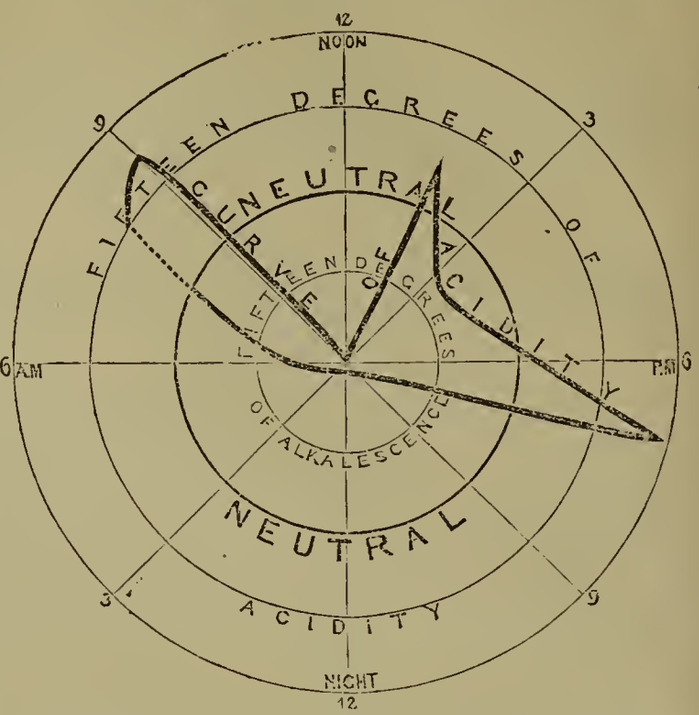
There remains to be considered the removal of acid by the kidneys. By increasing the action of the kidneys, an increased quantity of acids of many kinds, from carbonic acid to uric acid, is thrown out of the system. Diuretics thus become veritable anti-acids. Hence, pure water and nitre and mineral waters, by exciting diuresis, relieve the blood and textures of acid, but whilst promoting the action of the kidneys the acid may be neutralised, and this is the second object to be obtained by medicine.

In neutralising the acidity of the urine, by far the most effectual medicines are vegetable salines, containing fixed alkalies or earths. The following diagrams will show you better than any words of mine how differently salines containing volatile and fixed alkali act on the urine:—

Five drachms of tartrate of ammonia in the day.



Five drachms of tartrate of potash in the day.



Each degree of acidity or alkalescence was made equal to the twelfth of a grain of carbonate of soda. Although five drachms of tartrate of ammonia were taken in the day the urine was not made alkaline, not even neutral; whilst after the same quantity of tartrate of potass the urine was alkaline for the greater part of the day, and at one period reached as low as thirty-two degrees; in other words, a thousand grains of urine contained three grains of carbonate of soda. Moreover, eighty grains of carbonate of ammonia daily in three different experiments did not make the urine neutral, though it acts more strongly than most alkalies in neutralising the acidity of the gastric juice in the stomach. Three drachms and a-half of liquor potassæ, containing $6\frac{1}{4}$ per cent. of potass, taken in one day, though it lessened the acidity, did not cause alkalescence; still, no doubt, the action of this and other alkaline remedies, when long continued, produces very decided effects in neutralising acidity, the comparative worth of equal quantities of different alkalies may be determined by their combining proportions.

Thus 10 parts	lithia	= 12 parts	ammonia.
,,	,,	= 14	,,	magnesia.
,,	,,	= 19	,,	lime.
,,	,,	= 21	,,	soda.
,,	,,	= 33	,,	potass.
,,	,,	= 54	,,	bismuth.
,,	,,	= 25	,,	carb. of lithia.
,,	,,	= 27	,,	carb. of ammonia.
,,	,,	= 29	,,	carb. of magnesia.
,,	,,	= 35	,,	carb. of lime.
,,	,,	= 37	,,	carb. of soda.
,,	,,	= 48	,,	carb. of potass.
,,	,,	= 70	,,	carb. of bismuth.

In other words, fourteen grains of magnesia will neutralise as much acid as twenty-five grains of carbonate of lithia, or forty-eight grains of carbonate of potass, or seventy grains of carbonate of bismuth. One grain of carbonate of lithia is nearly equal to a grain and a half of carbonate of soda or two grains of carbonate of potass.

In ordering these different alkaline substances, their constipating or their aperient action must be considered; and beyond all this, the peculiarities of different individuals must be learnt by experience. That carbonate of soda to the amount of two ounces and a half daily may be taken for months with impunity may be seen in a case in Med.-Chir. *Trans.*, vol. v., p. 80. The blood had a strong buffy coat. The urine was alkaline. In speaking of the treatment of diabetes, I have dwelt on the alkaline action of different mineral waters. I must refer you to what I have already said. There is in the treatment of acidity an advantage in giving mineral waters which does not exist in the treatment of diabetes. In acidity pure water may be regarded as an anti-acid. It lessens the symptoms, and prevents the consequences

of the acidity; where strong acid irritates, weak acid has no effect. Strong acid quickly sets free uric acid; whilst weak acid has to make up by time what it wants in force, so that simple dilution, or the amount of water that exists in the mineral water, becomes an important means of relieving acidity.

When the acidity is excessive, all these different methods of lessening acidity must be used at the same time. To give acid in the food and to neutralise it by medicine is child's play, unless the amount of alkali taken exceeds the amount of acid eaten. The greatest possible effect can be obtained by stopping acid from going in, by removing acid by perspiration, and by the stomach, skin, and kidneys, and by neutralising the acid by lithia, ammonia, magnesia, or soda.

ORIGINAL COMMUNICATIONS.

ON NUTRITION.

By LIONEL S. BEALE, M.B., F.R.S.,

Fellow of the Royal College of Physicians; Physician to King's College Hospital; Professor of Physiology and of Morbid Anatomy in King's College.

Every tissue and every organ of the body, as is well known, is composed of a great number of small elementary parts or cells resembling one another. Moreover, the elementary parts of all tissues of all organisms, although differing from one another in structure, function, properties, and composition, nevertheless possess certain characters and properties in common. All exhibit the phenomena of growth, all form or produce certain peculiar substances, all appropriate certain materials and communicate to them properties or powers which they did not possess before. All are capable of producing new cells.

Now, a cell or elementary part of a tissue, though it be less than $\frac{1}{1000}$th of an inch in diameter, does not exhibit the same properties and composition throughout, but every living growing cell consists of matter in two very different states:—1. *Matter which is living;* and 2. *Matter which has ceased to live.* (See figures.) The living or germinal matter is within, and appears dark and granular in the drawings; the matter which has lived, or the formed material, is external to the germinal matter, and is indicated by a smooth tint. In the process of development, formation, and decay, the constituent particles of each elementary part or cell pass through certain definite changes, which always occur in the same definite order. In the process of nutrition the nutrient pabulum pursues the same course in all; it becomes changed in the same wonderful manner by the action of the living matter with which it comes into contact. This living matter passes through its various phases of existence like matter which lived before it, and perhaps it is to be followed by new matter, the particles of which will induce similar changes, and follow those which preceded them.

The nutrition of the monad, of the plant cell, or of the cell of any tissue of man, seems to be conducted upon the same principles. Nutrition cannot be imitated in inanimate matter, and seems to be due to the operation of a wonderful force or agency, of the nature of which we know nothing save that pre-existing living matter of the same kind manifested similar active phenomena. If, then, we desire to investigate the process of nutrition, and to account for the phenomena which take place in the nutrition of healthy or morbid structures, we must study the process as it occurs in a single component elementary part of a tissue or organ; in fact, *the nutrition of the cell.* When the changes occurring in one single elementary part of the tissue or organ are satisfactorily explained, those which take place in the entire tissue, organ, animal, or man will soon be understood.

This wonderful process of nutrition does not consist in the mere deposition of matter which was dissolved in a solution, or crystallisation would be a form of nutrition; nor is it an attraction of certain particles of matter for particles of a similar kind dissolved in the surrounding fluid, or the formation of a calculus would be due to nutrition. Neither is nutrition a chemical process resulting from the strong affinity of matter of one kind for matter of another kind which is drawn from its state of combination, for if this were so, many chemical operations would be illustrations of the process of nutrition.

Nutrition involves far more than takes place in these or any other phenomena occurring in inanimate matter. And no one has yet been able to bring about changes in inorganic materials at all resembling those which occur in the nutrition of the simplest living organism in existence (see Fig. 9, illustrating the phenomena which are comprehended under the term *Nutrition*). But it has been so frequently and so very confidently affirmed that the tendency of modern scientific discovery is to break down the barrier which it was formerly believed separated things living from things inanimate that some persons regard it as an opinion generally received by scientific men, and justified by observation and experiment, that the difference between the phenomena occurring in the inorganic world and in living beings is a difference of degree rather than a difference of kind. This view rests upon vague general assertions alone, and has as yet no real foundation whatever. Those who entertain such a doctrine should state in what particulars the lowest living form, such as a monad or a microscopic fungus, resembles inorganic matter, and in what particulars it differs from inorganic matter. It is time that earnest, unprejudiced men, who are willing to learn, should be simply told what is really known, and encouraged to inquire further, instead of being overwhelmed with mere high-sounding unsupported assertions, which in many ways retard the advance of true science. Those who have most earnestly and carefully studied the matter well know that many of those wonderful phenomena occurring in healthy and diseased structures cannot be accounted for, unless the operation of some force or power or agency, distinct from ordinary force or energy, is assumed, and it is mere trifling to assert that the tendency of investigation is to prove that vital force is but another mode of simple energy or motion, unless facts are adduced in support of such a view. Some may rest content and cease to inquire further when they are told that the human *machine* resembles a machine made by human hands; but any one who has actually studied even in a superficial manner the structures evolved during the formation of the human machine, the arrangement of a single tissue, the action of a single organ, or even of a single cell, to say nothing of the phenomena occurring during disease, will have seen sufficient to lead him to doubt if there exists any real analogy between man's machinery and the machinery constructed by man, and he naturally asks those who profess to see so much farther than he can see to show him in what particulars even a single simple living cell resembles the most perfect machine ever made by human hands.

The structural forces which lie latent in molten masses, to which crystallisation of amorphous drops of matter is due, are one thing, and the "structural forces" which lie latent in the drop of living matter, and cause the "crystallisation" (!) of matter in the shape of muscles and nerves and other tissues, are another. The "constructive force" of crystallisation which lies latent in the drop of water manifests its activity when heat is abstracted. The "constructive force" of living matter comes into operation only when heat has been added. Yet it is assumed that in each case the "constructive force" is a form or mode of heat itself; and although the assumption is unsupported by reason, it passes unquestioned, and is even regarded by some as a new scientific truth,—as an evidence of our progress towards what is called unity! One would have thought that the differences between crystallisation and the production of tissue had been shown often enough and clearly enough already to convince any impartial observer that crystallisation, and formation of tissue, were two very different processes; but is it probable that those who have embraced the dogma that the *only* forces operating in nature are derived from the sun can be influenced by argument or reason, or their faith shaken by the results of observation and experiment?

It has been assumed that the molecular forces of the crystal and the molecular forces of the cell are molecular forces of the same kind acting under different relations or differently conditioned; but we have not been taught in what the relations differ, or what is to be understood by the term "conditioned." According to some philosophers we might say, Here is a living cell, and there its pabulum. The forces of the latter, originally derived from the sun, become so "conditioned" by the atomic machinery of the cell as to result, in one case, in the formation of a cabbage, in another an oak, and in another a man, and so on! Force may be "conditioned" by machinery made by us so as to set in motion various wonderful instruments; but we know, or may learn, the structure and arrangement of the machinery by which the conditioning is brought about. Before we can understand what is meant by the word "conditioned" as applied to the atomic machinery of the cell, we

must be taught something of the structure of its *atomic machinery;* but upon this subject the New Philosophy maintains the most profound silence. It asserts largely, and, as smoothly as confidently glides with incredible swiftness from one position to another. Why should it pause to explain? Physiologists may ask in what points the living cell resembles the machine made by hands? and the conclusive answer is, that it does!

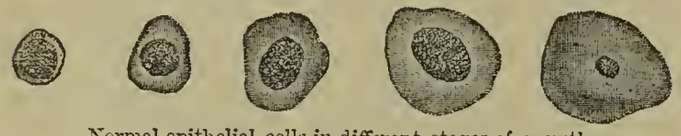
If, however, we inquire for ourselves, and examine the living matter in which this conditioning of force goes on, we find in it no evidence of structure at all; there is no *machinery* that we can see. A power of 10,000 diameters reveals no structure whatever, nor can we see any difference in different kinds of the living matter, although the conditioning is so widely different. The conditioning of force by a machine which has been manufactured, the structure of which is well known, must, therefore, be a very different process from the conditioning of force by living matter, the structure, composition, and arrangement of which are unknown. This living matter is all important to the nutritive process, but it has been ignored by those who consider all the changes to be due to physical force.

Let us now endeavour to ascertain simply what changes may be proved to occur during the nutrition of a cell. Whether vessels be concerned or not in the mere distribution of the nutriment is of no importance, as vessels have nothing to do with the process of nutrition itself. The thing to be nourished must be composed, at least in part, of living (germinal, protoplasmic, or nucleus) matter,—that is, of matter in a state or condition which, for the time being, differs in its properties, powers, or forces from every other state in which matter is yet known to exist. Formed or lifeless matter *alone* cannot be nourished without the agency of living matter any more than a crystal or a calculus can be *nourished*,—although matter may be *deposited* upon its external surface, or even in its substance.

If ordinary epithelial particles or cells be examined at different periods of growth, it will be noticed that the relative proportion of the *living matter*, to the *formed matter* varies considerably; and from these observations we can form a notion of the changes which occur in one cell as it undergoes development.

An epithelial cell at different ages is represented in Figs. 1, 2, 3, 4, 5. At first it consists of a mass of germinal matter,

Fig. 1. Fig. 2. Fig. 3. Fig. 4. Fig. 5.



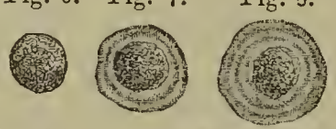
Normal epithelial cells in different stages of growth.

which was detached from a pre-existing mass, with a very thin layer of soft-formed material around it. This latter continues to increase in the manner I have described in my lectures at the College of Physicians in 1860.(a)

In such a simple cell, then, the phenomena of *nutrition, growth, and formation* may be studied.

In many cases an arrangement as of concentric zones (Figs. 6, 7, 8) around the mass of germinal matter may be observed. This does not arise from the deposition of layer

Fig. 6. Fig. 7. Fig. 8.

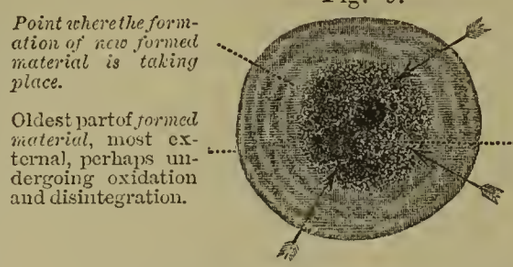


Deposition of formed material in concentric layers.

upon or *outside* layer, as in the formation of a calculus, but from the formation of layer *within* layer. This part of the subject has been worked out in other papers, and need not be further discussed here.(b)

In NUTRITION, certain constituents of the pabulum are not changed, or altered, or modified by the action of the nucleus or cell wall as is generally taught; but certain of the very constituents of the pabulum actually become the germinal matter, and this latter becomes resolved into formed material, which is added to that previously produced or compensates for what is removed by decay. The following figure shows the course which the pabulum takes during the process of nutrition:—

Fig. 9.



A living cell to show that the process of nutrition consists of

1. The passage of the pabulum through the formed material when it reaches the germinal matter.
2. The conversion of some of its constituents into germinal matter.
3. The conversion of some of the germinal matter previously existing into formed material which is deposited layer within layer, as it were, upon the *inner surface* of the formed material already produced. In many cases the successive layers are incorporated with one another.

The process of *oxidation* probably affects the outer and oldest part of the formed material chiefly, and, in some instances, occur in this situation only.

Nutrition, therefore, comprehends the appropriation of inanimate nutrient matter by living matter *which already exists;* the conversion of the nutrient matter into living matter, and the latter into formed matter, which may increase that which has been already produced (growth of formed material), or may compensate for that which has been destroyed or removed (maintenance).

The process of nutrition may be divided into three stages—

First Stage of Nutrition.—(*a*) The passage of pabulum in solution through the formed material. (*b*) Its contact with the living matter.

Second Stage of Nutrition.—The conversion of certain constituents of the inanimate pabulum into active living matter.

Third Stage of Nutrition.—The conversion of living matter into inanimate formed material.

(To be continued.)

(a) See also "Structure Growth and Life," p. 27, "How to Work with the Microscope," third edition, p. 225, and papers in the *Archives of Medicine* and *Microscopical Journal*.

(b) "Structure Growth," etc., p. 17.

THE TREATMENT OF ENTERIC FEVER WITH LARGE DOSES OF QUININE.

By JOHN FORMAN, M.R.C.S.

In 1837 and 1838 typhoid fever, so much more prevalent on the Continent than in this country, was treated with large doses of quinine. About this period it was administered in the Hospitals of Paris in 50 grain doses with the view of cutting short intermittents. In 1851 Professor Hughes Bennett used it in 10 grain doses in some severe cases of typhus and typhoid fever in the Edinburgh Infirmary, and although this was a very limited trial to warrant a judgment, the unfavourable opinion expressed at this time by this truly able teacher of Medicine led me to disregard this drug in the treatment of what we may now term our annual autumnal enteric fever. Until I observed the communication of Deputy-Inspector-General Hare, Bengal, in this journal (c) in November and December, 1864, "On the Treatment of Malarious Fever in India with Quinine." That gentleman's successful treatment of these tropical fevers led me to try the effect of large, frequently-repeated doses of this drug in cases of our enteric fever. The success I have met with during a short epidemic period of two months is certainly in the highest degree encouraging, and warrants a free and extended trial, and this communication is prompted in the hope that the success I have experienced may be endorsed by the practice of others.

Before commencing the quinine treatment, I have long been convinced of the efficacy of emetics as a premonitor to the general treatment of zymotic diseases, when administered at an early stage of the attack, and I am still inclined to precede the quinine by administering a mild emetic, particularly in subjects of a sanguino-bilious temperament; it is only natural to suppose that superfluous biliary matter must not only tend to increase the gastro-intestinal irritation, but also act as a barrier in some measure to the action of any remedy of a specific character.

I will illustrate as briefly as I can the treatment I have adopted by selecting promiscuously from my note-book three

(c) *Medical Times and Gazette.*

out of a considerable number of cases I have lately had under my care :—

Case 1.—Mrs. S., aged 53 years, assisted to nurse and sat up for several nights with family B., three of whom were ill of enteric fever. December 12, 1864, was the last night she sat up with the sick children, when she was seized with a chill and nausea. She continued to pursue her ordinary avocations, complaining of being out of sorts ; had impaired appetite, irregular chills, and headache until the 16th, when I saw her. She was then complaining of nausea, which had increased during the preceding night, attended with intense headache, sleeplessness, chills alternately with hot skin; pulse feeble and accelerated; tongue moist, red tip and edges creamy, fur in centre; thirst and retching; bowels relaxed after taking a dose of castor oil last night. She has severe aching pains in her joints and lumbar back. A mild ipecacuanha emetic was administered ; vomiting to be encouraged for two hours by warm diluents ; after sickness subsided to take 10 grains of quinine in half-drachm doses of phosphoric acid and water every three hours. After 40 grs. of quinine had been taken, deafness with considerable confusion in the head supervened; no decided impression produced upon the pulse (the great indicator for good or evil in fever) ; 20 grs. more were taken during the following eight hours, when the dose was reduced to 5 grs. every four hours ; this was continued until 120 grs. had been taken, when dilute phosphoric acid was continued only till the 20th, when all her fever symptoms had passed away. She was able to be about again on the 25th.

Case 2.—Mrs. B., mother of the sick family already mentioned, age 47 years. She has had eleven children; youngest four months, at the breast. During the night January 1, 1865, she was seized with prolonged shivering, accompanied with intense headache, sickness, and vomiting. I saw her during the day, and found her in bed along with two children very ill of enteric fever; the characteristic rose spots were developed in both cases. Another child had succumbed to the same disease a few days previously. (These children were treated with mineral acids and nutrients, with occasional mild doses of castor oil to assist the elimination of septicæmic excrementitious matter. They made a tardy recovery.) Mrs. B. had hot, pungent skin ; quick, feeble pulse ; nausea and thirst; her tongue had a dry, brown stripe down the centre, with red tip and edges ; bowels regular; intense headache; soreness over whole body, etc. Her child was sent out to be nursed, and after some directions being given about the arrangement of her room, ventilation, etc., the same treatment as in Mrs. S's. case was pursued, and on the evening of the fourth day after her attack all trace of fever had disappeared.

Case 3.—Mr. L., Excise officer, aged 38 years ; January 5, 1865, seized with a chill last evening, and continued to shiver during the whole of last night. This morning he has severe headache; neuralgic pains over the whole body, particularly in lumbar back ; conjunctivæ of jaundice tinge ; heavy expression of eyes, contra to his lively normal temperament; skin warm ; pulse 80, very compressible ; tongue coated with dry, brown fur ; insatiable thirst; bowels relaxed. After the nausea of an emetic had subsided, fifteen-grain doses of quinine were administered in dilute phosphoric acid every four hours. The physiological effect of the drug was distinctly manifested in eighteen hours, when the dose was diminished one-half. His attack was attended with violent bilious diarrhœa, accompanied with bloody mucus excrement, acute ileo-cæcal tenderness, etc. ; and although this patient is of the decided gastro-intestinal irritative diathesis, he was entirely relieved of his distinct fever symptoms on the fourth day after his smart invasion, and able to leave his room in eight days.

Remarks.—When symptoms of specific fever manifest themselves in the system, it is a rational inference to attribute this to the introduction of morbid matter into the blood. Our object, then, is clearly to administer an antidote energetically, and in sufficient quantity, on the same principle as we would administer sulphates in lead poison or prussiate of potash for hydrocyanic acid. The restorative and expectant methods of treatment seem to be as humiliative in the present day as the justly-abandoned antiphlogistic method of forty years ago. I am sanguine to hope that quinine will be endorsed as the future antidote for enteric fever, and bring it to its termination in one instead of three weeks, its ordinary course. As many months are frequently required to establish convalescence under the ordinary treatment.

In a future communication I will give a more extended trial of this drug, also the merits or demerits of muriate of cinchonine as a febrifuge and antiperiodic. The enormous demand for quinine, and the probable future diminished supply, may induce us to husband it for use in important cases only, also to test the efficacy of other medicines, such as muriate of cinchonine.

Fettercairn, Kincardineshire.

POISONING BY LAUDANUM TREATED BY ELECTRO-MAGNETISM AND BELLADONNA.

By PRESTWOOD LUCAS, M.D., M.R.C.P.,
Physician of the Brecknock County and Borough Infirmary.

A. P., aged 11, at 6.45 p.m. of December 15, 1864, swallowed an ounce and a-half of laudanum, sent to her by mistake for a black draught. She soon became very drowsy, and perspired freely. Her breathing gradually becoming very heavy and oppressed, her mother at length became alarmed, and Medical aid was sent for.

I arrived at the house at 9.15 p.m., and found my friend Dr. Davies already there, preparing to introduce the stomach-pump. The child had been kept walking about the room between two persons, who perseveringly employed the usual physical means of rousing her consciousness. Her face was cold and livid; hands, arms, and feet cold ; pupils contracted ; pulse 96. She could be roused by shaking and loud speaking, and then knew every one around her, looking at them with a half-intoxicated expression—understanding all that was said to her.

At 9.30 p.m. two scruples of sulphate of zinc dissolved in warm water were injected into the stomach. Only faint traces of laudanum were found in what was brought off the stomach, the remainder of that which had been swallowed having passed into the system.

The stomach was afterwards well washed out at intervals with repeated injections of warm water, each injection being followed by one of strong coffee. A sinapised foot-bath and, later, sinapisms to the calves of the legs were used.

Instead of being incessantly walked about the room, she was taken to walk for about a hundred yards and back in the open air, and allowed to rest in the intervals. The drowsiness, however, kept increasing. At one o'clock a.m. she was comatose; the breathing stertorous; face flushed; respiration only six in a minute ; pulse 100, small and feeble ; pupils much contracted ; could still be partially roused.

At 1.30 could not be roused by shaking or loud speaking ; occasional subsultus of the muscles of the arms and twitching of the eyebrows ; lower jaw dropped, showing an incessant to-and-fro motion of the tongue ; respiration 6 ; breathing stertorous.

2.40.—No improvement. Electro-magnetism applied at the upper cervical region and over the epigastrium, chest, and face. This soon roused her, so as to enable us to give her a teaspoonful of a solution of extract of belladonna of eight grains to the ounce.

2.55.—Electro-magnetism re-applied, and a teaspoonful of the solution given. Is more easily roused, but instantly falls asleep again ; breathing still stertorous.

3.20.—Electro-magnetism. An enema administered of gruel, with six drachms of brandy and a teaspoonful of the solution.

3.50.—Electro-magnetism and a teaspoonful of the solution. She now rose up to the sitting posture, and got off the couch to walk across the room supported by two persons, looking about her with an alarmed and bewildered expression, but apparently not recognising any one. She was, however, sufficiently awake to drink a cup of strong coffee, taking the cup in her hand. Face becoming more flushed ; pupils less contracted ; pulse 104 ; respiration 6 ; less stertor when asleep.

4.10.—Electro-magnetism and a teaspoonful of the solution. Is easily roused ; now sees and knows us.

4.40.—Enema as before, with the addition of two drachms of aromatic spirit of ammonia. Pulse 136 ; respiration 8 ; no stertor ; face highly flushed.

5.50.—Electro-magnetism and a teaspoonful of the solution. Has now received sixteen grains of extract of belladonna. No stertor ; respiration 8, attended with a soft sighing moan ; pupils moderately dilated ; is quite easily roused when spoken to ; answers questions and begins to notice objects.

From this time till 7 a.m. she was allowed to remain sleeping, reclining in an easy position on her left side, with her shoulders

and head raised. She was only spoken to occasionally, to ascertain that she could be easily roused. A diffused flush overspread her face and forehead, and a pleasant warmth and moisture the whole body. Pulse from 140 to 150; respiration 11. At 12.30 p.m. was sleeping, breathing softly; very easily roused, and perfectly conscious when awake. Respiration 12; pulse 150; pupils moderately dilated. Had much thirst, and some irritability of stomach and vomiting in the afternoon. Next day pupils were much dilated. She had slight diarrhœa, and afterwards speedily recovered.

In treating such a case as the one now detailed, of course the first and indispensable thing to be done must be to empty the stomach of its contents as speedily as possible, and then to wash its mucous surface thoroughly by injections of warm water. The usual methods of rousing the patient's consciousness by incessantly walking about, slapping their hands and limbs, etc., we soon forbade, believing that—owing to the fatigue and exhaustion produced by forced muscular efforts, much more harm than good would be done. With a like feeling we were very reserved in our use of electro-magnetism, apprehensive of the possible nervous exhaustion which a continued use of so powerful an agent might induce. Having first roused the patient out of the profound coma in which she lay, we afterwards applied it only just enough to enable her to take the solution which we gave her. We then allowed her to sleep until the next dose was to be given, and so on. We employed stimulants, external and internal, as has been described; but we could not help attributing the happy result in this case chiefly, if not altogether, to the influence of belladonna in counteracting the effects of the opium of which so large a quantity had been taken into the system. But at the same time, we found in electro-magnetism an invaluable resource; without it we could not have roused our patient to swallow anything.

One of our highest authorities on the subject of poisons, to whom the particulars of this case have been communicated, considers the result to be owing to the vigorous measures we adopted, and believes that the belladonna had little or nothing to do with it; but as regards vigour of treatment, the usual methods of rousing the patient by physical efforts and stimulants completely failed. The narcotism became more and more profound, until at length the child could not be roused at all out of her unconsciousness. It was not until we had recourse to electro-magnetism and belladonna that any signs of improvement took place. If recovery was solely due to electro-magnetism, a very moderate application of it was sufficient in this case, and it would be well to remember this in the treatment of similar cases. But it may be asked, how could a child of 11 years take sixteen grains of extract of belladonna in less than three hours, without experiencing any of its usual toxical effects, unless for the counteracting influence of the opium which had been previously taken? More importance might be attached to this argument had not Dr. Fuller shown, in a most interesting paper read by him to the Medico-Chirurgical Society, and published in the *Medical Times and Gazette* in July, 1859, the extraordinary tolerance of belladonna in young subjects. He described the tolerance of the drug as being so great, that "one child of 10 years took seventy grains of extract of belladonna daily, and a total amount of rather more than two ounces in twenty-six days. Another child of 14, to whom atropine was administered, took no less than thirty-seven grains in eighteen days! Whilst in adults two grains of the extract of belladonna daily would often induce vertigo and dizziness, and he found he could not establish a toleration of the larger doses, as in children."

This yet unexplained tolerance of belladonna in young subjects is, however, a question apart from that of its physiological relations to opium. The present case may not be considered as altogether fair evidence of the efficacy of belladonna, inasmuch as electro-magnetism was also employed in its treatment. But in Dr. Anderson's cases in India of opium poisoning, belladonna was the only remedy used. One of his patients in the course of thirty-six hours had swallowed two ounces of solution of hydrochlorate of morphia for delirium tremens. He was in a state of profoundest narcotism. He was made to swallow a drachm of tincture of belladonna in water every half hour. After the third dose the pupils began to dilate; in four hours and a half he was out of danger, having taken six drachms of the tincture. He also relates a similar case in which an ounce of the tincture in three ounces of water was given between 9 and 9.30 p.m., and in the course of the next half hour two drachms more were taken. At 2 a.m. all indications of opium poisoning had disappeared.

On the other hand, as to belladonna poisoning, Mr. Bell's two cases are most striking. His patient had had a fourth of a grain of sulphate of atropine in solution injected over the sciatic nerve. Its toxical effects in due time declared themselves, and the patient's condition became "altogether alarming," and was without any indication of improvement. A strong solution of morphia was injected into the gluteal region of the opposite side, which happened to be next to the edge of the bed. Almost immediately an improvement was perceptible. In two hours and a half his worst symptoms had disappeared, the next morning he was apparently quite well. The other case was less alarming, but equally displayed the influence of opium as an antidote to belladonna. Nor should the cases recorded by Mr. Seaton, of Leeds, be forgotten, of the ten persons poisoned by eating the ripe berries of the atropa belladonna, in which opium was given with such signal benefit.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASES OF TRICUSPID REGURGITATION.

We have been induced to bring forward the following cases of disease of the tricuspid valves, not so much because, compared with other forms of valvular disease, tricuspid disease has been, and still is believed by many to be rare, but because the following examples appear to illustrate some of the special circumstances under which tricuspid bruit may be produced. Further, they serve to assist in explaining how it happens that while there is good evidence from general symptoms of actual regurgitation through the orifice, yet there is no tricuspid bruit to indicate it:—

Case of Cirrhosis of the Lung, accompanied with Tricuspid Regurgitant Bruit—Death—Autopsy.

(Under the care of Dr. BARLOW.)

Richard B., aged 34, admitted into John Ward October 26, 1864. Occupation of late years a labourer, but in earlier life had been a sailor. His habits had been intemperate, and had been accustomed to drink freely of both beer and spirits. Could not give any account of his family history, other than that he believed his mother had died of dropsy. He left home when twelve years old and went to sea. Nine years ago was in St. Thomas's Hospital for five or six weeks with hæmoptysis, but he recovered from that, and was able to do his work much the same as usual until three weeks ago, when from severe pain over the region of the liver and between the shoulders he was obliged to give up work. Nevertheless he admitted that he had been subject to a cough and more or less shortness of breath, and moreover said that he had been getting thinner of late. He is a strong, powerful built man, and his muscles are apparently fairly nourished; he certainly cannot be said to be particularly thin. Skin moist, not hot; spots of purpura on the arms; face and lips bluish, and become livid on coughing; tongue white and furred; pulse regular; respirations 32. He lies most easily on his left side. Complains of his cough and great shortness of breath. Expectorates a quantity of tenacious mucus streaked with blood.

Physical Signs.—Dulness all over left side, with increased vocal resonance, and crepitation at the left apex. Expiration prolonged over both sides. Heart.—Rhythm regular. A systolic bruit heard with the greatest intensity a little to the left of the ensiform cartilage, but conducted best towards the right; not heard at the base of the heart nor in the axilla. Increased dulness over the hepatic region, accompanied by pain on pressure, and also by pain increased on inspiration. Urine not albuminous, acid reaction, and copious deposit of lithates. Œdema of feet and ankles.

In the clinical books there are full details of the further progress of the case, but want of space compels us to condense our report. He continued in much the same condition for three or four weeks, when symptoms of capillary bronchitis supervened, which seemed to be the immediate cause of death, on December 12.

Autopsy, by Dr. Wilks.—Face bloated and purple; general anasarca moderate in amount; abdomen distended; dulness over the whole of the left chest. Head not examined. Pleura:

Left enormously thickened, the costal unusually so, but the pulmonary was natural over a small part of the lower lobe, where it was to all appearance healthy; there was a circumscribed, keloid-looking patch on the right pleura, thick and puckered; no effusion. The right bronchus was natural; the mucous membrane of the left was of a rich red colour, and as thick as a peach skin; the secondary and all the smaller bronchi were shrunken and gristly, very red within; there were no dilatations. The right lung, though very large, was quite healthy in its texture; there was no emphysema, except a little of the interlobular sort on the diaphragmatic surface. The left lung, at its upper part—in fact, in its whole extent, except a piece the size of a pear—posteriorly, was converted into a gristly mass, which on section showed the cut ends of great vessels and shrivelled tubes, with a great deal of white fibroid tissue. In one or two places there was a piece of seemingly good lung, of the size of a broad bean, left as an islet in the fibrous mass. Glands normal. The heart was very large; left ventricle normal. The right side of the heart was much hypertrophied and dilated; and this was especially true of the auricle. The tricuspid valve was thickened round its edge. The aortic valves were thick, but were not puckered; there were no vegetations. Mitral normal.

In calling attention to this particular bruit, Dr. Barlow remarked that the question in his mind was whether it was due to regurgitation through the tricuspid orifice, or whether it was of exo-cardial origin. Whilst it is difficult to prove that such a bruit is not of exo-cardial origin, yet the following circumstances would favour the idea that it is due to regurgitation through the tricuspid orifice:—First, the point of greatest intensity of the bruit was near the ensiform cartilage, and, although not immediately over the sternum, yet it was conducted better and more distinctly in that direction and more feebly towards the left apex, and was not heard at all in the left axilla, nor at the angle of the left scapula. Secondly, there was visible pulsation in the jugular veins. Then, lastly, there was the evidence of great obstruction through the lungs and a dilated condition of the right side of the heart, as shown by the extreme lividity of the face and the œdema of the feet and ankles. But still, Dr. Barlow remarked, the bruit might have been an exo-cardial one, and one which he was in the habit of calling "a distension murmur." For, he said, the right side of the heart being much dilated, and, perhaps, also there being here (what has been noticed in many such cases) white patches situated especially over the surface of the dilated ventricle, the murmur might have been due to friction – a kind of murmur which, in many cases, it was very difficult to distinguish from an endo-cardial one. It will be remembered that Dr. Barlow, in his Gulstonian Lectures, called the attention of the Profession to some circumstances which seemed to show that many of the so-called "mitral" bruits had not an endo-cardial, but an exo-cardial origin; and Dr. Barlow is still of opinion that not a few of the murmurs which are confidently said to be due to disease of the mitral valves are produced either on the surface of the heart by friction or at the tricuspid orifice by regurgitation.

The second case is of somewhat similar character, and for the notes of it we are indebted to Dr. Wilks. Although it occurred several years ago, it has not been before published.

Chronic Pneumonia (Cirrhosis of the Lung)—Systolic Murmur Heard over the Ensiform Cartilage—Death—Autopsy—Disease of the Tricuspid Valves.

Geo. P., aged 62, a powerful-looking, well-built man, was admitted, October 12, 1859, into Job Ward, under the care of the late Dr. Addison. He was by occupation an engine-driver, and was said to have been troubled with a cough and shortness of breath for more than five years. When admitted he had well-marked physical signs of general bronchitis, with dulness and bronchophony on the right side. There was a systolic bruit, which was heard with greatest intensity towards and over the ensiform cartilage, and feebly conducted towards the left apex and to the left axilla. The patient remained in the Hospital for several weeks, and died November 19. As the chief interest of the case for our present purpose is simply in reference to the physical signs referring to the heart, we give no further details of the life history.

Autopsy by Dr. Wilks.—Body wasted; legs dropsical, and skin having a slightly yellowish shade. Head not examined. Lungs: Right universally adherent, and tissue so tough that the organ had to be cut out of the chest. The lung itself was consolidated from end to end, so that there were only a few portions left which were permeable by air. The pulmonary tissue appeared to be converted into a dense, tough, fibrous tissue, and this so hard that it could not be broken down by the finger. The induration, however, was not yet complete, for it was not uniform, some parts being harder than others, giving the section a knotted appearance, and as if the hardening process had begun in several distinct places at the same time. The colour of the section also was nearly black from a deposition of pigment throughout. There was no softening of any part except at the apex, where a very small cavity existed. The tubes were not much diseased, but at the upper part they were rather large, and their walls were thickened; elsewhere they were not affected. The pulmonary artery was very much diseased. It was, in the first place, considerably dilated, the branches throughout the tissue being much larger than natural. The coats of the vessel were also very much thickened, and the whole inner surface was covered with atheromatous deposits. The vessel, in fact, resembled very much a diseased aorta. Some of the smaller branches were entirely obstructed by ante-mortem coagula, as were also some of the pulmonary veins. In the main pulmonary vessel there was a layer of fibrine closely adherent to the walls of the vessel, and with difficulty separable. The left lung contained some indurated masses, showing the commencement of a similar disease to that in the right. Heart enlarged from hypertrophy of the right side. The auricle was distended and dilated, and ventricle much thickened and much dilated. The edges of the tricuspid were thickened. The left ventricle was of full size, as well as the auricular ventricular opening.

In this case Dr. Wilks stated that Dr. Addison, who did not believe in tricuspid murmurs, considered the murmur to be due to a mitral regurgitation. But from the fact that during life the murmur was heard loudest at the end of the sternum, and gradually diminished in intensity towards the left apex and left axilla, and, again, as the post-mortem examination showed there was no disease at the mitral orifice or valves, but very extensive dilation and hypertrophy of the right ventricle, and also great dilatation of the tricuspid orifice; and, again, that the right auricle was very considerably dilated and attenuated, Dr. Wilks concluded that there was little doubt but that the murmur had been produced by regurgitation through the tricuspid orifice.

Although in each of the above cases it is recorded that there was a systolic bruit heard most distinctly over the right apex, and that the general symptoms showed marked dilatation and hypertrophy of the right side of the heart, yet it is not to be denied that it is far from uncommon to find a great amount of dilatation of the right side of the heart and of the tricuspid orifice without a tricuspid bruit during life. But this difficulty seems to be explicable when we remember that in order that mere dilatation of the ventricle, and consequent widening of the orifice, may be accompanied by a murmur, it appears to be necessary that the regurgitating blood should be propelled backwards with a certain degree of force. This remark is illustrated by dilatation of the other ventricle. In regurgitation through the mitral orifice, there may be no bruit from mere feebleness of the left ventricle.

The histories of the two cases above recorded show that there had been great and persistent obstruction through the lungs for several years, by which the right ventricle had become gradually and at length highly hypertrophied, and in consequence the regurgitant current received a sufficient amount of force to cause bruit. Whereas in cases of chronic bronchitis with emphysema, in which it is not uncommon to find an equal amount of pulmonary obstruction and consequent dilatation of the right side of the heart, there is no tricuspid bruit, for the pulmonary obstruction is not persistent, nor is it continued over such a length of time as in cases like the two related. The same general principle is illustrated by what takes place in nutmeg liver. We have heard Dr. Wilks remark that it is the exception to find a well-marked appearance of nutmeg liver in cases of chronic bronchitis with emphysema for the simple reason that the cause of mechanical congestion constituting nutmeg liver is not persistent, whereas in cases of obstruction at the left side of the heart or of long continued and constant obstruction through the lungs, as in contracted lung after empyema, etc., it is usual to find the liver presenting the nutmeg condition well marked.

According to what has been above remarked, it is quite evident that the class of cases in which we are most likely to meet with tricuspid regurgitant bruit are those of mitral obstruction, of so-called cirrhosis of the lung, of contracted

lung from empyema, of atrophy and imperfect development of the lung arising from such cause as spinal deformity and from general and extensive dilatation of the bronchial tubes with condensation and atrophy of the pulmonary tissue around them and pressure of an aneurism or other intra-thoracic tumour on the pulmonary artery.

But even with evident obstruction in the lungs and with clear compensatory hypertrophy of the right ventricle, it does not necessarily follow that there should be a murmur to indicate the tricuspid regurgitation, for the ventricles may have undergone degenerative change, and may, although of large size, be of but little power.

In illustrating the most usual features of disease, we must carefully attend to the exceptional ones. Although the rule is, as we have said, that there is not enough hypertrophy in the right ventricle in cases of pulmonary obstruction from emphysema and bronchitis to cause a murmur during the regurgitation through the tricuspid orifice, yet now and then we meet with exceptions to this rule. Sometimes the pulmonary obstruction from the cause above mentioned does cause enough hypertrophy of the right ventricle to produce the murmur, and the following is a case in point. Perhaps absolutely there are more cases of tricuspid murmur to be found with emphysema and bronchitis than in the more marked cases of pulmonary obstruction, but we must keep in mind that emphysema and bronchitis are common and the other class of cases rare.

Tricuspid Regurgitant Murmur in a case of Chronic Bronchitis and Emphysema—Death—Autopsy.

(Under the care of Dr. GULL.)

Mary Ann S., aged 58, married woman, admitted April 30, 1864, into Mary's Ward, under the care of Dr. Gull, stated that she had generally enjoyed good health, with the exception of having had seven miscarriages and had once typhus fever, nineteen years ago. She said that two months ago she first noticed that her breath was very short, and that she could not lie down in bed; also a troublesome cough. One month ago her legs began to swell, and have continued so ever since; she suffered much pain in the left side.

Her chief complaint now is shortness of breath and swelling of her legs, and troublesome cough. Her face is blue and congested-looking. Tongue clean; bowels open; small, feeble, but regular pulse. Mucous râles heard all over the chest. No visible impulse between 5th and 6th ribs, over the left apex, but very distinctly seen in the epigastric region.

First sound, under the left nipple, is very feeble and indistinctly heard, and no murmur detected. At the extremity of the ensiform cartilage a loud, well-marked, prolonged systolic bruit is heard, which gradually becomes less and less audible as the left axilla is approached. No bruit heard at either angles of the scapula. Urine scanty and albuminous.

May 3.—Continued much the same.

6th.—Urine albuminous; sp. gr. 1025; legs much more swollen and œdematous. Dr. Gull ordered her legs to be punctured.

12th.—Seems more feeble; pulse slow and feeble; legs much swollen, and on the right leg there is a large purpurous patch, extending from the knee to the ancle.

13th.—She died.

We several times heard Dr. Gull call the attention of the students to the bruit in this case, asking them to contrast it with a mitral murmur in a patient occupying an adjacent bed.

Autopsy, by Dr. Wilks.—Heart small; right side hypertrophied. Right ventricle dilated and walls thickened. Right auricle very large. Tricuspid valve somewhat thickened at edges.

We could, if space permitted, give further cases of this kind.

We wish to draw attention to Dr. Barlow's opinions as to other modes of production of dilatation of the right side of the heart. He thinks that cases in which adhesion of the pericardium has occurred before growth is completed tend to produce it. He records a remarkable case which he had the opportunity of watching for several years. The patient had had pericarditis at the age of twelve years, continued dyspnœa, with slight alleviation at the time when menstruation was established, but with subsequent relapses. The patient died apparently from bronchitis. The autopsy showed small lungs, small trachea, small aorta, and small left side of the heart, but increased size of the pulmonary artery, and enlargement of the right side of the heart, all the valves being perfectly healthy. Dr. Barlow says:—"I would here remark that the adhesions of the pericardium could not have been the immediate cause either of the hypertrophy or the dilatation, since the adhesion was on the surface of the left ventricle, and the hypertrophy and dilatation were almost wholly of the right ventricle and auricle." He further says—"The explanation may be sought in the impediment afforded to the respiratory movements in the ascent and descent of the diaphragm, whereby in the young subject the development of the lungs are impeded."

While we take this opportunity of calling attention to Dr. Barlow's observations, the more general explanation of tricuspid regurgitation following pericarditis will be found, as might be expected, to be due to mitral obstruction.

Dr. Hope and other Physicians conceived that tricuspid regurgitation was comparatively very rare; but of late years the experience of different Physicians has tended to show that it is not nearly so uncommon as was formerly thought. In fact, Dr. Gairdner goes so far as to say—"Tricuspid murmurs you will find, if you examine carefully, to be nearly as common as other murmurs." And from what we have learned from other Physicians and from what we have observed, we have no hesitation in saying that they are not nearly so rare as was formerly thought. While it cannot be denied, as Dr. Gairdner so justly remarks, that this murmur is often difficult to detect and very liable to be confounded with mitral and exocardial murmur, at the same time there appear to be good reasons for thinking that not a few of the so-called mitral regurgitant murmurs are really tricuspid.

A woman, 53 years of age, was admitted under the care of Dr. Gull, November 16. Her case is recorded by the clinical clerk, Mr. Rootes, until December 1, when the report was continued by another gentleman, whose notes are not entered in the clinical book. The patient died several weeks ago.

In the winter of 1863-64 she began to suffer "from her breath," and had a bad cough, which she fancied was brought on by taking cold. The cough got well, but returned last autumn, and for two months she was very ill. She was, however, able to go out nursing, and was thus engaged on November 9 last, on which day she became so ill that she had to be taken home. Two days later she was brought to the Hospital. She had much dyspnœa, cough, and complained of abdominal pain and flatulence. She got little sleep, as she could not lie down at night on account of her breathing. Her expectoration was "purulent, tenacious, and rusty." The nature of the heart sounds are alluded to by Dr. Wilks in the following remarks, and their connexion with the appearances found postmortem is explained:—

CLINICAL REMARKS BY DR. WILKS ON DIRECT MITRAL MURMUR.

Post-mortem Examination.—The body presented most of the well-known appearances of those who have died of heart disease. The lungs were apoplectic; the liver in the condition known as nutmeg, &c. The heart exhibited in a marked degree the characteristics of obstructive mitral disease; the left auricle-ventricular orifice was so narrow that it would only just admit the point of the finger. This was due to the excessive thickening of the curtains and cords of the valve; the right side of the heart was somewhat enlarged; the left ventricle was about its usual size, whilst the left auricle was most enormously dilated, and at the same time its walls very tough and much thickened; the size of this cavity was even greater than appeared when the heart was removed, since the pulmonary veins were much increased in size and added to the capacity of the auricle. It contained a clot which had evidently been forming for some days prior to death.

Dr. Wilks made the following remarks to his class:—This case is of the greatest possible interest in connexion with the diagnosis of a contracted mitral orifice, and proves as nearly to demonstration as circumstances will permit the existence of a bruit produced by the blood passing through the narrow channel from the auricle to the ventricle, or as it is called a direct mitral murmur. In looking at this heart, you will see that every circumstance is present which is requisite for the production of such a sound. We know that fluid passing through a narrow channel is productive of a murmur as in the case of a constricted aortic orifice, and therefore you might feel some surprise at finding that many of the highest authorities have disputed and still dispute the possibility of a murmur occurring under the same circumstances at the mitral orifice. When a mitral valve is defective, it is admitted that a sound may be produced by the regurgitation of blood through it, but in many cases where a sound supposed to be dependent on such a cause has existed there is no proof that the valve has allowed such a flow of blood backwards; in fact, in very many cases, of

which this is an extreme instance, the appearance of the heart would prove the contrary, and thus you should always attentively examine the condition of the cavities in order to form a conclusion as to the interrupted circulation through them. In this instance, the small size of the left ventricle was a sufficient proof that a small amount of blood only had been sent into it, and the whole of this had been transmitted onwards; whereas the immense size of the auricle showed at once the obstruction which had existed to its discharge of blood, just as the bladder is seen to be hypertrophied in stricture of the urethra. Here, then, is clearly a case showing, without any possibility of mistake, that the blood had been driven through a narrow mitral chink with considerable force; also, it is tolerably certain that there was no regurgitation, for the edges of the valve closed well, and the heart was not enlarged in a manner to produce theoretically a pericardial sound. If, then, a bruit was heard, there could scarcely be a doubt that it was produced in the manner suggested by the passage of blood from the auricle to the ventricle, or that it was a direct mitral or systolic auricular murmur. Why, then, has this not been admitted by the highest authorities on cardiac disease? For the explanation we are indebted especially to Dr. Gairdner, who has put the matter in a clear light and shown that we do find a murmur where we should expect one under such circumstances as exist in the present case. The explanation depends upon the more correct method of regarding the heart's action. It had hitherto been supposed that the auricles and ventricles opened and closed alternately, and that it was during the contraction of the aorta and the second sound of the heart that the auricle contracted; consequently it was thought that if a direct mitral occurred it would be heard at the time of the diastolic sound and at the apex of the heart. It was denied that a diastolic mitral was ever heard in this position, and, therefore, that a sound was not produced by the transmission of blood through the auriculo-ventricular orifice. Dr. Gairdner, however, points out that the auricle contracts after the second sound and immediately before the first sound; and, therefore, a direct mitral murmur should be heard immediately preceding the impulse of the heart; that it is presystolic, although previously mistaken for a systolic. If this is proved, it would place the subject at rest. Now, this was done in the present case by Dr. Gull, who distinctly and repeatedly stated to his class that the bruit was presystolic, and that in consequence the mitral orifice was narrowed. Taking, therefore, the positive diagnosis made during life by Dr. Gull and the condition of heart found after death, no reasonable doubt can remain that in this instance the bruit heard was produced in the manner named. I have no doubt that Dr. Gull will afford you all details on the subject in his clinical lecture.

KING'S COLLEGE HOSPITAL.

ANEURISM OF THE AORTA PRESSING UPON THE PULMONARY ARTERY—DEATH—AUTOPSY.

(Under the care of Dr. JOHNSON.)

E. N., aged 38, admitted into King's College Hospital under Dr. Johnson, April 18, 1864. Has been troubled with palpitation of the heart occasionally for the last three months. Has never spat blood. Has pain in the left shoulder at times. Never had rheumatic fever.

Chest large, fairly expansive. Cardiac dulness extended, and lower down than normal. Chest resonant everywhere; respiration rather loud. The apex of the heart beats two inches below the left nipple, and there is pulsation in the scrobiculus. A loud systolic bruit, supposed to be mitral, is heard at the apex. Second sound very weak. Pulse wiry. The bruit is faintly audible behind. No albumen in urine. He is rather hoarse, and has been so for the last three months. Complains of difficulty in swallowing, the food seeming to be pushed to the right side of the œsophagus.

He gradually improved, and was discharged "relieved" on May 11.

Readmitted September 25, 1864. Has not been well since he left the Hospital, suffering from indigestion and palpitation. Dropsy came on a week before his readmission, and has steadily increased. The breathing has become difficult. His work has been light, and he has lived temperately. He now suffers much from dyspnœa. Expiration loud and rather prolonged. Chest resonant everywhere. The loud bruit is still heard at the apex. Pulse 100, small and weak. Since this attack came on his urine has been high coloured and scanty, containing about one-eighth albumen. He complained of pain in the scrobiculus cordis, which was relieved by dry cupping.

He became rather better for some time, but on October 5 his face was more swollen and blue. Bad cough; breath shorter; pulse 104; respiration 24, laboured. No abnormal sounds on auscultation over the lungs. Expectorates very little. Jugular veins distended. Lips blue.

He gradually became worse, without any special change in the symptoms, and died on October 14, 1864.

Autopsy by Dr. Julius Pollock.—The heart was large, the right ventricle being much hypertrophied and dilated, and forming the apex of the heart. The mitral valve was quite natural. The aorta, besides being much diseased and dilated, was pouched into a kind of aneurism into two or three places, and one of the pouches pressed upon and much narrowed the orifice of the pulmonary artery. The lungs were not at all gorged with blood, since probably very little blood could enter them. The bruit, supposed to be mitral, must have been due either to the dilated tricuspid orifice or to the pressure upon the pulmonary artery, probably the former. The liver, spleen, and kidneys were much congested.

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SATURDAY, FEBRUARY 25.

THE SUICIDE OF GEORGE VICTOR TOWNLEY.

It is no enviable task, and certainly to us by no means an agreeable one, to revive the discussion of the sanity or mental unsoundness of the suicide and convicted homicide, George Victor Townley. It might be probably considered by some that the verdict of the coroner's inquest, in which this question was necessarily raised, should be left altogether unchallenged. And so, were we writing as mere chroniclers of current events, we should have left it; but, as guardians of scientific truth, we do not see what alternative remains to us, unless we are prepared to accept the sensibilities and instincts of the human heart as the final court of appeal in matters intellectual, where a cruel logic grimly prohibits the employment of any tools but her own in the painful search after such conclusions as she will recognise. The interests of the commonwealth can in no way that we can perceive be forwarded by pursuing the suicide to the grave, and hence we, as members of the commonwealth, should be well content if a verdict implying mental unsoundness were invariably pronounced in such cases. It is so pretty universally, and we concur in its reception, not because we hold a Coroner and a jury of laymen to be competent judges in the matter, but because we concur in the charity which dictates the verdict, —the charity "which thinketh no evil." As mere members of the State we concur also in receiving the verdict in the instance of Townley, notwithstanding that, as men of science, we are about to inquire, in the interests of science, whether the suicide of this man is in itself evidence of his mental unsoundness, and if not, whether there are any proofs that, up to the time of his committing it, he was the subject of any of the recognised forms of mental alienation.

Some stress was laid at the inquest, and at the trial for murder a year and more ago, upon the existence of hereditary predisposition to insanity upon the maternal side, no less than eleven members of the family being reported to have been insane at one period or another. Insanity is a disease, and admittedly an hereditary one; but, as with other hereditary maladies, the fact of its existence in a family is no proof of its existence in any individual member of that family. Hereditariness indicates a tendency, and that is all; and its value in diagnosis is just this, that where other proofs are sufficiently strong to support a diagnosis, it confirms the diagnosis in the minds of the observers. In the instance of insanity we will even go a step further, and say that members of families with such a tendency are not uncommonly eccentric in their modes of thought and conduct. Such eccentricity is the mental parallel to the bodily constitution, which, although not itself disease, we recognise in phthisical families, and designate by the term "temperament." If we adopt this phrase we may say that Townley exhibited the insane temperament in the peculiar ethical doctrines he held, and which we have been told on good authority he maintained during the whole period of his incarceration in Pentonville Prison. But as the bodily temperament most frequently met with in the consumptive is yet not consumption, so this eccentricity of Townley, though indicating his tendency to insanity, was not insanity itself. There are those, no doubt, who will demur to this view of the case, and who will maintain that Townley was "morally insane" on the ground of his differing from most other reasonable men, in the manner he did, upon questions which related to his moral responsibilities and his rights over the lives of other people. But such persons would forget one of the primary definitions in the Euclid of Medicine. A man is not bodily diseased because he differs from other men in the precise manner in which his bodily functions are performed; every man has his peculiarities in this respect which, for him, constitute health. It is the departure from the standard of his own sort of health which constitutes disease. Of course, we put aside here the consideration of congenital abnormalities. So, too, with mental health; a man is not mentally unsound because, from the time when his mind undertook independent action, it ran in a certain peculiar groove of its own somewhat different from that in which the minds of other men run; such persons, like those who have a tendency to phthisis, are proper subjects for preventive Medical art; they should be carefully looked after by their friends. To constitute disease, however, it must appear that the mind either gradually or suddenly departed from its own peculiar groove to run astray into an eccentric course; and, as with bodily disease, a departure from the normal state of the individual usually succeeds the application of some adequate disturbing cause, so too we naturally look for some adequate exciting cause for the mental aberrations of the insane. Throughout all the published evidence before us in the history of Townley, we fail to discover the time when his ethical views were other than they have been since under scientific observation; still less can we discover that such aberration succeeded the application of an adequate cause of mental disorder. The chaplain of the gaol stated that he regarded Townley as "morally insane" because, as at Derby, "he appeared quite insensible of the sin of the crime that he had committed." This argument we have disposed of, and neither the Coroner nor the jury were disposed to admit its validity. When questioned as to whether he had noticed any overt act of insanity, the chaplain replied that the only overt act that he could recognise was the act which terminated in his death. The Coroner very properly at once pointed out that in this he was simply begging the question which the jury was to decide. But the reply of the chaplain is one which we must not pass over, inasmuch as it involves the assumption that suicide is in itself an act resulting from mental unsoundness. No doubt self-preservation is one of the most powerful of human instincts, but that it may become inoperative to control the person who contemplates suicide on what he regards as an adequate motive is indisputable. The well-educated and perfectly sane Chinese mandarin who offends his Emperor commits the act almost as a matter of course, and our own law recognises the moral guilt of the *felo de se*, by the exaction of a barbarous vengeance. It is unnecessary to follow this subject any further. We proceed, therefore, to inquire, upon the basis of the facts in our possession, for the proofs either in the conduct, in the conversation, or in the correspondence of Townley of the existence of a condition of mental disease.

The history of Townley after his removal from Bethlehem was briefly as follows:—He was received at the prison on February 3, 1864. At that time he was in good bodily health, and at no time up to his death did he require Medical aid. The Surgeon of the prison states that during the whole year that intervened he observed nothing which could lead him to suppose that he was insane, and had anything strange in his conduct been observed by the warders or chaplain it would most assuredly have been reported to him. He states that nothing had ever been reported to him tending to show that Townley had any want of control over himself. He always found him cheerful. Townley's weight on admission was 12 stone 6 lb.; but at the periodical inspection of the prisoners in January last it had decreased to 11 stone 1 lb. There was nothing unusual in this; it merely indicated that the period had arrived for allowing him some extra diet, and accordingly 5 oz. extra bread were ordered, for which, on the first occasion that offered, Townley expressed his thanks politely to Mr. Bradley. The evidence of the Rev. Ambrose Sherwin, the chaplain of the gaol, confirmed that of the Surgeon. As a matter of course, he possessed higher opportunities of testing the condition of the prisoner's mind, and, being curious in the matter, he says that he observed him closely, yet could not detect any direct evidence of insanity except insensibility to the sinful nature of the act he had committed. He was always courteous, polite and gentlemanly, and ever ready to enter into conversation. During his incarceration he worked first as a weaver, but latterly as a shoemaker, being unhesitatingly entrusted with the sharp tools used in the latter trade. He was on the eve of being removed to the public works at Portland also, where equally dangerous weapons would have been entrusted to him. All this seems to show that to the minds of the prison authorities Townley possessed as much control over himself as other people in their sane senses, if he chose to exercise it. He was treated, in short, as any other murderer would have been under similar circumstances. On Friday, the 8th inst., letter paper, ruled with lines, was served out to him, and he wrote a letter to his friends. This letter has already appeared in the *Times*, and we refer to it because it has been wisely remarked that latent insanity shows itself more certainly in the correspondence than in either the conduct or conversation of the subject of it. This letter must be admitted to be perfectly coherent, and the only expression at all ambiguous about it is this—"The fact is, mum dear, as is usual with me, I am muddled. I turn my brain inside out, and there is nothing there—stagnant." Little stress, however, can be laid upon these expressions when we read the context—"It is true I find what some people would call kind wishes; but, then, that's all rubbish; so what can I do? I can only give you my best and kindest love, and tell you that I am just as usual—no difference whatever." And then follows an observation which is only confirmatory of the idea that his fatalistic notions still adhered to him—notions which he himself very properly designates as "trite." This letter was stopped by the Governor as written in contravention of the prison regulations, having not been written upon the lines only, but also between them. But he was permitted to write a second letter on Friday, the 10th. In this second letter, which we append to this article, he exhibits signs of mental irritation, comments severely upon the Governor as a man hardened by the office he held, and adds—"What can you expect from a pig but a

grunt?" The only sentences which could be tortured into any evidence of an abnormal mental condition are those in which, with a happy unconsciousness, the murderer criticises the character of the Governor as having lost all vestiges of humanity. On the other hand, it is clear, from the reference to his health, that he regarded his life as a burthen and its continuance a misfortune. The letter was, we understand, submitted by the Governor to the Director of Convict Prisons, who authorised its detention on the ground of its insolent tone. What passed between Townley and the Governor on the occasion of the announcement of the Director's decision did not come out at the inquest; but at the same time no evidence was put forward that during the Saturday or on the Sunday there was any remarkable change in the demeanour of the prisoner. All the chaplain tells us is that Townley was "annoyed;" and probably any other sane prisoner would have been equally annoyed under similar circumstances. He went to chapel in the afternoon of Sunday with his division, and the only unusual event was, that after sitting quietly, as was his wont, through the service, he took up his hymn-book towards the close of the concluding hymn, and sang in a full voice the last two verses. They were appropriate to a person about to die, and he probably knew their tenour from having heard them sung before. One prisoner said he had never heard him sing thus before, but another asserted that he recognised his bass voice as one he had formerly heard, and looked round to see whose it was. All this merely indicates, if it indicates anything, that Townley had made his mind up.

Now, with this history before us, on what hypothesis can he be scientifically regarded as a madman? Let us see. Dr. Tuke is a man of great experience in matters of this kind, and in his excellent work on insanity classifies suicidal mania. First, there is the suicidal monomaniac, whose temptation is to commit suicide as if in virtue of "a force acting automatically and superior to his reason and will." Such persons know that they cannot control themselves in this respect, and often seek to be restrained; moreover, these persons feel impelled to suicide apart from any circumstances reasonably moving them to put themselves out of life. Certainly this sort of insanity finds no example in Townley's case. To a mind ill regulated, as his was, admitting no moral responsibility to a higher being, it is the easiest thing in the world to comprehend what his motive to suicide was, just as it is easy to trace out the motive of the preceding homicide. Annoyance, the crossing of his plans in a manner which he could not rectify, seems to have operated on each occasion in bringing about the catastrophe. He could not and would not submit to what was unavoidable. There is no evidence that he was conscious of an impulse to suicide which he desired to control. Secondly, there is suicide the result of melancholia. There is no evidence of this; all the evidence adduced at the inquest is opposed to this hypothesis. Thirdly, there are the suicides which spring from illusions, hallucinations, etc. These, also, must be set aside in so far as Townley is concerned. Fourthly and lastly, there is suicide as the result of sudden and uncontrollable impulse. And this is the hypothesis put forward at the inquest by those who desired to uphold the theory of insanity; "his friends contend that he was subject to impulsive insanity." But in opposition to this must be placed the miserable truth that the suicide in Townley's case was most distinctly a deliberate act. Had there been no evidence of his having contemplated self-destruction up to the moment of the opportunity afforded by the gallery as he came out of chapel, this explanation of the act might have had some show of reason; but unfortunately there is the fact that Townley had attempted suicide at an earlier period of the day, by a different method, but had failed. He had endeavoured to bleed himself to death by opening three veins in his arms; but either he did not know the depth of the necessary incision, or his courage failed him, or perhaps he was interrupted. What hypothesis remains? God only knows the labyrinth of the human heart. The most experienced psychologist is lost amidst its mazes while he attempts to trace out the association of the thoughts out of which results a single action of the most rational and sane amongst us. How much sooner is he baffled when an abnormal intellect is submitted to his investigation. In this the friends of the unhappy convict may take refuge; it was in this that, however unwittingly, the jury and Coroner took refuge when recording their verdict that Townley's suicide was committed "whilst he was in an unsound state of mind." We have endeavoured to study the position of affairs with the aid of scientific experience; but science is not infallible, and "mercy rejoices over judgment."

TOWNLEY'S SECOND LETTER.

(Copy.)

10th February, 1865.

My dearest Mother,—The cause of the delay is as follows:—1st. Letter paper is now only issued on Wednesdays. 2nd. The governor has thought proper to stop a letter I wrote you last Wednesday, the writing not being to his taste. He also requires me to keep to the lines; which, as it is not specified, I was not likely to do. I am sorry for this extra delay, for I fear you will have been making yourself very uneasy the last two or three days. These sort of petty annoyances, contemptible in themselves, become more serious when they affect you through me, and *vice versâ*, unless, indeed, that be the object. Be this as it may, we must make every allowance for nature and education. One cannot expect good feelings or good taste from those whose very vocation has of necessity stifled whatever vestiges of humanity they may have originally possessed; in fact, to use a vulgar but expressive proverb, "what can you expect from a pig but a grunt?" But I must curtail, ruled lines being the order of the day; so here goes for a *resumé* of my first letter. Your birthday! I am afraid, my own mum, my hopes and wishes are but trash, and I would that my love and gratitude were in any way adequate to repay you for all you have gone through for me; I can only wish my darling mother as many happy returns of the day as possible with such an unlucky wight of a son. If you got the lock of hair I sent you, you must take that as the present. By the way, I did not forget dear Kate's birthday, though I fear she thought so. I had my reasons, though foolish ones. My health is good, as usual, so do not make yourself uneasy about that; besides, it is not of any material consequence to me. Indeed, considered as a life preserver, it may be said to be a nuisance. Many thanks for your last two letters, the carols, and magazines, which the authorities were good enough to let me have. I need not say how glad I am to hear of your meeting with kind friends. I won't say what comes uppermost in my mind, for this reason: I have found the Scotchman's prayer useful: by going on the opposite tack one only puts a stick into the hands of one's fellow Yahoos to break one's own head with, and you see whatever else one loses here one gains experience. About visiting: you must not for a moment think of it, mum dearest, especially now; besides, the mere thought of your being in contact with this place is hateful to me. I have other reasons, but no space. Pardon me, mother dear, the abruptness and apparent unkindness of this, but it must not be; and I can tell you how thankful I am for your even wishing it—I mean your kindness and sacrifice of self. And now I must thank you for the books, especially for "Gil Blas," "Silvio Pellico," and the magazines. "Silvio" I am particularly charmed with; he sometimes reminds me of you. "Gil Blas!" what a nice edition; so sorry you got it purposely, and the magazines." Will not name the others; all very nice." I think I have enough books for the present, and perhaps you had better not send me any more that have to be *returned*, excepting possibly the magazine, but will speak to the Governor on this subject, as well as about leaving the books behind me, etc. I don't think it will be necessary. I have been up before the Doctor for inspection, which, I believe, is a *sign* of going *some time*, though it may be a month or two yet. It is certain that I should not be allowed to write—indeed, there would probably be no time, you never know when you are going, and it would be useless asking. My best love to the dear governor—(I tried "father" at first, but it was "no go," though I am not quite easy about the other; in writing *to* him I should not think of it, but in speaking *of*, it is awkward; this is not lucid, but perhaps you have a glimmer)—also to Charles and Katy. Your letters and hers always make me laugh. I must not forget the dear aunts. Thank Aunt E. for the German, and whoever so

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kindly did it (Mrs. E'hard?). And Dr. Wash, what of him? Remember all friends. And now, my own mum, good-bye. My letters for the future must be peculiar, as you perceive. Thanks for your dear ones.

Ever, my own mother, your affectionate son,
(Signed) GEO. V. TOWNLEY.

NOTES ON POST-MORTEM EXAMINATION OF GEORGE VICTOR TOWNLEY, FORTY-ONE HOURS AFTER DEATH.

(From a Correspondent.)

Exterior.—Body generally muscular and well nourished. Cadaveric rigidity everywhere strongly marked. Some lividity on posterior portions of trunk and extremities. Face generally tumid, most so on the right side. A bruised appearance above right eyebrow, extending up scalp about 3 inches; also of the lids and round about both eyes. Ecchymosis of conjunctivæ; corneæ flaccid; pupils dilated. Along the course of right eyebrows there is a horizontal cut, which in part reaches quite to the bone; in the rest very nearly to the bone: length, 3 inches. A vertical cut above inner extremity of left eyebrow; length, $\frac{1}{2}$ inch. A vertical cut above outer part of upper lip on right side; length, $\frac{1}{3}$ inch. A horizontal cut in corresponding part below lower lip, right side; length, $\frac{1}{3}$ inch. Blood lying in the hollow of right ear. Blood within both nostrils. Teeth and inside lips and gums stained with blood. Grazes on both knees. Crepitation felt on handling the left knee. In the bend of the right elbow there are two cuts about $\frac{1}{3}$ inch long—one where venesection had been performed by Mr. Bradley in median cephalic vein, the other a line to the outer side of it. On dissection, the latter cut had barely passed through the skin, and had not wounded vein. In bend of left elbow another similar cut over median cephalic vein, but, on dissection, was found not to have wounded it. About 3 inches lower a similar wound or cut over course of radial vein; on dissection, it was found to have passed through skin and to have very slightly wounded the vein. Height of the man, 5 feet, $9\frac{1}{4}$ inches; breadth across shoulders, 18 inches. Measurement of head with a tape—Across vertex from meatus auditorius to meatus, 15 inches; circumferential just above ears, $23\frac{1}{2}$ inches; from occipital protuberance to root of nose, 14 inches.

Head.—Tissue beneath scalp generally infiltrated with blood. Depth of infiltrated portion at vertex, $\frac{1}{4}$ inch. It was thicker more posteriorly. The only part free from it was about an inch above left eyebrow. It was thicker at vertex than more anteriorly. A starred fracture of calvarium. The centre of the star was situated a little to the right of the median line, and about $1\frac{1}{2}$ inch in front of the coronal suture. The rays of the star passed as follows:—One extended forwards and to the left side of root of nose; an offshoot from this about 1 inch long passed to the right side of nose, and this marked off a triangular space over right frontal sinus, where the bone was loose and depressed. Another ray passed forwards to right orbit at inner side of supra-orbital foramen. Another ran in a curved direction for 2 inches outwards towards right ear. Another backwards and towards left side for 5 inches. The principal depression was that over frontal sinus. At the centre of star the fracture gaped to the extent of $\frac{1}{8}$ inch. Coagulum of blood beneath right temporal muscle. Calvarium sawn round and removed. Bones were moderately but not abnormally thin. No glandulæ Pacchionæ discernible. Longitudinal sinus empty, as were other sinuses of dura mater, but not torn. Dura mater healthy. Cavity of arachnoid and upper part of spinal theca contained some drachms of bloody fluid. On right side a coagulum of blood above the tentorium cerebelli. Texture of arachnoid healthy; quite transparent everywhere. Dura mater torn away after removal of brain. Base of Skull.—Cribriform plate of ethmoid bone smashed and crista galli broken off. Roof of both orbits broken up. On left side a long fracture extended from middle of wing of sphenoid to base of petrous portion of temporal bone. On right side bones forming middle fossæ broken up a good deal and fractured in every direction. One large gap extends from carotid canal along anterior border of petrous portion of temporal bone quite to its base, where it curves somewhat upwards.

Brain.—Weight of brain as a whole, $55\frac{1}{2}$ ounces avoirdupois; cerebrum alone, $48\frac{3}{4}$ ounces; cerebellum, pons and medulla oblongata, $6\frac{3}{4}$ ounces. Specific gravity of brain as a whole, 1·042; cerebrum alone, 1·040; cerebellum, etc., 1·048. Laceration of the brain on right side at base of anterior lobe and anterior part of middle lobe. Pia-mater generally infiltrated with blood—most abundantly in the sulci between the convolutions, and between the laminæ of cerebellum. On slicing down the *brain tissue* from above, the white tissue was found to be very white; grey cortical tissue of usual colour. The whiteness of central tissue was evidently due to anæmia, the effect of large effusion of blood. Bloody points few and small. Near anterior extremity of anterior lobe, right side, small spots of interstitial hæmorrhage, extending down to lacerated part at its base, where the hæmorrhagic spots were closer, larger, and more numerous. With the exception of the parts absolutely lacerated, substance of brain was quite firm, but not more so than usual in health and in cold weather at this period after death. Right lateral ventricle contained about one drachm of bloody fluid; left, empty.

Chest.—Organs generally healthy; no fluid in pleuræ or pericardium; heart empty; moderate hypostatic congestion of posterior parts of both lungs; no tubercle or grit at apices.

Abdomen.—Omentum contained a moderate quantity of fat. Peritoneum healthy. Stomach much distended; contained several ounces of brownish black liquid — altered blood; mucous membrane healthy. Intestines slit up in whole length; jejunum contained some matters similar to those in stomach; colon contained some solid fæces; mucous membrane and glandular tissues healthy. Liver—Natural size and appearance, both externally and on section. Spleen small, flabby; no blood flowing on section. Kidneys healthy, except some dark discolouration on section. Behind left kidney cellular tissue showed some moderate effusion of blood. A similar effusion immediately in front of sacrum, behind peritoneum.

Left Knee.—Patella smashed; head of tibia fractured in the joint; considerable effusion of blood into and about the joint.

THE WEEK.

ARMY MEDICAL DEPARTMENT.

SOME seventy or eighty candidates, we understand, made their appearance for the competitive examinations for the Army Medical Service. Whether those gentlemen were in great part intended for the Indian branch of the Service, we do not know; if not, it must be a source of much congratulation to the Director-General and Horse Guards. What will be the effect on the future prospects and present condition of the Army Medical officers, we need not say.

SIR ALEXANDER TAYLOR.

WE inserted last week a paragraph from a recent number of the *London Gazette*, which stated that the Queen had been pleased to confer the honour of Knighthood on Dr. Alexander Taylor. Honours of this kind are not very plenteously bestowed on our Profession, and we have had many inquiries as to the position and claims of the gentleman on whom the distinction has been conferred. Dr. Taylor is a Physician practising at Pau, in the Pyrenees, and is known as the author of a very readable and instructive book on the climate of Pau. He formerly served in the Medical Staff of the British Legion in Spain, under Sir De Lacy Evans. The channel through which the honour descended, and the reasons for which it was awarded, are thus stated in the *Memorial des Pyrenées*:—

"In consequence of an application (unofficial) which the French Ambassador in London made by order of the Emperor to the Government of Her Britannic Majesty, Queen Victoria has been pleased to order letters patent to be made out conferring the dignity of Knight of the United Kingdom of Great Britain and Ireland on Mr. Alexander Taylor, M.D. This high distinction has been accorded to Dr. Taylor by the Queen in recompense for the services rendered by him to his countrymen and to the town of Pau."

PARLIAMENTARY.

IN the House of Commons on Friday, February 17, Mr. Bagwell inquired of the Secretary to the Treasury whether Her Majesty's Government proposed to adopt the resolution of the Select Committee of 1858, and place the Medical officers of Irish Unions on the same footing as similar officers in England and Scotland, one-half of whose salaries were paid from the public revenue.

Mr. F. Peel said that the Committee to which the hon.

gentleman referred seemed to have overlooked the circumstances, that while in England the Government paid but one quarter of the expense of the constabulary, in Ireland it defrayed the whole cost of that force; and that there was a special grant of £20,000 a-year for Hospitals in Dublin and certain officers of county Infirmaries. Except for those considerations, he did not see why the Government should not contribute to the payment of Medical officers of Unions in Ireland in the same way as it did to the payment of those in England and Scotland.

On Monday, February 20, Mr. Hibbert moved for leave to introduce a bill permitting capital punishments to be carried out, under certain regulations, within the interior of prisons. He thought it better that any discussion should take place on the second reading, which he proposed to postpone till some time after Easter.

Sir G. Grey said this question was under the consideration of the commissioners who were inquiring into the subject of capital punishment, and it would be desirable to have their opinion before the bill was read a second time.

Leave was then given to introduce the bill.

Mr. Villiers asked leave to introduce a bill for the better distribution of the charge for the relief of the poor in unions. After some prefatory remarks upon the law of settlement and removal, and its evils; upon the policy of compulsory relief of the poor, and upon the substitution of the union system for the parochial system, which had been attended with great advantage, he pointed out the reason of its comparative failure—namely, the continuance of parochial chargeability. He stated the results of the Act of 1862 in diminishing the evils of removals—results which, in his opinion, justified a further extension of its principle; and there was no proof that it would create any unjust or excessive charge upon the common fund. The bill, therefore, proposed to carry the principle further by making the common fund in future bear the maintenance of all the poor within the union. He dwelt upon the benefits which this change would confer upon the pauper poor, and the enormous evils connected with settlement and removal it would tend to cure, and cited testimonies in favour of the change.

Mr. Henley suggested certain points regarding which, he thought, information was required.

Mr. Locke observed that the bill would be of no advantage to the metropolitan parishes; that union rating would not meet the evils attending the displacements of population there.

Leave was then given to bring in the bill.

On Tuesday the House of Commons rejected by a majority of thirty the Cheltenham and Gloucestershire Water Bill. The object of this measure was to divert 1,000,000 gallons of water *per diem* from the Thames and to take it into the valley of the Severn for the supply of the town of Cheltenham. The good people of Cheltenham are said to have only four gallons of water per head *per diem*, and the water of the Severn is declared to be so completely befouled by the towns, and especially by the dye works, tan works, and other abominations on its banks that it is entirely unfit for use. The defilement of the Severn is only one instance of the spoliation of our rivers and streams which, with the increase of manufactures, has become one of the most crying evils of the age. We hope that before long the House of Commons will be induced to legislate on the subject; but the cool proposal of robbing the source of the Thames for the benefit of a district which has ruined its own water supply was very properly rejected.

Mr. Doulton moved for a Select Committee to inquire into the best means of preserving for the public use the forests, commons, and open spaces in and around the metropolis. The question, he observed, was one which did not admit of delay; the difficulties inherent in the question increased with delay, and unless some course was taken by Parliament with reference to it the question would settle itself by the disappearance of commons and open spaces altogether. His object in moving for a Committee was that the subject should be examined in all its bearings with a regard for public rights without encroaching upon private rights.

Alderman Rose seconded the motion.

Lord Bury replied to a remark of Alderman Rose with reference to the Wimbledon-common Bill. He supported the motion.

The discussion, which embraced collateral topics, was continued by Colonel North, Mr. Jackson, Mr. Locke, Mr. Bentinck, and Mr. Torrens.

Mr. Cowper approved the object of the motion, but protested against any proposal to meet the expenditure out of the Consolidated Fund.

After further discussion, in which Mr. Peacocke, Mr. Shaw-Lefevre, Mr. Marsh, and Mr. Cox took part, the motion was agreed to.

DE LUNATICO.

No Medical man who has not, by some means or other, acquired a knowledge of the Lunacy Acts can, when intervening to save a lunatic patient from the possible consequences of his melancholy state, be satisfied that he may not, in signing a lunacy certificate, sign the warrant for his own committal to prison, or that, on taking his fee, it may not be necessary to put it by as the nest egg of a fund for the payment of heavy costs in an action to be subsequently commenced against him.

Many Medical men have felt so strongly convinced of the risk run by those who sign certificates of lunacy, that, ignoring the loss of the fees which they would thereby obtain, they have from the outset of their Professional career systematically refused to sign such certificates. That they are right as regards their own interests there can be no doubt; but we cannot but think that it is open to grave consideration whether any man is justified in thus withdrawing from the public the benefit of his scientific opinion, which may, in many instances, by authorising the restraint of the lunatic, save him from the unhappy consequences of his own acts.

Only very recently we gave the particulars of a case in which a Medical man had unwittingly involved himself as defendant in an action for assault when interfering for the protection of an alleged lunatic; and of late years many cases more or less similar have occupied public attention, and have justly excited the alarm of the Profession at the risks to which they are exposed when called in by the friends of the insane. It was, undoubtedly, a sense of the risks run by his Professional brethren which caused Dr. Sutherland to express before the Select Committee of the House of Commons, in 1859, a fervent desire for a consolidation of the Lunacy Acts. Such a consolidation does not appear likely to be taken in hand for many Sessions to come, even if it be practicable.

Our attention has been drawn to this important subject by the perusal of a work (a) in which the position of Medical men in this matter is very clearly defined, and by which the practical consolidation of the statutes, so generally desired, has been, in our opinion, most successfully effected. Mr. Danby P. Fry, a barrister of long standing and repute, has given the subject much patient search and labour, and we consider Medical men owe him a debt of gratitude for the service he has done them in rendering in a familiar form the technicalities of the Lunacy Acts, and so arranging them that a rapid reference, even in the hurry of Professional engagements, will enable the Practitioner to ascertain at a glance what he may and what he may not do—what are his powers and what his perils when he is called upon to render Professional assistance to a lunatic patient.

In his preface to the work Mr. Fry says that it has been his desire and study to render it practically useful to all who are in any way concerned or interested in the class of afflicted persons for whom the Lunacy Acts make provision, whether as friends or relatives, or as members of the legal profession, or as justices of the peace, or as guardians of the poor or parish or union officers, or as superintendents or proprietors of public or private asylums, or persons otherwise engaged in the management of those establishments, or in the care of the insane, or *as members of the Medical Profession*, who may be called upon

(a) The Lunacy Acts: containing all the Statutes relating to Private Lunatics, Pauper Lunatics, Criminal Lunatics, Commissions of Lunacy, Public and Private Asylums, and the Commissioners in Lunacy; with an Introductory Commentary; Notes to the Statutes, including References to Decided Cases; and a copious Index. By Danby P. Fry, Esq., of Lincoln's-inn, barrister-at-law. London: Knight and Co., 90, Fleet-street.

at any moment to *give certificates of insanity*, as well as to undertake the care or to regulate the control of the insane, subject to legal in addition to moral responsibility. A very careful perusal of Mr. Fry's pages enables us to say that he has succeeded in realising the promise of his preface; not that the book should be referred to for the purpose of supplying the advice of a solicitor when such is really needed, but to enable the Practitioner to steer clear of the shoals and quicksands by which he is surrounded when he is called upon to deal with the insane.

FROM ABROAD.—THE PROSPERITY OF VICHY—THE BULLETIN DE THÉRAPEUTIQUE—PRIZE QUESTIONS OF THE ACADÉMIE DES SCIENCES.

Some notes derived from a visit made to Vichy last year by Drs. Körte and Göschen, two Berlin Physicians, supply some interesting facts with respect to this fashionable watering-place. Known in the time of the Romans, who had their *aqua calidæ* or *vicus calidus* here, Vichy seems to have been lost sight of as a curative place until the beginning of the seventeenth century, and did not attain any celebrity until the end of the eighteenth. Under the present Emperor, however, it has risen to the rank of the greatest watering-place in the world, as estimated by the number of visitors. These in 1838 were only 1940 in number, and even in 1854 only 6802; while from 13,332 in 1859, they have increased to the immense number of 24,000 in 1864. Everything that is possible, indeed, is done to tempt visitors by rendering their residence at Vichy agreeable and comfortable; and even the prices paid for accommodation are not so unreasonable as in a place of fashionable resort might be expected. Even in the height of the season, July and August, the price of board in the best hotels is only from 7 to 12 francs per diem, while in smaller establishments 5 or 6 francs per diem suffice. Connected now fully with the railway system, the town is easily reached from all sides, being within eight hours from Paris on the one side, and six hours from Lyons on the other. Of late years it has begun to be made also a place of winter residence for invalids, which the mildness of its climate well adapts it for. One great element of the recent and future success of Vichy has been the farming out for forty-one years the administration of its baths and the sales of its waters to a powerful company well provided with capital. By its aid suitable establishments for the comfort and enjoyment of visitors have been erected, and the preparation of the salts and waters for exportation are carried on with great energy. A few figures will give some idea of the activity which now prevails at Vichy, under the general supervision of the Director of the Company, Dr. Callou. During the season of 1863 there were 234,177 baths taken, 26,016 of the number being *gratis*. At the height of the season it is not uncommon for more than 3500 baths to be taken daily, from 12,000 to 13,000 towels and bathing gowns being washed at the washing department. So greatly has the export of Vichy waters increased that in 1863 there were expedited 1,502,940 bottles, together with more than a million boxes of lozenges. Crystallised sweetmeats are soon to be added to the other articles of export. The extent to which the company is carrying expenditure for the provision of reading, billiard, and concert rooms and the like may be judged of by the fact that they are now erecting a new casino which is to cost 1,000,000 francs. Drs. Körte and Göschen both agree that Vichy is a most admirably arranged place, the interests of the bathers and the public in general being far better considered than at the German watering-places.

That well-known bimensual publication, the *Bulletin de Thérapeutique*, has again changed hands in consequence of the death of its able editor and proprietor, M. Debout. Established by M. Miquel in 1831, it soon gained a large circulation, and had become a valuable property when its proprietor, seized with a fatal malady, placed its management in the hands of M. Debout, who from his active habits, love of work, great information, and loyal character was eminently qualified for the task. Debout was so well pleased with the prospects of the journal that in 1848 he purchased it for the handsome sum of 100,000 francs. That the journal did not lose prestige in his hands, and that he successfully made way against the difficulties which old journals have to contend with in the shape of new and vigorous rivals, and the dying off of old and attached subscribers, will be seen from the fact that he succeeded in disposing of it a few days before his death to M. Bricheteau, its future editor, for the 100,000 francs which he had paid for it eighteen years before. The journal, in fact, well deserves its success, for a more valuable repertory of Medical and Surgical therapeutics it would be difficult to find, and the frequency with which it is quoted in the English journals shows the estimation in which it is held in our own country.

The Academy of Sciences has announced the subjects of its magnificent collection of prizes in the mathematical and physical sciences for 1865 and 1866. We must confine our notice to the latter. 1. The Grand Prize (a gold medal 3000 francs in value) in the Physical Sciences for 1865, "The Comparative Anatomy of the Nervous System of Fishes." This prize, first proposed in 1859, has been postponed in 1862 and 1864 to 1865. The question for the same prize in 1866, "The Production of Hybrid Animals by means of Artificial Fecundation," has in like manner been postponed from 1861 and 1863 to 1866. Another Grand Prize of 3000 francs will also be adjudged in 1865, for "the osteographical work which will most contribute to the advancement of French Palæontology, whether by making better known the anatomical characters of one or more types of the vertebrata, and thus furnishing important elements for the study of the tertiary fauna, or by treating in a thorough manner of the fossils belonging to one of the least known classes of this great branch of the animal kingdom." 2. The Montyon Prize in Experimental Physiology, consisting of a gold medal 800 francs in value will be adjudged in 1865 to the author of the manuscript or printed work which appears to the Academy to have most contributed to the progress of experimental physiology. 3. The Montyon Prizes in Medicine and Surgery. The Academy will adjudge one or several prizes to the authors of works or discoveries which shall be regarded as of most utility to the art of healing, or have discovered the means of rendering an insalubrious employment less innocuous. The amount of the recompenses cannot be stated beforehand, the number to be rewarded not being known; but sufficient funds have been left by the testator to afford ample recognition of merit and to compensate for labour and expenses incurred. 4. The Academy Prize in Medicine and Surgery of 5000 francs, will be adjudged in 1866 for the best memoir on "The Application of Electricity to Therapeutics." 5. The grand prize in Surgery for 1866 of 20,000 francs has for its subject "The Preservation of the Limbs by the Preservation of the Periosteum." 6. The Cuvier prize of 1500 francs, to be adjudged in 1866, will be given to the author of the most remarkable work which has appeared between January 1, 1863, and December 31, 1865, either upon the Animal Kingdom or Geology. 7. The Bordin prize of a gold medal, 3000 francs in value, has been postponed from 1861 and 1863 to 1866, the subject being "Determine by anatomical investigation whether there exists in the stems of plants characters proper to the great natural families, and in accordance with those derived from the organs of reproduction." The Bordin prize for 1865, of the same value, "Determine experimentally the causes of the inequality of the absorption by different plants of the saline solutions of various natures contained in the soil, and ascertain by an anatomical examination of the roots the relations which may exist between the tissues that constitute them and the matters which they absorb or excrete." 8. The Breant prize of 100,000 francs will be adjudged in 1865 to the

discoverer of a cure for the Asiatic cholera. Awaiting the "coming man," the interest of this sum is available for rewarding those who may have most advanced our scientific knowledge with respect to cholera or other epidemic diseases. 9. The Jecker prize will be awarded in 1865 to he who has most accelerated the progress of organic chemistry. 10. The Barbier prize of 2000 francs is an annual award for whoever may have made a valuable discovery in Surgical, Medical, or Pharmaceutical knowledge, or in Botany in relation to the Healing Art. 11. The Godard prize for 1865, being the interest on 1000 francs, will be given for the best memoir on the Anatomy, Physiology, and Pathology of the Genito-urinary Organs. 12. The Savigny prize, being the interest of 20,000 francs, will in 1866 be awarded in aid of young travelling zoologists.

A KNOTTY POINT IN THE DIAGNOSIS OF SYPHILIS AND THE CURATIVE(?) EFFECTS OF SYPHILISATION.

(From a Correspondent.)

THE *Edinburgh Medical Journal* lately contained an interesting and important paper upon the curative effects of syphilisation. It was alleged that two patients suffering from very severe forms of constitutional syphilis were cured by Dr. Boeck by the above process. It so happened that one of these patients had been under Mr. Henry Lee for some time. Mr. Lee entertained the conviction that this patient was not, and never had, laboured under syphilis at all. He appears to have arrived at that conclusion chiefly from the consideration that no constitutional manifestations had appeared for some six years, when the patient in question exhibited the symptoms of the bone disease, for which he underwent syphilisation; and he conceived that the pus from an indurated sore could not have been used by Dr. Boeck, or the patient would have contracted a true syphilis. Mr. Lee finds a corroboration of his opinion in the fact that the father of the patient is said to have died of a "softening of the bones." To this Professor Simpson has replied on the part of his son—who was the author of the paper in the *Edinburgh Medical Journal*—in the pages of the *British Medical Journal*, where the correspondence has been carried on, that those Medical men who saw the primary disease entertained no doubt of its nature then, that others—including the Professor himself—equally thought the patient labouring under tertiary syphilis, before he went to Dr. Boeck. In addition to this positive observation he attempts to show that the non-appearance of secondaries does occasionally take place. Here the matter rests until Dr. Boeck's statements appear as to the source of the pus he used.

It must be a bold man who would venture to interpose a work on the subject; still, some important points have been lost sight of, it seems to us, in this correspondence between Mr. Henry Lee and Professor Simpson.

For example:—(1) On the interval of six years. Unquestionably, if this primary disease were untreated by any mercury and this period elapsed before the appearance of *any* general symptoms, then, the very great improbability and the extreme rarity of such an occurrence would suggest the idea that the nature of that primary affection was misinterpreted; for in every case where there have been opportunities for observing the course of syphilis, secondaries have appeared generally within five or eight weeks, and invariably within six months. But it seems to be taken for granted that in this case no such manifestations appeared, because none were observed. Secondary manifestations have been so mild in some cases that if the patients had not been in Hospital or under the daily inspection of a Surgeon, they might never have been observed; and it is a common thing for men, from ignorance, to deny the presence of any secondary symptoms when their persons bear unequivocal marks of the same. It is more than possible, therefore, that if the patient in question were actually syphilitic, some secondary symptoms did appear, but were not observed. (2) It seems that both father and son suffered from some affection of the bones—a softening of the bones! If this affection were the product of an *acquired* syphilis in the former, it *might* have been the effect of an *inherited* taint in the latter. Of course this is hypothesis only; but should it be proved ultimately that a remote and hereditary syphilitic taint could effect modifications in the degree and evolution of any subsequent attack, this will account for the non-appearance or slight manifestations of secondary symptoms in the first instance and subsequently, even if the artificial inoculations should turn out to have been made by Dr. Boeck with the pus of indurated sores.

If this hypothesis be a correct one, Dr. Simpson would be right in assuming that the patient had syphilis, and Mr. Lee might be right in assuming that no such disease had been acquired through the observed primary sore or, subsequently, through the artificial ones.

REPORT ON CHEAP WINE.—NO. XIII.

(By our Special Empirical Commissioner.)

(Continued from page 179.)

A Few More Hungarian Wines—Teteny, Diasi, etc.

IN order to do full and equal justice to all parties, I wish this week to mention a few additional Hungarian wines, *ex. gra.* :—

Red Tetenyi at 18s. I did not like this. It had a perfume of raspberries, and seemed too thin and acid.

Red Diasi, price 32s., bottles included, from M. Diosy, 123, Fenchurch-street. Very cheap for the money, satisfactory, soft, smooth, grapy wine. Alcoholic strength about 21·5.

Red Visontai, 1854, at 36s., from M. Diosy. This, like most other of the best wines, is said to be from the cellar of the Convent. Alcoholic strength about 27. This is a wine of striking character, dry, sub-austere, of potent vinosity; might pass for very light dry port.

White Tetenyi, 18s., from M. Diosy. A peculiarly nice grapy, well-flavoured, appetising wine. Very cheap indeed. It is said to be sometimes put into little brown flasks with handles, and sold at a high price as Stein Wein.

White Ruszti at 42s. Sweet, and undergoing transformation which might result in a delicious wine some years hence, but scarcely wholesome now. Sp. gr. 991; alcoholic strength about 27.

Bakator Muskat at 32s., and *White Diasi* at 36s., from M. Diosy, are grapy, muscat-flavoured, white wines.

Somlo', from the Bishop of Veszprém; price 60s., from M. Diosy, is a very delicate, fine-flavoured, first-class wine; well deserving the attention of the connoisseurs who do not hesitate to give from 5s. to 10s. per bottle for "Hock" for the earlier part of their dinners.

Tokay nearly white, from M. Diosy, at half-a-guinea a bottle; and Szamorodny, or *Dry Tokay*, from the same dealer, are wines which more than bear out what I have said before of their marvellous flavour. I learn that the word Szamorodny signifies "self-born," indicative of the spontaneity, vigour, and naturalness of the wine.

Dealers in French wines are Legion, and are well known and established; the Hungarian, Greek, and Austrian dealers are few, and as they are but beginning the honourable task of introducing the products of their native countries into England, and have to face an active set of competitors already in the field, it is right that they should be made known to the Medical Profession, through whom alone a salutary reform in the drinking customs of the country can be effected, and who alone can break through the prevalent superstition in favour of brandied wines and the fear of "acidity."

The following paper will refer again to Port and Sherry and their counterfeits, with a short notice of Oxford and Cambridge Wine, and Hospital Wine; possibly also Cheap Sparkling Wine.

SCHOLARSHIPS FOR NATURAL SCIENCE AT SIDNEY COLLEGE, CAMBRIDGE.—Among other Scholarships to be competed for at this College on October 10 next, are two of the value of £40 each annually, for Natural Science—electricity, chemistry, geology, anatomy; an intelligent knowledge of any one or two of which, added to a fair knowledge of classics and mathematics, would probably ensure a Scholarship. It may be held with another Scholarship if the candidate be fortunate enough to obtain another. Information, however, is to be obtained from the Rev. J. C. W. Ellis, tutor of the College.

THE ROYAL SOCIETY.—The President of the Royal Society will have *soirées* on the 11th of next month and on May 6, at Burlington House, Piccadilly.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BATH.

(Continued from page 182.)

THE SCIENCE HISTORY OF THE BATH WATERS.

To few subjects have more extended labours been devoted than to the natural and science history of the waters of Bath. My friend Dr. Falconer, the present worthy representative of that distinguished name, has with great labour brought together two volumes, still unpublished, including merely the titles with short comments of the works that have been issued on this topic. He has been kind enough to place these volumes at my disposal, and a most valuable though formidable repertory of facts they present. The first writer seems to have been William Turner, M.D., Dean of Wells, who published a work first in Latin and afterwards in English in the year 1557. In 1562 the same author brought out a second volume in the black letter on the names and virtues of herbes, to which was joined a booke of the bath of Baeth in England and the vertues of the same. In 1568 a third part appears to have been added to the work. Turner was of opinion that the virtue of the waters lay in the brimstone which he presumed they held in solution. Turner was soon followed by other writers, who dwelt on various questions relating to the physical, the chemical, and the medicinal properties of the waters. The task would be too long, and the result I fear too barren, to allow of any attempt in this place to introduce an analysis of half that has been written. I shall, therefore, instead of following any chronological order, refer merely to the prevailing opinions and the facts that have been expressed:—1st. As regards the origin of the waters and their natural heat; 2ndly. As to their chemical properties; and 3rdly. As to the value which has been attached to them in respect to their therapeutical action.

The Origin of the Waters and the Cause of their Heat.

In the course of the seventeenth and the eighteenth centuries the prevailing idea as to the origin of the Bath waters and the cause of their heat was very primitive, simple, and not altogether wanting in scientific ingenuity. The supposed source of the water was rain, which distilled through two neighbouring hills, the hills of Claverton and Lansdown. It was assumed that from the supply derived from the Claverton Hill sulphureous constituents were obtained, while the water derived from the Lansdown mountain took up and conveyed ferruginous constituents. These two streams meeting in the valley beneath in subterranean caverns were the waters of Bath. The hypothesis respecting the cause of the warmth of the water was to the effect that as a due mixture of iron filings and sulphur, in water, produced heat by fermentation, so the two waters from Claverton and Lansdown meeting in the valley under the earth underwent there the necessary fermentation, and the hot water that rose from the springs was the result. I need scarcely add that this hypothesis is now exploded; indeed, it is proved, as I shall show, that there is in fact very little iron in the waters, certainly not sufficient to account for the development of heat on the supposition above described.

In course of time the hypothesis gave way, and the waters were held to be of volcanic origin, the volcano being presumed to exist beneath the point whence the streams issue from the earth. Later still the natural internal heat of the earth acting upon water derived from some deep source has been adduced as the cause of the phenomenon. Dr. Falconer writing four years ago supports this view. He says "it is more reasonable to attribute the heat of the Bath waters to a cause, to which both thermal and natural springs and volcanos may be satisfactorily referred, namely, the central heat of the earth."(a)

Within the last twelve months the question of the origin and the heat of the waters of Bath has received exposition from two of the ablest minds of the day: I mean Sir Charles Lyell and Dr. Daubeny. In his Presidential address delivered before the British Association for the Advancement of Science, last year in Bath, Sir Charles Lyell dwelt at length, and with wonderful clearness, on the cause of the constant eruption of water, which for so many centuries has been seen at Aquæ Solis. Sir Charles leans to the volcanic theory, and describes the issue of water as of the nature of a volcano absolutely. According to his view we have only to imagine the water rising into the air as clouds of vapour, and to suppose the eruption to be intermittent instead of constant, and the analogy is perfect. The springs or fountains of Bath are then easily defined as volcanoes of water issuing from a crater. The objection that might be urged against this beautiful and novel view is that, in the rise of the hot spring, that power does not seem at first sight to be presented by which vast masses of solid matter in the form of lava are thrown out when such mountains as Vesuvius or Etna belch forth their currents. To meet this objection, Sir Charles calls attention to the fact that the quantity of solid matter brought up by the waters is really, in the aggregate, enormous. He tells us Professor Ramsay has calculated that if the sulphates of lime and of soda, and the chlorides of sodium and magnesium, and the other mineral ingredients which the waters of Bath contain, were solidified, they would form in one year a square column, nine feet in diameter, and not less than 140 feet in height. All this matter, argues the writer, is now quietly conveyed by a stream of limpid water, in an invisible form, to the Avon, and by the Avon to the sea. "But if instead of being thus removed it were deposited around the orifice of the eruption, like the siliceous layers which encrust the circular basin of an Icelandic geyser, we should soon see a considerable cone built up with a crater in the middle; and if the action of the spring were intermittent, so that ten or twenty years should elapse between the periods when solid matter was emitted, or an interval of three centuries—as in the case of Vesuvius between 1306 and 1631—the discharge would be on so grand a scale as to afford no mean object of comparison with the intermittent outpourings of a volcano."

Perhaps the only difficulty that can be suggested, and that with great caution, against this beautiful and simple argument, lies in the one word *if*, which Sir Charles Lyell has introduced into the above quotation. It may be said, and with some justice, that the actual distinction between a volcanic eruption and the flow of water from the earth at Bath is—that the volcanic eruption is intermittent, while the waterflow is steady and continuous. The physical difference in the forces producing an intermittent and a continuous current may be conceived, not without reason, to be distinct and special; the first sudden, explosive, and, I had almost said, accidental; the second steady, and, as it were, a part of a continuous process going on in the bowels of the earth.

At the same meeting of the British Association for the Advancement of Science, Dr. Daubeny, in a remarkable paper, gave a different and original reading of the heating and raising of the waters. Dr. Daubeny's hypothesis is founded on the fact that nitrogen is evolved from the water in the free state. Whence, then, the nitrogen? It may, according to Bischoff, be derived from the decomposition of organic matter in the earth. It is, at the same time, scarcely probable that the supply of the gas would be so steady and so continuous as it is at Bath if the source were an accumulation of organic substance. Dr. Daubeny, therefore, is of opinion that the nitrogen is originally derived from the atmospheric air. He thinks that rain-water, which contains atmospheric air, in its descent through the earth, carries with it the oxygen and nitrogen of the air, but that low down in the earth's crust the oxygen, which we all know is held in very feeble combination with the nitrogen, is given up to substances eager for it, viz., to the metallic substances and to the non-metallic elements, such as phosphorus and sulphur; that the nitrogen is thus set free, and is forced upwards either by pressure of gas or by the heat—the same heat that causes the high temperature of the waters themselves. This theory, which is exceedingly rich in suggestion, opens up a wider field of thought than may appear on a hasty glance; it bears, in fact, as its learned author shows, on the first chemical changes which occurred in and on the earth. When the planet was a diffused vapour, held so by intense heat, it would be impossible for chemical combinations to occur at all; as the mass cooled down, there would be a point at last reached when the natural affinities between bodies would be exerted. In the gaseous condition all the elements present would be equally diffused; then, as cooling went on, the heavier elements would coalesce, first perhaps into a liquid, and afterwards in a denser form. At this point the influence of gravitation would be felt, and the heavier and lighter parts would be separated and laid down in concentric zones. The inner zones would consist of the metallic elements,

(a) Falconer on the "Baths of Bath." London: Simpkin and Marshall. 1860.

the outer ones of those of which water and hydrochloric acid are made up, and of those gases which produce the most external covering—the atmospheric sea. These external parts, reacting upon each other, and upon alkaline and earthy bases coming within their attraction, would generate the waters of the ocean and the salts contained in the ocean, while the redundant oxygen mixing with the negative and free nitrogen would constitute the atmospheric envelope in which we live and breathe. The atmosphere formed in the manner thus depicted, chemical changes on the surface of the earth would be inevitable, inasmuch as the oxygen of the air would be exposed to numerous substances for which it had much greater affinity than for nitrogen. But the change would not be confined to the surface; in time air and water would each penetrate into the earth, and then, whenever materials were met with which would take up oxygen, chemical action would ensue.

Carrying out this theory, Dr. Daubeny supposes that the processes which marked the occurrence of chemical changes on the earth's surface, and beneath its surface at the first, continue still; and in the production of the heated waters of Bath and other places he sees at work nothing more and nothing less than oxidation under the earth, generation of force, and upheaval of liquid collected at some point in open communication with what may be called the crater, through which the water issues so persistently.

In these brief descriptions I have included all that I can reasonably offer respecting the origin and cause of the heat of the Bath waters. Of the suggestions noticed, that of Dr. Daubeny seems to be most reasonable, but it does not fix the position of the vast chasm in which the great chemical changes are developed, neither does it say where the water finds its way into the earth.

The Physical and Chemical Nature of the Waters.

The waters of Bath come from four springs, and are received into the baths, which I shall describe in the sequel, only from these heads of supply. The water as it is fresh to hand is not to my taste pleasant; it is saltish and sharp, and creates a slight nausea. I was told that this unpleasantness would pass away in time after continued use, and I think the fourth and last dose was not quite so unpalatable as the first.

The temperature of the waters is very nearly the same—in the Hot Bath it is 120° F., in the King's Bath 117°, and in the Cross Bath 104°. Dr. Falconer gives the subjoined table of comparison of the waters of Bath with those of the thermal springs of other watering-places:—

Bath, Hot Bath, 120° F.	Vichy, 109° F.
Bath, King's Bath, 117° F.	Bath, Kingston Baths, 108° F.
Borcetta, 171° F.	
Wiesbaden, 158° F.	Bath, Cross Bath, 104° F.
Baden Baden, 153° F.	Warmbrunn, 99° F.
Aix-la-Chapelle, 130° F.	Pfeffers, 99° F.
Cauterets, 122° F.	Wildbad, 98° F.
Toplitz, 121° F.	Aigues Chaudes, 95° F.
Gastein, 120° F.	Schlangenbad, 88° F.

The annexed table gives the analysis of the waters of the Corporation Baths: the analysis was made from the King's bath:—

In an Imperial Gallon. 70,000 grs.	Phillips, 1806.	Scudamore, 1820.	Walcker, 1829.	Noad, 1844.	Merck & Galloway, 1848.
Carbonate of lime	7·680	5·280	10·667	—	8·820
Carbonate of magnesia	—	—	—	—	0·329
Carbonate of oxide of iron	0·274	0·200	0·243	0·521	1·071
Carbonate of soda	—	—	—	5·760	—
Sulphate of lime	86·400	98·320	81·624	96·240	80·052
Sulphate of potassa	—	—	2·927	—	4·641
Sulphate of soda	14·400	1·520	19 371	—	19·229
Chloride of sodium	31·680	12·240	15·122	27·456	12·642
Chloride of magnesium	—	15·360	13·339	7·142	14·581
Alumina	—	—	0·150	—	—
Silicic acid	1·960	1·920	3·233	3·360	2·982
	142·394	134·840	146·676	140·479	144·018
Quantity directly observed	144·125	—	147·622	149·072	—
Carbonic acid	11·25 c. i.	—	7·60 c. i.	—	26·45 c. i. at 115° F.

Of the gases evolved, viz., carbonic acid, nitrogen, and oxygen, Dr. Daubeny states, from direct analysis, that a variable quantity, rising sometimes as high as 13 per cent. of the whole, but in general amounting to 4·5, consists of carbonic acid, and 95 or 96 per cent. of the constituents of the atmospheric air; but the proportions of the two gases which enter into the composition of the atmosphere is very different from what is met in the air; in air, the oxygen exists in the proportion of 20·81, and the nitrogen as 79·19; but as evolved from the Bath waters, the proportions of these gases stand as oxygen 4 and nitrogen 96; the oxygen lost, according to Dr. Daubeny, has been used up under the earth in combining with oxidizable matter. The exact composition is stated thus:—Carbonic acid, 4·5; oxygen, 3·8; nitrogen, 91·7 (95·5); total, 100. Speaking of the water which supplies the King's and Queen's bath, the same author said that the spring which furnishes the supply, the most copious of any, discharges 128 gallons of water, or, in round numbers (reckoning 277 cubic inches to the gallon), 34,900 cubic inches per minute. Of this water, 100 cubic inches disengaged after long boiling 3½ cubic inches of air, yielding on analysis 2·9 cubic inches of carbonic acid, 0·4 of nitrogen, and 0·2 of oxygen; so that there is present in 34,900 cubic inches of the water 1012 of carbonic acid, 140 of nitrogen, and 70 of oxygen. These quantities, when added to the free gases disengaged from the spring, give the following totals:—Carbonic acid, 1024; nitrogen, 385; oxygen, 80; in all, 1489 cubic inches of gaseous substance. In a pint of the water there is present about three cubic inches of carbonic acid gas; the water, therefore, is sparkling, and, I had almost said, effervescent.

Professor Roscoe has recently discovered, by means of spectrum analysis, copper, strontium, and lithium in the Bath waters; and Merck and Galloway have found iodine and manganese. The iodine, however, is in such infinitesimal quantities, that it can hardly be noticed as a constituent; the same remarks apply, to the copper, the strontium, the lithium, and the manganese, and even to iron, which, though present, is in such minute proportions as to render accurate calculation of quantity impossible.

The specific gravity of the waters is 1·002.

(To be continued.)

REVIEWS.

De l' Ovariotomè. Par E. Kœberlé, Professeur Agrégé à la Faculté de Médicine de Strasbourg, &c. Pp. 88.

Opérations d' Ovariotomè. Par E. Kœberlé. Avec Six Planches Lithographiées. Paris: J. B. Baillière et Fils. 1865. Pp. 152.

On Ovariotomy. By E. Kœberlé, Fellow of the Faculty of Medicine of Strasburgh.

Operations of Ovariotomy. By E. Kœberlé. Paris: J. B. Baillière and Son. 1865.

The titles of these volumes sufficiently indicate their purpose. In one of them M. Kœberlé treats of the operation of ovariotomy, giving its history and statistics, the objections brought against it and the arguments in its favour, its indications and its contra-indications, and its prognosis. The other volume purports to be a simple detail of the cases in which M. Kœberlé has himself performed ovariotomy. In the historical sketch, an analysis of the well-known case of Laumonier, of Rouen, is given. In 1781, Laumonier performed gastrotomy on account of an abdominal tumour; the great bulk of the tumour was found to be due to a purulent collection in the Fallopian tube, but the ovary was enlarged to the size of a hen's egg, and was consequently twisted off. If this account of the case be the correct one, then Laumonier has the credit of having been the first to extract a diseased ovary, although, to be sure, he did it by chance. M. Kœberlé, of course, shows how much the present position of ovariotomy is due to English Surgeons, and he is rather unnecessarily acrimonious in referring to the different degrees of success with which the operation has met on the Continent and in Great Britain. It is not our intention to follow M. Kœberlé through his first volume, but we may give succinctly what he considers to be the contra-indications to ovariotomy.

They are,—(1.) All concomitant diseases necessarily fatal in a short time, and any condition of the patient (anæmic, for instance) which may have an unfavourable influence on the results of operation contra-indicate it. (2.) Small ovarian tumours causing no symptoms ought to be left alone. (3.) Suspicion of the tumour being of a cancerous nature contra-indicates operation. (4.) Extensive adhesions, especially if they be old, and therefore vascular. (5.) Great feebleness of the general health. (6.) Hectic fever, especially if the result of previous tapping; and (7.) Indocility of the patient, are all contra-indications. (8.) Patients in whom eructations are

difficult are generally unfavourable subjects, as in them tympanitis sets in after operation. (9.) When the disease is of long standing, and the patient has had attacks of peritonitis, we must expect adhesions. If the patient is old, and the progress of the disease slow, no operation must be performed; on the other hand, if the patient is young, the tumour must be extirpated at once, even although its progress is slow, as by operating early we have a better chance of success. (10.) When the neck of the womb is high and the tumour fills the cavity of the pelvis, there usually exist adhesions, which render the operation very laborious or impracticable. (11.) Too large a tumour is objectionable, even when it is unilocular. (12.) Ovariotomy must not be performed during the course of any epidemic. (13.) If the diagnosis is doubtful, the treatment must proceed on the supposition that the most unfavourable theory is the correct one. (14.) Pregnancy, or a suspicion that it may exist, contra-indicates the operation.

On turning to the introduction to his second volume, we find that between June, 1862, and June, 1864, M. Kœberlé has performed ovariotomy twelve times. All the operations have taken place at a *maison de sante*, situated in a faubourg close to the fortifications of Strasbourg, and which, the author is at some pains to inform us, is very far from being exceptionally healthy.

In the operation itself, which is always performed in a heated room, and while the patient is under chloroform, M. Kœberlé stands upon the right side; he makes the incision as short as is compatible with the extraction of the tumour; he evacuates cysts by means of a large trocar, and he takes care that no fluid falls into the peritoneal cavity. He is most particular as to the cleanness of his sponges, insisting that the water in which they are washed should previously be boiled, so as to destroy any animacules which it may contain. In sponging the peritoneal cavity free from blood, M. Kœberlé never washes the sponge which he uses, but merely squeezes it. He is of opinion that the small quantity of blood which is thus left in the abdominal cavity is useful, gluing the intestines to each other and to the abdominal wall, and thus provisionally performing the duty of the adhesions which are soon to replace it. When the pedicle of the tumour is long enough to permit of its being brought to the surface, a clamp is used which its inventor regards as superior to all others. It is a kind of forceps, the blades of which are separable, and are united by means of the ordinary lock of the French midwifery forceps. The part of the blade which is applied to the pedicle is in the form of a hook, the concavity looking inwards, and as the two hooks override each other, they necessarily enclose an oval space, which may be diminished at will by pressing the handles of the forceps together. In order to make the pressure continuous, a long screw can be passed from a socket in the right handle to another in the left; when the screw is turned the handles are necessarily pulled together or separated at pleasure. Attached to the convexity of each of the hooks is a flat iron ring about an inch and a-half in diameter, meant to prevent the instrument from slipping altogether into the wound. When the pedicle is too short to bring to the surface, M. Kœberlé ties it with iron wire, which is tightened by means of a *serre-nœud*, of whose mechanism we have a familiar instance in the ordinary wire écraseur. The *serre-nœud* is left attached, and the lower portion of the wound is kept open, while an attempt is made to carry off the pus by means of drainage tubes. In order to isolate the putrefying stump as much as possible, and to diminish the chances of purulent absorption, a sort of bivalve speculum made of lead and bent to the proper curves, is slipped over the *serre-nœud* and pushed down into the wound, so that the pedicle is, as it were, contained in a leaden cup, which separates it from the edges of the abdominal wound. The sutures for uniting the edges of the abdominal incision are of iron wire; the deep ones are quilled, and do not implicate the peritoneum; the superficial ones are twisted. No plaster is used. M. Kœberlé sometimes remains and compresses the abdomen manually for some hours; sometimes he places lateral bags of bran so as to press the abdomen together, and avoid any strain upon the ligatures. He believes in the beneficial action of pressure and of cold, and is in the habit of heaping three pounds of ice upon the patient's belly and keeping it there for days. Once he continued this treatment for eleven days after the operation. Still, his patient recovered. The end of the pedicle which is outside of the clamp or ligature, and therefore destined to mortify, is covered over with strong solution of the perchloride of iron, which has the effect of completely mummifying it. It is further dressed with solution of sulphate of iron, of whose disinfecting powers M. Kœberlé thinks very highly. When the sutures are removed they are replaced by the somewhat complicated process of gumming a row of threads to the skin on each side of the wound, and tying together those which are opposite. It is difficult to see what advantage this has over the far more simple plan of using strips of plaster; but perhaps the plaster might interfere with the ice treatment. Acetate of ammonia is freely given, and acetate of morphia when required. The patients are permitted to eat and drink, if so minded.

In his preface, M. Kœberlé informs us that he has performed ovariotomy twelve times, and has only had three deaths. On analysing the cases, however, it appears that two cases of incomplete ovariotomy and one case of extirpation of the uterus are included. There are nine cases of completed ovariotomy, and of these three died, giving a mortality of one in three cases. The right ovary alone was diseased in five, or if we include a doubtful case—that, namely, in which the uterus was excised—in six cases; the left ovary was the only one diseased in a single case; and in the remaining five both ovaries were affected. Of the five double ovariotomies three were completed, and of these two died; two were left incomplete, and the patients recovered.

M. Kœberlé's first case was a tolerably simple one: the pedicle was long enough for the clamp to be used, and the patient recovered. The second case was a difficult one, with extensive adhesions, and disease of both ovaries. The ligature, bivalve speculum, and drainage tubes were employed, and the patient ultimately recovered health, although now (three and a-half years after the performance of the operation) a drainage tube is still necessary in the fistula which remains. In the third case, both of the ovaries were diseased, the mass of the tumour being formed by the left ovary. Adhesions were very extensive; the right ovary was left untouched; and a ligature was put round the left ovary above its intimate adhesions to the rectum and uterus. Two thick pins were made to transfix the walls of the cysts, so as to keep it outside. The protruding part was well coated with muriate of iron, and drainage tubes were placed all round it. On the eighth day a canula was introduced through the centre of the ligature into that part of the cyst which was left in the abdomen, and three to four ounces of brownish-coloured, sour-smelling fluid were evacuated. On the thirtieth day, the suppuration being very abundant, iodine was injected. At the end of the second month a narrow fistula more than two inches deep still remained.

In the fourth case the pedicle was short, and a silk ligature was used. The ligature came away on the 11th day. On the 12th day the patient discovered that she was bleeding from the stump. Perchloride of iron had no effect, but the hæmorrhage was arrested by plugging the wound and applying pressure. Next day the bleeding recommenced, and on the 14th day M. Kœberlé was obliged to reopen the wound and tie the ovarian artery. The patient recovered, although a small fistula seems to have persisted at the lower angle of the wound.

In the fifth case the patient was 38 years of age and predisposed to hæmorrhage; the pedicle was short, and was therefore tied, the little bivalve speculum or dilator was used, and the abdomen was as usual kept covered with ice. The patient did not rally well after the operation, the pulse never rising above 75. She seemed, however, tending towards recovery, when at seven o'clock on the morning of the fourth day she suddenly became pale, burst out into a cold perspiration, and died in a few minutes. The post-mortem examination showed that there was no peritonitis of any consequence, nor was there fibrinous coagulation in the heart; the right lung was, however, intensely congested, and the right pleura contained eight or nine ounces of uncoagulated blood. M. Kœberlé concludes that the patient died of hæmorrhage, to which she was predisposed, and that the chloroform, cold caught during the operation, and the pressure on the belly, all conduced to the congestion which caused the hæmorrhage.

It seems to us that M. Kœberlé need invoke neither the action of the chloroform nor the cooling of the patient. Numerous facts have shown that after ovariotomy there is often a great tendency to apoplexy. The course of the circulation has been disturbed, blood is no longer required for the nutrition of the mass which has been removed, and for the moment the probability is that a state of true plethora exists. The plethora sometimes relieves itself by epistaxis, sometimes by a flow of blood from the womb; but if this relief be not afforded the lungs are often attacked,

and bronchitis sets in, occasionally accompanied with a little bloody expectoration. The effect of piling three pounds of ice upon the abdomen, and keeping it there, is necessarily to throw the mass of blood upon the thoracic viscera. The congestion becomes excessive, a blood-vessel gives way, and the patient, whose life is already trembling in the balance, sinks without chance of escape.

The sixth case is the one in which the uterus and both ovaries were extirpated. A strong, nervous woman, 31 years of age, had been married six years, and dated the commencement of her troubles from a miscarriage which occurred soon after the marriage. She soon observed a tumour in the abdomen, and she consulted many Medical men as to its nature, which, however, still remained doubtful. For two years before the lady came to M. Kœberlé, the tumour had increased rapidly, until at length it reached several inches above the umbilicus. Menstruation continued normal and regular, and the general health was very satisfactory. The patient, however, wished her tumour removed, and M. Kœberlé determined to operate. The tumour was found to consist of a fibroid outgrowth from the fundus of the womb: the pedicle was tied, and the tumour excised. It then appeared that there was a little fibrous nodule in the substance of the womb, and that the right ovary was somewhat larger than its fellow. M. Kœberlé therefore transfixed the cervix uteri, and tied doubly with iron wire in such a way as to embrace the ovarian vessels in the ligature. The whole of the womb and both ovaries were then removed. The ordinary treatment with ice, perchloride of iron and drainage tubes, was adopted, and the patient recovered.

We do not pretend to judge whether M. Kœberlé ought to have been contented with removing the tumour, or whether he was justified in unsexing the patient. His own defence of the major operation is, however, so good that we translate it literally, only premising that, according to M. Kœberlé's own showing, the simple removal of the tumour was a very much easier and safer operation than the other. At page 92 he says:—

"The patient has been practically cured of her tumour, and effectually guarded against any relapse by the amputation of the uterus. She need no longer fear any of those infirmities, so frequent in women, which have their origin in the womb—such, for instance, as leucorrhœa, polypi, hæmorrhage, prolapse. The extirpation of the ovaries, which had already been rendered useless by the existence of the large fibroid, which necessarily prevented the normal evolution of pregnancy, has relieved the patient of her menstrual periods, and of all the inconveniences connected with them, as well as from the diseases which spring from the ovaries themselves."

As these arguments apply with equal force to the healthy female, we can only conclude that M. Kœberlé regards the whole sexual organisation of the female as a mistake and a nuisance, which is to be removed at the earliest opportunity.

In the seventh case both ovaries were removed; one pedicle was ligatured, the other secured in a clamp. Tympanitis came on on the fourth day, and was treated by purgatives; the pulse gradully rose, and the patient died on the seventh day.

In the eighth case both ovaries were diseased, and adhesions in the pelvis were so extensive that a large multilocular mass had to be kept *in situ*. The wound was kept open, and for eight days the womb and the peristaltic motions of the intestine were visible. On the twenty-third day the patient was able to walk, but she died of cancer six months later.

In the ninth case both ovaries were removed, and the patient sank on the fourth day with symptoms of blood poisoning. In the tenth case the wire ligature was used, and the patient recovered. In the eleventh the ligature was also used, uterine colic came on immediately after the operation, and was combated by chloroform inhalation. The patient recovered. The last case was also successful; in it the clamp was used.

We have given this brief summary of M. Kœberlé's cases, because we are convinced that very few will care to read them in the original. M. Kœberlé has not the faculty of seizing the chief points of a case, and allowing secondary details to form the background of the picture. He has not studied perspective as applied to reporting, and consequently a mass of irrelevant matter is detailed with a verbosity which seriously impairs the value of the book. M. Kœberlé is certainly entitled to considerable praise in having given ovariotomy a fair footing in France. We think, however, that we detect in his style a certain arrogance which is scarcely worthy of a scientific inquirer. One of the deaths among his ovariotomy cases he directly lays to the charge of a colleague, while another he imputes to the obstinacy of the patient herself.

M. Kœberlé's successes have brought him great renown in his native country. After his second operation the Academy of Medicine voted him a sum of money from funds left by M. Barbier for discoverers of a cure for a disease previously considered incurable, or for a near approach to such a discovery. M. Kœberlé has also, we believe, been enrolled in the Legion of Honour.

When we consider the indiscriminate distribution of decorations in France, we may be tempted to agree with Metternich, that it is "*bien distingué*" not to possess one; but it certainly appears to us that some public recognition ought to be given to those who have signally improved the art of Medicine in its wider sense. In England we have no Academy of Medicine to pass votes of thanks or of approbation. The Medical man cannot, like the Churchman or the lawyer, look forward to a seat in the House of Lords. The only distinction to which he may aspire is to be allowed to enter a military order as a sort of supernumerary; and even this distinction has as yet been conferred for bureaucratic services rather than for scientific attainments. Until the system of life peerages has been extended to the Medical Profession, it will always be looked upon by a majority of the youthful population as standing on a lower level than law or divinity. It rests with Medical men themselves to say whether this disability is to be permanent.

It is certainly most unjust that, while national honours are heaped upon those who have distinguished themselves by military courage or by political talents, no public recognition is given to men who have been pre-eminently benefactors to humanity. A tardy and insufficient tribute has, it is true, been paid to the discoverer of vaccination; but there live at this moment men in our Profession who have done as much to deserve public gratitude as did Jenner. There are great men now alive who have robbed Operative Surgery of half its horrors by abolishing its pain; and there are those who have manfully overcome every opposition which prejudice threw in their way, and have triumphantly rescued one disease from the black list marked incurable. We believe that those men are themselves sufficiently repaid by the inward consciousness of having been pre-eminently useful to their fellow-men, and having added to the sum of human knowledge. But for the sake of others, and especially for the sake of those still hesitating as to the profession which they will embrace, it is extremely desirable that some tangible evidence should be given that the nation appreciates the sacrifices daily and hourly made by those who devote their energies and their talents to the promotion of its physical well-being.

FOREIGN CORRESPONDENCE.

GERMANY.

Berlin, February 3.

A discussion on diphtheria, which took place at a recent meeting of the Medical Society of Berlin, was sufficiently interesting to deserve being communicated to you, as Professor Virchow, Von Graefe, and other authorities took a prominent part in it. A paper was read by Dr. Veit, in which the author intended to prove that the morbid processes designated as croup and diphtheria were not so widely different as many pathological Anatomists and Professors of Clinical Medicine believed, since there was one common feature to both, viz., fibrinous exudation; and that it would therefore be better if we called the disease pharyngitis or laryngitis exudativa, and specified it according to the nature of the effusion as croupous or diphtheritic. As regards treatment, he recommended chiefly small pieces of ice to be taken every two or three minutes. In the discussion which followed, Prof. Virchow said that, previous to his having laid stress upon the difference between croupous and diphtheritic effusions, Rokitansky and the Vienna school had confounded the two under the name of croupous, while the French school had called them both diphtheritic. Both names had reference to the presence of a false membrane. There were, however, differences between the two conditions, as in one set of affections there were loose membranes adhering to the surface, and which might be easily be removed. Such affections had been associated with the name of croup, and it was, therefore, necessary to show that croup was very different from the pathological processes which

Brétonneau had observed in the mucous membrane of the throat, and his successors in that of the genitals and other membranes, for in the latter there was not mere deposition of a simple loose membrane capable of being at once separated from the surface without breach of continuity, but a process was going on in the very substance of the mucous membrane, and which resulted in ulceration, so that the false membrane could only come off in the course of some days. He was even now of opinion that this separation of the two processes was not only justifiable, but important in a pathological as in a clinical point of view, for the Medical Practitioner would always have to ask himself the question whether the process was one of gangrenous ulceration with breach of surface, or one where the surface was only covered with a loose, false membrane, but remained itself intact. He believed it would be best to confine the name of croup to the special affection of the larynx, and to distinguish its different degrees as catarrhalic, fibrinous, and diphtheritic. With regard to the pharynx, there was no such difference, as he had never yet observed free fibrinous false membranes on the surface of the pharynx and the tonsils; there was, therefore, no croupous angina or pharyngitis. The name of croup was, therefore, more a clinical than an anatomical expression; it represented anatomically three different pathological processes, which might exist together in the same person. Thus it was by no means rare that there was true diphtheritis in the pharynx and the upper part of the larynx including the vocal cords, while below these latter there were loose membranes which it was easy to separate, and further down ordinary catarrh, which might be set down as bronchitis. If, therefore, the name of croup were given up, and the gradual differences of the pathological process were to receive separate names, it would be impossible to get on with that in practice. "Croup" did not only mean certain anatomical peculiarities, but also a series of functional disturbances. Croupous catarrh was distinguished from simple laryngeal catarrh, not so much by anatomical criteria, but by the peculiar nervous symptoms observed during life. That the former was a more severe affection might also be shown anatomically, as there was swelling not only of the neighbouring glands, but also of the glands surrounding the jugular vein, and in grave forms of the disease even affections of the spleen, liver, and kidneys.

Professor Virchow then made some remarks about the pathological and clinical designations of disease. He said that there must always be a certain discrepancy between the two, as pathological anatomy had only to do with local processes; clinical medicine, however, with general conditions. Thus, in the same epidemic of cholera there might be cases which were, anatomically speaking, such of catarrh of the intestines, while others were such of true dyptheritis of the bowel. In certain cases of dysentery there was a dyphtheritic process, while in others there was nothing of the kind; and there were cases of intestinal diphtheria without dysentery. It would, therefore, be best to retain the old expressions giving the characteristic feature of the disease, while the minor features of it might be designated according to anatomical peculiarities. If every disease were reduced to local anatomical changes there would be great confusion, as there might be different stages, one passing into the other. By cashiering all the old clinical expressions all etiology would be lost, and we should no longer be able to group together diseases which have a common cause. In croup there would be positive danger in doing so, since cases of true croup might be anatomically nothing but laryngeal catarrh; and yet there was a danger inherent to these cases not at all peculiar to common laryngitis. In the same manner apoplexy was only a clinical, but not an anatomical conception. Apoplexy meant a sudden cessation of function, and more especially of that of the brain. This, however, did not give us any anatomical notions, since apoplexy was not merely caused by rupture of blood-vessels, but also by emboli, etc. If people talked of apoplexy of the lungs or the muscles, meaning with that hæmorrhage into these organs without cessation of function, confusion was produced. It was better to preserve the meaning of the word "apoplexy," physiologically and clinically, and to separate its different forms according to their anatomical nature—as hæmorrhagic, embolic, anæmic apoplexy, etc. If hæmorrhage were identified with apoplexy, this would be contrary to the facts, as hæmorrhage into the brain often occurred without causing the symptoms of apoplexy.

Professor von Graefe said that the type of croupous and diphtheritic diseases was very different, although they occasionally merged one into the other. He did not agree with Dr. Veit as to the effused fibrine being the connecting-link between the two. There was no effusion of fibrine in diphtheritic ophthalmia; in such affections there was only formation of pus and of a fine granular mass. Blennorrhœa might, by infection, cause croupous and diphtheritic processes in the eye, and diphtheria might produce blennorrhœa and croupous affections. The degree of contagiosity was, however, different, diphtheria being the most contagious.

Most of your readers will remember a series of experiments which were some years ago made by Signor Polli, of Milan, with hyposulphites, and the results of which seemed to prove that these salts possessed a special power in arresting putrefaction in the system. Signor Polli experimented with the hyposulphites of magnesia, soda, potash, and lime, and recommended them for typhoid fever, scarlatina, small-pox, septicæmia, and pyæmia. Professor C. O. Weber, of Bonn, who is at present occupied with very comprehensive experiments on inflammation, fever, putrefaction, etc., has quite recently repeated some of Polli's experiments, and has been, to a certain extent, as successful as the Italian physiologist. He gave two grammes of the hyposulphite of soda, for three days consecutively, to a large rabbit, and on the fourth day he injected a drachm of water, containing half a minim of sulphuretted hydrogen water, into the crural vein; twice this dose had, in a previous experiment, killed a cat. In the rabbit just mentioned, however, there was nothing wrong but accelerated respiration; it took food the same day, and moved freely about. There were no changes in the animal temperature. The animal now took for four succeeding days two grammes of the hyposulphite per diem, and was very well with it. The next day two drachms of water, containing two and a-half minims of sulphuretted hydrogen water, were injected, but caused no bad effects, while half that dose in another rabbit had caused convulsions and involuntary evacuations. The former animal continued cheerful, and took again one gramme of the hyposulphite. A fresh injection of $6\frac{2}{3}$ minims four days afterwards only caused rapid respiration; otherwise the rabbit was very well. Four days after, ten drops were injected, again causing rapid respiration and some sluggishness, but nothing further. The day after, however, the animal appeared decidedly unwell; it sat in a corner, and seemed to have the "blues." Respiration was accelerated; two and a-half grammes of the hyposulphite were given him the same day, but from that time nothing further was done. The animal ate, but became much emaciated, and partly lost its hair, so that its appearance was anything but prepossessing: it, however, appeared to be in pretty good spirits. The fæces were covered with mucus. About three weeks afterwards it was found dead. The post-mortem showed a moderate intestinal catarrh, but nothing else. There can be no doubt that the animal was essentially protected from the deleterious effects of sulphuretted hydrogen by the hyposulphite; and it would most likely have entirely recovered if the latter had been continued. Some other experiments with dogs, in whom putrid pus was injected, the hyposulphite having been administered for some days previously, were not so successful, as the animals died in spite of it; but perhaps a larger dose of the remedy might have had more effect. The hyposulphites are quite innocuous, their only unpleasant effects being slight diarrhœa.

I conclude by giving you the results of some of the experiments of Professor Weber on fever and inflammation. He found that if fresh, putrid, or dried-up pus was injected either into the subcutaneous cellular tissue or in the pleural cavity of animals, local inflammation and fever were produced. The latter, however, was not dependent upon the former, since it began immediately after injection, and reached its maximum a few hours afterwards. The effects of fresh, warm pus were chiefly striking. After the injection of such the temperature rose from 2° to 4° within an hour or two, more especially if it was injected in the pleural cavity. By repeating such injections artificial hectic fever might be caused. The loss of body-weight in consequence of this was far greater than could be accounted for by the withdrawal of food, which such animals instinctively refused. A fasting dog loses, according to the researches of Bischof and Voit about 1·8 per cent. of his body-weight per diem, while this loss in artificially produced fever amounts to 4 per cent. and more. What is called "Surgical fever," and which is a consequence of the injury caused, generally only sets in about the third day after injection. If pus is filtered, and the serum injected, the effects are much the same as with non-filtered pus, although not quite so striking. Professor Weber concludes from those

observations that in Surgical fever, pyæmia, and septicæmia, the blood is infected by the pus as by a ferment, and obtains "pyrogonous" (fever-producing) qualities. In order to test this supposition by experiment, defibrinised arterial and venous blood of such animals was injected into others; but without producing more fever or inflammation than might be readily accounted for by the injury. While in the experiments with pus the temperature increased 2° or 4°, in those with blood it only rose about 0·6° to 0·9°, and this was only the case on the third or fourth day after injection. Pus and other exudation fluids, if directly injected into the blood, have the same effects as if injected into the cellular tissue; but the rise of temperature appears to be a little higher in the former than it is in the latter. This increase is not at all due to the metastatic inflammations which are sometimes caused by emboli, or to the diffuse inflammation of the mucous membrane of the intestines, or to pleuritis and iritis, which latter are of very rare occurrence; for these only show their effects some days afterwards. If there is, however, violent diarrhœa, the temperature soon decreases; and this steadily goes on until death, just as in cholera. Embolism has nothing to do with this; for if small globules of wax are injected into the blood the temperature does not decrease. An emulsion of fat injected into a cat caused its death in a few hours, with simultaneous depression of temperature from 102° to 96°·8.

Diluted sulphuretted hydrogen water injected in the veins caused the temperature to increase immediately. After the injection of sulphuret of ammonium into the blood, the temperature rose for a time, but was afterwards diminished. Butyric acid seemed to cause the most marked diminution of temperature. In a cat in which ♏ 2½ of butyric acid, with one drachm of water, were injected, the temperature fell from 102° to 85° within five hours; and the animal died the following night. If the blood of such animals, in which pus injection had caused fever, was directly injected into the veins of other animals, fever was also caused in these latter. The temperature rose within a few hours by 2°5, which was accompanied with acceleration of the pulse. In one such experiment, however, there ensued violent diarrhœa and considerable diminution of temperature, which may perhaps have been due to the destruction of blood globules, which was shown to have occurred to a large extent.

It therefore seemed probable that in every inflammation the blood receives substances which produce fever as ferments would do. The blood of men suffering from inflammation could not be used in experiments tending to elucidate this point, as M. Panum has shown that the blood of one species is poison for another. Inflammation was, therefore, artificially caused in dogs, in order to exclude such errors. A fracture was produced and a good deal irritated, for the purpose of producing febrile reaction. Blood taken from such an animal, and injected into the veins of another, caused invariably a considerable increase of temperature, which sometimes even went beyond that of the animal first experimented upon. Fluid expressed from the lungs of a man who died of pneumonia was injected, after having been well filtered, and caused febrile symptoms. Even where there was originally no fever, but only rapid degeneration of tissue, fever could be artificially produced. Thus, it is known that after section of the vagi animals get inflammation of the lungs, but no fever. Blood taken from a dog thus treated caused fever in another. The same result was obtained with the blood of a dog who had been poisoned by cantharidine, but had had no fever previous to death. Fibrine is not the vehicle of fever in such cases, for in all these experiments fibrine had been separated from the blood. The quantity of blood injected having always been a small one when compared to the body-weight—viz., from three to eight drachms, its action certainly resembles that of a ferment. These experiments explain why fever is so very violent in certain diseases where the quantity of ferment passing into the blood is large, as, for instance, in peritonitis and acute rheumatic inflammation of the joints; at the same time, they give us a clue why it is that in other affections metastatic inflammation may be caused without the intermedium of emboli; as, for instance, endo- and pericarditis from rheumatic fever, parotitis from orchitis, and inflammation of serous membranes from pyæmia and septicæmia.

The Marquis of Westminster has presented the very handsome sum of £200 to the Great Northern Hospital, Caledonian-road.

GENERAL CORRESPONDENCE.

DR. BENCE JONES ON DIABETES.

Letter from Dr. Williams.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the very interesting lecture on diabetes by Dr. Bence Jones, published in your periodical dated January 28, is the following sentence:—"The increased flow of urine produced by the diuretic action of the sugar compensates for the imperfect filtration effected by the diseased cortical structure of the kidneys, and for years I have watched the diabetes stationary or lessening, or occasionally disappearing, whilst the Bright's disease slowly increases and causes its secondary or tertiary symptoms, which gradually destroy the patient." Allow me to say that a private patient whom I have attended during the last four years died a few days ago. Her case illustrates precisely Dr. Bence Jones's experience as to the sequence of Bright's disease on diabetes and their contemporaneous existence, but with a slight variation as to the relative action of the maladies, which, although a provincial Physician, I may be excused for specifying. It is this:—Instead of "the increased flow of urine compensating for the imperfect filtration effected by the diseased cortical structure of the kidneys," I found that the diabetic urine, passed in excess for two years, although still rich in sugar, became gradually reduced in quantity; in fact, there was the same amount of sugar minus the diuresis, the other indications (cataract among the number) remaining as they were. At the end of the two years I tested for renal mischief, and discovered traces of albumen, which gradually augmented until the fatal issue, which was preceded by anasarca, bronchial congestion, somnolence, etc. The secretion of urine steadily diminished, and death was attributed to Bright's disease alone, which in this instance prevented not only the superabundant flow usually characterising glucosuria, but, notwithstanding the permanence of that condition, was productive of actual suppression. It is needless to point out the extreme importance, diagnostic and prognostic, of this complication and the practical difficulties associated with it. I will only add that my patient, a lady aged 66, did not lose flesh (although exceedingly stout) during any part of her illness.

I am, &c.

Philip H. Williams, M.D., M.R.C.P.L.

Worcester, February, 1865.

TREATMENT OF SYPHILIS BY ARSENIC.

Letter from Mr. Gaskoin.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have had my attention directed to the following cases, which have excited much local interest. As I believe them to be of sufficient importance for more extended publication, I forward them to you with that view. I am, &c.

G. Gaskoin.

Pustular Syphilis treated by Mercury and Ioduret of Potassium without Alleviation of Symptoms—subsequent Recovery of Health under Arsenic.—(From the Clinique of Sr. J. A. da Silva, Surgeon 10th Infantry, Permanent Military Hospital, Lisbon.)

J. E., farrier, 3rd Company, No. 11, Cavalry 2, with chancres on the end of the prepuce and phymosis, of lymphatic temperament, 21 years of age. This patient came into Hospital December 18, 1862. The chancres were classed as hard, and the inflammation proved tedious in its duration. On December 30 the proto-ioduret of mercury was prescribed. On January 16, 1863, there appeared on the patient a general cutaneous eruption of papules and dark red maculæ, the chancres remaining as before. On the 21st of the same month he had conjunctivitis in the globe and lids of the left eye, which yielded to antiphlogistic and astringent topical remedies. On February 12 the cutaneous eruption assumed a pustular form, and small ulcers of a syphilitic character appeared on the patient's legs. His chancres were at this time healed. Ordered to continue the medicine, and to use plain water baths. By May 1 the eruption had increased; the proto-ioduret of mercury was, therefore, discontinued, and the prescription was changed to ioduret of potassium in the compound sarsaparilla syrup of Cuisinier. Ten days subse-

quently the patient's health was not improved. A consultation on the case occasioned his removal to a ward of different hygienic conditions; the ioduret of potassium to be continued, with substitution of the syrup of Gibert (deuto-ioduret of mercury) for the sarsaparilla syrup. On June 20, notwithstanding that the general health had improved, the cutaneous eruption was undiminished. General baths were superadded to the treatment. Embarrassed by the refractoriness of the symptoms, the Surgeon in charge recommended that the patient should join the detachment departing at this time of the year for the springs of Caldas da Rainha. This recommendation was approved of by the Health Committee. We are informed, however, that after the fifth bath the patient was obliged to abandon their use, from a febrile attack of some intensity, which lasted several days, and left the ulcers larger and deeper than before. A marked asthenia ensued on this attack, and he was too feeble to accompany the soldiers on their return to quarters. When he arrived at Lisbon, as late as October 24, he was in the condition following. He had yellowish-white incrustations largely and equally distributed over the surface of the body, but more of them in the face than elsewhere; on the removal of the crusts there appeared extensive ulcerations of some depth, possessing all the character of syphilitic ulcers; his general health was somewhat improved. All along during his stay at the springs he had been under strict Medical surveillance. In reflecting on the efficiency of the mercurial treatment in this case, I could not but call to mind the success which attends the use of arsenic in skin affections, hence I was led to attempt the cure by that line of treatment. I began by prescribing two milligrammes of arsenious acid, to be taken daily in divided doses dissolved in a decoction of sarsaparilla. The result was most satisfactory; the crusts became detached; the ulcers progressed towards cicatrisation, and left merely copper-coloured stains. On November 22 I suspended the medicine, finding that the patient had difficulty in passing urine, with forcing pains at the neck of the bladder; this inconvenience, however, lasted but a few days, being removed by fomentations.

On December 2 I renewed the use of the arsenical preparation, and on the 21st of the month the patient was considered cured. He was referred to the *Junta da Saude*, and by them excused from further military service.

The result of the case before us is extremely satisfactory. By the time he received benefit from the arsenic he had already been a year in Hospital. Subsequently to this happy result obtained by me, certain of our colleagues have employed a similar treatment in cases of consecutive syphilis with equally advantageous results. I have myself more recently found occasion to prescribe arsenious acid for a patient with syphilitic ulcers in the legs after I had found that mercurial treatment had failed to make any impression. And in this case fifteen days' treatment by arsenious acid, prescribed identically as above, was sufficient to change the character of the symptoms, and the man got perfectly well.

Pustular Syphilis—accompanied by Other Symptoms of Syphilitic Infection—no Improvement under Ioduret of Potassium or Mercurial Preparations—Cure established by Means of Arsenic.—(From the Clinique of Sr. Dr. F. de Sousa de Castello Branco, Lisbon.)

J. C. B., an infantry corporal, of sanguineo-lymphatic temperament and deteriorated *physique*. Has been in Hospital since September 26, 1863, suffering from an inveterate syphilitic affection, characterised by us as pustular syphilide. The patient has suffered on repeated occasions from primaries: he now appears with ulcers, which are concealed by more or less firm and adherent crusts. They are seen on the body generally, but especially on the face, where several of the ulcers by their union form large incrustations, and implicate no insignificant amount of surface. The integument bordering on the ulcers is of reddish brown or mauve colour. There is a large excavated ulcer in the throat, which occupies the posterior wall of the pharynx impeding deglutition. In the long bones, especially of the lower limbs, he has pains of an acute character, with night exacerbations, accompanied by febrile reactions which denote irritation in the gastric tract. My predecessor in this clinique had submitted the patient to anti-syphilitic treatment by ioduret of potassium, in doses at first of twelve grains, and subsequently of twenty-four grains daily. It was found necessary to suspend the medicine from time to time as contraindicated by the condition of the *primæ viæ*, and we substituted for it the syrup of iodurated deuto-ioduret of mercury of Gibert: at the same time we prescribed for the throat the use of corrosive sublimate in gargles of a compound decoction of hemlock, with opiated fomentations to the limbs.

Notwithstanding the employment of these therapeutic means for the period of two months and a-half, the patient experienced no real alleviation; every flattering expectation of improvement was followed by speedy exacerbation of the disorder. Under these circumstances, and having in view the successes detailed above in the practice of our colleague, Sr. Silva, I determined to submit the patient to the therapeutic use of arsenic. Accordingly, omitting all mercurials, on the 3rd of December I prescribed one milligramme of arsenious acid to be taken in a pint of decoction of sarsa. daily. A large amount of relief was, so to speak, immediate. The ulcers showed a tendency to close and heal; in the face there was a diminution in the red brown colour, which had stained the nose, and formed a border to the superficial incrustations existing there. These last very speedily began to detach themselves, the throat also took on a more favourable appearance; the osteoscopic pains had in some measure ceased; there was appetite for food, the general condition was more promising, and everything encouraged the hope that the sufferings of the patient, previously so refractory and resistent, would yield eventually to the means employed. Two milligrammes of arsenious acid were now administered daily in the same amount of decoction as above. On the 20th of the month the incrustations had fallen, leaving parts of the skin strongly marked with a bronze colour; the pharynx inclined to heal, and the patient swallowed much better; the pains, too, in the bones were nearly gone. We now ventured to raise the dose of arsenious acid to five milligrammes, in divided doses, daily. On the 26th of the same month the patient was completely cured, only some marks of bronze stains remained to show where the ulcers had been. All medicines were omitted on the following day, and he was allowed a slight term of indulgence for convalescence.

The remedy was all along excellently well borne, without irritation of any kind. Under experience of so positive a result in the above case and of that related by my colleague, I cannot but express a decided opinion that arsenic should be more generally employed in treatment of inveterate forms of syphilis, especially if, as sometimes will occur, all other therapeutic means have been exhausted.—From the *Escholiaste Medico*, No. 230, A.D. 1864.

THE PRODUCTION OF AN INVERTED IMAGE BY A CONVEX LENS.

LETTER FROM DR. W. ZEHENDER.

[To the Editor of the Medical Times and Gazette.]

SIR,—When I read the first letter of Mr. John Cresswell, published in your valuable journal (No. 751, 1864), about the production of an inverted image by a convex lens, I was much astonished to learn that one of the best established optical statements could be denied. I also, like Mr. Cresswell, had devoted a fair share of my leisure to the study of optics, and flattered myself, like him, that I had some knowledge of that science; but if it is true what Mr. Cresswell tells us about the situation of the inverted image produced by a convex lens, all we know about optics is erroneous.

Though Mr. Laurence, to whom the objection was addressed, had answered in a very polite style, and in a manner that was fitted to convince everybody, Mr. Cresswell tells us in a second letter (No. 754) that he has again carefully tried to see the inverted image in the focal point, but that to his eye it always "appears painted on the lens."

I pray you, Sir, to ask Mr. Cresswell whether he has ever tried to see the inverted image with both his eyes (binocularly). I am very sure that if he would endeavour to do so he would soon retract his most extraordinary statement. Indeed, it is a well-known fact, and I am afraid Mr. Cresswell will think it also one of those of which every schoolboy is aware, that, seeing with both eyes, we are much more fit to judge of distances than closing the one and seeing but with the other. Everybody knows that it is rather difficult to snuff a candle, looking at it with only one eye, because we are not able to ascertain exactly the distance of it. Do not you think so? Well, close one of your eyes, and let another man hold a candle without your seeing at what distance it is held, and try to snuff it with one eye closed. I think you will not very quickly succeed.

Now, look at the inverted image of a convex lens with both eyes. I suppose it will appear to you double in the first moment; you can only see alternately each one of these two images clearly and distinctly; you cannot judge exactly about the distance at which it appears to you to be; but cross now your visual lines at the focal point of the lens, and try to unite the two images in a single one, as you ought to do in looking at a stereoscopic apparatus, and you will clearly and undoubtedly see it "floating in the air." If I do so, and if now I take a pen and try to point out in what place this image appears to me to be, I always point at the very focus of the lens, and I am sure not to be mistaken more than about one-twentieth of an inch; and if Mr. Cresswell will try the same, I am sure he will succeed quite as well, or perhaps even better, than I can.

This little experiment seems to me sufficient to prove that the inverted image of a convex lens really appears (floating in the air) in the focus, and not, as Mr. Cresswell asserts, painted on the lens.

Will you ascertain yourselves the truth of this fact in another way, and only with the help of one of your eyes? Then place a second strong convex glass close to your eye, and endeavour to see at what distance you can clearly see any object through it. If your eye is emetropic, or, at least, neither short nor long-sighted, you will see through this second glass nearly at a distance that is equal to the focal distance of your lens. Now, look with this glass at the inverted image produced by your first convex glass, and when you have found the distance you want to see it the best, I can certainly tell you both your lenses will be distant from each other the total number of their separate focuses added together; hence it follows that the inverted image really appears in the focal distance of the lens —*q. e. d.*

Excuse, Sir, my bad English. I am German; and if I should not succeed to convince Mr. Cresswell that his statement is erroneous, I am very sure I would if I could explain to him the facts in my own language. I am, &c.

Bern, January 15. W. Zehender.

The Streets of London.—In a return just issued, as a summary of the *Weekly Returns of Births and Deaths in London*, a publication full of interesting details on the subject to which it relates, the Registrar-General makes the following opportune remarks on the atmosphere and thoroughfares of London:— "If coal were cheap, the greater command which the poor would have over that commodity would materially help to reduce the winter rate of mortality; and if smoke were abated at domestic fires, as well as at bakers' ovens and public furnaces, by more thorough combustion of fuel, the carbonaceous particles which they emit would not darken the air and pollute whatever they touch, nor, by forcing a passage into the throat and lungs, aggravate or excite fatal pulmonary complaints in human beings. Given, a broad river, with a temperature at the time above that of the air; let there be another vast moisture-exhaling surface on its banks sixty or more square miles in extent, and this area covered with houses which pour smoke from a million chimneys into a still atmosphere, and the result is that almost impervious fuliginous mass called 'a London fog.' But London has acquired almost as much fame for that highly agglutinative compound, its mud, as for its fogs; and perhaps there is more connexion than is generally supposed between them. It would be a humble but invaluable sanitary work if the streets were subjected to a perfect system of purification; if they were frequently and thoroughly cleansed and dried. The attention of Boards of Works may be well directed to this end. The present expedient by which householders who pay rates for parochial management are expected to clean the pavement in front of their own houses is unjust in principle and futile in practice. The whole width of thoroughfare from frontage to frontage should get the benefit of the same brooms and shovels. Old persons whose avocations compel them to be much out of doors, in feebly urging their steps over filthy streets, waste much of that strength which should be husbanded for the employment by which they live. And how can poor people be expected to keep the inside of their houses free from damp and dirt when all the adjacent exterior is a 'mud ocean?' A good scavenger is a practical teacher of that cleanliness which is said to be next to godliness; and if the streets were well kept the crowds who frequent them would read excellent plain sermons in the stones."

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, February 14.

Dr. Basham, V.P., in the Chair.

A paper, by Dr. Morell Mackenzie, was read on

THE TREATMENT OF CHRONIC DISEASE OF THE LUNGS BY THE INHALATION OF ATOMISED LIQUIDS.

The author, after an elaborate description of the various instruments invented for the purpose of introducing medicine by means of inhalation, enters into an account of the apparatus invented by Dr. Siegle,(a) of Strasbourg, and himself, which he thus describes:—It consists of a little kettle with a horizontal spout, in which there is a very fine opening. Placed at right angles to the horizontal spout is a vertical tube which dips down into the kettle, with a spirit-lamp beneath it. As the steam issues from the spout it causes a vacuum in the vertical tube, and the medicated liquid rising up becomes mechanically incorporated in the steam. The dilution of the medicated liquid which takes place is very slight, as the conversion of a drachm of water into steam will take up three drachms of medicated liquid. The temperature of the steam is lowered by the incorporation of the liquid, so that at the end of the cylinder it has only a temperature of about 70°. In this apparatus there is, of course, no current of cold air. The amount of liquid taken up varies—that is, it depends on the amount of heat applied, on the height of the column of liquid, etc. This is not an important defect, but when it is thought desirable to take up a definite quantity of liquid the author uses the following apparatus:—A graduated glass tube, about eight inches high, has from its lower part a fine piece of tubing, which is bent round and up again, and then extends about an inch horizontally, and ends with a minute opening. In the vertical portion of the fine tubing there is a stop-cock. The small aperture of the tube is placed at right angles to the spout of the kettle, and as the liquid emerges it becomes incorporated in the steam. By means of the stop-cock the amount of liquid which passes from the tube can be regulated, so that the same amount can always be taken up in the same time. Dr. Siegel's simple apparatus is an excellent one, and the author stated that he had often used it with great advantage. The author observed that his own atomiser is very simple, and can be used very easily. The liquid is driven from a fine glass pipe on to a projection in a bell-shaped tube, by the descent of a piston. The piston is drawn up without any exertion by a wheel and rack, at its upper part, and is forced down by a circular spring which surrounds the cylinder. The apparatus is filled with liquid by a funnel in its top, and all the spray except that which is inhaled passes back into the apparatus. The advantages of his (Dr. Mackenzie's) atomiser are:—1st. Its simplicity, requiring only a few turns of a handle to set it in operation. 2nd. The extremely fine state of subdivision which it effects. 3rd. The uniform pressure exerted. 4th. The fact that the waste liquid returns into the apparatus. 5th. The ease with which it can be taken to pieces and cleaned. After enumerating the Physicians and physiologists who had worked at the subject on the Continent, the author analysed the experiments which had been performed by Demarquay, Fournié, Brian, and others, on rabbits and dogs. He then related his own experiments, which had been carried out in conjunction with Dr. Duchesne, of Woodford. After detailing various experiments performed on pigs and dogs, Dr. Mackenzie thus sums up the results:—Leaving Demarquay's rabbits out of the question—it having been shown by Claude Bernard that as those animals in their normal state breathe through the nares when their nostrils are covered, and they are made to breathe through the mouth, the conditions are not physiological; and by Fournié that any solution (not atomised) injected into a rabbit's mouth passes into the lungs—there are (1st) Demarquay's and Brian's experiments on dogs; (2nd) his (Dr. Mackenzie's) on pigs and dogs; (3rd) an experiment performed by Demarquay in the presence of numerous witnesses on a woman with a tracheal fistula, in which it was shown that the inhaled liquid penetrated to the trachea, though there was a great obstruction at the upper

(a) This admirable apparatus has unfortunately been patented by Dr. Siegle.

opening of the larynx. This experiment, which had been previously unsuccessfully performed by Fournié, has since been repeated by Lieber, Schnitzler, and others, with results similar to those obtained by Demarquay; (4th) the fact first shown by Bataille, and since by Moura-Bourouillon, the author, and others, that after the inhalation of a coloured atomised solution the sputa remained tinged long after the employment of the laryngoscope could detect any traces of the material used. On the one hand there were an immense number of positive proofs of the penetration of atomised liquids, on the other hand there were a few experiments performed with negative results. It was scarcely necessary to remark that any experiment might be performed—the most simple chemical test employed—in a manner to ensure failure. But a few experiments of this sort could have little weight against the mass of evidence on the other side. The author stated that the greatest benefit from this system of therapeutics might be expected, and had resulted in bronchitis, asthma, and hæmoptysis. He brought forward twenty-two cases treated between October, 1863, and January, 1864. There were ten cases of bronchitis, six of phthisis, two of hæmoptysis, three of asthma, and one of whooping-cough. The author did not believe that in phthisis the treatment would have a positively curative effect, but was beneficial in cutting short intercurrent bronchitis. Of the twenty-two cases detailed, only two were unable to make use of this curative process. Of the ten cases of bronchitis, eight were cured, one relieved, and one obtained no benefit. The average duration of the time required for curing these cases, though most of them were severe and of long standing, was only fifteen days and a quarter. The shortest time was six days (a severe case, No. 4); the longest forty days. The duration of treatment was not in proportion to the severity of the disease, one mild case requiring twenty-eight days to get well. Of the six patients labouring under consumption, two were unable to use the inhalations on account of the irritation which they caused. Of the remaining four cases, whilst the physical signs did not undergo any material alteration, the local symptoms (expectoration, pain, and cough) were greatly relieved. The general health was much improved in two cases, Nos. 11 and 15; slightly in a third, and not at all in a fourth. In two cases of hæmoptysis, one severe, the other slight, the atomised liquids rapidly stopped the bleeding. In three cases of asthma—one a very severe case, which had obstinately resisted the ordinary treatment—this system of therapeutics soon gave relief. In one case of whooping-cough (in an adult) the inhalations gave immediate relief, and quickly effected a cure. The author stated that during the past year he had used atomised liquids in more than eighty cases of diseases of the lungs, and that he had found the plan of treatment no less successful than was detailed in this paper. The various instruments referred to in the communication were brought before the Society, and likewise diagrams illustrating their action and method of employment.

Dr. Gibb said that the subject of the author's paper was one of the highest importance, and in which he took the greatest interest. In the earlier part of his Professional career he (Dr. Gibb) had looked forward to the time when some means might be devised for introducing fluid in a minute state of division into the interior of the bronchial tubes, which would prove more certain in its effects than the vapour inhaled from certain substances. The instrument contrived by Dr. Sales Giron seemed to answer the purpose intended, but many others had been contrived since his invention. He had employed one manufactured by Weiss which readily answered the purpose, yet, as it soon got out of order, he had latterly given a preference to the fluid atomiser of Lewin, of Berlin, which, notwithstanding what the author had stated in favour of Siegle's and his own, he believed the most useful and convenient from its simplicity and readiness of application. In employing Siegle's, the temperature of the steam could not always be relied upon with any amount of adjustment of the cylinder for its diffusion, although it had decided advantages for introducing small quantities of certain agents. From the evidence brought forward by the author, illustrated by experiments of his own and Continental investigators, he had not the slightest doubt that any atomised fluid reached the minutest bronchial tubes and air cells, and from his own experience of the inhalation of fluid thus atomised or pulverised he was quite satisfied such was the case. With Siegle's atomiser he had caused the inhalation of a solution of the iodide of silver for a few minutes only in a case of rapid phthisis in the second stage of the disease, with profuse expectoration and laryngeal mischief. The effect of this was a general feeling of warmth throughout every part of the chest and the subsequent diminution of the expectoration. This feeling of warmth so generally diffused convinced him that the atomised fluid had reached the minutest bronchi. As a palliative in some cases of phthisis, and as likely to diminish the amount of expectoration, the inhalation of atomised fluids would prove useful, but it never could be relied upon as a curative agent in this disease. With regard to bronchitis, the chronic form especially, asthma, and hæmoptysis, his own experience agreed with that of the author, and showed that in many cases the greatest amount of relief could be obtained. Indeed, he had been surprised at the good results which sometimes followed, in the two former especially. He accepted the author's term atomised as preferable to pulverised in its application to fluids, and had no hesitation in adopting it. As furnishing an additional and most useful therapeutic agent in the treatment of laryngeal and chest diseases, the inhalation of certain atomised fluids must be regarded as one of undoubted value, and he (Dr. Gibb) gladly bore testimony in its favour.

Dr. Williams (of Swansea) said that, although a stranger to the Society, he could not help making some remarks on the valuable paper just read. He considered that Dr. Mackenzie stood in the very highest scientific position, and he (Dr. Williams) entertained the very highest opinion of him as an observer. Yet he wished to express his dissent on some points in the paper. He (Dr. Williams) had studied and had had opportunities of seeing disease of the lungs in all forms, and he believed that atomising fluids was unnecessary, on the ground that they could be introduced in the simplest manner by ordinary inhalation. He had himself gone through many experiments to prove the rate the air travelled to the air-cells, and he had found that it travelled in the slowest possible matter, and that attempts to make it pass more quickly simply excited spasm, and diminished the speed. He thought that, allowing time, simple inhalation would be as effectual as with force supplied by instruments. In the ordinary act of inspiration the air was only carried as far as the secondary bronchial tubes; the air below being nearly stationary, and being changed by a molecular process. Therefore, although force might be of service in bringing atomised liquids or vapours to the larynx, trachea, or larger bronchi, it could be of no value in treating disease of the more interior parts. Moreover, the absorptive power of mucous membrane, the speaker remarked, was not great. He had under his observation many patients who had worked in arsenic. They suffered from skin disease only—from the local action of the poison,—and not from general poisoning by it, although large quantities must have been inhaled. He (Dr. Williams) had tried the plan of inhalation of remedies, but believed internal treatment in the usual way was preferable. In conclusion, he wished again to thank the author for his highly philosophical paper, and to express a hope that he would go still further in his scientific researches.

Dr. Semulhof had arrived at the same conclusion as the last speaker, but for different reasons. Whilst admitting the great value of experiments, practical men must look to the end. In listening to the author's able paper, he came to the conclusion that the atomised substances did penetrate the lungs, and that such treatment was of benefit. But he thought that form of treatment was not necessary, and that the author had not attained any end not otherwise achieved. Some of the cases related, as hæmoptysis and whooping-cough, could have been well treated by ordinary means. Whilst he should read the paper, and, indeed, anything written by the author, with great attention, he was not quite so sanguine as Dr. Gibb as to the practical results.

Dr. Morell Mackenzie, on being called on to reply, said that the hour was so late, and that his paper had already occupied so much of the Society's time, that he felt it was impossible either to defend or explain the points on which there seemed to be some difference of opinion. With regard to Dr. Williams' remarks, he might say, however, that with the instrument he recommended, the atomised liquids were not accompanied by any current of air, nor had the atoms or molecules of the medicated liquid any force of their own. They were simply small particles floating in air. He was not prepared to discuss the question of the velocity with which air travelled down the smaller bronchi, as there was experimental evidence to show that liquids in a state of fine subdivision could penetrate to the pulmonary air-cells of the lungs of animals. The system of inhalation which he recommended was not meant to enter into competition with the ordinary modes of inhalation, but was intended to enable people to

inhale drugs which could not be volatilised. Those who thought that constitutional treatment was important could combine it with the local therapeutics. It was a mistake to suppose that there was anything antagonistic in the two methods.

NEW INVENTIONS.

AN IMPROVED CAUSTIC CASE.

The accompanying engraving represents an ingenious caustic-case made by Mr. Matthews, at the suggestion of Mr. Francis Mason, of King's College Hospital.

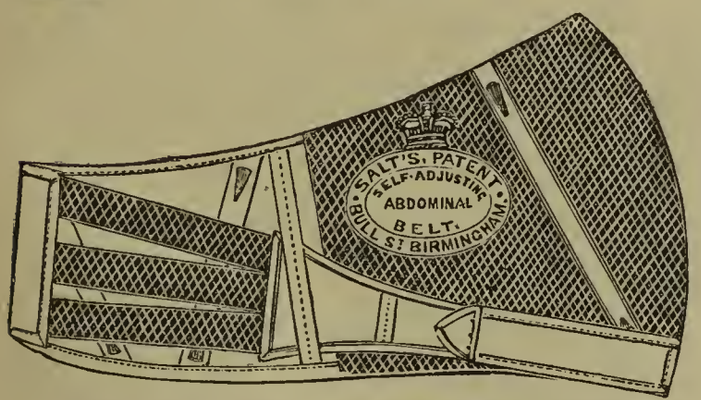
It will be observed that, in addition to the grooved needle and caustic-holder, there is attached a small spud for removing foreign bodies from the eye, and which may be made available for other purposes. As an appendage to the ordinary pocket-case the utility of the eye-spud is acknowledged by all practical Surgeons. In this instance the length of the caustic case is not increased, and the spud being affixed thereto obviates the necessity of carrying it as a separate instrument.

NEW ABDOMINAL BELT.

Mr. Salt, of Birmingham, has devised an ingenious belt for cases of enlargement of the abdomen from whatever causes. It appears to us to possess the following advantages :—

1. It adapts itself accurately to the figure, affording an equable and yielding support, which, by a simple contrivance, accommodates itself to the increasing dimensions of the abdomen, and renders an additional belt of larger size altogether unnecessary.
2. It can be applied without assistance.
3. It is extremely light and durable, and, being of pervious texture, is not unduly heating to the body.

We have lately had an opportunity of trying it in a case of enlargement of the abdomen from obesity, with the result of completely relieving many of the symptoms which had previously caused the patient pain and annoyance.



MEDICAL NEWS.

Royal College of Physicians of London.—At a general meeting of the Fellows, held on Monday, February 20, the following gentlemen, having undergone the necessary Examination, and satisfied the College of their proficiency in the Science and Practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College :—

George Lamb, Hull; John Bunyan Foster, 66, Upper Charlotte-street, Fitzroy-square; Thomas Robinson Glynn, 35, Canonbury-road, Islington; John Hudson, Rochester; William Griffith, Oswestry; J. Wm. C. Neynoe Murphy, Aldershot; Charles Theodore Günther, M.D. Tübingen, Hampton Wick; John Marshall.

At the same meeting, the following gentlemen were reported by the Examiners to have passed the First Part of the Professional Examination for the Licence :—

William Jennings Burt, St. George's Hospital; William Harris Butler, Guy's Hospital; Thomas Morgan Joseph, University College; Edwin Renshaw, St. Bartholomew's Hospital; Charles Lyon Redout, St. George's Hospital; Francis William Underhill, St. George's Hospital; Geo. Samuel Watson, St. George's Hospital; Walter Owen Withers, King's College.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, February 16, 1865 :—

Franklin Gould, 26, Charlotte-street, Bedford-square; Robert Robertson, North Dispensary, Liverpool; Charles Carr, Newcastle-on-Tyne; George William Rigden, Bargate-street, Canterbury; Ralph Burnham, Preston, Holderness.

The following gentleman, also on the same day, passed his first Examination :—

Ridgway, R. S. C. C. Lloyd, Guy's Hospital.

Pharmaceutical Society of Great Britain.—Names of Candidates who passed the Examination, February 22, as Pharmaceutical Chemists :—

James Barrett, Leicester; John Currie, Glasgow; John Francis, Wrexham; James Isherwood, London; Joseph C. Preston, London; William H. Tugwell, Greenwich; William H. Whiteway, Torquay; James Williamson, Edinburgh.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Barnes, Henry, M.D. Edin., has been elected Resident Medical Officer to the General Hospital for Sick Children, Manchester.

Edgeworth, Henry, F.R.C.S.I., has been appointed Surgeon to the Constabulary of Longford.

Macloghlin, Robert H., M.B. Dub., has been elected Medical Officer to the Dunfanaghy Workhouse and Fever Hospital.

M'Manus, John, L.A.H. Dub., has been appointed Apothecary and Secretary to the County Infirmary, Longford, and Apothecary to the Gaol.

Powles, Mr. R. C., has been elected House-Physician to King's College Hospital.

Seller, William, M.D. Edin., has been appointed one of the Medical Examiners in the Edinburgh University.

Watkin, Thomas L., M.D. Edin., has been re-appointed one of the Physicians to the Durham County Hospital.

DEATHS.

Cæsar, John A., M.R.C.S. Eng., at Cork, on February 10, aged 33.

Catherwood, Alfred, M.D. Glasg., at Charles-square, Hoxton, N., on February 19, aged 62.

Crawford, James, L.F.P.S. Glasg., at Kincardine, Perthshire, on February 6.

Fisher, J., M.D., at Bailieborough, Co. Cavan, recently, aged 25.

Golland, Walker, M.R.C.S. Eng., at 7, Cavendish-street, Manchester, on February 5, aged 52.

Gratiolet, Professor, the well-known Anatomist, died last week in Paris in consequence of a stroke of apoplexy.

Loadman, Robert M., L.S.A., at 1, St. Alban's-terrace, Hammersmith, on February 8, aged 67.

Magrath, Miles M., Assistant-Surgeon R.N., at Hong Kong, on December 16, aged 30.

Marshall, William, M.R.C.S. Eng., at Antwerp, on February 1, aged 39.

Martin, John F., M.R.C.S. Eng., at Abingdon, Berks, on February 14 aged 60.

Rix, Samuel B., Surgeon, at Zwart Kei River, South Africa, on December 18, aged 23.

Taylor, John Hollamby, M.D. Aberd., at Guildford, Surrey, on February 13, aged 80.

Williamson, William, M.D. Edin., at Union-street, Aberdeen, on Februar 16, aged 40.

Woodman, William, M.R.C.S. Eng., at 16, Bedford-circus, Exeter, on February 9, aged 63.

Young, William, M.D. Glasg., at Maryhill, Glasgow, on February 10.

Conversazione at the King and Queen's College of Physicians in Ireland.—On Monday evening last, February 20, the splendid new College, of the laying of the first stone of which we gave a full report in our impression of July 12, 1862, was properly inaugurated by a most brilliant *réunion*, which took place on the invitation of Dr. Beatty, who, having some years ago filled the same office in the College of Surgeons, was, on last St. Luke's Day, elected President of the King and Queen's College, in the room of Dr. Corrigan. In addition to the great majority of the Fellows and Licentiates of the College, there were present on this occasion—His Excellency the Lord-Lieutenant; the Right

Honourable the Lord Mayor; the Right Honourable the Lord Chancellor; the Right Honourable Joseph Napier, ex-Chancellor of Ireland; the Right Honourable the Attorney-General; the Honourable George Handcock; Sir William R. Wilde; the Very Rev. Dr. Graves, Dean of the Chapel Royal; and a very large number of Professional and non-Professional guests. Dr. Beatty wore his official costume as President, which resembled that of the Chancellor of the University. The Fellows also appeared in their usual academic dress, and wore the hoods of their several degrees. His Excellency arrived at about half-past nine o'clock, and was conducted by the President to the hall, the band of the 84th Regiment, stationed on the staircase, playing the National Anthem. The hall, a noble apartment, fifty-eight feet by thirty in width, and thirty in height, was well furnished with objects of historic and scientific interest, supplied by the Fellows (their contributions included the original grant of arms temp., 1667, etc.), the President, Dr. Carte, Prof. Beete Jukes, George O. Wilson, Esq., Dr. E. Perceval Wright, Dr. Wm. Barker, and Dr. John Barker. At one end of the room was suspended a portrait of Sir Patrick Dun, President of the College in 1692, and opposite to it was placed a splendid portrait of Dr. Corrigan, just completed by the distinguished artist, Mr. Catterson Smith, Pres. R.H.A., which has been painted at the expense of the College to commemorate Dr. Corrigan's five years' presidentship, from 1859 to 1864, during which time, and mainly owing to his clearsighted and liberal exertions, the new building was commenced and completed. Having examined most of the objects of interest in the hall, his Excellency and as many as could be admitted were conducted to a small darkened apartment, where a series of most interesting electrical experiments was performed by Mr. Robinson, of Grafton-street, exhibiting the passage of the current through tubes filled with various gases. Mr. Robinson exhibited also the light of the new metal, magnesium, and several large revolving stereoscopes. The guests then adjourned to the library, 58 feet by 18 feet, where refreshments were liberally supplied, and after some time separated, having spent a most instructive and agreeable evening, the pleasure of the latter having been considerably enhanced by the opportunity of meeting old friends from the country, who had come up to town to do honour to the worthy President's hospitable invitation. A well-chosen selection of music was performed during the evening by the military and string bands of the 84th Regiment.

PRESENTATION.—At the last meeting of the South London Medico-Ethical Society, the members presented to their worthy Honorary Secretary, Dr. Swallow, Kennington-park-road, a very handsome silver cup, which bears the following inscription:—"Presented to James Dodd Swallow, M.D., by the members of the South London Medico-Ethical Society, as a token of their esteem and appreciation of his valuable services as Honorary Secretary of the Society.—February, 1865."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Elliott's case of Imperforate Rectum is intended for publication, and shall appear shortly.

A Member.—Professor Fergusson's lectures at the College of Surgeons will be resumed some time in the ensuing summer.

Erinensis.—Yes. Dr. Brady, the M.P. for Leitrim, is a member of the London College of Surgeons. He formerly practised in the Blackfriars-road.

Veritas is entitled to the patient as long as she may feel disposed to employ him. At the same time, we think it would have been the more generous course to have acted in this instance *for* his brother.

A Fellow of the College.—The information you require shall be obtained. The gentleman to whom you allude is one of the "honorary" Fellows; the number, from a careful analysis of the list, is reduced from 542 to 275.

Dr. Davis.—Yes; Dr. Shebbeare was condemned to stand in the pillory at Charing-cross for publishing "An Eighth Letter to the People of England."

M., Margate.—In early life, Sydenham left Magdalen Hall, Oxford, to serve in the Parliamentary army.

A Fellow.—On inquiry we have ascertained that the executors of John Hunter left a certain sum, the interest of which is supposed to pay the expenses of a festival alluded to by "A Fellow."

M.D., Kennington.—Dr. Dominicetti established medicinal baths at Cheyne-walk, Chelsea, for the use of all disorders just a century ago, 1765. Soon after he took a house at Millbank, and had 16,000 people under his care. He, however, became bankrupt and disappeared.

Indian Surgeon.—We have received from our correspondent copies of articles from the *Calcutta Englishman* and the *Madras Athenæum*, republished in the *Homeward Mail*, containing some adverse comments on the new Medical Warrant for India. We can only say that, in our opinion, they do not in any degree affect the conclusion at which we arrived as to the substantial benefits conferred on the service by the new Warrant. We have already noticed several of the points urged by the writers in the Indian papers. It could not be expected that any measure would give equal satisfaction to all ranks in the service.

A file of the *Nelson Examiner*, of November and December, 1864, has been forwarded to us, containing a set of letters signed *Canis Senex*, which we do not hesitate to say are disgraceful to the anonymous writer, as well as to the newspaper in which they were permitted to appear. The Profession, unfortunately, is discredited, also, by the unworthy conduct of one of its members, if, as is said, the writer be a member. A man who writes anonymously in a newspaper, bitterly criticising the Professional proceedings of one of his brethren, and then heaping scurrility on the head of respectable Medical writers whose books were quoted against him, but who have nothing to do personally with the point in dispute, can have as little idea of the conduct of a gentleman as he has of the etiquette of a learned Profession.

THE LATE CHARGES AGAINST THE MEDICAL OFFICER OF THE HOLBORN UNION WORKHOUSE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I beg to inform you that the inhabitants of the Holborn district are endeavouring to raise a subscription to defray Mr. Norton's expenses (between £50 and £60), and it is proposed that if the sum raised exceed that amount, the Committee intend to form with it the nucleus of a Medical defence fund, as the enclosed circular will show. The Committee will feel greatly obliged if you will kindly mention this in the *Medical Times and Gazette*.

I am, &c.

55, Guildford-street, February 21. WM. C. HUGMAN, Hon. Sec.

(Circular.)

"THE CASE OF TIMOTHY DALY.

"In consequence of the general feeling of sympathy for Mr. Norton which has been excited by the injurious and unfounded charges recently brought against that gentleman, a meeting of the ratepayers of the Holborn district has been held for the purpose of taking into consideration the best means of relieving him of the heavy expense which the recent prolonged investigation by Mr. Farnall has entailed upon him. The gentlemen attending this meeting have ascertained to their entire satisfaction from inquiries made of several members of the Board of Guardians, also of the pauper inmates of the house, and from other sources, that his duties as Medical Officer of this Union have been most diligently and skilfully performed during the past ten years he has held the appointment; and confidently appeal to the ratepayers and the public to contribute by a small subscription, as widely extending as possible, as an expression of their sympathy and confidence.

"Owing to the general interest which this case has excited, and the publicity given to it by the public press, this meeting feels that it is unnecessary to enter into a lengthy detail of its merits, but beg to enclose a copy of the report just issued by the Poor-law Commissioners, and refer you to the strongly expressed opinions of the two London Medical journals (*Medical Times* and *Lancet*) upon the subject.

"It is resolved that a Committee shall be formed to carry out the above object.

"The following gentlemen have consented to act in that capacity and receive subscriptions:—Dr. Septimus Gibbon, Medical Officer of Health, Finsbury-square; Mr. Morson, Southampton-row and Queen-square; Mr. E. Taylor, Lamb's Conduit-street; Mr. Hagger, Lamb's Conduit-street; Mr. Holden, Lamb's Conduit-street; Mr. Yarde, Lamb's Conduit-street; Mr. Hanson, Red Lion-square; Dr. Robinson, Lamb's Conduit-street; Dr. Roberts, Lamb's Conduit-street; Dr. Stevens, Bloomsbury-square; Mr. Stagg, Great Ormond-street; Mr. Prosser, Holborn; Mr. Garlick, F.R.C.S., Great James-street; Mr. Cuff, F.R.C.S., Guildford-street; Mr. Kempe, 8, Keppel-street; Mr. Gibson, F.R.C.S., 10, Russell-square, Surgeon to Newgate.

"*Treasurer*—R. Sykes, Esq., Manager of the London and County Bank, Holborn Branch, by whom also subscriptions will be received.

"*Hon. Secretary*—W. C. Hugman, F.R.C.S., 55, Guildford-street, London, W.C."

*** We hope that the Committee will be completely successful in carrying out their object. Mr. Norton was made the victim of most unjust accusations, and we trust that his brethren in the Profession will unite with the ratepayers to bear him harmless from pecuniary loss. If the Committee obtain sufficient money to form the nucleus of a Medical Defence Fund, they may confer a great benefit on the whole Profession.

UNION OF FRACTURED RIBS AT 94.—OVARIOTOMY IN SWITZERLAND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—A not very common case of consolidation of fractured bones occurred to me lately. On January 1, 1865, Mrs. G., a lady, 94 years old, fell from her chair on her right side. The fourth and the fifth ribs of the left side broke in the fall, in the middle of the bone, probably from forced extension. I applied a large pitch plaster, and over it a *bandage d'corps* to maintain the fragments. The consolidation is now complete; plaster and bandage have been removed ten days ago; Mrs. G. is as well and free in her movements as if nothing had happened.

An operation of ovariotomy has been practised at our little Samaritan Hospital with a full success. It was a multilocular tumour, containing about twelve litres of liquid. It was operated by Dr. De Montel, who had the case in his charge. Everything went on most favourably, and the patient is now entirely cured. It was the first operation of ovariotomy practised in our canton, and it excited no little interest among the Medical men of the neighbourhood, who were all present.

Perhaps, Sir, you will think this to be of some interest to your readers.

I am, &c.

Vevey, February 17. J. C. GUISAN DUY.

Right of Recovery for the Services of an Unregistered Assistant.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I was the plaintiff in an action lately tried in the County Court of this town, in which I sought to recover for Professional attendance and medicine rendered and supplied by my assistant, who conducts a branch surgery for me five miles distant from my own residence. I am registered as an Apothecary, Surgeon, and Doctor of Medicine. The judge, after a few minutes' consideration, gave a verdict, with costs, for the defendant, based on the ground that, according to the Medical Act, no qualified Medical practitioner could recover for cases which had been attended by an assistant *(sine* diploma) resident five miles distance from the principal.

I beg to submit the above to the readers of your widely-circulated journal, many, no doubt, of whom have branch practices, as I think it involves a question of great importance to the Profession generally.

I may add that, having conducted this branch practice for a considerable time, I might be a considerable loser should this decision hold correct.

I am, &c. John Willett, M.D.

Northwich, Cheshire, February 13, 1865.

P.S.—Your opinion, as an addendum, would much oblige.

[We are of opinion that the decision of the County Court judge was clearly wrong. Supposing the Medical Act never to have been passed, there could be no doubt of Dr. Willett's right to recover, presuming that the branch practice is conducted in his name, and the assistant was accepted by the patient as Dr. Willett's representative. Now, what is the effect of the 32nd section of the Medical Act on that right? That section enacts that no person shall be entitled to recover for any Medical attendance, etc., unless he shall prove upon the trial that he is registered. Dr. Willett, we presume, did prove that he was registered; and his case would then be complete. We may add that the right of a qualified Practitioner to recover for work done by an unregistered assistant is expressly recognised by Chief Justice Erle, in his judgment in Turner and Smith *v.* Reynall, 32 L. J. C., p. 164, although the point in question was not raised in that case.—Ed.]

A Midwifery Question.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I should be glad to know, through your correspondents, especially from some leading Practitioners in obstetric practice, whether the repeated application of the hand dipped in cold water and applied to the abdomen is a safe means of inducing uterine action, or whether, in short, it can be regarded as "meddlesome Midwifery." I have always used this method in preference to ergot of rye, and have never regretted its employment. It is a natural remedy, always at hand. With the same intent, I constantly adopt the plan of making my patient drink the coldest water; the effect is immediate, and often of great value. By this means, also, I have determined the existence of pregnancy, beyond a doubt, when the flattest denial was given. The motions thereby communicated to the fœtus are readily felt by the hand, both through the vagina and the abdominal wall.

The application of the cold hand (made so by water) is no new method of producing action in the uterus. I have seen it used in Dublin, and I have also seen a cloth, well wetted, thrown forcibly on the abdomen, and with the result of speedy pain in the uterus. I learned my cold water plan from a Dr. G. J. Morris, who was a most excellent Midwifery Practitioner, and I never regret its adoption. Of course it is inadmissible when there is an inclination to rigor, and I never employ it when the patient objects to cold. Its sudden use is its very recommendation.

I am, &c. Henry Ussher, M.B., Surgeon,

February 15. Medical Officer, Wandsworth Dispensary.

The Value of the Microscope as a Test for Forgery.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I shall be much obliged by your kindly inserting the following queries in your valuable journal, an answer to which, from some of the members of the London Microscopical Society, will be much prized. I will trouble you with the full particulars of the case, as you will then judge better of its real interest:—

Within the last few days a very respectable and well-to-do merchant in this city was accused by a country farmer of the crime of forgery in three notes of hand which had passed between them in 1859. It was alleged by the farmer that the notes were drawn up to bear no interest, and that the merchant had inserted the following line—"with interest at 20 per cent. until paid"—some time after he had signed them. To prove this, he produced four other persons, who, along with himself, swore positively that the line was a forgery. The only evidence that the merchant could fall back upon was the microscope; by its aid he thought that it could be certainly ascertained which was written last, the man's signature or the line in question, as some of the letters of both were not only in contact, but crossed each other.

The case has been investigated very carefully, the investigation having lasted two whole days before three magistrates, who unanimously decided on its dismissal. The farmer, however, is determined not to allow the matter to rest, but to bring it before the next Spring Assizes.

At the investigation the merchant produced fifty or sixty witnesses, who, on looking through a No. 1 Smith and Beck microscope, all swore that they had not the slightest doubt that there was no forgery, as several letters of the signature appeared to be distinctly over those of the "line." Amongst these were three or four who are constantly using the microscope. The farmer, however, produced one gentleman, himself a microscopist, who alleged that he considered it by no means a certain test.

You will see that this is a most interesting and important case. I am not aware of ever having seen a similar one recorded. The following are the queries to which I solicit replies:—

No. 1.—In cases of suspected forgery, where proof rests on one line, or words, written above one another, can the microscope be considered a certain test in cases where the ink of both words is very distinct? can it positively tell which is written last? also in cases where tracing has taken place?

No. 2.—If so, must the examination be conducted by microscopic experts? or can any ordinary person describe what he sees with certainty when the object is placed for him in the field of the microscope by an expert?

No. 3.—In such examinations, what object-glasses are the best to be used—those of a high or low power? and why?

No. 4.—What light is best to be used—incident or transmitted?

No. 5.—Before a correct opinion can be given, is it necessary to cut the paper in two, where the words cross one another or are in contact, in order to place the cut edge in the field? and why?

I am, &c.

J. A. Brown, M.B.T.C.D., L.R.C.S.E.

London, Canada West, January 27.

COMMUNICATIONS have been received from—

Royal Institution; Dr. Guisan; Apothecaries' Hall; Dr. J. W.; An Indian Surgeon; Dr. Henry Barnes; L. K. Q. C. P.; Dr. P. H. Pye-Smith; Harveian Society of London; Western Medical and Surgical Society; Dr. Humphry; Royal College of Physicians; Dr. P. H. Williams; Mr. W. C. Hugman; Mr. J. Clarke; Dr. C. Kidd; Veritas; Mr. E. Bremridge; Dr. W. Murray; A Dublin Surgeon.

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 18, 1865.

BIRTHS.

Births of Boys, 1044; Girls, 990; Total, 2034.
Average of 10 corresponding weeks, 1855-64, 1916·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	774	793	1567
Average of the ten years 1855-64	665·9	658·5	1324·4
Average corrected to increased population..	..	..	1456
Deaths of people above 90	..	..	6

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	6	3	7	6	4	10	7
North ..	618,210	10	2	11	1	17	28	..
Central ..	378,058	1	1	6	2	8	15	1
East ..	571,158	1	6	16	2	16	16	3
South ..	773,175	2	5	12	2	18	19	2
Total ..	2,803,989	20	17	52	13	63	88	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·693 in.
Mean temperature	30·5
Highest point of thermometer	45·1
Lowest point of thermometer	15·5
Mean dew-point temperature	25·6
General direction of wind	NE. SE, SW.
Whole amount of rain in the week	0·52 in.

APPOINTMENTS FOR THE WEEK

February 25. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

27. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

Royal Institution, 3 p.m. Prof. Tyndall, F.R.S., "On Electricity."

28. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Anthropological Society of London, 8 p.m. Meeting.

Royal Institution, 3 p.m. Prof. Hofmann, F.R.S., "An Introduction to the Study of Chemistry."

Royal Medical and Chirurgical Society, 8½ p.m. Meeting.

March 1. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

Royal Institution, 3 p.m. Prof. Marshall, "On the Nervous System."

Royal Medical and Chirurgical Society, 8 p.m. Anniversary Meeting.

2. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Harveian Society of London, 8 p.m. Dr. Griffith, "On a New Method for the Arrest of Uterine Hæmorrhages." Also, a Clinical Discussion "On the Use of Alcohol in Fevers."

Royal Institution, 3 p.m. Prof. Hofmann, F.R.S., "An Introduction to the Study of Chemistry."

3. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

Royal Institution, 8 p.m. James Fergusson, Esq., F.R.S., "On the Temple at Jerusalem."

Western Medical and Surgical Society, 8 p.m. Dr. G. F. Blandford, "On Melancholia."

ORIGINAL LECTURES.

LECTURES ON CHEMICAL AND MECHANICAL DISEASES AND THEIR RELATIONSHIP.

By H. BENCE JONES, A.M., M.D., F.R.S.

Lecture III.

DISEASES OF SUBOXIDATION—ON THE OXALIC ACID DIATHESIS.

On the Oxalic Acid Diathesis.

Strictly speaking, the oxalic acid diathesis is included in the general expression acid diathesis, for the oxalic is only the last acid in the descending scale of ternary organic substances that is produced before perfect combustion sets free carbonic acid and water. Still I shall treat of oxalic acid separately, partly for the sake of clearness, and partly because, being a very strong acid, it will probably be found, in the progress of animal chemistry, to play an important part in the healthy chemical actions that take place in the body.

As oxalic acid is only a special instance of acidity, much that was said in the last lecture applies to the production of an excess of this acid also. To avoid useless repetition, I shall now confine myself to that which belongs specially to oxalic acid as distinguished from other acids.

The production of oxalic acid in the body is a purely chemical process. Certainly it would have escaped notice if the compound which it forms with lime had not been very insoluble in dilute acid. This chemical cause leads to the secondary mechanical disease, mulberry calculus, and this complaint is so frequent and so serious that the primary chemical disorder hence rises to an importance which it would not at all reach by itself.

To make the production of oxalate of lime depend on an oxalate of lime diathesis, so far, at least, as the lime is concerned, is only giving a hard word to the chemical affinity of oxalic acid for lime which partly depends on the insolubility of the compound produced.

If perfectly healthy action is marked by the production of carbonic acid and water .	CO_2HO
The first and slightest arrest of oxidation will be marked by the production of oxalic acid	$C_4O_6 2HO$
The higher degrees of arrest of oxidation of sugar and albumen will produce other acids, as acetic acid	$C_4H_3O_3HO$
Or hippuric	$C_{18}H_8NO_5HO$
Or uric	$C_{10}H_2N_4O_4 2HO$
The highest degree of arrest of sugar will give diabetes; grape sugar . . .	$C_{24}H_{28}O_{28}$

Hence oxalic acid is related to over acidity and to diabetes in that it is the lowest of a series of imperfect oxidations, whilst diabetes is the highest term of the same series. Moreover, it will be seen that between the oxalic and the saccharine diathesis there is a resemblance not only in the causes of these diseases, but also in the treatment.

Oxalic acid, like sugar, can arise from two sources—first, from the food; and secondly, from the textures.

Of all the acids that exist in the vegetable kingdom, the most widely present is oxalic acid. Schleiden even states that oxalate of lime, either in needles or octohedra, is present in every plant; in some, as in rhubarb or sorrel, oxalic acid is present in very large quantities. It is formed out of carbonic acid and water by the hydrogen of the water combining with the carbonic acid while the oxygen is given off; thus, $C_4O_8 + 2HO = C_4H_2O_8 + 2O$. As this oxalic acid is mostly combined with potassa or lime, it is not likely to escape oxidation in the body before it passes out of the kidneys, and hence probably from this source oxalate of lime rarely occurs in the urine.

All the hydrocarbons, as starch and sugar, that exist in the food, and most of the vegetable acids, when oxidised out of the body by nitric acid or by fusion with hydrate of potassa, give oxalic acid; if fully oxidised, they would give carbonic acid and water.

In the oxidising action which is going on in the body, the starch, sugar, and vegetable acids may all stop in their progress to carbonic acid and water before their final change takes place, and thus give rise to oxalic acid; and this will combine with any lime that happens to come within its reach, and will pass out as oxalate of lime in the urine. Moreover, in addition to these vegetable sources of oxalic acid, there may be two sources from animal substances. The sugar that has its origin in the muscles and in the liver may, by arrest of oxidation, furnish oxalic acid.

Moreover, there can be no doubt that albuminous substances, whether of vegetable or of animal food, give rise to uric acid when an excess is eaten; and when uric acid is imperfectly oxidised, it divides into oxalic acid and urea: so that oxalic acid may be produced even from the albuminous constituents of the different organs and textures themselves. In the process of disintegration different portions of the albuminous matter may stop at different degrees of oxidation, when from any cause that action is incomplete. Hence uric acid, or urea and oxalic acid, instead of urea and carbonic acid, may be thrown out of the body. Thus, then, there may be not less than four sources of oxalic acid in the urine—two in the food and two in the textures.

That oxalic acid does come from the textures is rendered more likely by the fact that when the strictest possible diet is observed oxalate of lime may occasionally still be detected in the urine. In this respect, as in others, the parallel with diabetes is very close; the difference being that the sugar causes diuresis, and implies a greater loss of force, whilst the oxalic acid, in consequence of the insolubility in dilute acid of the oxalate of lime, gives rise to a serious mechanical disease, which requires severe mechanical treatment for its cure.

It is highly probable that oxalic acid, though not so widely diffused in animals as in vegetables, may be much more frequently present in different secretions and textures of the body than is yet proved to be the case. Already it has been found in the blood, in mucus, in saliva, and in perspiration. Its occurrence in the urine implies no disease, but only a slight error of deficiency in the chemical changes in the body.

It is twenty years since I was consulted by a Medical gentleman, who said he had been greatly alarmed by being told that the oxalate of lime in his urine indicated serious and, possibly, malignant disease. I advised him to examine the water passed by apparently healthy people. In a very short time he wrote to me that he found octahedral crystals in the urine of the most healthy of his friends.

On the Means of Detecting Oxalic Acid.

At present oxalic acid is most readily detected by means of the crystals it forms with lime. It requires no skill and no preparation of the urine to find the oxalate of lime. The urine should be left to stand for twenty-four hours in a bottle or tall glass; the upper part of the fluid should be poured off, and the last few drops remaining should be examined. A magnifying power of 320 times is generally sufficient, but the crystals are sometimes so small that more than this power is necessary to determine the form. Generally oxalate of lime octohedra are thus found without the least difficulty—sometimes in large single crystals, very frequently in aggregations of small octahedra forming microscopic calculi.

Dr. Golding Bird was the first who stated that these crystals, which had for some time previously been observed in urine, were oxalate of lime.

It is only in rare cases that so many crystals can be collected from the urine as will furnish the chemical proof that these octahedra are oxalate of lime; this proof may be obtained. Moreover, artificially formed oxalate of lime, which is generally an amorphous powder, can be made to crystallise in octahedra by dissolving it by the aid of heat in very dilute hydrochloric acid, and setting it aside for many days, when octahedral crystals will very frequently be formed. The less oxalate of lime present and the more acid the solution, the slower the crystals form. In no experiment have I succeeded in forming the crystals which Dr. G. Bird has called dumb-bell crystals of oxalate of lime. They do not very frequently occur in the urine, and I cannot say that their appearance gives any important indication. Oxalate of lime occurs in the urine in a third form, which M. Donné has also observed; and as the microscopic appearance may lead you to a wrong diagnosis, it requires to be mentioned here.

I sometimes find, with or without octahedral crystals, little flattened discs, the size of very small blood globules. When rolling over, they may very easily be mistaken for blood globules. They vary much in size, some being much smaller than any blood globules. I have seen these discs mixed with octahedral and dumb-bell crystals—in fact, the smallest dumb-

bell crystals form minute flattened discs. They are not soluble in water as blood globules are; they have a different appearance in the centre, and the eye, by practice, can learn to distinguish certainly between blood globules and oxalate of lime.

On the Symptoms of Oxalic Acid.

The most common symptom of the oxalic acid diathesis is flatulent dyspepsia; frequently before food considerable uneasiness is felt, and eructation occurs. Eating for a time removes the symptoms, often only to return in an hour or two with increased intensity. The pain sometimes is so severe, persistent, or intermitting, that it can only be produced by actual cramp of the muscular coat of the stomach. This state of suffering may last from half-an-hour to three or four hours, and then cease to return after some days or months or years.

In the urine the presence of oxalate of lime may be suspected when sudden changes in the quantity made in twenty-four hours are observed.

A slightly dyspeptic gentleman was passing urine giving a thick deposit of urates only on cooling. The amount made in twenty-four hours was twenty-nine ounces, specific gravity 1023·8. The following day, without any change of diet, or increased quantity of fluid drunk, or medicine of any kind, he passed fifty-four ounces, specific gravity 1018·1, and on examination myriads of octahedral crystals were found to be present.

Usually an increased urgency and frequency of making water accompanies this increased flow, and there is a general feeling of irritability of the nervous system, exaggerating external and internal annoyances to a degree far beyond that to which they would rise if no dyspepsia existed.

W. S., aged 64, had all his life been dyspeptic. For twelve years he had had dry and moist eczema. For seven or eight years he has had sleepless nights; so excessively nervous he could not go to bed. Has had violent pains on the top of the head, and spasms of the stomach, lasting half-an-hour or an hour, relieved by an escape of wind. For the last two years he has had frequent calls to pass water at times. Has never had a distinct attack of gout, but frequently has flying pains in the joints. Without known cause, he frequently, for some hours, passes large quantities of water, with increased frequency in the morning, but not in the evening. For example:—

On Feb. 13 he passed—	ozs	On Feb. 14 he passed—	ozs.
At 2 a.m. . .	4	At 7 a.m. . .	8
3.30 . . .	5	8 breakfast.	
7.30 . . .	6	10. . . .	2
8.30 . . .	6	2 p.m. . .	4
10 breakfast.		Dinner.	
12 noon . .	7	5.30 . . .	4
2 p.m. . .	4	8	$2\frac{1}{2}$
4.15 . . .	4	12	$2\frac{1}{2}$
6 dinner			
8	5		
12 night .	4		
	45 sp.gr.1015.		26 sp.gr. 1026.

In the water passed on the 13th I found plenty of octahedral crystals; in that of the 14th I found free uric acid and urates. There was no other disease detectable.

(To be continued.)

The Late Dr. Hawkins, of Hitchin.—Dr. Hawkins was the fourth son of Major Hawkins, of Laurence End, Herts. He graduated at Edinburgh, and there formed an intimacy with the late Sir J. Forbes, which continued through life, and whose opinions on the incurability of disease, embodied in his memorable work on the "Nature and Art," etc., he fully shared and openly professed. On settling at Hitchin, in 1820, one of his first acts was the opening of a dispensary for the relief of the poor. From this small beginning sprang, by his persevering efforts, the present noble building, which was opened in 1842, under the name of the North Herts and South Beds Infirmary. Till October, 1863, he continued to fulfil the office of Surgeon to the institution, when a paralytic seizure forced him to resign; on which occasion the subscribers, to mark their sense of his valuable and long-continued services, presented him with 1000 guineas. Dr. Hawkins died on November 27, 1864, from a second attack of his former complaint, in his 69th year.

ORIGINAL COMMUNICATIONS.

ON NUTRITION.

By LIONEL S. BEALE, M.B., F.R.S.,

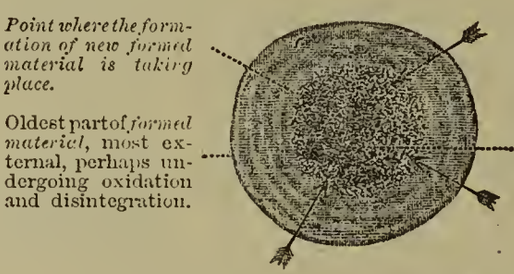
Fellow of the Royal College of Physicians; Physician to King's College Hospital; Professor of Physiology and of Morbid Anatomy in King's College.

(Continued from page 194.)

From what was stated in the last paper, it appears that the first stage of the process of nutrition of a cell or elementary part comprehends (*a*), The passage of the dissolved pabulum through the formed material already produced, and (*b*), The contact of the solution which has passed through with the living matter. Up to this time the chemical composition of the pabulum has not been changed. The passage of the pabulum through the formed material is probably a *physical process*. It is likely that the formed matter, in many cases, acts the part of a filter, and its properties may be such as to allow some solutions to pass through it, and to interfere with the passage of others.

But in the second stage of the process of nutrition alterations occur which cannot be explained by physical laws. No such changes are known to occur except in the case of *living beings*, and we know of no means of producing them, save by bringing inanimate pabulum into relation with matter which already lives. I, therefore, speak of these as *vital changes*, and I shall endeavour to describe as far as I am able what probably occurs in the matter in this living state.

Before we can understand the real nature of the process of nutrition, we must learn what goes on this germinal or living matter when new pabulum comes into contact with it and undergoes its marvellous change. Atoms of matter, formerly in combination, are silently and quietly released. They are made to alter their positions; to move in a manner which we cannot explain; to take up altogether new relations, and acquire new properties. The ordinary attractions and affinities seem for the time being to be overcome, and there is no evidence that while the matter lives its particles enter into combination at all.



A living cell to show that the process of nutrition consists of

1. The passage of the pabulum through the formed material when it reaches the germinal matter.
2. The conversion of some of its constituents into germinal matter.
3. The conversion of some of the germinal matter previously existing into formed material which is deposited layer within layer, as it were, upon the *inner surface* of the formed material already produced. In many cases the successive layers are incorporated with one another.

The process of *oxidation* probably affects the outer and oldest part of the formed material chiefly, and, in some instances, occur in this situation only.

In the process of nutrition nutrient matter, pabulum, with its latent force, passes into this living matter; but who will affirm that the force thus latent in the pabulum is the force which causes the living matter to move and to draw new particles towards it—the force by virtue of which the elements of which it consists arrange themselves in a special manner?

It would seem rather as if there existed in relation with the living matter some power which compelled the elements of matter to take up certain definite relations to one another—some power which caused matter to arrange itself in a definite way, which controlled the matter and the forces latent in the matter. For how can the power which directs and controls force, be of the same nature as force? Nor is there any evidence of the manifestation of force or ordinary affinities while the matter remains in this temporary living state. The ordinary affinities and forces seem to be actually suspended, and do not again come into play until the matter has ceased to live.

Such wonderful power is not confined to the germ, as some have said, but it exists in relation with every particle of living

matter in every tissue in every organism. It has been called "directive power or agency," and has been compared to the direction of machinery by man, as the organism itself has been compared with a machine. If every lever and wheel moved itself, built itself up, and possessed in every part the power of forming other levers and wheels from crude materials whilst it still performed its proper offices, then some sort of comparison might fairly be made between inanimate machines and living things.

This power of self-construction is peculiar to matter which is alive, and there is no living thing in which it is not manifested; but there is no other force in nature which can be compared to it. It seems, therefore, correct to call the actions which go on in all living matter, but in living matter alone, *vital actions;* and to speak of the power to the influence of which these actions are supposed to be due, as *vital power*. If any physicist can explain these actions by any known laws of Physics, then we must cease to talk of vital power. But some physicists, who have ventured to discuss very freely certain physiological problems, have not even alluded to the real phenomena which distinguish things living from things inanimate.

In nutrition, some constituents of the pabulum have conferred upon them the same powers as the living matter already existing, and thus the latter *increases*, or is *nourished*, or "*grows*." But the pabulum is pabulum no longer; it has lost its old characters and has acquired new ones. Its particles are differently arranged; they do not combine to form compounds. There is reason to believe that they actually move in a direction *from* the centre at which they acquired their new properties. It is for the Physicist to prove that they do not move *from centres*, or, if he admits that they do, to explain *why* they move in this direction. This tendency to move *from* a centre seems one important character in which every kind of living matter differs from matter in every other known state. This *centrifugal* movement will enable us to explain how the pabulum is drawn towards the living matter; for it is obvious that if the various particles of which a spherical mass is composed exhibit a tendency to move *from* a centre, the fluid (pabulum) around will be caused to move in the opposite direction, and currents will flow *towards* the centre. Thus, upon this view of the constitution of living matter, something like an explanation of the cause of the passage into its substance of matter from without is afforded.

Now, of the chemistry of this matter, which performs all these active processes and possesses such marvellous powers, nothing whatever is known, save that by its death we can obtain a substance which we call fibrin, another we call albumen, a little matter we call fat, water, and salts. A chemist might say the living matter is composed of these things; but who can prove that these substances actually exist *in* the living matter? On the contrary, they seem to be but *products resulting from its death*, under certain conditions. So that there is nothing in this second stage of the process of nutrition which resembles any chemical process known. In no case does food become converted directly into tissue, or into the products of secretion, or into blood. In no case does food, as food, become oxidised; but it always becomes *germinal*, or *living matter*, the products resulting from the death of which are applied to the nutrition of the germinal matter of the blood, tissues, secreting organs, etc.

Surely, then, we may consider it established that in the nutrition of every living structure all pabulum passes through the state of germinal matter before it assumes the condition of formed material, and that the character, composition, and properties of the formed material are the consequence of certain changes occurring during the temporary living or germinal state. (See Fig.)

In every kind of nutrition it is this germinal matter, and this alone, which plays the most important part. Without it no formed material can be produced. Formed material (cell wall, intercellular substance) has no changing, metabolic, converting, or catalytic power. It cannot make new formed material. It cannot alter, modify, change, or convert. It is passive. But the germinal matter does all these things, and its powers are conveyed to new matter without loss, and this extension of power from particle to particle seems to be infinite.

Let it not be supposed that I am discussing any unusual or exceptional process. I am speaking of changes which occur in every living cell of every living growing tissue in nature. Nor are the statements I have made applicable alone to the healthy condition. They apply to morbid changes.

The phenomena of inflammation are mainly due to the increased access of pabulum to living germinal matter. In mortification, in fever, in chronic structural changes in secreting organs — such as cirrhosis and chronic renal disease — in cancer, in fatty degeneration, and in many other changes, germinal matter is involved. The growth of germinal matter, which in the normal state is slow, may be accelerated in consequence of the access of an increased supply of pabulum; or the growth of germinal matter, which in the normal state of things is very rapid, may be interfered with by the formation around each separate mass of a thick layer of hardened and slightly permeable formed material. Not one of these phenomena can occur without germinal matter, nor is any one of them simply a mechanical or chemical change. Those so-called morbific agents, or morbid poisons, which are capable of being transferred from a diseased to a healthy organism, are minute portions of living or germinal matter. A living pus corpuscle, or perhaps a very minute portion of such a corpuscle, from the eye of a person suffering from purulent ophthalmia, coming into contact with a conjunctiva in a certain state will grow and multiply, and thus cause the disease in a person not previously affected. An active living corpuscle from the gonorrhœal discharge will, as is well known, grow and multiply if transferred to a conjunctival mucous membrane.

These and many other morbid poisons are, in fact, masses of living germinal matter detached from the germinal matter of a living organism. The active matter of small-pox and vaccine lymph is probably of the same nature, and so, too, the poison of typhus, scarlatina, and some other fevers. These living particles, unlike the germinal matter from which they have descended, retain their vitality, and often for a very considerable time, under conditions which would destroy the germinal matter in the cells of a healthy organism.

The life of the rapidly-growing pus corpuscle is not so easily destroyed as that of the more slowly growing mass of germinal matter of the epithelial cell from which it was originally derived, and the cancer cell flourishes where the normal tissue cells had grown very slowly. Germinal matter seems to gain in its tendency to very rapid increase as it loses its power of evolving special and important structures. The power of growing and multiplying under a vast number of different conditions, producing little formed material, and no lasting structure whatever, and the power of evolving definite structure to fulfil a definite purpose seem opposed.

Vital phenomena ought not, therefore, to be ignored in the healthy or diseased *nutrition* of any single cell or tissue, and it is as unjustifiable to speak of any morbid condition as a *chemical or mechanical disease* as to attribute the phenomena occurring in a living being to mechanical and chemical operations alone. Disease involves more than mechanics or chemistry, or both combined. Altered external chemical and mechanical conditions imply a modification in the vital changes going on in the living matter, and the disease is the consequence; but it is as impossible to explain the nature of the diseased action without referring to the vital phenomena occurring in the living matter, as it would be to give a true account of the process of nutrition without referring to vital changes. A cell without living matter is incapable of exhibiting any of the phenomena characteristic of and peculiar to living things, and the results of any mechanical or chemical changes induced in healthy living tissues are seen in modifications in growth, etc., dependent upon *vital changes* in the germinal matter of the affected tissue.

I have endeavoured to show that in all cases the tissue or structure of a living being is composed of matter which *lives* and matter which *has lived*, and that in the first *vital changes* as distinguished from mere physical and chemical phenomena occur, and that this living matter alone is essentially concerned in *nutrition, formation, and growth*. This living matter is all important in the changes occurring in all parts of the body in health and disease, and it differs from matter in every other known state, in its power of converting new matter into matter like itself, and of communicating to it powers and properties in all respects similar to those it possessed before the new matter came in contact with it. Every kind of living matter known is colourless, and possesses certain characters in common with other kinds, but there is the greatest difference in power—a difference which cannot be accounted for by difference in chemical composition, or attributed solely to the conditions under which life is carried on, etc. It has been suggested that since this apparently simple, colourless, soft, plastic matter endowed with all these wonderful powers consists of nothing but a little carbon, hydrogen, nitrogen, oxygen,

with one or two other elements of less importance, in some peculiar state of combination, it may be possible to discover the conditions under which these simple elements may be made to combine, and so to form artificially a particle of living matter! If, however, we consider the actual processes which occur in the nutrition of the simplest living particle, or if we observe for ourselves the changes which may be seen in living matter under the higher powers of the microscope, as in a mucus corpuscle or a pus corpuscle, we shall be led to study and investigate still further the wonderful phenomena which characterise living matter, and the nature of the changes which occur in the process of its nutrition; and we shall soon be convinced that the vague and oft-repeated assertions with reference to the identity of *vital* with chemical and physical actions rest upon no scientific foundation whatever; that they are opposed to the results of careful observation and experiment, and have arisen from a most incomplete examination of actual facts, many of which are open to the observation of all.

(To be continued.)

ON THE USE OF HOT WATER AS A REMEDY FOR PROFUSE PERSPIRATION.

By ROBERT DRUITT, M.R.C.P. Lond., etc.

I WISH to call the attention of my Professional brethren to the use of hot water as a remedy for profuse perspiration.

If a part of the body that is perspiring be bathed with quite *hot* water till it becomes decidedly hot and *red*, the skin will become dry, and will continue so for a greater or less period of time.

If *cold* water be used, the part remains cool for some time and then becomes gradually warm or glowing; if *tepid*, it is usually made unpleasantly chilly and flabby; if *warm*, it is left perspiring; if *hot*, it is left hot, red, and dry.

The terms cold, tepid, warm, and hot are merely relative; what would be warm to one would be lukewarm to another person; but when I say *hot* water for our present purpose I mean water as hot as can be borne without pain. It may be used by sponging or immersion, and must be continued till the parts treated are hot, red, and *tingling* with heat—almost scalded, in fact. A good wipe with water at 130° is easily borne; for immersion the heat must be less; but the feelings are the only guide.

The circumstance which led me to recommend this remedy was the observation of the painful dryness of a hot skin in feverish attacks, and of the dryness produced by using too hot water in a bath, and by the clumsy use of the lamp-bath, which may make the skin dry instead of moist if not well managed.

The cases in which I have recommended it with benefit are —first, those of general tendency to perspire to a distressing degree in hot weather, the patient being in good health. If a man who has thoroughly used a cold bath in the morning be obliged to change his shirt in the middle of the day, for example, he will keep his skin comfortably dry for a certain time by a good wash with very hot water.

The next class of cases are those in which, with or without tendency to perspire over the body generally, but most probably without, there is a tendency to distressing perspiration of some particular part; as the axillæ, hands, feet, etc. Patients who seek relief for this are generally young persons from 13 to 20, and they often endure great misery and persecution in consequence of this symptom, which really admits of easy Medical treatment. The health is sure to be improved by free purgation, and by quinine, air, exercise, etc. But the distressing local symptom may be got rid of for hours at a time by the thorough application of the hottest water to the offending part until it is red, hot, and tingling as if scalded.

Thirdly, there are the cases of true hectic; diurnal shiverings, followed by heat, and drenching perspiration of an earthy, sickly odour, and depending (as we suppose) on absorption of decaying pus from some internal organ, probably lung, etc. In these cases I have tried every remedy I know of without result. I have caused profuse perspiration by the lamp-bath in the afternoon without preventing the access of hectic and perspiration in the evening; and confess my remedy inert—or next to it—in these cases.

But there is a fourth variety—the ordinary night sweat of the phthisical, not preceded by regular hectic paroxysm, but induced by all that relaxes, lessened by all that strengthens, and coming on when the patient falls asleep. For many of these cases the hot water gives relief, to a certain extent, especially if the perspiration begin, as it often does, on one special part of the body by preference, as the chest, hands, or feet. In such cases I have the testimony of patients that the hot water greatly helps to control the sweat. The way is, when the patient goes to bed, to have the chest reddened with hot water, and wiped dry. One patient, whom I see daily, and who is confined to his bed, calls out for it so soon as he perceives the dampness beginning, and has it used to chest, hands, and feet, and by this means often, not always, passes a night without being obliged to shift his linen.

In conclusion, let me say that I only offer this as a contribution towards the relief of an unpleasant symptom, and not as a cure for a disease; and that whoever uses it must recollect that it is not *warm*, but *hot* water, just below scalding point, that is to be employed.

37, Hertford-street, Mayfair, W.

METHOD OF APPLYING THE GYPSUM BANDAGE.(a)

By T. E. STARK, Army Medical Officer.

Gypsum.—The water must be expelled from the gypsum. By exposing the gypsum, $SO_3CaO + 2HO$, to a temperature from 100° to 120° Celsius, it loses about $1\frac{1}{2}HO$. The boiled plaster, $SO_3CaO + \frac{1}{2}HO$, is to be got at a plasterer's. An inferior quality, being not quite white, used by plasterers for making rough forms, is preferable. The gypsum must be well pulverised, and should be preserved in air-tight bottles or tin boxes; such gypsum mixed with two parts of water forms a cream-like material, and becomes hard in from fifteen to twenty minutes. The temperature of the mixture rises as soon as crystallisation sets in, the hardening of the mixture being an imperfect crystallisation.

Flannel.—Of all materials flannel is the best for gypsum bandages; the thin, coarse flannel called "demi-caine" must be cut into bandages about two yards and one foot in length, and one and a-half inches in breadth. Those bandages should be spread on a table and rubbed in with gypsum powder; in order to rub the gypsum well into the weft of the flannel, a tightly rolled up cotton bandage should be used; the gypsum powder must be well worked into the flannel, first on one side and then on the other; it must not be rubbed backwards and forwards, but always in the same direction, according to the thread. After the process one ounce of flannel must contain nine ounces of gypsum powder.

The bandage after being well rubbed in with gypsum should be rolled up loosely. It is unnecessary to spread gypsum on the bandage before rolling it up, as the gypsum powder alone contained in the weft of the flannel gives consistence to the bandage when applied. The gypsum bandages must be kept in air-tight bottles, tin cases, or boxes.

Application of the Bandage.—It is applied directly to the skin; the limb or part should be shaved if required, and then rubbed with a little oleum olivarum, or ung. simpl.

The bandage must be first soaked in luke-warm water for two or three minutes, and being thoroughly wet it should be carefully passed round the limb, care being taken not to make *renverses*, the turns covering each other to a depth of two-thirds or three-quarters of the roller.

According as the turns cover each other to a depth of about three-quarters, or two-thirds, the bandage will be more or less firm. The bandage should be applied so that a gentle pressure is exercised; the uniform circular pressure being one of the most important qualities of the gypsum bandage. Prominent parts —for instance, the heel and elbow—should be covered by narrow lengths cut from the bandage, in order to cover them better, and to prevent the accumulation of turns on the opposite side.

In case some parts of the bandage should not be thoroughly wetted, a stream of water must be directed upon it. During the application of the first bandage, a second should be soaking, and when this is taken out for application a third should be soaking, and so on. The beginning of the second bandage must join the end of the first, and so on in succession, in order to make the surface uniform. After applying one or two bandages, the whole is sponged.

(a) An abstract from "Mathüsen's Gipsverband en zijne laasste Wüzigingen." Medeqedeeld door Dr. W. Kral. Utrecht. 1863. "Mathüsen's Plaster of Paris Bandage and its most Recent Modifications." By Dr. W. Kral. Utrecht. 1863.

Many-Tailed Bandage.—The lengths cut from the long bandage being put on a waterproof sheet, covering each other from two-thirds, three-quarters, etc., are to be passed beneath the limb. Five or six bandages are to be thoroughly wetted at the same time by a small watering pot, and then carefully applied round the limb, from below upwards, the ends of each bandage overlapped in front. Of the first and last turns the edges must be folded back to prevent them, when hard, from being sharp and causing excoriations.

The gypsum bandage, having been applied, should be left to itself until it is hard by the crystallisation of the gypsum. It becomes hard in fifteen or twenty minutes, and then the turns being firmly united together in the flannel gypsum bandage, we may operate on it: cut it open; make valves. It requires some hours before it is dry. If there is no particular hurry to cut the bandage open, we may as well wait until it is dry.

The hard and dry gypsum bandage being pervious, does not interfere with the functions of the skin. The bandage is a good conductor of heat, and being directly in contact with the skin, it is easy to observe the pathological process under the bandage. The thermometer will indicate the temperature of the part affected.

If required, we may apply cold lotions to the bandage, for the above mentioned reason of its being a good conductor of caloric.

The gypsum bandage may be directly applied to sores. The hard and dry bandage, being pervious, will imbibe the matter. In case all the matter should not be imbibed, it will flow between the bandage and the skin; but there is no occasion to fear that the skin will be affected. The gypsum bandage being directly in contact with the skin, neither wound secretion nor matter affects it. Even in a case of compound fracture, where the whole bandage was soaked by ichor, and on that account removed, as it was feared that the skin might be affected; it was, however, found in a healthy state.

Should the gypsum bandage be required to cover a wound, for instance in a case of compound fracture, the wound should be covered with lint and linen, to prevent the wound secretion from coming in contact with the wetted gypsum bandage, as it might interfere with the crystallisation of the gypsum. The hard and dry gypsum bandage will resist wound secretion, matter, etc.

The gypsum bandage will withstand water; it does not lose its hardness either by baths or cold or warm irrigations.

In order to prevent stiffness of the articulations and weakness of the muscles, the gypsum bandage may be applied so that it allows of gentle movements of the joints. On the extension side of the joint a length of adhesive plaster, about one and a-half or two inches broad and surrounding two-thirds of the joint, should be applied to the gypsum bandage, the adhesive side outwards.

The gypsum bandage should further be passed over this piece of adhesive plaster and round the limb. The bandage being hard and dry allows of movements. On the extension side two turns do not adhere to each other, being separated by the adhesive plaster, to which the gypsum bandage does not stick, the turns on the flexion side forming a kind of hinge.

Having made use of this joint of the bandage, it may be closed by passing a thoroughly wetted gypsum length round it; this on becoming hard prevents any voluntary movements. In order to make the wetted length stick well, we have to wet that part of the bandage where it is to be put on.

The gypsum bandage not only exercises an uniform circular pressure and relaxes the muscles, but maintains, if well applied, extension and counter extension. The gypsum bandage does not change after crystallisation has set in. If during the application of the bandage a proper extension and counter extension is made, and maintained until the bandage is hard, the bandage will keep up a state of permanent extension and counter extension.

To obtain a more perfect state of permanent extension and counter extension, the gypsum bandage may be applied as follows:—For instance, in case of a fracture of the forearm, the gypsum bandage should be applied from the middle of the forearm to the middle of the arm. The lower part of the bandage is now to be covered with a double layer of blotting paper. Then a gypsum bandage must be applied from the wrist upwards as far as the blotting paper extends. The gypsum bandages separated by blotting paper do not adhere to each other. On making extension and counter extension the lower part of the bandage will slide from the upper. The limb having been restored to the required length, the lower part of the bandage, where it slides from the upper part, must be cut open and adapted to the other part, and fixed with gypsum lengths.

How to make Incisions in the Gypsum Bandage.—The bandage must be opened with a strong pair of blunt-pointed scissors. The opening of such a hard bandage may be considerably facilitated if we proceed in the following manner:—The blunt-pointed blade is to be passed between the bandage and the skin; the pair of scissors should be held in the right hand, on the thumb and fourth finger, the left hand must exercise the required force, by placing the left thumb on the right holding the scissors, and the other fingers underneath. The right hand directs the scissors, the left hand forces them through the bandage. We use two sorts of scissors, Mr. Mathysen's pair of scissors, and Mr. Szymanowski's, the latter from the principle of an American pruning scissors. The bandage should always be cut open on that side of the limb where the bone is covered by soft parts—for instance ,on the outer side of the crista tibiæ, not on the inside. The gypsum bandage is to be cut open in order to make it bivalvular, to make valves, and to remove it.

Suppose we are treating a fracture of the centre of the femur with a gypsum bandage; it should be opened by an incision carried along the inner side of the thigh, as far as, or below the knee-joint. In a fracture of the tibia the bandage should be opened by a longitudinal incision down a line on the outer part of the leg, as far as the ankle-joint. In every case where swelling is to be expected, the bandage must be opened in the direction of the longitudinal axis of the limb. The bandage on being cut open will adapt itself to the swollen parts, and no unpleasant symptoms, caused by too tightly tied bandages, will arise.

When the size of the limb decreases, by the disappearance of the swelling or the emaciation of the limb, the bivalvular gypsum bandage may be moulded to the limb, and the margins immovably connected with each other by means of gypsum lengths. According as the valves of the bandage project more or less over each other, it adapts itself to a smaller or larger volume of the limb.

The above-mentioned operations on the bandage do not diminish its firmness. The bandage having been moulded to the part and secured with gypsum lengths, affords the same uniform support and circular pressure.

Percussion will decide whether the gypsum bandage is too large for the limb. As soon as we find that the bandage is no longer in contact with the skin, we have to cut it open, make it bivalvular and overlap the margins. In case the bandage is already bivalvular, we have only to overlap the valves farther, the whole adapting itself to the decreased size of the limb.

Valves.—In order to make a valve in the bandage, we proceed in the following manner:—Suppose we require a valve corresponding to the middle third of the leg. The heel being covered by narrow lengths, the gypsum roller is passed round the foot, the ankle joint, the lower third of the leg as far as the middle third. Then a piece of paper, as broad as the lower border of the valve which we have to make, is to be put between two turns, and then the bandage passed upwards as far as or above the knee.

The bandage being hard, we draw with a pencil the outline of the valve, the paper being the lower border.

The paper prevents the turns from sticking to each other, so we have only to cut open the sides; the upper border being continuous with the bandage, forms the hinge. Oval valves are the best, the long axis corresponding to the longitudinal axis of the limb. Oval valves have the lower border and the upper border small, the latter forming the hinge.

Having made the whole bandage bivalvular by a longitudinal incision, we can easily make quadrilateral valves by carrying two incisions transversely; the free border of the valves will then correspond to the longitudinal incision. In case the bivalvular bandage has already been overlapped, we shall, of course, make the incisions in that margin of the bandage which projects over the other.

To make the bandage soft where it must be cut, we may use acidum hydrochloricum concentratum, one-third; mixed with water, two-thirds. Having drawn the line where the bandage is to be cut open, we apply the diluted hydrochloric acid on the line with a brush. This must be repeated several times; in about eight or ten minutes the bandage is quite soft, as far as the hydrochloric acid has been put on, and may be cut open by an ordinary pair of scissors, rubbed with unguentum simplex.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASE OF GLANDERS—DIFFICULTY IN DIAGNOSIS—DEATH—CLINICAL REMARKS.

(Under the care of Dr. HABERSHON.)

This case was one of great obscurity, and when first admitted the symptoms were regarded as those of bronchitis, with slight pleurisy consequent on exposure to cold. After a short time pain in the joints came on, and suppuration took place, preceded by erysipelatous inflammation at the parts. Scattered pustules then appeared on the body, and it was evident that severe disease existed, closely allied to pyæmia; still the cause was not evident, and the whole case was involved in much obscurity. The first symptoms were those of inflammatory disease about the chest, and at the end of fourteen days phlegmonous erysipelas with suppuration was found at the right foot, then at the left elbow; there were febrile symptoms, with great prostration and delirium. Six or seven days later pustules appeared on the body, and this fact tended to confirm the idea of pyæmia. The typhoid symptoms increased in severity, and no hope was entertained of recovery.

On June 9, the twenty-fourth day of his illness, and three days before death, a watery discharge took place from his nose. The true character of the disease was then seen as glanders, and especial inquiry was made in reference to to contact with any diseased horse. It was not ascertained till after death that the horse he had driven four weeks previously had been affected with glanders, and had died from that affection.

The pain in the joints in this case was not likely to be mistaken for rheumatism, from the erysipelatous redness and rapid suppuration. No tumours were present, as have been sometimes described in glanders, nor did the pustules appear till the 21st day after exposure to the diseased horse. The comparison to the pustules of small-pox, or those produced by tartar emetic, was not borne out in this instance. They had the character of the sero-purulent blebs sometimes seen in pyæmia; vesicles appeared first on the back, then on the extremities, and lastly on the face; they were isolated, like those of rupia, without inflammatory base; they soon became larger and prominent, and were filled with pus, the pus assuming a deeper colour as the pustule enlarged. It was only a short time before death, the 24th day, that the mucous membrane of the nose and the nasal sinuses became affected, the face then became swollen, and pustules appeared upon it. It was impossible to ascertain how the man had become affected, whether from any wound upon the hands, or from applying diseased secretions inadvertently to his own face, or whether the breath of the horse had been sufficient to contaminate the blood.

James F., aged 37, a master tailor by trade, living at Deptford, was admitted, under the care of Dr. Habershon, into the clinical ward on May 27, 1863. He has generally enjoyed good health—indeed, this is the second illness he has ever had; the former he calls inflammation of the lungs; but his habits have been very intemperate, and he states that he has been subject to a winter cough for some time.

The present illness, he says, began with a cold. On Sunday, May 16, he hired a conveyance to take himself and a few friends out of town. When driving home he felt very chilly; but he did not begin to be actually ill till the following Tuesday. He then felt great pain in his back, and on that evening his left side became very painful: the pain he compares to being "pierced by daggers." On the Friday following he attended as an out-patient, under Dr. Pavy, but could not then make it convenient to come into the Hospital. He has been getting worse till the present time.

Present condition.—He has an anxious, rather worn-out appearance. The skin is hot and rather dry. The tongue is furred and dry, and somewhat fissured. The appetite is very indifferent, and he has taken but little nourishment for the last week. The bowels are relieved daily. The pulse is accelerated—100 per minute, and is compressible. The heart sounds are normal. The chest is broad and well formed. On percussion, there is somewhat more than the natural amount of resonance. Rhonchus and sibilus are heard all over the chest. Resp. 20 p.m. He complains of pain in the left side at the base of the lung; much increased on inspiration, and also when he coughs. An indistinct pleuritic rub is heard at the base posteriorly. He cannot lie well on either side; the most comfortable position is on the back. He has a short cough, and expectorates mucus, which, however, is scanty; and complains of severe pain in both elbow-joints on extension; but no swelling or redness can be seen.

28th.—The urine is high coloured; it forms no deposit on standing; is not coagulable by heat or nitric acid. ℞. Pil. colocy. c. cal. gr. x., statim; cataplasma lini, lateri simistro applic.; pulv. Doveri, gr. v., ter. die. c. J.A.A., ʒi.; vinc, ʒvi.

29th.—To-day no pleuritic rub can be detected. Sibilus is very well marked. He complains much of his right foot, which is inflamed, but not very tender. No fluctuation. Lotio alba has been applied, but it was afterwards changed for a poultice, which gave some relief, but it still continues painful. He is ordered to take the pill of Dover's powder night and morning.

30th.—Rhonchus and sibilus are heard all over the chest, accompanied by some mucous râles. The expectoration is increasing. His foot is still painful, and now looks as if affected with phlegmonous erysipelas. He complains also of pain in the lower part of the back, which is red. He has had distinct rigors to-day.

June 1.—℞. acid hydrocy. dil., miij., ex. mist. cornüi. co. sextâ quâque horâ sum.

2nd.—Last night the pain in the foot was so great that, although no distinct fluctuation could be detected, an exploratory incision was made, and afterwards enlarged, from which a quantity of pus was evacuated. A hemlock poultice was afterwards applied, and to-day he feels considerably relieved. The back, over the lower part of the sacrum, and on the inner edge of each buttock, is red and fissured, with a tendency to an eczematous eruption; it is of an erysipelatous hue. Cotton wool with oil is to be applied. The left forearm just below the elbow-joint is very painful, but there is no marked redness; the temperature of that part of the forearm is decidedly higher than that of the arm. The pulse is weak and compressible, 100 per minute. There has been slight delirium during the night, but this morning he is quite sensible. Rhonchus and sibilus still heard all over the chest, accompanied in some parts with mucous râles. No pleuritic rub audible. He has had no shivering to-day or yesterday. Respiration laboured, and accompanied by great wheezing; 20 per minute. The tongue is flabby and rather furred. The bowels are regular. The skin is above the normal temperature, and his expression is more depressed. He is ordered to take, in addition to his six ounces of wine, eight ounces of brandy.

4th.—The patient continues delirious at night. There is less cough, and but scanty expectoration.

5th.—This morning he is in a semi-delirious state, and constantly wants to leave his bed; he is not conscious that he is in a Hospital. Pulse fluttering, 104 per minute; rhonchus and sibilus are still heard, but hardly any mucous râles. Eruption of vesicles all over the back; the lower part of the back is, he says, less painful; indeed, to-day he does not complain of any pain, but is evidently worse. Respirations, twenty-eight per minute. Both pupils are contracted. The urine is scanty, of a brownish colour, but it contains no albumen. ℞ Tr. hyoscy. ætheris chlorici āā ʒss. ex. mist. camphoræ statim, et repetatur hac nocte. On the back of the right hand there is a swelling, having an erysipelatous hue, painful on pressure. A poultice is to be applied to the foot and to the elbow.

6th.—Pulse 116 per minute, feeble; respirations laboured, twenty-nine per minute. He has rested better last night. Sililus and rhonchus audible all over the chest. Coughs a little, and expectorates a little frothy tenacious mucus. Tongue moist, but he complains of thirst. The swelling on the hand is to be enveloped in cotton wool and oil, and a poultice is to be continued to the elbow. Repetatur haustus hac nocte, et ℞ quinæ disulphatis gr. iij., ter die in formâ pilulæ. Wine, ʒxij.; brandy, ʒviij.; milk, Oij.; beef-tea and arrowroot; four eggs.

8th.—Respirations twenty-nine per minute; pulse 120. The right hand is more swollen, and very red; numerous pustules appear on the calves of the legs, and between the shoulders, most of which are about three-quarters of an inch in circumference, though some are much larger. There is subsultus

tendinum, and also picking of bedclothes. He mutters almost incessantly, but when spoken to he answers questions. Complains of much nausea. Capiat. olei. ricini. ʒss. si opus fuerit.

9th.—Respiration 44 per minute; pulse 134. The elbow and back of the hand are not so swollen, but pustules appear on various parts of the body. His lips are parched, and his tongue is dry. His bowels have been freely relieved without taking the castor-oil. He has rested badly during the night. A thin, watery discharge was to-day, for the first time, noticed from the nostrils. Subsultus tendinum, and floccitatio. He is much more delirious. 8 p.m.—Continues much the same; pulse 130. Seems conscious for a minute or two, and is again quite delirious. His whole face seems swollen—a bloated appearance. He has a great aversion to his friends sitting around his bed; mutters continually. Mist. ammon. effervesc. quartâ quâque horâ s. Omit the brandy.

10th.—Has rested a little better during the night, but this morning he presents a sad appearance; his face is much swollen, and is marked in various places with pustules, which also are found all over the body; on each leg and thigh there are about twenty, and several on his back and arms. Local suppuration in the neighbourhood of smaller joints. The swelling on the back of left hand has greatly subsided, except in one position, where fluctuation is detected, and into which an opening is made, and pus evacuated. Respiration 44 per minute; pulse 120; respiration spasmodic. Bowels freely relieved this morning; subsultus tendinum continues. 5 p.m. —Pupils contracted. The discharge from the nostrils still continues. The pustules in some places discharge their contents. The urine is of a dark brown colour; it is not coagulable by heat or nitric acid.

11th.—Day and night he remains in much the same position, on his back, and mutters incessantly. There are still more pustules seen on various parts of the body, accompanied by local suppuration, and they are apparently indiscriminately scattered over the body. The lips and teeth are covered with sordes. He takes no notice of passing events. ℞. Misturæ vini. gallici, ʒss. secundâ quâque horâ sum. He is to continue with his nourishment, which he takes very well.

The patient continued alive till 2.30 a.m. on Friday, the 12th. No post-mortem examination was made. The back and posterior aspects of legs and arms were very black.

Mr. Phillips, to whom we are indebted for the above, adds, —"Both the patient and his friends were in vain interrogated with a view of obtaining a history of contagion from a glandered horse; but we have since his death ascertained that the horse he hired for the Sunday before he was taken ill had glanders then, and has since died of that malady."

THE LONDON HOSPITAL.

REMOVAL OF A LARGE CALCULUS FROM A YOUNG GIRL BY RAPID DILATATION OF THE URETHRA.

(Under the care of Mr. CURLING.)

The following case is one of considerable practical interest, and tends to confirm the views of Mr. Bryant respecting the treatment of stone in the female.(a) The patient was rapidly relieved from a state of great suffering to health. Mr. Curling made the case the subject of some clinical remarks, of which the following is a very brief note:—

Those who saw the girl when she was first admitted would have observed that she was extremely ill—so ill, indeed, that as soon as it was discovered that the cause of her symptoms was calculus, Mr. Curling did not like to defer the operation, even for twenty-four hours, and therefore operated at once. The result of speedy dilatation was most satisfactory. Before chloroform was introduced, Mr. Curling remarked, the practice was to dilate very gradually by sponge tents or by instruments, so that twenty-four hours or more were occupied in stretching the urethra. Patients were not able to bear rapid dilatation without chloroform.

When he had ascertained the large size of the stone, Mr. Curling had some doubts as to whether he could dilate the urethra sufficiently to extract it, but the passage yielded more readily than he had expected. In about ten minutes he was able to introduce his forefinger and then the forceps.

In some cases of stone in the female bladder, Mr. Curling remarked, lithotrity was of great use in reducing the stone to fragments small enough to pass the urethra easily. This case, however, was quite unfit for that operation. The patient could not retain her urine, and the bladder contracted round the calculus so as to leave no room for manipulating with the lithotrite.

The chief point of interest after the operation was whether the patient would recover power of retention. In extracting the calculus, which required some force, no doubt the urethra was slightly lacerated, causing some bleeding. In the report of the case it will be found that power of retention was gradually and completely regained. Mr. Curling added that, as regards this power, dilatation was much more promising than the cutting operation, and he quite condemned vaginal lithotomy.

For the notes of the case we are indebted to Mr. Rogerson.

Sarah B., aged 12 years, a thin, spare girl, much prostrated by prolonged suffering, was admitted December 20, 1864, having been sent up from Dover. About sixteen months ago she was taken with a sudden stoppage during micturition, and continued to endure pain and inconvenience without mentioning it to her parents. She gradually became worse, and four months ago was confined to bed. Her urine had a strong ammoniacal smell, was of a dirty white colour, with much sediment, and a thick secretion or mucus which adhered to the utensil, occasionally blood, causing during its exit severe smarting pain in the passage, followed by severe pain near the pubes. A month afterwards her urine commenced to dribble from her, and has continued to do so for three months; the sufferings being periodically the most agonising and distressing, causing her to cry for hours, and even to scream.

A fortnight before her admission she had bed sores, ulcerated in two or three patches over the spinous processes of the lumbar vertebræ, the surrounding integument of the loins and buttocks was inflamed and excoriated mostly from the urine.

Mr. Curling saw her at half-past one p.m., and found her in a precarious and depressed state. He directed her to be at once conveyed to the ward, where he passed a sound, and readily detected a large stone in the bladder. He thought it advisable, from the distressing condition of the child, to remove the stone without any delay. Chloroform was administered. The patient was placed at the edge of the operating-table; the legs were flexed, and held apart. Weiss's three-bladed dilator was passed into the urethra, and about half a dozen revolutions of the screw were made in the space of five minutes. The instrument was then withdrawn, and the forefinger was introduced into the urethra, but could not be easily passed onward into the bladder from the still narrow and tight condition of the urethra. The dilator was re-introduced with the prongs closed, and the dilatation was carried on steadily for three or four more minutes. Mr. Curling's finger then passed with the greatest of ease into the bladder, and he discovered the stone to be a large one. He then passed a small pair of curved lithotomy forceps into the bladder, caught the stone by its long axis within the blades, bringing it down by detraction and an oscillatory movement from side to side until it was successfully extracted. The bladder was then washed out with tepid water.

The stone was remarkably large, of an ovoid form, measuring an inch and a half in length, and one inch and an eighth in diameter, or more at its widest part. The patient was conveyed to bed, and shortly after recovering from the influence of chloroform ten minims of laudanum were given; a warm hip-bath every night.

The dilatation and extraction did not occupy more than fifteen minutes. A small quantity of blood—a few drachms only—escaped during and after the extraction of the stone.

On division of the stone into two symmetrical halves, it was found to be composed of a lithate of ammonia nucleus with concentric laminæ of oxalate of lime surrounding it, with phosphatic deposit intervening between them. All the outer part and by far the greater part of the calculus was composed of phosphate of lime. The day after the operation the patient slept nearly continuously throughout; pulse quick, 108; voice feeble; pain in the passage; otherwise comfortable. On the second day, forty-nine hours after the removal of the calculus, pulse 120, full; tongue furred on each side of the sulcus; skin hot; mouth and tongue dry and thirsty.

Third day, pulse not so frequent, 108; tongue cleaner; smarting pain in passing water.

24th.—The inflammatory symptoms disappeared; tongue moist; pulse better, 96.

(a) Med. Chir. *Trans.*, vol. xlvii.

To-day, the 25th, is cheerful; takes her food, including ʒiv. wine, milk, and beef-tea. Five minims of tincture of opium in an ounce of camphor mixture three times a-day, and the warm hip-bath every night. Sat in a chair by the fire with a blanket round her for some hours, and retained her water for an hour.

26th.—Her urine still continues dribbling from her. She is much more cheerful in aspect. On Mr. Curling's visit to-day she was sitting up in bed, the improvement in her general appearance being most marked.

28th.—She retained her water during nearly the whole of the day.

On the 29th she was dressed, held her water, passing it with a good force.

31st.—Water remains neutral, a little thick, with some sediment; passes in the day, but in the night is still plagued with incontinence of urine.

January 3, 1865.—Mr. Curling recommended her to go into the garden of the Hospital, and requested the nurse to arouse the child twice during the night. From this date the power of retaining her urine gradually increased, and she frequently gets up, and micturates by voluntary efforts.

10th.—Her general health greatly improved; countenance cheerful; urine slightly acid; retains it six hours in the day; and no incontinency at night. Discharged cured.

ST. GEORGE'S HOSPITAL.

HYSTERICAL (SO-CALLED) PARAPLEGIA.

(Under the care of Dr. J. W. OGLE.)

The patient, Anne C., aged 21, from Kensington, having the teeth much decayed, was admitted October 19, 1864. It was said that she had had diphtheria at Christmas, but there was no certainty of this. She had been for five or six weeks, it was said, the subject of "fits," and had had two on the day of admission. These had come on first after she had attended her father's funeral, she having on the day following experienced much numbness and chilly feelings in the legs, which so increased that on the third day afterwards she could not walk at all. She was brought to the Hospital in a cab, and lifted upstairs. There was then complete loss of power in moving both legs, and the sensibility of the skin of those limbs at every part below the knees was absolutely wanting; it was not so in any other part of the body's surface. On tickling the sole of either foot a very slight but yet actual reflex action was induced. She asserted that at times the legs were wont to jerk up involuntarily. Her feet were lower in temperature than the other parts of the body. On pressure, the upper part of the dorsal region of the spinal column proved to be tender, and at one spot pain was produced thereby.

The urine was natural, and free from either albumen or sugar. She stated that at times she was unable to "hold the water." This was never so with the alvine evacuations. She was ordered to take ammonia and citrate of iron with aromatic spirits of ammonia, and to be purged, and to have good diet. Four days later she was put upon quinine and iron with one-sixteenth of a grain of strychnia, and the compound galbanam pill (gr. xii.) every night. After taking this for four days she expressed herself as decidedly better in the legs, especially across the front of the ankles. The feet were still clammy and cold, and I ordered a hot-water-bottle to be kept always in bed. The feet did not, however, feel cold to the patient. On the 27th I ordered the legs and length of the back to be galvanised for ten minutes every morning; and three days later, the medicine being continued, the strychnia to be increased to one-twelfth of a grain. During this time she gradually improved, and the power over the legs was so much restored that on November 2 I found her walking about in the ward. She quite recovered in a few days longer as to her legs, but experienced a very severe attack of bronchitis, which kept her in the Hospital three or four weeks longer.

EPILEPTIC ATTACK—NUMBNESS IN EXTREMITIES—HALF-COMATOSE STATE AND SINGING DELIRIUM—STRIDULOUS RESPIRATION OWING TO FIBRINOUS EXUDATION INSIDE THE LARYNX--DISEASED KIDNEYS--UNDISCOVERED ABSCESS OF LIVER.

(Under the care of Dr. J. W. OGLE.)

T. W., aged about 45, a thin, pale, yellowish-faced man, came to me as an out-patient, but was so ill that I admitted him into the Hospital, on October 14, 1864. He had been ailing seven months, and of late had had anasarca of the face and feet. Two weeks previously he had had a "fit," which was followed by hæmoptysis. For two weeks he had complained of numbness in both feet and legs, and in both hands and fingers. For several days he had vomited all kinds of food. When I first saw him he was suffering from a distressing stridulous cough, and was exceedingly hoarse. Nothing wrong in the throat could be seen as far down as the epiglottis. The respiratory murmur was very feeble at the back of the lungs. Heart-sounds natural. He had been a very dissipated, intemperate man as a soldier in India. Had never had rheumatic fever or jaundice. The urine contained a considerable amount of albumen.

Two days after admission he was in a very heavy state,—in a kind of half stupor. The pupils were equal, but somewhat smaller than before, possibly from the opium in his medicine.

On the 22nd vomiting of a quantity of green stuff had set in, and he was very faint. The lips were much swelled. The stridulous noise of inspiration was much diminished. The vomiting continued, and in his state of half-stupor he was, on the next day, constantly moaning or singing in a low tone, the pulse being very small. He fell into a sleeping condition, the respiration being slow and snoring, but could be roused, when he always said he was in no pain, excepting that he was rather sore in the belly. He refused food, and so went on, vomiting at times, moaning, and in a half-stupor for two or three days, and gradually sank and died.

On post-mortem examination extensive disease of the kidneys was found; also, quite unexpectedly, a considerable sized abscess of the liver. Marks of former dysentery were met with in the bowels. On removing the larynx a slight layer of fibrinous exudation was found lining the upper part of the larynx.

KING'S COLLEGE HOSPITAL.

EXCISION OF A PORTION OF THE SHAFT OF THE HUMERUS FOR A LARGE BONY TUMOUR CONNECTED WITH LOWER THIRD—CASE NOW UNDER TREATMENT.

(Under the care of Mr. FERGUSSON.)

The following is a good example of Conservative Surgery. The case had been deemed one in which amputation of the arm was necessary, but as the joint did not seem implicated in the disease, and the forearm was perfectly healthy, Mr. Fergusson determined to remove only that portion of the bone directly connected with the tumour. The history of the case is briefly as follows (from the careful notes of Mr. W. Bell):—

A. W., aged 24, a weak, sickly-looking woman, was admitted February 9, with a large hard tumour growing from the lower third of the shoulder humerus, somewhat spindle-shaped, and about the size of a large orange. She states that about two years ago her arm became very painful, and grew more so, until it was so violent she could not bear it. For some time it was treated as rheumatic, but when she first noticed the swelling, about eighteen months ago, she went to one of the London Hospitals, when it was considered a case for amputation of the arm, being malignant. Latterly, the shaft of the bone was thrown out of the right line and distorted, and felt, on manipulation, like an ununited fracture. This distortion came on gradually.

On February 18 the patient was placed under the influence of chloroform. Mr. Fergusson made an H incision at the back of the arm over the tumour, and, dissecting back the flaps, exposed the mass and a portion of the shaft above and below. He next sawed through the bone above and below the tumour about one inch above the joint, and then dissected it out. There was but little hæmorrhage, the parts were brought together by sutures, and the arm placed on an angular splint.

On section, the external part of the tumour was very hard and dense, and the compact tissue much thickened. In the centre was a plane of cheesy, broken-down substance, extending downwards and forwards.

Mr. Fergusson, in some clinical remarks made after the operation, said that the forearm being so perfect and the joint apparently healthy, some splint or other contrivance might be made which would keep the humerus fixed and yet allow of the patient making great use of the forearm and the fingers.

Up to this time (February 25) the patient has been getting on extremely well.

The tumour was divided, and part of it placed in the College museum, and part in that of the College of Surgeons.

Mr. Fergusson did not consider that the tumour was malignant. The patient was not cachectie-looking, and there were no enlarged axillary glands.

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Medical Times and Gazette.

SATURDAY, MARCH 4.

QUACKERY AND LEGISLATION.

It would be mueh to be regretted if publie attention should cease to be directed to the subject of quackery before some effective Legislative measures are adopted for the repression of the evil. We have lately endeavoured to exhibit the "noxious trade" in all its enormity, and done our best to check the proceedings of the offenders by giving them publicity. But in doing this we labour under two disadvantages. First, our readers, as a matter of course, consist chiefly of men who need no enlightenment whatever in matters wherein the general public, for want of seientific knowledge and training, are too easily duped; and secondly, a Medical journal giving vent to its indignation against irregular Practitioners is always considered by the ignorant to be open to the imputation of interested motives.

It is, therefore, a subject of more than ordinary interest and gratification to see the matter taken up in a quarter where the suspicion of self-interest can have no place, and brought under the notiee of a class which, though equal to the Medical Profession in general education and intelligence, would not otherwise necessarily have their attention directed to the point.

The *Solieitors' Journal*, a paper of almost universal circulation amongst the London members of the legal profession, publishes in its impression of February 11 an article on quackery, strong and to the point, and having, moreover, the merit of making some attempt, albeit a slight one, at propounding a *seheme* for legislative interference. After regretting that public health and the purses of individuals should not be protected in England as in Franee, the writer proceeds:—

"Doubtless there is this grave difficulty. According to our English mode of thinking, it is a serious and generally reprehensible interfereuce with the liberty of the subject to extinguish a profitable trade, as this is, by legislative enactment, and there must be a very clear and cogent case of public benefit to compensate us for the sacrifice of personal liberty. 'What!' say the objectors, and not without force, 'interfere with the right of a British subject to make any eontract respecting his own pocket or health that in his own discretiou he himself may please? Why should the Legislature interfere to protect men against their own folly? In seeking to suppress these publications, we may prevent scientific and Medical inquiry. Why should we, in effect, revive an obsolete monopoly? This would be a gross, wanton, and un-English interference with that which is most dear to us—our free, uncontrolled, unfettered liberty;' and so forth. And it is not enough to say that similar objections may be and have been made to every project of reform brought under the consideration of the Legislature, and that, nevertheless, the reforms have been effeeted with advantage to the public. The real question at issue here is, not whether the arbitrary suppression of these quacks would or not be a public benefit—no one ean deny that it would be so, except the quacks themselves—but whether there is or not involved in this suppression a principle so fraught with danger as to render its adoption a greater evil than the nuisance it is desired to suppress. We cannot deny that to watch over the moral conduct of the population by law savours somewhat suspiciously of 'paternal government.' When the New England colonists declared adultery to be a crime punishable with the pillory, few people in this country doubted that, however excellent the morality of the statute in question, it was, practically, tyrannical. The question for us, then, is, have we, declamation apart, a right to prevent the open exercise of this most 'noxious trade?' and we do not hesitate to say that we have.

"Why is cheating a criminal offence? Because it is the duty of law to protect *property*, and cheating is an invasion of the rights of property. Is it, then, less the duty of law to prevent the weak and credulous from being deceived out of their health, which is property, and made furthermore to pay their money for that which cannot be taken to be 'valuable consideration.' Moreover, public decency is within the proper scope of the law, and these exhibitions and advertisements offend against public decency.

"We admit freely that the task is not an easy one; but that is no reason why the attempt should not be made. Lord Campbell, in dealing with the Holywell-street obscenities, had similar difficulties to encounter, yet he made the attempt, and practically succeeded in his object.

"The failure of the Medical Registration Act to suppress these evils is another proof of the necessity of a public prosecutor. The Medical Council consider, and probably with justice, that they are not called upon to institute proceedings, at their own risk, against quacks, who, by their assumed titles, hold themselves out to the public, who have no means of knowing better, as duly-qualified Medical Practitioners; and a kind of sanction is believed to be added to this representation by the appearance of their advertisements in respectable newspapers. As the law at present stands, there is no person or body compelled to prosecute.

"The first step necessary sounds a strong one, but it is really right on principle. Let it be made a misdemeanour to assume the title or qualification of a Medical man, unless authorised by the diploma of some recognised or legalised body or institution; then appoint a public officer bound to institute legal proceedings against all persons who violate the law in this respect, on a proper *prima facie* case being shown; next prohibit any man from practising Medicine in any place until his diplomas have been submitted to some magistrate, and a proper opportunity afforded for any person who may be so minded to test their genuineness. Let the presentation of a false diploma be declared a misdemeanour, and power of summary conviction (subject to the right of appeal) given to the magistrates; next the magistrates should be invested with power to close those museums that disgrace our leading thoroughfares, wherever found, and the provisions of Lord Campbell's Act should be extended to the circulation of those filthy publications.

. . . . . .

"It is not neeessary here to enter into the details by means of which these provisions might be carried out, as they will easily suggest themselves to every experienced draftsman. Let the principle but be admitted that the men are public nuisances, as deserving of being stopped as unqualified solicitors or unauthorised brokers, and that the publications are an offence against public deeency, and the rest will follow upon well-established precedents almost without the necessity of consideration."

We are glad to have the benefit of competent legal opinion, however general in its terms, as to the nature of the enactments required; but we must, nevertheless, express our regret that the writer of the above should not have condescended rather more to particulars, so that the details of the much-wanted measure might have been discussed. It may be, as above stated, that the carrying out of these suggestions would be a matter of no difficulty. If this be the case, we can only congratulate ourselves and the public on the fact, and remark that our legislators will have no excuse if a repressive bill be not passed this session. It is said that any

amount of money can be obtained amongst the fraternity of quacks for opposing any such measure, and the system is, we fear, not easy to put down. We are in a bad way, however, if the united force of the country is unable to prevail in so vital a matter against the interest of the "dirty quacks."

MODERN SYPHILOGRAPHY.—No. VII.

THE CAUSE, VARIETIES, AND PATHOLOGY OF SYPHILIS (INTERNAL SYPHILIS, ETC.)

The whole tone of modern thought is eminently critical and experimental. The inconveniences and evils attending that disregard of authority which is so characteristic of our age, in matters of belief or of some branches of study, is the main source of our strength and progress of Medical science. Neither authority nor the dictates of the keenest intellect can any longer impose upon the present or future a verdict of the past. History does not actually repeat itself, for we do not move in perfect circles, but in spirals, and the ascent is a very gradual and progressive one. Beliefs which were the intellectual property of past ages have now assumed a defined and settled position, and we have seen how light has been shut out or obscured by imperfect or false observation, and have learnt not to be dogmatical over much.

Thanks to the labours of Virchow, Wilks, Professor Simpson, Aitken, Hutchinson, and many other observers, we are beginning to possess a clearer knowledge of syphilis, and to learn that the external manifestations of it form a part only of a series of morbid phenomena induced by the syphilitic virus. "After a period, indeed, of scepticism and doubt," says Dr. Aitken, "we are now confirming, by actual observations, aided by all the advanced knowledge and appliances of the day, the crude surmises of the early physicians regarding the pathology of syphilis." The Physicians of the 16th and 17th century not only recognised syphilis as the result of a specific poison or virus, but they firmly believed that it was capable of profoundly affecting the system, and of giving rise to many and specific internal derangements, as well as of combining with and modifying other diseases. Here, again, Edinburgh was in advance of the London schools. Benjamin Bell (a) was the first writer who laid to the charge of syphilis a number of general and internal diseases, and supported his statements by a series of clinical observations. Syphilitic lesions of the nervous system were very clearly recognised by the late Dr. Todd, and cases of intra-cranial and nervous disease, in connection with syphilis, have been described by numerous observers, particularly by Lallemand, M. Lagneau, fils, Bonet, Brown-Séquard, Wilks, Roberts, Hutchinson, and many others. It is now known that the lungs, liver, kidneys, spleen, lymphatic glands, and muscular organs may, one or more of them, become affected in subjects of the syphilitic taint. The pathological course of syphilis in these cases, as Dr. Aitken well remarks, is seldom a pure and unmixed one, but is generally overlaid and intermingled with other diseases.

If our readers have followed us thus far, they will have learnt that we regard true syphilis as at once a contagious and constitutional disease, taking its place, in these respects, among diseases such as variola, vaccinia, hydrophobia, etc., and that syphilis no more frequently doubles itself in the body than do other constitutional maladies which depend upon the effects of an animal poison.

This virus—for we presume no one, except our revered and bold friend the member of the Legion of Honour, would deny that there is a something—a very peculiar and specific property or agent—as thousands of unfortunate patients know to their cost—in this material which engenders syphilis—the virus, then, of syphilis contrasts with other animal poisons as remarkably in the slowness of development and evolution of the symptoms to which it gives rise, as in the cyclical characters by which these are characterised; pursuing a course marked by alternate periods of activity and latency or dormancy. There is the period of incubation, preceding the appearance of its primary symptoms, to be succeeded by another before the evolution of its secondary stage, and by a third prior to the appearance of its so-called tertiary symptoms. Nay, more; in almost all cases of syphilitic infection we may observe a remarkable tendency in the disease to progress by a series of curves, as it were; the ascent from latency of the symptoms to their appearance being rapid, and the descent towards inactivity, dormancy, or health, slow.

If we group together a large number of cases, what do we find? That there is a period of incubation, varying commonly from one to four weeks; that this is followed by a lesion at the point of implantation of the virus, and in the neighbouring lymphatic glands; that the morbid principle appears to undergo multiplication during another interval of from one to three months, and that its effects are seen on the lymphatic glands and the complexion of the patient; and then we have an exanthem, with or without throat affection, general malaise, rheumatismal pains, sometimes slight fever of a remittent type, and occasionally some catarrhal symptoms, marking the secondary stage. Beyond this there may be recurrences of the so-called secondaries of a different type in the mild, or the occurrence of other and more severe forms, or of tertiaries in the severe cases. This evolution of syphilitic phenomena is much more regular than is generally believed, and it has not yet been proved that we can avert their occurrence at the beginning by any remedies, and we can only artificially shorten their duration or prevent their recurrence by constitutional ones. If so, the terms primary syphilis, infecting and non-infecting sores, etc., which we have used to render ourselves intelligible, are very improper and unfortunate ones,—improper in implying a false pathology; unfortunate to the patient, in leading to the use of mercury in many doubtful cases, and in others with the view of *preventing* secondary manifestations, instead of limiting our views to healing the chancre, dissipating the induration, and preventing a patient's spreading the contagion. Again, primary and secondary are terms which should be used to express the *order* of evolution or the chronometry, and not the *nature* of the disease; for it is certainly constitutional long before the occurrence of the secondary phenomena.

To what is the evolution of syphilitic phenomena due? Is the blood contaminated by a something which undergoes and induces zymotic changes in it, gradually increasing in amount out of the blood elements? the manifestations of the disease being only the expressions, signs, and effects of the elimination of the virus from the system. Or does the blood draw its supply of the virus from the separate diseased products in the solids? the localised syphilitic growths, whether in glands, skin, or elsewhere, acting as so many foci for the reproduction and maintenance of the poison in the system. The last is the view which Virchow (b) so strongly upholds, and it has this support of our observations, viz.,—that the smaller the amount of induration in the chancre and glands, the less severe commonly are the subsequent manifestations; and, we think, we have perceived the absorption and resolution of indurations to advance more rapidly immediately before, and during outbreaks of, general syphilitic symptoms.

Supposing Virchow's hypothesis to be correct, we conceive that the peculiar pigmental deposits so common to syphilitic lesions (such as are seen upon the cicatrix of a chancre on the skin of the penis, and which discoloration, according to our observation, is removed in the course of eight to twelve months, and replaced by a white patch) must also be sources of the blood contamination. The question is not altogether devoid of practical interest, because, if his view be well founded, the excision or destruction of a chancre at early dates

(a) "Treatise on Gonorrhœa and Lues Venera," Second Edition, vol. ii., pp. 139, 147, 463, *et seq*, which are well worthy of perusal.

(b) "Every dyserasia is dependent upon a permanent supply of noxious ingredients from certain sources"—the lymphatic glands, etc., for example, constituting "the local depôts from which new quantities of noxious matter are continually being introduced into the blood."

might *modify* the subsequent severity of the disease, by cutting off a main source from which the contaminated blood is recruited. Meantime, two things are evident—viz., that the poison may be long latent to manifest itself at very distant and uncertain dates, and that such manifestations appear to be often excited by debility or causes of ill health unconnected with syphilis.

Of the chemical and other physical changes in the blood we possess no trustworthy data. The analyses made by M. Grassi, under the direction of Ricord, are corroborative of what the anæmic aspect of the patient suggests—viz., that there is a diminution in the number of the blood globules.

A very short experience of this disease will teach the observer a fact which is too much disregarded—viz., that there are several types or degrees of the syphilitic infection.

We all recognise that small-pox, scarlatina, etc., may assume different forms, and, according as these approach the benign or the malignant types do we group them in separate divisions, as varieties or forms of the same disorder. It would be strange indeed if it were otherwise with syphilis. Analogy and experience teach us that it is not. The recognition of this does not involve a question of theory only; but it must exercise an important influence upon our prognosis, treatment, and proper appreciation of the pathology of the disease. The *quantity* and the *quality* of the effused products will differ at different stages in the same individual; but still more these will vary in the different forms of the disease witnessed in several individuals.

Let us, then, endeavour to express our own opinions—with the understanding, however, that we only intend them to be received as *approximations* to the truth.

1st. The greater the induration, and the longer the period during which primaries remain unhealed, the more probable it is that the constitutional infection will prove severe.

2nd. The amount of ulceration, phagedena, etc., of the primary sore stands in some relation to the more intractable forms of secondary affections—the pustular, ecthymatous, rupial, unhealthy ulcerations, nodes, and gummatous tumours.

MM. Bassereau, Diday, Langlebert, and others, have shown that superficial erosions, with concomitant induration, are far more common than the true Hunterian chancre, and the chancre with phagedenic ulceration. Bassereau, in 170 cases of syphilitic erythema, found that the first form occurred 146 times to 24 of the two latter.

Phagedena, to any extent at least, is a very uncommon complication of true chancre in this country. The majority of cases in which it is present are those of the local soft sore; and from all we can learn it is more frequently seen abroad, in the persons of our soldiers and sailors, recalling to our minds the old story of the Lisbon opera dancer and the havoc she made amongst our countrymen. Be this as it may, when a phagedenic action appears in the primary chancre it is commonly an indication that the quality of the syphilitic products subsequently effused will be cacoplastic, albuminiform, prone to early degeneration, softening, or suppurative action. The impression made by the poison, or the behaviour of the constitution of the individual under its morbid influence, is thus ofttimes early expressed.

Babington, in his edition of Hunter, has indicated the relation between the severity of the subsequent phenomena and the unhealthy phagedenic action in the primary sore. Bassereau, likewise, has clearly expressed the same thing as the result of his extensive experience; and M. Diday, in his recent work, has still more strongly and practically enunciated it. So far for the primary lesion. Now let us turn to the secondary symptoms.

The evolution and succession of the stages under ordinary circumstances may be very regular, as we have said, and the recurrence of syphilitic manifestations ensues—not in one continuous unbroken chain, but in succession—the links of which are interrupted by the interposition of intervals of comparative health (as the observations of M. Diday have done so much to demonstrate)—until the syphilitic poison would appear to have reached the natural length of its tether, and to have exhausted itself. Such is a rough expression of the course pursued in very many cases. With others it is far otherwise: mercurial treatment, exposure to changes of climate, the occurrence of other diseases, differences of constitution, poverty, with all its train of concomitant evils; these are so many disturbing causes, so difficult to calculate, and their influences so difficult to gauge, that we can only expect to reach approximations to truth.

The so-called constitutional symptoms may be ranged under two types, which contrast with one another.

Thus, a cutaneous syphilide, early in its appearance (from thirty to fifty days after the appearance of the chancre), wide in its extent and very superficial in character, denotes the milder degree of constitutional infection; while the discrete and localised morbid processes, affecting the deeper tissues of the skin and mucous membrane, have the opposite character of a severe degree of syphilitic infection.

When the "secondaries" are rather late in appearing, when they at first or speedily assume particular and mixed forms,—such as *large* papular elevations of the skin, which suppurate—when numerous superficial pustules or vesiculo-crustaceous scales form upon inflamed patches of skin, accompanied by similar affections of the scalp, when the engorgement of the throat is well marked at first,—not a mere snail-tract throat—and when there is an elevation of the mucous membrane about the palate, as if from a product effused into its substance or underlying its surface,—these symptoms express differences of severity from the first type every bit as great as between the throat affection of the severe and of the mild types of scarlatina. The gravity of the prognosis increases according as we perceive, by the early and subsequent softening and degeneration of these lesions, that the lymph is more or less destitute of plastic elements. The marasmus of the patient only too often advances, *pari passu*, with the degenerate actions going on in his tissues. The above expresses, in its worse forms, a profound syphilis, or a bad constitution such as the strumous; but there is another type which is difficult of cure out of proportion to its apparent effect on the constitution. When the induration of the chancre spreads out, ulcerates afresh at one part, throws up redundant rosy granulations at others—becomes, in short, transformed into a secondary lesion, a mucous plaque; or when a large papular elevation appears at some part (say the groin), inflames, softens, and becomes an ulcer, it assumes very peculiar characters, and exhausts our ingenuity to heal it. Such cases are not very common, perhaps, but the writer has seen them on more than one occasion. The ulcer exhibits two very different processes in action at the same time: phagedena, in that there is a slowly-advancing, painful, and unhealthy ulceration, with ichorous discharge at one part, and rosy, spongy, vascular redundant granulation out-growths at another.

The tubercular eruptions are among the latest secondary manifestations, but not invariably so. We have witnessed large wheal-like, rounded, or oval patches of skin, of a dull red colour, upon the face, etc., from three to nine months after the date of the primary disease. These elevations were distinguished from lichenous or herpetic eruptions seated upon circular or crescentic patches of inflamed skin, by the swelling and elevation of the dermis from infiltration into its substance. When occurring at these dates they generally desquamate on the surface, the ulcerated tubercles belonging to the later manifestations, and never being accompanied by the diffuse superficial eruptions. Like the pustular syphilodermata, they either indicate a severe form of syphilitic infection or a defective constitution. It is in these cases that the appearance of severe throat affections, and disease of deep structures and internal organs are to be feared.

The experience of the best modern syphilographers is tolerably uniform on some of the above points. The macula syphilitica (roseola, etc.), says Professor Zeissl, and the sub-

cutaneous or submucous tubercle represent the two poles of syphilitic exudation. But, it may be urged, we are confounding different stages of the disease with one another, for it is generally allowed that the early syphilides appear very diffused and superficial in their character when contrasted with the later manifestations. While we allow this to have its full weight, the impressions left upon our minds from our own observations are, that the early roseoloid or erythematous eruptions are not usually the precursors to the severer manifestations, and that the early eruptions have had from the first, or have speedily assumed, a mixed character—erythema, lichen, or acne at one part, thickened elevations of congested skin at another, or pustules—in those cases which have proved severe.

(To be continued.)

THE WEEK.

PROFESSOR SYME, AND THE PAMPHLET ON ACUPRESSURE.

We have often been obliged in the interests of the Profession to criticise the proceedings of Professor Syme, and to lament the bitterness too often displayed in his treatment of his colleagues. But we do not a bit the less admire the boldness, the originality, and skill with which Professor Syme has devised and performed new operations, and has revived old ones, to the great credit of that Northern School of Surgery which so well rivals the schools of London. We heartily regret the ebullition of bad taste which is described by our Edinburgh correspondents, and do not wish to make matters worse by any comment of ours. Would that men of science could "agree to differ," and treat all matters of difference on scientific points as so many accidents of their Profession, which need not interfere with the courtesies of life, public, or private.

THE PROCEEDINGS AGAINST A MEDICAL MAN FOR APPLYING MECHANICAL RESTRAINT TO A LUNATIC PATIENT.

The case of Mr. R. H. S. Carpenter, who was fined by the Durham magistrates £5 for applying mechanical restraint to one Mary Lamb, an old woman who was in the habit of breaking windows and threatening to take the lives of her neighbour's children, will be in the memory of most of the readers of this journal. Mr. Carpenter has taken the only course open to him to vindicate his Professional character in the matter. He brought an action in the County Court against the husband of his patient for fees for his visits and for the certificate he signed. We are happy to say that he has recovered the full amount claimed. Mr. Carpenter proved by the evidence of several witnesses that he had been employed by the defendant to attend his wife, that the defendant wished his wife sent to a lunatic asylum, and that on the night of the alleged assault Lamb had "asked Mr. Carpenter if he could not get a strait-jacket for his wife; if he could not he would not stay in the house with her." All this evidence was either ignored or not taken by the Durham magistrates. Although Mr. Carpenter's treatment of his patient is thus set in the right light, we should be very glad to hear that the decision of the magistrates could be appealed against in a higher court. It seems so monstrous that a Medical attendant who takes the enormous responsibility of superintending a case of insanity should be liable to fines and penalties when interfering to prevent the patient from injuring himself and others, that we should like to hear the opinion of one of our judges on the case. Did the magistrates of Durham in fining Mr. Carpenter act in conformity with the law of England? If so, it is high time that the Medical Council should take action on the matter, and either by introducing a clause in the proposed amended Medical Act, or by framing a separate measure for the consideration of Parliament, should endeavour to protect the registered Medical Practitioners of the United Kingdom in the performance of their imperative duties.

"ST. BARTHOLOMEW'S HOSPITAL REPORTS."

We have learnt with great satisfaction that a first volume of "Bartholomew's Hospital Reports" is to be published in October next. No one can, without deep regret and some shame, think of the immense number of facts lost and of the vast sources of knowledge wasted, year after year, in our large Hospitals; and the regular appearance of the Guy's Hospital Reports has been a standing reproach to all the other Hospitals and Schools. Last year we gladly hailed the appearance of a volume of "London Hospital Reports;" and we now heartily congratulate the St. Bartholomew's staff on their having at last determined to give to the Profession some account of their use of the vast Medical and Surgical riches annually entrusted to their care. The names of the gentlemen to whom the task of editing the promised volume is entrusted —Dr. Andrew and Mr. Callender—are a sufficient guarantee that that part of the work will be thoroughly and efficiently done. We understand that, though the first volume will proceed entirely from the staff of the Hospital, for future volumes contributions are asked from old St. Bartholomew's men all over the world—a new and, we think, a very good and commendable feature of the work.

OVARIOTOMY IN AUSTRALIA.

Ovariotomy is progressing in Australia. Dr. Tracy, of Melbourne, whose first successful case in the Colony we noticed last autumn, has had a second successful case, the details of which are given in the December number of the *Australian Medical Journal*. There were no adhesions, although the patient had been tapped six times. An unsuccessful case by Dr. Mac Gillivray, of the Bendigo Hospital, is recorded in the same journal. The patient had been *tapped forty-four times!* Yet there is every probability that ovariotomy would have proved successful if secondary hæmorrhage had not come on forty hours after the operation. The bleeding was found to have "proceeded from some small vessels in the divided adhesions, which had not bled at the time of the operation, and consequently had not been secured."

AMERICAN NERVE PATHOLOGY.

We recommend such of our readers as are interested in nervous diseases to possess themselves of the Report on Gunshot Injuries of Nerves, by Drs. Mitchell, Morehouse, and Keen, of the United States' Army.(a) Surgeon-General Hammond, with the scientific foresight which seems to have charactised all his proceedings, established a special set of wards in one of the military Hospitals at Philadelphia for the reception and study of injuries of the nervous system. Part of the results are before us in a report by the three gentlemen named; besides which are a series of smaller reports on special points, of which one only, on reflex paralysis, has reached us. The subject of reflex paralysis, which really embraces most of the phenomena of shock, is very instructively treated in the latter document; but the most interesting part is the account in the larger report of the lesions of nutrition in parts supplied by motor and sentient nerves when those nerves are injured, but not absolutely cut. The lesions of sensation and motion, the feelings of cold or of burning pain, the local eczematous eruptions, ulcerations, loss of hair, shiny skin, and other phenomena, and the means employed for their relief, well deserve study. Electricity in the Faradaic form seems to be brought forward as a really substantial remedy.

PARLIAMENTARY.

On Thursday, February 23, in the House of Commons, Mr. Black asked the Lord Advocate whether the penalty which was incurrable by the Medical Practitioners of Scotland

(a) Gunshot Wounds, and other Injuries of Nerves. By S. Weir Mitchell, M.D., G. R. Morehouse, M.D., and W. Keen, M.D. Philadelphia: J. B. Lippincott and Co. 1864. London: Trübner.

under the 41st section of the Act 17th and 18th Victoria, cap. 80, was repealed by the 14th section of the Act 23rd and 24th Victoria, cap. 83; and, if not, whether he intended to take the necessary steps to procure a repeal of that enactment, and so place the Medical Practitioners in Scotland on a footing of equality with the Medical Practitioners in England and Ireland.

The Lord Advocate said that the clause referred to had not been repealed, though the penalty had been considerably relaxed. He did not propose to introduce any measure on the subject.

It will be remembered that the law to which Mr. Black referred is one by which the Medical Practitioners of Scotland are obliged to sign death certificates under the penalty of certain fines. The manifest injustice implied by the State compelling an unpaid labour of this kind from a Professional class in one part only of the United Kingdom, and the unmerited degradation inflicted on a body of highly educated and loyal gentlemen by the threat of a penalty, renders the act peculiarly distasteful to the Profession in Scotland. It may be that the fine is reduced to a mere name, and that it is not as a rule enforced, but whilst the law remains on the Statute Book it is a standing insult to the Scottish Medical Profession. The Lord Advocate by refusing to repeal the obnoxious statute has lost an easy, and we should have thought a welcome, opportunity of conciliating an important section of his countrymen.

On Monday, in the House of Commons, Mr. Hardcastle asked under what prison regulations George Victor Townley, sent from Bedlam to Pentonville as an ordinary prisoner under sentence of penal servitude for life, was there allowed access to books of entertaining literature such as "Silvio Pellico" and "Gil Blas."

Sir G. Grey said that by the rules no books were allowed to be read by prisoners, except those approved by the Directors of Convict Prisons. On the appointment of a new Governor of Pentonville a few months ago he found that a practice had grown up under his predecessor of departing from that rule, and in certain cases allowing prisoners to receive books sent them by their friends. When, however, he found that the new practice was contrary to the rules, he put a stop to it.

On Tuesday, Sir W. Russell, in moving the second reading of the Metropolis Sewage and Essex Reclamation Bill, stated that it was founded on the evidence taken before the Committee which sat last year, which went to show that the only practical way of utilising the sewage of towns was by gravitation. The works of the Metropolitan Board, after the expenditure of some millions, had taken the sewage to Barking, and it was absolutely necessary that the matter should be taken up without delay if the bulk of the towns on the river were to be consulted. In dealing with the question there were three points to be taken into consideration—the necessity of diverting the sewage of the Thames; of rendering it innocuous in its application to growing crops, and of realising the greatest possible value for the manure in the interest of the ratepayers. Now, the scheme before the House proposed to remove the sewage from the Thames so that it would never return, for it was to be carried down forty miles along the coast. With regard to the second part, that of rendering the sewage innocuous by utilising it for growing crops, the scheme proposed to make a number of openings in a large culvert, so that it might be taken over an extent of 80,000 acres. But, as many farmers would during the winter months be unable and unwilling to receive it, it was proposed to utilise it over a certain extent of sea sands. With regard to realising the greatest money value for the manure, there was the present scheme and that supported by the authorities of the city of London, both of which had been thoroughly investigated by the committee of last year, and it was shown that whenever the hose and jet system had been used it had been found necessary, after a time, to abandon it, and that the only way of producing a profitable result was by the system of gravitation. There would, he thought, be a strong objection on the part of the inhabitants of Hampstead and Harrow, and other high lying places, to have a large sewer in their vicinity for the purposes of irrigation. He could, he might add, see no reason for postponing the committee for six weeks, seeing that the subject had been so thoroughly inquired into, and that its postponement would lead to legislation being probably put off during the present Session.

Mr. Crawford said he had been requested by the corporation of the city of London, as well as others throughout the metropolis, to move that the second reading of the Bill be postponed for six weeks. He wished it, he might add, to be understood that the question at issue was not one between the Board of Works and the city of London. It was stated that the principle of the Bill had been sufficiently discussed, but upon that point there was a difference of opinion, and he was informed that so high an authority as Baron Liebig had pronounced the scheme of Messrs. Hope and Napier to be a visionary scheme, which was not likely to be attended by any profitable result.

After some remarks from Mr. Tite and Mr. Caird,

Lord R. Montagu said that the concession of the sewage was placed in the hands of the Metropolitan Board, and they had given it to the promoters of this Bill. The House was therefore not in a position to choose between rival projects. The object of the amendment, as he understood it, was to consider all the schemes, so that the metropolis might receive as much as possible for its valuable sewage. The scheme was quite Protean in its various aspects. At first it came out as a plan for reclaiming certain quicksands. It then had for one of its features the utilisation of the sewage over 12,000 acres in Essex. The reclamation of the sands was now less relied upon than ever, but he did not regard the scheme as yet perfect. It would probably appear that there were other plans superior to it, and which would bring in a larger income. In the first place, the culvert would, he thought, go too near the river. In the second place, it was admitted by Mr. Thwaites that the sewage could only be utilised upon the land in Essex during five months in the year, and that during seven months of the year it would run into the Thames as it did now. The Metropolitan Board had doubtless felt that they would have placed themselves in a very absurd position if, after spending £5,000,000 to take all the sewage east, they had allowed a company to spend £5,000,000 more to conduct it to the west. The sewage of the north side of London ought to be used for the land on the north side by gravitation, and the sewage of the west in the same way upon the west side. He could not admit that the Metropolitan Board had shown any hurry in dealing with this question. So late as 1864 Mr. Thwaites stated that the Board had not considered the value of the sewage at all, and that they had not visited a single town where the sewage was utilised. He thought it very desirable to send this Bill to a Select Committee, because he believed that some plan might be adopted greatly preferable to the present scheme in a financial point of view. (Hear.)

Mr. Ayrton said it was impossible for the House to determine on the present occasion what was best to be done with the sewage of London. The question now before it was, how to deal with this Bill. The best way was to appoint what was called a hybrid committee, composed in part of hon. members who had a peculiar relation to the subject-matter of the Bill. (A laugh.) The House had better appoint a committee, constituted partly of gentlemen who had a knowledge of the subject, and felt an interest in it, and partly of gentlemen who were perfectly disinterested and impartial. Such a committee would be the best possible means of arriving at a practical solution. (Hear, hear.) The sooner the practical inquiry was to come on the better. There could be no good in postponing the inquiry for six weeks—(hear, hear),—and he hoped the House would not consent to any such amendment. (Hear.)

After some further discussion, the Bill was read a second time, and,

On the motion of Mr. Ayrton, it was ordered that the Bill be referred to a Select Committee of ten, half to be nominated by the House and half by the committee of selection, and that the committee be instructed to inquire into the most useful and profitable means of disposing of the metropolitan sewage on the north side of the Thames.

On Wednesday Sir F. Kelly's "Law of Evidence Bill," which enacts that accused persons are to be allowed to give evidence in criminal cases, was read a second time.

FROM ABROAD.—DEATH OF PROFESSOR GRATIOLET—DISCUSSION ON "VACCINAL SYPHILIS" (*continued*).

The death of Professor Gratiolet, the distinguished zoologist and anatomist, in the midst of apparent health, has spread a gloom through the Parisian scientific circles. His death was so sudden that he had only time to recommend his destitute

family to the care of the friends of science before he fell into a state of coma. His wishes in this respect will happily be fulfilled by the present enlightened Minister of Public Instruction, M. Duruy. In truth, it ought never to have been incumbent upon him to make the request, for talents such as he possessed should have met with a better appreciation. His career exhibits the difficulties which votaries of science have to struggle with, even in a country usually well enough disposed to appreciate their merit. Gratiolet, introduced into the Muséum d'Histoire Naturelle under the auspices of De Blainville, whose favourite pupil he became, was allowed to consume more than twenty years in a mere subordinate position, which did not even afford him the means of living with decency and comfort. Called upon to lecture as a substitute for De Blainville during several courses, he exhibited such remarkable Professorial talent that no excuse can be accepted for this not having been utilised and developed. He failed, however, to get appointed to his master's chair, and sixteen years passed away before another opportunity was offered him of exhibiting his remarkable abilities beyond a small circle of admiring friends. This occurred at the death of Isidore Geoffroy St. Hilaire, when the chair of zoology became vacant at the Faculté des Sciences. Gratiolet was appointed to fill it at the end of 1863, and the lectures which he delivered from it, as well as before a more miscellaneous audience at the Sorbonne, by their impassioned eloquence, luminous exposition, and profound knowledge, excited a true enthusiasm. It became a natural subject of regret and surprise that one possessed of such rare gifts had been permitted to struggle through the best years of his life upon a scanty pittance in a subordinate employment, furnishing no occasion for their exhibition. Every disposition to repair such neglect was now exhibited, but this came too late, for, just as affairs were brightening, the *savant* was cut off at the age of 49 ; and who can say that his death, thus taking place in the plenitude of his powers, has not been accelerated by anxiety, hope deferred, and the unsatisfied yearnings of one who, though modest in the extreme, was still well aware of the powers which he possessed ? The crowd of men of science which attended his funeral, and the eloquent addresses of Milne-Edwards, Broca, and others, testified that the appreciation of his qualifications as a *savant* and his attributes as a man, if tardy, is complete.

In noticing once more the prolonged discussion at the Academy of Medicine upon the transmission of syphilis by vaccination, we need not advert to the additional discourses of MM. Depaul and Ricord, which are, after all, but repetitions of what they have already said, couched in somewhat discursive phraseology. M. Devergie observed that, for his part, however the authenticity of the various reported cases may have been justly contested by MM. Ricord and Blot, he could entertain no doubt of the possibility of this transmission, having himself met with a convincing instance. He pointed out the immense difficulty in arriving at the truth in any matter relating to syphilis, owing to the extraordinary and often motiveless lies told by the parties concerned ; while the varying periods at which the infection produced by secondary syphilis manifests itself adds to the difficulty and obscurity of the investigation. Various cases of this transmission may not have been noticed, owing to the very different periods at which the vaccinal and syphilitic eruptions exhibit themselves distracting attention from their relation to each other. The fact of forty out of forty-six infants contracting syphilis after vaccination, as stated by Cerioli, is well-nigh conclusive, for never such a proportion of children could have been born with congenital syphilis. In the nursing establishment at Paris, where the condition of the children is watched long after they have left it, there are never observed more than from twelve to fifteen cases of congenital syphilis among the 2200 infants which come annually under its supervision. M. Devergie, although firmly believing in the reality of the transmission, considers that officially divulging it to the public would be most mischievous.

M. Briquet called attention to the subject in relation to Medical responsibility ; for if it be once shown that a Practitioner may be condemned in costs for a syphilitic vaccination, actions for all kinds of accidents supervening on vaccination will be instituted ; so that in fear of what may result the practice of vaccination may become greatly checked. M. Briquet, for his own part, cannot admit that the reality of the transmission has been sufficiently proved, and he believes that cases are found most numerous in those countries in which the imagination is most fertile. It is, indeed, stated that such cases are "prodigiously" rare—one in three millions, perhaps. But how different is this excessive rarity to what is observed with regard to other inoculable diseases, which are transmitted with such extreme facility. The Rivalta cases are, in M. Briquet's opinion, wholly destitute of the proofs of that reality which should be required.

M. Gibert regarded the present discussion as premature ; for the facts upon which M. Depaul's report is founded are so exceptional and unusual that they may well justify doubts. To alarm the public mind by official confirmation of such statements as these would be worse than imprudent ; and what good can come from submitting the doubts and uncertainties which exist to the appreciation of the utterly incompetent public authorities ?

In terminating our notice of this subject, we may quote the opinions of Dr. Sigmund, of Vienna, a deservedly high authority in all relating to syphilis, contained in a recent number of the *Wien Med. Woohenschrift*. Of the communicability of syphilis through vaccination he entertains no doubt ; and he puts the following queries :—1. Is there any difference in the appearances of the vaccine pustules when produced in syphilitic subjects ? Numerous as are the instances in which Dr. Sigmund has vaccinated and re-vaccinated syphilitic persons during the last eighteen years, he has never been able to observe the slightest distinctive mark in the pustules produced. 2. Does the general appearance of the child furnishing the lymph enable us to pronounce as to the presence or absence of syphilis ? While, as a general rule, syphilitic children are pale, thin, and ill-developed, there are instances in which they are of a completely healthy appearance, although eventually exhibiting well-marked symptoms of syphilis. Although congenital syphilis is usually apparent within the first six weeks, exceptions to this are not rare ; while when it does manifest itself at an early period it may not do so with sufficient distinctness to be appreciated. We can only pronounce with any certainty as to the state of health of children we have had several weeks under supervision, and when we are also exactly acquainted with the condition of their true progenitors. 3. Is the vaccine pustule itself the vehicle of the syphilitic poison ? This has been denied, and the infection in the cases in question has been attributed to the accidental inoculation of blood or serum. The point requires more exact investigation. 4. How can vaccinating from syphilitic children be securely guarded against ? When vaccination is performed from arm to arm, we must assure ourselves of the good condition of health of the children and of their parents, all doubtful subjects being excluded. When the lymph is intended to be preserved for future use, it should be taken only from individuals who have been submitted to supervision by instructed vaccinators, such supervision being continued a sufficiently long period after vaccination—viz., in the case of infants until at least three months after birth. An express organisation for the execution of such supervision should form a portion of our sanitary regulations. Until such Professional supervision is established, Dr. Sigmund denies the right of rendering vaccination compulsory. All the cases of the conveyance of syphilis by vaccination have occurred when the operation has been performed from arm to arm in

the absence of such supervision, while no instance has ever followed vaccination performed by the lymph furnished by the vaccination department attached to the Vienna Foundling Hospital.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BATH.

THE SCIENCE HISTORY OF THE BATH WATERS.

(Continued from page 182.)

At the close of my last paper I gave the composition of the waters of Bath as preliminary to the study of their therapeutical action and value. I believe that the statements supplied included all that can be considered reliable in respect to chemical composition. There is, however, one report, not upon the waters themselves, but upon the sedimentary strata they deposit, which it would be wrong to fail to lay before the reader, not only because it is very interesting, but because it is from the pen of one of the ablest and most amiable of the representatives of Physic who has adorned our time —I mean the late Professor Quekett. It will be seen that the observations of Professor Quekett led him to conclusions respecting the origin and cause of heat of the waters different from those which have of late been commonly received and approved. I am indebted for this report to Dr. Tunstall's essay on the Bath waters, published in 1859.(a)

Mr. Quekett's researches were made on the sediment from the King's Bath. The examination was entirely microscopical :—

"I found," says the author, "the sides of the bath covered with an ochreous or rust-like sediment, and a large quantity of fine sand was brought up by the water and deposited in a reservoir, into which the springs open, about four feet below the surface. In a specimen I noticed fragments of wood, seeds, nutshells, and minute portions of charcoal. Some of the shells were covered with a well-marked coating of iron pyrites, whilst many pieces of the wood appeared to be pyritic throughout; others were quite black and firm like bog oak ; a few fragments were as black and as brittle as charcoal. I submitted samples of the water, sediment, and sand to a microscopic examination, with the following results :—The water contained no trace of animal or vegetable life, but in the ochreous sediment I recognised specimens of a recent *navicula :* the sediment itself consisted principally of granules of two kinds, one very minute, of a brown colour, formed the greater portion, the other was larger and more transparent, evidently siliceous, probably arising from minute particles of sand suspended in the water. The sand consisted of nearly equal sized grains of very transparent silex, mixed with vegetable remains, easily recognised by their black colour, and of a few rather larger grains which were semi-opaque ; when acted on by boiling nitric acid a copious effervescence took place, the semi-opaque grains, most probably calcareous, disappeared, leaving the silex unaltered; by continuous boiling the woody matter was also destroyed, leaving the sand remarkable for its transparency and brilliancy. Many of the vegetable fragments were more than half an inch square, and those most free from pyrites exhibited their structure well; I was enabled by section to recognise the oak and hazel, the presence of the latter was to be expected, as portions of nutshells were not only numerous, but the best to exhibit structure; most of these fragments abounded in pyrites, and an inky taste was very perceptible when they were applied to the tongue. The seeds were not numerous, but were coated with pyrites, looking as if they were bronzed; they were of two kinds, one smooth like a grain of wheat, the other streaked like the carraway ; when I inspected the sand and vegetable remains, I was reminded of what I had seen in the peat bogs in another part of Somerset, and I hazard the opinion—that the water in its course passes through a stratum of peat, that from it the sand and some of the vegetable remains are derived, and that a portion of the heat of the water might be due to the action of that agent upon pyrites."

Before leaving this department of my subject, I would refer to a suggestion by Dr. Daubeny as to the application of the heat that is evolved from the waters, and now is lost. Dr. Daubeny thinks that the water as it flows from the baths to the Avon might have its heat utilised for horticultural purposes. Supposing, he says, that the water issuing from the baths is forty degrees higher in temperature than that of the locality, it may easily be conceived how great must be the waste of heat when it is reflected that in every twenty-four hours no less than 181,440 gallons of water are emitted from the King's bath alone. Nothing, continues Dr. Daubeny, could be easier than to arrest this stream of water in its passage towards the river by causing it to flow through a coil of iron pipes let into the ground a few feet below the surface, so as to communicate its heat to the soil within a given area, until it had itself sunk to the temperature of the place. Without incurring further expense than this, such an arrangement would secure to the plot of ground placed under the influence of this adventitious temperature a "bottom heat" sufficient for the growth of early vegetables and for the cultivation of tender exotics. But if, in addition to this, a glass roof were provided to cover over the area so heated a winter garden might be obtained with scarcely any expense except the original outlay, by which the health and enjoyments of the inhabitants and residents of the city might be largely promoted. As there is some legal difficulty in applying the land near to the baths to this very excellent purpose, Dr. Daubeny points out that the water, without any serious loss of its heat, might be carried a distance of 830 yards to what are called the Sydney-gardens ; there, he says, it would be quite practicable to heat a considerable area by the waters so conveyed, and if they were, in the first instance, emptied into a small pond, and afterwards transmitted through the ground surrounding it by means of a coil of pipes gradually embracing a larger circle as they extended, nothing but the protection of an external covering of glass would be required for the cultivation of the gigantic Victoria Regia, and other tropical water lilies; whilst the borders of the pond would, at least, secure to the inhabitants of Bath the enjoyment of many of the trees and shrubs of warmer countries in the open ground of the garden, and a participation of a genial atmosphere during the most rigorous season.

The suggestion of Dr. Daubeny is one of singular interest to a city like Bath, where people go to be cured, and require every accommodation that art can afford. It is a suggestion essentially Medical, and for the Medical fraternity specially to consider.

The Therapeutical Action and Value of the Waters of Bath.

It is extremely difficult in considering the therapeutical properties of mineral waters to determine their actual value. Assuming that every statement be true respecting the cures effected at Bath, the question starts up, Is it the air or the water that cures ? Nay, the question lies deeper than that : Is it the change of life, the change of habits, of food, of hours, of rest, of work, mental or physical, that does the good that is done or is it the waters ? Without doubting that the waters may possess some peculiar virtue, I am sceptical enough to imagine that the virtues are confined to the locality, and that if an aqueduct for their conveyance were constructed to reach London, with heating apparatus by the way to keep up the temperature, the same number of cures, even in cases for which the waters are specifically beneficial, would hardly be effected in London as in Bath. In fact, I may cite a case of a gouty old gentleman who was cured by the waters at their source, and who had such unmitigated faith in them that—tell it not in Bath !—he positively stole a bottle full morning by morning from the Queen's Bath until he possessed a case of six dozen of the vintage—I beg pardon, I mean waterage—of 1859, an unusually favourable year. With singular pertinacity and secresy, this deplorable old reprobate, in order to hide his offence, ordered six dozen bottles of a famous Wiltshire beer, called, I believe, "Box Ale," and having emptied the bottles one by one and day by day in the most inscrutable manner, used them afterwards for holding the waters, deceived his innocent landlady on the South Parade by the assumption that said "beer" was going to London as a specimen of what could be brewed in Wiltshire, and as a blind left one bottle of real beer for herself to taste. Then, labelled "beer" and bottled as "beer," he unblushingly took his nefarious bargain to the railway station, chuckling in troth the while, booked it, got his own ticket, winked at the whole city of Bath as he left it, and came to the great city a triumphant cure, with *the* remedy in

(a) "The Bath Waters ; their Uses and Effects in the Cure and Relief of Various Chronic Diseases." By James Tunstall, M.D. London : John Churchill and Sons, New Burlington-street.

his possession, independently of any rule or regimen, Doctor to order the remedy, pump attendant to talk about it, or gossiping old maids, not too old to hope, to tell him how much he was improved. Alas all human expectations! Our adept at quiet larceny had not been in London one month before he again was gouty. He had indulged in port rather heavily, had smacked turtle, and had slept well. Now, then, for the cure. Into the wine-cellar for a bottle of the "Bath beer." A cold perspiration came over him in that dark and dismal cellar as the deception revealed itself. However, he was in for it, and must keep up good courage. His was a repetition of Macbeth—

> "If it were done, when 'tis done, then 'twere well
> "It were done quickly."

And so he hesitated no moment, but, taking a bottle of the stolen specific upstairs, with all the solemnity of Archimedes overturning the world with a feather, he drew the cork with a patent lever corkscrew. The water was sweet and still green—that was promising; the bottle was crusted—that was superb; the water was poured into a teapot, and it fizzed mildly—that was superber; it was set on the hob by a good fire, and in ten minutes it was actually as hot as though it had that moment issued from the pump-room—that was superbest and of all the most wonderful. To drink the usual quantity of Bath water out of Bath; to have the remedy under the thumb, as it were, and no one know of it; to get well and do the port wine as usual, or keep it in obedience by means so simple! 'twere enough to raise visions of the existence of a Metropolitan Bath Water Company, with unlimited capital and inexhaustible philanthropy. The usual draught was taken, and no connoiseur could have told it from real Bath water at the source. And now for the result. Did it cure? Shame on it; it did not; it simply made its recipient "vomit"—as he very unphysiologically expressed it—"like a horse." *Perseverentia!* he was a persistent man, and he would try to the end; he did so, but with no better result, and the formula he now draws from his experience is thus depressingly awful:—"Six dozen, sir, of Bath water out of Bath are not equal to one glassful in the pump-room; it is a curious fact, but I know it by experience, and I advise everybody, sir, to go to Bath for Bath water."

In noticing this important and very interesting case we feel bound to accept its teachings for what they are worth. I believe it has been urged by a learned local authority that the reason why the water could not be borne in London was, that the process of heating it artificially on a hob in a common teapot was foreign to the nature of the remedy. I will not discuss this delicate scientific point, because it would lead to a debate that might never terminate. My object is simply to show that Bath water, like Geronster, does not carry its virtues into the country nor yet into the metropolis; for the which I very much commend it as a good sensible water, that won't be played the fool with anyhow, nor allow itself to be applied except by those who know how to use it with all the adjuncts necessary for its success.

In the writings of the past two centuries the waters have been pronounced curative for paralysis, gout, and rheumatism particularly. They also have retained a certain amount of fame for lepra and other forms of chronic diseases of the skin. The arguments in favour of their value in cases of gout were, that they were agreeable to the digestion of the gouty patient, that they largely increased the action of the skin and kidneys, and that the bathing kept all the enunctories open. There is reasoning of sound character in these arguments; and one can imagine that, independently of any specific medicinal agent conveyed by the waters, they would exert the action described and greatly promote vascular motion and secretion. At the same time, it has never been assumed that the water could succeed without the regimen; and from the very first of Bath as a place of fashionable resort regimen has been enforced with as much pertinacity as the waters. Mark, then, the changes of life involved. A man or woman possessed of wealth and position came from town after a heavy season, when the Court was much gayer and more luxurious than we have ever seen it, and when wines were taken by the bottle where they are now taken by the ounce. They left, also, a crowded city, where the places of amusement were much more confined than now, and where all the widespread evils of a degraded sanitary system prevailed. They left London for Bath, and the first element towards their cure was fresh air; air not too cold to be unendurable and not too warm to be relaxing. They found it fashionable in Bath to live an easy, natural life, where the coffee-house replaced the tavern and the wine-table; they rose early and walked to the pump-room, drank the waters and perhaps bathed; after this they took a walk; and that over, they lounged in the coffee-rooms, sipped coffee, read the news, and discussed the events of the day. After a rest thus agreeable, they would retire to their lodgings, dress with care for an early dinner, and, like reasonable folk, see their Physician, and invariably have a fee laid for him in such an unobtrusive and conspicuous manner as should allow him to take it with all good breeding, as though it were a trifle not to be considered. The preparation for dinner made, the dinner itself was eaten leisurely, with little wine and few condiments—a plain though elegant repast, with much talking and mirth, and admiration of Beau Nash, in his day, or of Sheridan, and with a certain moderate practice of the "School for Scandal." After dinner another walk, and in the evening, quite early, a ball in the Assembly-rooms or the New-rooms, with Mr. Tyson or Mr. Dawson as master of the ceremonies; and if not a ball a concert or a play; but whatever it was all in good time, so that it were easy and even proper to retire to bed two hours before midnight. (b)

Who will take the trouble to read carefully the rules which the local poet thus wisely suggested will feel, I think, with me, there are few, very few diseases of a functional type that would not recover under such treatment. We have heard great talk lately of sanitary rules and regulations; but in the way of personal hygiene it would be hard for the most learned modern Professor to beat the Bath poet, whose inspirations, if they were obeyed out of Bath, would keep more sufferers away from that city than ever were enticed into it. In the present day the hygienic element in the treatment pursued at the waters is not less decisive than in the past; added to

(b) I find a poem, which was published in Bath in last century—say about 1760-70—which the visitor was requested to read and digest. The verse is not sparkling, but the sense is so good that it deserves place. The poem is called—

"An Easy Cure; or, a Prescription for an Invalid when at Bath.

"If, brother Hyp, you want a cure,
At Bath a lodging warm secure;
There drink the wholesome stream by rule,
When Nature's stream runs low and cool.

"Arise betime, to pump repair;
First take the water, then the air;
Next stroll to coffee-house, peruse,
With air of negligence, the news:

"Not caring whether party rules,
Provided no rebellious tools
Disturb the nation's public peace
Or interrupt your private ease.

"Frequent your church in decent dress,
There offer up religious vows:
Yourself to none but God address,
Avoiding foppish forms and bows.

"When you've your due devotion paid,
Walk on the North or South Parade;
If weather 's clear, in sun and air,
The best of whets, for food prepare.

"Then sparing take of lightest kind
To keep the vessels free from wind;
In wine and sauces don't exceed:
Luxurious tastes distempers breed.

"Nature refresh'd, let Nature rest,
With inward peace your mind digest:
Digestion's work is easiest wrought
By cheerful chat and little thought.

"Or to disperse black fumes away
At whist or ombre cheerful play;
Be unconcern'd at loss or gain—
A spirit ruffled raises pain.

"The mind unbent, your thoughts prepare
To bear a part in ev'ning pray'r:
That duty done, a draught repeat,
Concoction help with liquid heat.

"Then lounge at coffee-house, in chat
On various themes of God knows what,
Till two or more of friendly kind,
Of nature good, of cheerful mind,

"In sense and mirth agree to pass
The time till nine in circling glass;
Then home to sleep, and rise next light
With spirits lively, gay, and bright.

"Thus invalids from day to day
Must keep like clocks in constant way;
Must moderate be in meat and drink,
And rarely, very rarely, think.

"Must exercise, with gentle force,
On foot, or coach, or pacing horse;
Must rise and set at early hours,
And never work beyond their pow'rs.

"This course observ'd will thousands save
From pain, from anguish, and the grave;
Pills Nature vex, and weaken too:
These rules of health the man renew."

which all the appliances of modern Medical art are brought into vigorous action—indeed, it is difficult to find a successful case of recovery in which some important medicinal or hygienic adjunct has not, with the waters, been wisely and skilfully employed. Cod liver oil, iodine, iodide of potassium, quinine, and iron, are favourite remedies in combination with the waters. To show how severely in the present day the hygienic lessons are enforced, I cannot do better than quote the excellent and sound advice which Dr. Tunstall gives to those who, in these times, visit Bath to be cured. He remarks:—

"The first requisite to the invalid in the employment of any remedy is confidence, imparted by the hope of receiving benefit; and, as a class of remedies, mineral waters demand this confidence more than any others: far better not to resort to them at all, than to do so without a reliance on their efficacy. Another essential is complete tranquillity of mind, and absence of all mental anxiety. The patient who goes to a spa should leave all his troubles at home, or remain there until he can do so. It is presumed that he visits the springs to restore his impaired health, and this object should be his exclusive study during his stay. Thus, then, confidence and tranquillity are the first essentials to restoration to health.

Attention to diet is necessary in all states of disease benefited by the waters of Bath. Many of them, indeed, absolutely require it; and when so many diseases, relieved by them, owe their origin to irregularities of diet and indigestion—as gout from luxurious living; rheumatism, in certain cases, from hard beer and cider; and many diseases of the skin, from the constant use of pork and salted meats—it will be manifest that a strict rule in reference to this subject cannot be too forcibly impressed upon the invalid.

The patient should rise early, and take moderate exercise before breakfast; and avoid taking this meal in his bedroom, or, if obliged to do so, let him have his windows open for a short time, to admit the fresh purifying air. It is a great mistake to suppose that the admission of fresh air is prejudicial to the invalid; it only is so when the patient is exposed to a thorough draught. It is the close bedroom air which produces so much mischief in that stage of rheumatism in which the acute disease is subsiding into the chronic stage, and which renders the patient, on first leaving his bed, liable to suffer from the slightest breath of air.

For breakfast and tea, he may take as much stale bread and butter, or toast, as he can manage, with not more than two cups of black tea, or coffee, and one egg; but no meat or fish of any description.

He should take a moderate luncheon of biscuit, with one glass of good white wine, should he require it.

His dinner should consist of mutton, lamb, or beef, roast or boiled; boiled or roast fowl; he should eat sparingly of animal food, and avoid altogether all highly-seasoned dishes, green vegetables, and fish; and this meal should be taken in the middle of the day, in order that digestion may be fairly completed before retiring to rest.

Stimulants are to be avoided, more particularly the stronger kinds of malt liquor; the best beverage, if the digestive system be impaired, either by the long continuance of the disease, or the previous administration of powerful medicines, is very weak Cognac brandy-and-water.

The supper must be of the lightest description, consisting entirely of farinaceous materials, and should, in every case, be taken at least one hour and a-half before retiring to rest.

The bed should be comfortably warm, and not too luxurious or enervating; for, if so, it is likely to interfere with the salutary effect of the Bath water treatment, by causing too great a determination to the skin.

The clothing should be sufficiently thick to protect the patient from atmospheric changes, but not too warm. Thus, an underclothing of merino is better than flannel, and good cotton stockings far better than worsted. All unnecessary wraps are to be thrown away; for, however useful they may have been when the disease first appeared, they now only render the parts to which they are applied more susceptible to cold and local inflammation; and the same remark applies to bandages of every description, which interfere or restrict the free motion of the joints to which they are applied. Upon this subject I speak not from mere observation, but from personal experience; having had twice to resort to Bath for protracted courses of the waters, I am enabled to say that I have enjoyed a greater freedom from rheumatic attacks since I adopted this plan of clothing than I ever did under the warmer treatment which I before thought necessary.

Fortunately for those who resort to Bath for their health, the houses on the parades and streets adjacent were erected exclusively for the accommodation of the invalid. The pavement is on a level with the street doors, so that by means of the wheel chairs—which take their name from this city—even the cripple may enjoy the fresh air without fatigue, and partake, in some degree, in the amusements so necessary in his forlorn condition.

To all who can walk, I recommend free exercise in the open air. Bath is surrounded, at easy distances, by romantic walks and pleasing villages. With a view to interest the valetudinarian, I, while residing at the Bath Hospital, employed the leisure time spared me from more arduous labours in the preparation of a volume entitled 'Rambles about Bath and its Neighbourhood,' in order that he might know how to employ his time in healthful recreation. Such little excursions, chosen as they may be in Bath, even in the severest weather, so as to avoid the chilling breeze, will add variety to his amusements, and, by the occupation of his mind, forbid the contemplation of the supposed hopelessness of his case, and aid the efforts that may be made for the restoration of his health.

Bath, indeed, still preserves its Saxon reputation as the 'City of the Sick Man.' Its pump-room was erected that it might form a promenade in wet weather; and there is not a day, however cold, in which a warm and sheltered walk may not be chosen."

Turning to the composition of the waters, we find in them chemically no specific substances to which great virtue can be attached. The salts of lime, soda, potassa, and magnesia are not in quantities to raise the specific gravity of the blood to such a degree as to increase absorption to any particular extent; the iron is in infinitesimal quantities, and the iodine is almost mythical. Whether silicic acid has any peculiar virtue is as yet unproved; and to the carbonic acid no more can be attributed than would be attributed to it in soda-water. Sir Charles Lyell has expressed a view that the exquisitely minute traces of lithium, strontium, and manganese—substances which can only be demonstrated by spectrum analysis—may be of service. It is not probable that physiologists will bend to this opinion, or assume any more of these metals than that they enter the body to pass out of it by the urine. Spectrum analysis of the urine of patients drinking Bath waters in quantity would almost of necessity detect the substances in question in the urine, showing that they had passed through the blood unchanged.

It has been urged that the temperature of the Bath waters is curative in its tendency in cases properly selected. Here there is something that is feasible, for no one can fail to see that to expose the body, inside and outside, to the influence of caloric will quicken the circulation, increase secretion, and, in a degree, produce effects similar to those which are brought about by the Turkish bath. But it may be asked whether ordinary water heated to the same degree would not give rise to the same effects. Touching this point there is a remark made by my friend Dr. Tunstall which it would be unfair in me to omit; Dr. Tunstall says that a greater heat is borne when the Bath waters are used than could be tolerated were ordinary water used. Moreover, he adds, "the effects of a hot-water bath are relaxing and sedative, those of the hot thermal bath are bracing and tonic; there is no disposition to sleep after it, on the contrary, the brain is more active and the spirits more buoyant. The one produces loss of appetite and depression, the other an increase of appetite and exhilration." Certain physiological effects, I have been informed, have followed in some cases immediately after drinking the first dose of the waters. These effects are warmth of surface of the body, giddiness and quickened circulation. I do not know how many instances of this kind have occurred, neither could I ascertain that the precise phenomena had been accurately observed by an independent observer; they are rather the recorded experiences of those who have felt than of those who have seen, and they certainly cannot be considered as decisive when it is recalled how easy the imagination is made to play an active part in regard to so-called remedies. If I could have accepted all I have heard respecting homœopathic doses of inert matter, I must perforce have bowed to Hahnemann long ere this day.

The diseases in which the Bath waters exert a beneficial influence are placed by Dr. Falconer in the following order:—Disorders of the digestive organs, interrupted menstruation, leucorrhœa, anæmia, gout, rheumatism, lumbago, palsies, ischias, syphilitic and gonorrheal rheumatism, lepra, eczema, and psoriasis. In this statement and enumeration many

other Physicians of the present and of the past join heartily, and the evidence they offer is overwhelming, to the effect that recoveries from these ailments are signally successful in Bath. But, speaking in a physiological point of view, I do not conceive they have shown that the Bath waters *per se* are specific in these diseases: I mean in the same sense as quinine is specific in ague, iodide of potassium in some forms of syphilis, and arsenic in lepra. In a word, it is the whole treatment, not the special, upon which the success rests.

REVIEWS.

Medicines: their Uses and Mode of Administration. By J. Moore Neligan, M.D. Sixth Edition. Edited by Rawdon Macnamara, M.R.I.A. Dublin: Fannin and Co. 1864. Pp. 758.

In the preface to the fifth edition of this work, the late Dr. Neligan wrote—"When a book reaches a fifth edition, it scarcely requires a preface." We may assert with equal justice, that when a book reaches a sixth edition, it certainly does not require a review. The best deserved praise will not enhance its success, whilst any hostile criticism must fall harmless, as merely a dissentient voice weighing nothing against the general verdict. The circumstances, however, under which the sixth edition of Dr. Neligan's well-known work appears are peculiar. Its talented and laborious author is no more, and the work of editing the new edition, or, in other words, of remodelling it on the basis of the British Pharmacopœia, has been entrusted to Mr. R. Macnamara. From Mr. Macnamara's preface we learn that he was selected by Dr. Neligan some years before his death to be his coadjutor in the preparation of a new edition of the book. "Although," he writes, "all our arrangements were at that time perfected, still the commencement of the revision of the work was postponed until the appearance of the long-promised national Pharmacopœia; Dr. Neligan, although on the Pharmacopœia Committee, from a high sense of honour, steadily refusing to avail himself of his position, or to make any private personal use of the proofs of that work, which from his position had to be constantly submitted to his inspection." The result of this high-minded abstinence from using the advantages which his official position gave Dr. Neligan has been that the alterations and improvements in this edition are solely the work of Mr. Macnamara. We can give that gentleman a high meed of praise for the manner in which he has accomplished his task. We have carefully examined many of the new articles, and we find that both the therapeutical and the more technical portions represent fully and accurately the present state of knowledge. The prominence given to the therapeutical part of the book is completely in accordance with the title, and constitutes, perhaps, its chief distinguishing feature from other able works on Materia Medica. That a great deal of new matter has been introduced is proved by the fact that this edition exceeds its predecessors by 150 pages; nor does this increase accurately represent the additions, for as there is but now one formulary—that of the British Pharmacopœia—a large portion of space which was formerly devoted to the discordant formularies of the three rival Colleges has been saved and devoted to more useful purposes. That the work has been thoroughly brought up to the present date we may adduce two or three instances to prove: thus, if we turn to the article Lithia, under Antacids, we find a full notice of Dr. Garrod's opinions and researches; under Bismuth we have a mention of Schacht's liquor bismuthi, and Mr. Squire's solution of the ammonio-citrate; the article on the Calabar bean does not omit notice of Calabarised gelatine, nor of the recent poisonings by the bean at Liverpool. The invention of Calabarised gelatine is, however, ascribed to Mr. Squire, and the rival claims of Messrs. Streatfield and Ernest Hart are passed over in silence. In the article on Strychnia, Professor Haughton's experiments on the antagonism of nicotine and strychnia have their due importance assigned to them. Then, again, the value attributed by some to the bichromate of potash as an anti-syphilitic and its use as an escharotic have not been forgotten.

We hope we have said enough to indicate our appreciation of the care and industry with which Mr. Macnamara has edited the work of his deceased friend; and we cannot better close this notice than by extracting the short passage in which he pays a tribute to his memory:—

"Yet many circumstances seem to me, on the present occasion, to call for some prefatory remarks; foremost among which must be the sudden and unexpected removal from the sphere of his useful labours of the talented and highly-gifted person to whose pen is to be attributed the merit of the production of the five preceding editions of this work. A well-educated, well-read, practical Physician, an accomplished author, a sterling friend, hospitable and generous in all his instincts, our Profession sustained in the premature and unlooked-for death of John Moore Neligan a loss that at any time and in any country it could ill afford; but occurring as it did at a period when death was busy in our ranks—when many of the brightest names on our Professional roll were swept from it for ever—his death, in the very prime of manhood, in the very flush of honestly-won Professional success, was an event indeed as much to be deplored as it was unexpected."

PROVINCIAL CORRESPONDENCE.

EDINBURGH.

February 28.

This Session has not presented any subject of sufficient interest to claim a place in your pages; and were it not for the inclement weather, and the equally boisterous elements of the Profession of Medicine, I fear conversation would come to an end, and the great pride of Scotland—her language—soon become a dead one in the curatorship of some *Mac* Müller. (I beg your pardon, but I couldn't help it!)

The College Hall, so much required and so wisely planned by Professor Laycock, is, I believe, at present represented by a private house, under the superintendence of the Rev. Mr Sandford, who is fitted in every way by scholarship, and the other attributes of a young man's friend and adviser, to fill the office.

The Profession have here lost a most valued member in Dr. Girdwood, of Falkirk. He combined all the practical knowledge his extensive practice required with a mixture of poetry and metaphysics, like Joseph Henry Green, the friend of Coleridge. He was a tall strong man, capable of undergoing great fatigue, and quite indifferent as to what he subjected himself, so long as he relieved suffering. He was intimately associated with the most eminent men of his day. He had watched Liston and Syme climb the ladder, had encouraged Miller's enthusiasm, and watched with wonder and delight the first development of Simpson's various powers.

Like most really learned men, he was simple and unaffected. The white head on which, as on King René's, "the snows of time fell, but they could not chill it," would bend to the teaching of a student as readily as raise itself proudly to confute the ill-reasoning of a man. He is succeeded by his son, an excellent Practitioner.

In the Infirmary but little has been doing of late, and the only thing worthy of notice is the revival of an operation obsolete, I believe, for several centuries, except in Japan, Teleegoo, and a few similar places. History gives us many instances where offensive publications were publicly destroyed, and sometimes the authors executed, both proceedings being carried out by the common hangman, as no more suitable official could be selected. They say history repeats itself, and it has done so here of late. So far, too, was the history of this graceful piece of vindictiveness complete, that a public official—one who writes little books on great dogs, and represents Mr. Gladstone in the University Court—came in to see the public demolition of the offensive pamphlet.

The ceremony was conducted by Professor Syme, who took the doomed document into his class-room, and discoursed thereon. He then tore the pamphlet and cast it amongst the sawdust of the amphitheatre.

What else can one say, than that—

"'Tis true, 'tis pity,
Pity 'tis 'tis true."

Acupressure is gradually getting into general use, and has been used in the Infirmary on several occasions. Dr. Gillespie applied it in two cases last week—excision of the knee-joint, and an amputation of the foot; in both it did admirably. In short, it is *une affair finie*, and soon—with all my love for it, I say it—the ligature will be but a thread of the discourse of garrulous old age. Some few years ago your correspondent

was told by one of the Infirmary Surgeons that excision of the knee-joint was a delusion and a snare; since then he has seen this very man repeatedly perform it, and exhibit his cases as if he had originated the operation. Some day, perhaps, those opponents of acupressure will be showing a needle with some modification—perhaps a green eye and yellow point—and expressing their extreme satisfaction that "Heaven has placed this happy thought in their heads," and their friends will congratulate the "thought" on the softness and roominess of its quarters.

(From another Correspondent.)

I take the liberty of forwarding to you, by to-night's post, a copy of the *Edinburgh Daily Review* of yesterday, marking for your perusal a paragraph in it headed "Strange Scene in the University of Edinburgh." Strange, I daresay you will agree with me, is a mild epithet in the circumstances. I had yesterday a private account of Prof. Syme's most extraordinary display from an eye and ear witness (for both senses, as you will see, were very emphatically addressed), on the accuracy of which I can rely. For such of this as I will now give you, by way of supplementing the published report, I hold myself responsible.

The scene of the occurrence is mis-stated by the newspaper reporter. It was the operating theatre of the Royal Infirmary—not "one of the class-rooms of the University"—and the occasion was the delivery of a clinical lecture. A piece of very expressive pantomime, not recorded in the *Review*, is too good to be lost to the world. After tearing the pamphlet, the Professor handed the fragments to a dresser who stood near, and the young man was proceeding to lay the degraded (?) *brochure* quietly on the table, when the master snatched it angrily out of his hand, and threw it with violence into the dust-pan! Talk of the *odium theologicum* after this! For thorough-going, unblushing rancour commend me to the *odium chirurgicum* of the high places in our northern metropolis. The demesne of Surgery is Mr. Syme's; his fence has been leaped over, his preserves poached on, and annihilation (as far as possible) is the doom of the offender. Such an ebullition of impotent spite as that under consideration appears, at first sight, a not very fitting spectacle for embryo Medical Practitioners, but the Professor's example on this occasion surely cannot be catching, even to the youngest student of the class.

Seriously, shall a man of genius, employing his great powers for the noblest of purposes—the alleviation of human suffering and the preservation of human life—be subjected, on account of the very success of his labours, to unmerited insult without an indignant protest being entered on the part of that Profession of which he is one of the chief ornaments? I am not disposed to attach the same importance as the writer in the *Review* to the presence of Dr. John Brown on the occasion in question. Very probably he was there merely as the private friend of the Professor, and without the least idea beforehand of what was to be said and done. Might not the scene he witnessed have recalled to the author of "Horæ Subsecivæ" the droll last century anecdote he relates in the preface to that pleasant volume of a certain James Alston, porter and *factotum* to the Chemistry Professor of the day—the disgust of honest James at "their new fangled notions" coming to disturb his old-established easy-going "Phlogiston," and give him extra trouble preparing for the lecture, and the conflict, amid much perspiration and blasphemy, "between the old and the new"—between James, cudgel in hand, and the volant bladder of hydrogen gas, rising higher and higher the more it was attempted to bring it down?

Sad Anachronism in Medical Education.—The following is the paragraph from the *Edinburgh Daily Review* referred to in a correspondent's letter:—"*Strange Scene in the University of Edinburgh.*—It is often stated that when the notorious Surgical teacher, Paracelsus, wished to show his aversion to any particular author, he immolated the writings he dissented from in the presence of his pupils. We are not aware that this mediæval practice has ever been adopted in any of our Scottish Universities till last week, when it was followed out in one of the class-rooms of the University of Edinburgh. It looks like a plunge backwards into the dark ages. The occasion was as follows:—Professor Simpson has discovered a new method of arresting the bleeding in Surgical wounds and operations by temporarily compressing together the sides or tubes of the divided vessels by a needle, instead of tying up their open mouths by threads which remain for days as foreign bodies in the wound, and always kill or mortify the end of the tied artery. Dr. Simpson's new and simple plan of acupressure has been accepted with much more favour by the Profession than new practical suggestions usually are. But Mr. Syme, Professor of Clinical Surgery, without ever trying the plan, denounced it some time ago in most discourteous terms before the Medico-Chirurgical Society of London. Lately Dr. Simpson issued a quiet pamphlet, styled 'Answers to the various Objections against Acupressure, or the temporary metallic compression of arteries, adduced by Professors Miller, Erichsen, Neudörfer, Spence, Fergusson, and Syme.' Last week Mr. Syme took this pamphlet into his class-room, and, without attempting to answer the rather unanswerable arguments which it contains in favour of acupressure, he scolded at the author, and declared the pamphlet to be a piece of 'vulgar insolence.' 'Then came the dénouement.' (We quote from the letter of an accurate eye-witness.) 'With firm hand, teeth compressed, pale lines around his orbits, and altogether a most determined and savage expression, he tore up the pamphlet with his fingers, and gave the fragments to his assistants to be consigned to the sawdust box with other Surgical remains.' One important addition requires to be made to our notice of this indecent scene. The whole had given to it a kind of official character by Dr. John Brown, the assessor or representative of the Lord Rector in the University Court, accompanying Mr. Syme into his class-room on this special occasion, countenancing by his presence and patronage Mr. Syme's proceedings. We do not stop to discuss the question whether, by aiding in this unseemly exhibition, Dr. Brown did or did not dishonour the important trust committed to him by Mr. Gladstone. The whole transaction is likely, we hear, to come under the supervision of the University Court. As one of the seven members of that court, Dr. Brown, we are afraid, is not in a fit position to sit in judgment on the matter. If one of our fifteen judges of the Court of Session were to be present and assist at a street riot, would he not be regarded as having put himself in a condition in which he prostituted his office and rendered himself utterly incapable of exercising his judicial functions in that case? Would the Queen or Parliament not at once remove him if he committed so indefensible an indiscretion? We feel assured that the very high-minded and honourable Rector of the University will look upon this strange episode in modern University teaching with characteristic regret and disdain."

GENERAL CORRESPONDENCE.

GOUT.

[To the Editor of the Medical Times and Gazette.]

Sir,—Let me record a recent "experience" in gout for the benefit of fellow sufferers:—After a long interval, and many flying pains in the knee, ankle, foot; attacks of palpitation, of sudden headache, indigestion, etc., I was awakened with the same kind of pain and swelling of the instep which has ushered in my three previous fits. I was not too lame to walk, nor have I ever been so until the third day. Not having yet found any medicine of service, I determined to put a current theory to the test of experiment. If, I said to myself, gout is due to a *materies morbi* accumulating in the system—if that *materies morbi* be allied to any of the products excreted by the kidneys, a diuretic ought to be of service. Again, I said, there are few martyrs to gout who are not sent to some "waters" for an alleviation or a cure for their sufferings; now, water, if you take plenty of it, is a very certain diuretic, and it can be made diaphoretic too; besides, water can do no harm, like colchicum or other drugs may do if used in excess. Well, then, I resolved to drink water, and manfully began my treatment with a tumblerful of tepid water every twenty minutes for three hours after breakfast, my breakfast being a single cup of tea; my dinner at one o'clock was a plain Irish stew, with abundance of potatoes; a basin of soup, a bit of toasted cheese, and a pint of sparkling hock was my supper. The pain in the foot abated after dinner, and disappeared by night, but it was replaced first by pain in the knee, then in the "nucha."

Next day I awoke free from pain, but continued my plan of treatment; during the day flying pains in the back, the neck,

the knee, and the sole of the foot kept one alive to a sense of the danger of an imminent attack, and I was very weak.

The third day all the pains abated, and none deserved the epithet of severe till towards bedtime. The treatment was continued. The weakness at night was increased.

The fourth day all had disappeared entirely, and the exhaustion at night was reduced.

On the fifth day I returned to my ordinary manner of living and to my ordinary state of health.

Now, I do not say I am cured, but I do feel as if I had staved off a fit of the gout, and without having paid heavily for it. I will merely add that the water acted both by the skin and kidneys, and that beyond increase in quantity there was nothing very conspicuous in the state of the urine, either before or after the treatment.

I am, &c. An Hospital Physician.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The annual meeting of this Society was held at the Society's premises, 53, Berners-street, on Wednesday evening, the 1st inst. Mr. Partridge, the President, took the chair.

The ballot for the election of officers and council for the ensuing year took place. The following is the result of the election:—*President*—James Alderson, M.D., F.R.S. *Vice-Presidents*—Frederie Weber, M.D.; William Richard Basham, M.D.; Samuel Armstrong Lane; John Simon, F.R.S. *Treasurers*—Henry Alfred Pitman, M.D.; Spencer Smith. *Secretaries*—Henry William Fuller, M.D.; John Birkett. *Librarians*—Alexander Patrick Stewart, M.D.; Luther Holden. *Other Members of Council*—Andrew Whyte Barclay, M.D.; Edmund Lloyd Birkett, M.D.; Stephen Jennings Goodfellow, M.D.; Edward Meryon, M.D.; Henry Oldham, M.D.; Oscar Moore Passey Clayton, Holmes Coote, George Critchett, Charles Hewitt Moore, Alfred Poland.

The Auditors' Report, which had been previously circulated, was taken as read.

Dr. Greenhow: I beg to move that the auditors' accounts be adopted. I feel that I can move this resolution with great propriety. As one of the auditors I have gone into the accounts; the accounts speak for themselves, and it is not necessary that I should make any remark further than to point to the fact that we have this year rather a larger balance in the hands of the banker than we had last year. Last year we had £235; now we have £345. I would venture to make one further remark: the auditors were a little confused by the state in which the account from the publisher was brought before us. It was made out, I am aware, in the way in which these gentlemen usually make out their accounts, but it was so complicated that it was only with the greatest difficulty, and after devoting a great deal of time to it, that the auditors were able to ascertain its accuracy. I would suggest that in future years this account of the publisher should be examined by the Council before being sent down to the auditors, in which case the auditors would have nothing to do but to see that the account tallied with the statement laid before them. The Report requires no further remarks. With these remarks I beg to move the resolution.

Mr. Hawkins: I have much pleasure in seconding that proposition; but before it is put I wish to make one or two observations with regard to this account. I see on the receipt side there is, "Composition fee in lieu of further payment or subscriptions, fifteen guineas." Now, when the law was made with regard to the composition fees there was a distinct provision that those fees should be invested at once. Of course, if they are not invested there is no security to those who pay their life subscriptions that they shall have the advantages of the Society as long as they live. I feel some little interest in the sum, Sir, because I believe it is my own fifteen guineas. (laughter); and therefore I am very anxious to see that it goes to the right place. If the whole affair was wound up, then the only people who would have any interest in the property would be the life owners, and they would have to come upon the property for their division. If the composition fees are not invested, of course I shall not be able to appear as a creditor. I do not wish to move any resolution, but I wish to add as a rider to the resolution that the attention of the Council be called to the law which I have named—that all composition fees be invested at once. That fee was paid early in last year. Then, Sir, on the other side there is a balance in hand in "February, 1865." Now, this is an account purporting to end at the end of the year—December 31. Some two or three years ago the Council came to the Society and begged them to alter the mode of keeping their accounts from March to March, as they formerly did, and asked that they should be made up at the end of the year. One year, therefore, we had the account only for three quarters. Now, we have nothing to do with what the balance in hand in February was. That is not a matter of importance to us at all; but what we ought to know in this account is, what the balance was at December 31. The audit took place in February, but it might have taken place at any other time. I should like to add to the resolution that the attention of the Council be called to the necessity, according to law, of investing all composition fees, and that in future the balance shown in the hands of the treasurer shall be made up to the time at which the account finishes, and not to any other time.

Mr. Spencer Wells: I have also to move a sort of rider to the resolution which has been moved by Dr. Greenhow. I simply wish to call the attention of the Council to a matter mentioned at the last annual meeting. I mean the sum paid to this Society by the Pathological Society and the Obstetrical Society. It is called in the account "contribution." Now, sir, when I called attention to this subject last year, you, from that chair, as I found reported in the journals at the time, said that you would rather the rent were less than that difficulties should arise between the Societies. I do not know whether in the report which will be presented to-night we shall have any recommendation that this rent should be diminished; but I do think that we should let the new Council know that our feeling is against this large contribution. I see the sum is £63 from the Pathological Society and £42 from the Obstetrical Society, for fifteen meetings which the Pathological Society held, and for ten meetings which the Obstetrical Society held, that being at the rate of four guineas for each evening that these Societies occupy these rooms for two hours. I think this sum is too large, and that if it were reduced to one-half, or at the rate of two guineas for each evening, it would fully meet all the requirements of the case. I see by the account that the whole expenditure of this Society for house rent, taxes, lighting, warming, furniture, and repairs, amounts to £266 a-year. The rent we receive for the rooms held by the Society for the Relief of the Widows and Orphans of Medical Men and for the stables, and the contributions from the Pathological Society and the Obstetrical Society amount to £187 a-year. Taking that amount from our total expenditure for the purposes I have named, there is only £79 at which we stand for the whole permanent accommodation of this house and rooms. It would be quite fair to add to that sum the sum for the yearly interest of the thousand pounds which was expended on this house and property, and also some contribution towards the thousand pounds against the lease expires; but, adding all those things together, we shall still stand at a lower rent than the two societies pay us for the nights during which they occupy the room only two hours. I do not think that is fair to the other societies, and it would be more creditable to us if we stood upon terms of mutual obligation than, as we now do, supported by those two societies. I think it is undignified to stand before the Profession supported by those societies, and it would be more fair to them if we accepted from them only a fair and proper contribution, instead of demanding these high terms, which I think are causing ill feeling between us and them. I do not come here at all as a delegate from those societies, but I simply express my own individual opinion as a member of this society, and I give credit for candour to all other gentlemen who think differently. I do not see that there ought to be any warmth of feeling or sulky feeling about the matter. I believe that the gentlemen who support this high charge do so because they think it is the best thing for the Society, and I give them credit for the motive. I shall move as a sort of rider to the resolution, "That the attention of the Council be directed to the propriety of reducing the sums paid by the Pathological and Obstetrical Society to 30 guineas and 20 guineas, in place of the 60 guineas and 40 guineas which is now paid."

Dr. C. J. B. Williams: I beg to second that resolution. The remarks made by Mr. Spencer Wells and reiterated by myself on the occasion of the last meeting appear to me equally to apply to the present occasion. I did hope, from some of the words which were spoken at the last meeting, that the

high charge—I think I used the term extortionate charge—would be reconsidered. I never thought that the sum was regarded as such; but I believe that when it is fairly considered it will be seen that to ask the sum of sixty guineas a-year from a society pursuing kindred objects, and a society, I may say, which has distinguished itself in the same subjects as those to which this Society is devoted, and yet without in any degree interfering with us—such a society is not one which should be mulcted and sponged by heavy financial considerations on the part of this Society. I entirely think that the career of the Pathological Society of London is one of the brightest pages in the history of our science. I know of no society which has flourished and been productive of so much utility in so short a space of time, and which now, in so many ways, proves its utility and its hold on the affections of the Profession; and I think, such being the case, it is really the duty of this Society to hold out the right hand of fellowship to support it and aid it, instead of trying to squeeze to the very utmost what can be got out of its coffers. It appears to me that it would reflect credit on this Society if it aids it, not in an eleemosynary way, but considering that it works for the same end; and I think we ought to be proud of its co-operation. I am quite sure that the feeling with regard to the kindred Society will be of the same kind. If it is continually to be mulcted to this amount, I think probably, sooner or later, it must separate itself from this Society and establish itself elsewhere; and as a member of the Medical and Chirurgical Society I think that will be greatly to be deprecated; for although we have not succeeded in effecting the amalgamation contemplated, yet there is something like fraternity between these Societies, and I think it is very desirable that the appearance of co-operation should be kept up. As a member of this Society, I should be very anxious to see the Pathological Society hold its meetings in the rooms of this Society, and on terms more in accordance with the great object which both Societies have in view—the furtherance of the best interests of the Medical Profession.

Dr. Webster: Mr. President, I am very sorry that this subject should have been again brought before us, particularly after the discussion which has previously taken place. I should like to ask the Council whether there has been any representation on any application made from those societies upon this subject. If so, of course you will tell us what has been said; but I do not think that an individual member should come forward and advocate particular societies unless this subject has come to the Society officially. I have no doubt whatever that if there has been a representation from those societies to the Medical and Chirurgical Society, they will give it the attention it deserves. There is one expression which Mr. Spencer Wells has used, and which I regret. He talked of this Society being undignified in receiving the money mentioned. I do not think there is anything undignified. If I may presume to give my own opinion, I think it seems that the other societies are sueing *in forma pauperis*. They are excellent societies, doing a great deal of good; but I do not think it is a matter of much consideration to them whether they pay thirty guineas or sixty guineas. I should like to know whether there has been any official application. That is the proper way of discussing these matters. I am quite sure that this Society would take the matter into consideration if that has been the case. It has been said this evening that we should foster and aid these societies. That was done in the beginning. There was then a small rent charged; but when they became flourishing and numerous and rich, it was considered just to this Society that they should pay a proper rent for the accommodation furnished. If a better accommodation can be obtained, why the other societies will be perfectly justified in accepting it. I know there are members who think that this Society ought not to have any tenants at all, but I must say that I do not think so; I should be very glad to remain on friendly terms with the other societies, and aid them in their objects; but I do not think the rent is too high. I hope that what I have said will not be disagreeable to the feelings of anybody who has spoken on this subject.

Mr. Hawkins said the meeting were going from the real question; the discussion which was commencing had nothing to do with the accounts, or with the question of investing the composition fees.

Dr. Pitman, the Treasurer, said he thought he should be able to explain why the composition fees had not been invested. The fact appeared on the face of the accounts that they had not been able during the year to make use of the spare funds of the Society, so as to add to the capital stock, and when that had been the case it had always been stated on the accounts that the capital stock which had been purchased included all composition fees. In looking at the previous year's accounts he found that there were composition fees which were not invested, and as he was in a position to purchase £500 worth of capital stock, he stated that that included the composition fees not only in that year, but in the year preceding, which had not been invested. As there was only the fifteen guineas which had been mentioned received last year, it seemed that it might be desirable, as the Society were able to enter into a new year, and there might be other sums to invest in the same way, to reserve it and invest them all at once. There was no special law requiring that they should be invested within any specified time. The sum for fees received during the year was a very small one to invest, and he found that when that had been so, the practice had been to reserve it. He, of course, proposed to continue that practice. It was not his intention that the composition fee of fifteen guineas should be merged in the general funds of the Society. Another question had arisen with regard to the accounts. It had been said that there was a balance stated up to February, when the accounts should be made up to the end of December. He really did not see that that was the case. The accounts were audited in February, and the amount of stock standing in the names of the trustees at the time was stated, the receipts and payments being up to the end of December, 1864. The balance then standing at the bankers' was £345 17s. 2d. There had been some misconception as to that being the balance in hand to February. No payment had been made out of that £345 since December.

Mr. Hawkins said that there must be clerical error if December was meant. With regard to the composition fee, it was intended that it should be invested in the year in which it was paid. Inaccuracies had arisen in former years; but he apprehended that the receipt of that fifteen guineas ought not to be considered, for really the receipts were fifteen guineas less than appeared.

Dr. Pitman said that on his entering office he followed the practice of his predecessor, though, perhaps, that was not so desirable as the course Mr. Hawkins had laid down.

Dr. Barker said he should like to make a remark upon Dr. Pitman's statements with reference to the practice of his predecessor, he (Dr. Barker) being that predecessor. The reason why the composition fees were not invested was, in the first of the two years the Council thought proper to spend them, and in the second year it was impossible to invest them because there were no trustees.

Dr. Pitman: Then I am accurate as to my statement.

Mr. Hawkins wished a rider to be appended to the resolution calling the attention of the Council to the necessity of investing all composition fees.

The Chairman, in answer to Dr. Webster's inquiry, said that there had been no application made by the Pathological Society or the Obstetrical Society for the reduction of their rent. He thought the arguments which had been used were hardly correct. It was no duty of the Medical and Chirurgical Society to make the reduction. The Pathological Society had the means of investing sums, and he had no doubt they would increase. They could afford to indulge in an illustration of their printed volume, which the Medical and Chirurgical Society had never ventured upon. The real test of the accommodation given was whether the Pathological Society could obtain similar accommodation for the same money elsewhere. (Hear, hear.) He should be sorry, indeed, for the Society to enforce an unjust demand from any other society: one's personal feeling would be rather to fix the rent below the value. He did not concur in the opinion that he had heard murmured that it was not a great credit and honour to the Society to have other similar institutions meeting under the same roof.

Dr. Markham said he was very happy to second the proposal of Mr. Hawkins. He thought the matter a very important one.

Mr. Quain said a complaint had been made of the publisher's accounts not being intelligible. He had been in the habit of receiving publishers' accounts for some years, and he never could understand one of them, and he never knew any one who could. (Laughter.) He despaired of the Council doing it; and he did not think it would be wise of the Council to undertake to give a translation of the Society's publisher's accounts.

Dr. Greenhow said he had no objection to add Mr. Hawkins's rider to his resolution.

The resolution with the rider was then agreed to.

The Chairman said that the suggestion of Mr. Spencer Wells, which had been seconded, had not been disposed of.

Mr. Spencer Wells said he had simply to move that the attention of the Council should be called to the large sum paid as a contribution by the Pathological and by the Obstetrical Societies.

Dr. Wynn Williams asked whether those two Societies had not saved more money during the past years than the Medical and Chirurgical Society?

Mr. Quain said he was in the Council at the time that the Pathological Society obtained the use of the rooms, and he protested against the rent they paid, believing that it was unreasonably low. He would not use expressions corresponding to those which had been used, but he believed there was a little packing of the Council at the time. He protested against this Society being used for the purpose of any other Society in an unfair way. The money obtained for rent was not spent by the Council on themselves. They devoted it to the purchase of books and promoting the benefit of the Society.

Mr. Hawkins said he extremely regretted, for the sake of the Pathological Society and the Medical and Chirurgical Society, that persons had been so ill-advised as to bring the subject again before the meeting. He must with great deference protest against the language which had been used by Dr. Williams when he spoke of this Society as "sponging," as "mulcting," and as "extortionate." No member of any other society had a right to come there to advance his society at the expense of the Medical and Chirurgical. The societies which had been named had published their accounts in which it appeared that they were most prosperous, and he thought it would be a most absurd and impertinent thing on the part of this Society if they were to offer to lower the rent, which their tenants were now willing and well able to pay. The Medical and Chirurgical Society were bound to provide himself and others who had paid composition fees with a library and a room for meeting as long as they lived, and a vast sum of money had been laid out upon the premises. Many things were wanted by the Society. They were in need of very valuable works which were not strictly Medical — atlases, cyclopædias, and the like. He believed at the present time they did not possess a complete edition of the *Philosophical Transactions*. He would move as an amendment that the Council be recommended not to allow any other Society to meet in its rooms. Such a resolution would put an end to such remarks as had been made, and which were exceedingly unpleasant. He believed the Pathological Society to be all that Dr. Williams had said it was; but he thought nothing would be more lowering to their dignity than for this Society to go to them and offer to reduce their rent. He thought the best thing would be for the Council to say at once that in consequence of the extremely unpleasant discussions which arose, they could not let their rooms to any other Society. If there was to be a reduction to any of their tenants, it should be made in favour of the Society for the Relief of the Widows and Orphans of Medical Men, which was in the nature of a charity. They came at a time when rent was an object to the Medical and Chirurgical Society, but as that was not so much the case now, he should say that if their charter would allow it that the charitable society should have the use of its rooms without payment of rent.

Dr. Markham said he did not quite agree with the amendment of Mr. Hawkins, but he hoped that the Society would not be from time to time pestered with such discussions as had arisen, not now for the first time, but year after year. Many members knew that for several years the question had been brought before the Council. It had been most fully and warmly dismissed in the Council, and a long discussion, which was on record on the Minutes, had taken place, the result of which was a decision that no charge whatever should be made in the present rent. For two years the Pathological Society had come forward in two positions; first, in the position of begging and praying that we should out of kindness grant them something; and, secondly, in the position of sturdy beggars, who were threatening that they would take away their Lares and Penates—not always of the most sacred odour. He was a member of the Pathological Society himself, and he was surprised that they were still occupying those rooms after the observations made last year. He had no doubt that the Pathological Society had made inquiries with reference to other premises, and found that they could not get equal accommodation for the same money. Mr. Spencer Wells had not shown either that this society was charging an extortionate price or that the Pathological could obtain as good accommodation at the same rate or more cheaply. What right had the Pathological Society—a very rich and flourishing one, which magnified itself by the extensive plates in its *Transactions*—to ask the Medical and Chirurgical Society to do for it what it could not do for itself?

Dr. Quain said it was not his intention to make any remarks in this discussion, but when Dr. Markham had said that the Pathological Society appeared there last year in the form of a pauper, and this year in the character of a sturdy beggar, he felt bound to get up and deny the facts. The Pathological Society did not appear there at all. (Applause.) There had been no application from them. Mr. Spencer Wells appeared there as a Fellow of the Medical and Chirurgical Society, thinking it would be right to recommend to the Council what he had suggested; but the Pathological Society did not appear at all. It had been said that the subject had been brought forward year after year, but he thought that must be inaccurate; for though the Pathological Society had been in existence seventeen years, it was not until the last two years that they paid more than thirty guineas for the accommodation they had. They could not have appeared there to sue for the reduction of the rent which had never been demanded of them. There was no packing of the Council when the Pathological Society first came, but the rent was decided on in a fair way. Suddenly the proposal was made that the societies should amalgamate. He would most willingly have joined that movement, but there was no method of carrying it out. The Pathological were willing to accept the proposal, but they found it impracticable. Instantly they got notice that the rent would be raised from thirty to sixty guineas a-year. That was a literal fact. The Medical and Chirurgical Society tried to establish a pathological section, but failed to do so. The Pathological Society had been successful in its object. If the Medical and Chirurgical reduced their rent to what it was before, they would gladly avail themselves of the benefit.

Dr. C. J. B. Williams said that Mr. Hawkins had put the matter in so personal a point of view that he should not think it necessary to answer his remarks. He would, however, say that he stood there and argued as a member of the Medical and Chirurgical Society, irrespective of his connexion with any other. The remarks of Dr. Quain had rendered unnecessary an explanation which he should have given.

The Chairman said he wished to correct one observation that Dr. Quain had made. When the Pathological Society first came, the Medical and Chirurgical Society, whether justly or otherwise with regard to their funds, stretched a point, and accommodated them for an almost peppercorn rent. Perhaps Mr. Hawkins would not think it necessary to press the amendment, because to negative Mr. Spencer Wells' motion would answer the purpose.

The motion was then put, when there appeared four in its favour, and a large majority against it.

The Honorary Secretary, Dr. Fuller, read the Report of the Council for the past year. It stated that the number of members at the present time was 627. This was a smaller number than that reported last year. The difference, however, was not attributable to any actual decrease since that time, but arose from the names of certain foreign and non-resident members who had been dead for some years, but whose decease had not been communicated, being removed from the roll. There was really an increase of five upon the correct number at the corresponding period of last year. Twenty new Fellows had been elected twelve resident, seven non-resident, and one foreign. 348 works had been added to the library, exclusive of continuation of works already begun and periodicals.

Dr. Webster moved "That the Report of the President and Council just read be received, adopted, and circulated in the usual way." The Report was a very satisfactory one, and he hoped it would not lead to a discussion foreign to the spirit in which it had been drawn up, and that the time of the meeting would not be occupied with extraneous matter. It had been stated that the number of the Society had apparently diminished. That, of course, must occur occasionally in a numerous body; but the Society should be aware that this session more new members had been elected than on any previous occasion. The Report referred to the large sum

which had been expended on the library; but there was one fact which was not mentioned—that £73 had been laid out on one volume; and he believed that the Society now possessed the best collection of Medical portraits ever made. He thought the £73 had been well spent.

Dr. Wegg seconded the resolution.

It was then carried unanimously.

The Chairman said: I have to announce that at the last meeting of the Council the following resolutions were carried with a view principally to bring them before the notice of the present meeting, which would be essential to their being carried out, and to obtain the opinion of the meeting upon their desirability:—"Resolved, that the *Proceedings* of the Society in their present form be discontinued;" and, secondly, "Resolved, that the *Proceedings* as at present published be for the future published as an appendix to the end of the volume of *Transactions*, omitting the abstracts of those papers which are published *in extenso* in the *Transactions*." Many different opinions have been expressed as to the utility of the proceedings. They involve a certain degree of expense; but that is of minor importance. However, the Council would be happy to have your opinion upon that matter.

Dr. Fuller said that when the *Proceedings* were first decided on it was imagined that it would be possible to get them out every six weeks or two months, so as to keep the Fellows generally *au fait* as to what was going on. Practically it had been found impossible to do so, and it was found that the *Proceedings* were rarely issued more than twice a year. The first part was not published till the session was half over, and the second part not till the session was nearly terminated. In addition to that, the papers were published in the Medical journals the week after they were read, and therefore the *Proceedings* were unnecessary. Many of the Fellows had expressed a very strong opinion as to the uselessness of the *Proceedings*. They involved an expenditure of £55 a-year, taking the average of the last seven years. That included printing, binding, and postage. Many had complained that, being in the form of a pamphlet, they got laid aside, and were not available for reference afterwards.

Mr. Hawkins said that, as one of those who promoted the publication of the *Proceedings*, he must say that he received with extreme regret the recommendation of the Council for their discontinuance. Till they were established there was no record at all of the proceedings of the Society, except such papers as were culled from those which were read, and were thought worthy of publication in the *Transactions*. There was no record (and how glad would they now be to have such a record!) of the various Presidential addresses which had been delivered. Many of the unpublished papers, too, would now be valuable as a sample of the early writings of men who had afterwards become famous. With regard to the expense, it should be recollected that the £55 carried a portion of the expense of the postage of the circular and accounts, which were sent with the *Proceedings*. There was no doubt that the first intention of those who promoted the *Proceedings* had not been carried out. Dr. Fuller had said that it was impossible to do so. He (Mr. Hawkins) did not understand the word "impossible" in such a Society as that. If it could be done in the Royal Society it could be done in this Society. The *Proceedings* ought to be issued every month. It was true that the papers were reported, and well reported, in the public journals; but the Society should not be wholly dependent on such records. Unless the country Fellows of the Society subscribed six guineas for the *Transactions* they would be without a record. If the *Proceedings* were discontinued, the country members of the Society would have no record of what was being done unless they subscribed six guineas for the *Transactions*. The question had recently arisen whether the country Fellows might attend the annual meeting. It was decided two years ago that they might do so. He believed the discontinuance of the *Proceedings* would be a false economy, but they should be got out more quickly than at present. He should move "That the Society is of opinion that the publication of the *Proceedings* should not be discontinued."

Mr. Moore seconded the proposition. He believed that the Society had previously expressed its approval of the continuance of the *Proceedings*. There was now an addition to the proposal, which was that abstracts of papers not approved by the Council should be published with the papers which were approved. He thought, however, that that course would be objected to by the writers of the papers which were not approved, however eager the officers might be to make the abstracts.

Dr. Balfour said he completely concurred with Mr. Hawkins in disagreeing with the manner in which the *Proceedings* were published. There could be no reason why they should not be published at the end of every month, for there was a rule that no paper should be read before an abstract of it was given in. He hoped the Council would undertake to publish the *Proceedings* monthly.

Some further discussion took place, and the motion expressing an opinion that the publication of the *Proceedings* should be continued, and that they should appear more frequently, was then carried.

The President, in the course of the annual address, gave a brief review of the lives of the following Fellows of the Society who had died during the year:—Mr. Samuel Cartwright, F.R.S., Dr. Charles Hall Clark, Dr. James Bird, Dr. Thomas Sunderland Harrison, Dr. Richard Roscoe, Mr. Samuel Maclean, Mr. John Drummond, Dr. Archibald Robertson, Dr. Robert Dundas Thomson, Dr. William Senhouse Kirks, and Dr. Jones Quain.

It was moved by Dr. Quain, seconded by Mr. Dixon, and unanimously resolved—"That the best thanks of this Society be given to the late President, Mr. Partridge, for the able and efficient manner in which he has presided over the meetings of the Society during his term of office."

The President: I beg to thank you very shortly, but very heartily, for the kind resolution which you have just passed. I shall be happy always to promote the interests of the Society.

Dr. C. J. B. Williams moved "That this meeting desires to express its cordial thanks to the retiring officers of this Society and the other members of the Council for their interest in the advance of the Society during their year of office."

The resolution was seconded by Dr. Markham, and carried unanimously.

It was moved by Mr. Hawkins "That the cordial thanks of the Society be presented to the members of the Scientific Committee on the Uses and Effects of Chloroform—viz., Mr. T. B. Curling, Chairman; Mr. Bryant, Mr. Cartwright, Dr. Farre, Mr. Gascoyen, Dr. Harley, Mr. Prescott Hewett, Dr. Mackenzie, Dr. Marcet, Mr. Moore, Mr. Paget, Dr. Priestley, Dr. Quain, Dr. Sibson, and Dr. West; Mr. Sibley and Mr. Callender, Reporters; and Mr. Birkett, Hon. Sec. (*ex officio*), for the very able and zealous manner in which they have carried out their investigations, and also to the authorities of University College for the courtesy and readiness with which they have assisted in advancing the inquiry." He remarked that the total expenses of the Committee amounted to only £28 9s. 7d. He thought the Fellows would agree with him that if they had been three times that amount the money would have been well expended.

Mr. Spencer Wells seconded the motion.

The President in submitting it to the meeting said it was quite unnecessary to add to add a word on the subject for the purpose of expressing the gratitude of the Society to those who had taken so much pains to prepare such a valuable report.

The resolution was carried unanimously.

The meeting then separated, and the next was announced for the 14th March.

THE PATHOLOGICAL SOCIETY.

Tuesday, February 21.

Dr. Peacock, President.

The President, in taking the chair, remarked that, having had occasion to consult the index to the volumes of the Society's *Transactions*, by the Hon. Secretary, Mr. Holmes, he wished to express his opinion that it had been admirably prepared and was of great value, and that the Society was greatly indebted to that gentleman, and to Mr. Prescott Hewett, for having borne the expense of publishing it.

Dr. Wilks brought forward a specimen of

RUPTURE OF ONE OF THE AORTIC VALVES FROM INJURY.

A young man, aged 19, fell from a height on to his side, and was immediately brought to Guy's Hospital. He had struck his abdomen and lacerated his intestines, which caused his death in three days' time from peritonitis; he also had great oppression of the chest and difficulty of breathing, as if he had received other injuries; but the heart was not examined by auscultation. On post-mortem examination, besides the

laceration of the intestines, which had been the immediate cause of his death, one of the aortic valves was found to be torn completely through, from its edge to its base; not through the median line of the valve, but towards its side, as if it had been forcibly dragged away from its attachment. As there was no direct violence to the chest, Dr. Wilks supposed that the rupture occurred by a sudden and irregular contraction of the aorta, whereby the valve was unable to sustain the increased and irregular pressure of the blood upon it—a condition so unlike the ordinary regular and equal force to which the valves are subject.

Dr. Wilks also exhibited a specimen of

RUPTURE OF THE AORTA FROM INJURY.

A man on lifting a heavy cask was struck by the latter in its fall on the upper part of the chest, and was instantly killed. On examination of the body it was found that the upper piece of the sternum had been broken through, and blood was effused beneath. The heart was uninjured, as also was the aorta on its front aspect. Posteriorly, however, a transverse laceration was found, which half encircled the vessel, commencing at the under part of the arch and proceeding upwards to the origin of the left carotid artery. Dr. Wilks said it might be a question whether the laceration was caused by a sudden contraction of the aorta or whether it was caused by a simple bursting of the vessel from external pressure. He believed it arose from the last-mentioned cause; otherwise, it might be difficult to show why a sudden and irregular contraction of the aorta should in one case cause a rupture of one of the valves and in another a laceration of the aorta itself. Dr. Wilks said the case illustrated a fact which was constantly coming under notice—the injury of a deep-seated part from falls and superficial blows. In the case of the heart, a difficulty had often arisen in the mind of the Medical man, who could not explain how the organ could be ruptured on its posterior surface without any broken bone being present to account for the accident.

The President said that Dr. Quain had published three cases of rupture of the aortic valves, and he (the President) two cases. He had also collected others, in one of which only had the rupture been due to direct violence. He did not know any case in which the curtain of the valves had been torn down in the middle as in Dr. Wilks' specimen. Such cases were not common, and it was not easy to say how much disease and how much injury had to do with the rupture. Dr. Peacock related an instance in which rupture of the aorta occurred in a patient who had been crushed by the weight of a heavy casting mould. The rupture was, he thought, due, not to direct injury, but to the sudden effort. The rupture was between the position of the ductus arterius and the origin of the left subclavian artery, ordinarily the narrowest part of the thoracic aorta.

Mr. Spencer Wells thought the Medico-legal bearings of such cases ought to be considered. He related a case in point which occurred some years ago in his practice as a naval Medical officer. One man struck another. The man struck ran to a place where water was to be had, and quickly died. An autopsy was made, and the cause of death was found to be a rupture of an aneurism of the aorta into the pericardium. The question as to whether the aggressor was to be punished for manslaughter, or simply for striking, depended entirely on the Medical evidence. It was decided that there having been pre-existing disease, the punishment should be for a blow only. Probably in civil law the culprit would have been found guilty of manslaughter.

Dr. Sanderson said he thought it more likely that the rupture of the aorta occurred during diastole than during systole.

Dr. Wilks said that was what he meant to imply.

Mr. Gay then brought before the Society an infant five months old who had

MALFORMATION OF THE GENITALS.

The pubic region was much developed, and resembled that of a female child. The penis was irregularly developed. It was turned on its axis, so that it looked upwards and to the left. There was partial hypospodias. The prepuce was irregularly developed; the crura penis were not to be traced. Below was a scrotum, into which one testis had descended.

Mr. Holmes said that the chief point was whether the abnormal conditions could be remedied. The prepuce seemed to be larger on one side than on the other, and it would be interesting to see if the position of the penis could not be improved by removing a piece of skin.

Mr. Henry Smith said it had struck him that there was a redundancy of skin, and that Surgery might be of use in remedying the deformity. He was glad that a Surgeon so experienced as Mr. Holmes had made the suggestion.

Dr. Harley thought the origin of the deformity was very simple. The preputial orifice had been occluded, and the prepuce had burst at its side. The site of the natural orifice was marked by a small cicatrix, and the present opening was due to rupture.

Mr. Gay said he should hand over the case to Mr. Holmes, and should be glad to hear the result of treatment from him.

Mr. Holmes then exhibited a piece of intestine from a patient who had been operated on for

STRANGULATED FEMORAL HERNIA.

The condition represented by the preparation was, Mr. Holmes said, not uncommon, but was not spoken of in books. A man was admitted into St. George's Hospital for femoral hernia. It had been strangulated two days, but the symptoms were not urgent. Seven years before he had been operated on, and had since worn a truss, but the truss had not fitted him, and the gut had slipped down under it. At the operation the intestine was found to be much thickened, and as the ring was very narrow there was some difficulty in returning it. The patient died of peritonitis. The case was another argument against ill-fitting trusses.

Mr. J. Z. Laurence exhibited a

MELANOTIC TUMOUR OF THE ORBIT,

weighing 1 oz. 1½ dr., which he had removed ten months previously from a woman 62 years of age. The tumour had then been growing eight or nine months. The eye was protruded from its socket, but apparently not itself enlarged; it was insensible to light; the interior of the eye was illuminable, but no details could be observed. The patient had suffered great pain, which she referred to the temple and side of the head. Mr. Laurence removed the tumour, together with the eyeball, which was found to be firmly imbedded in its substance. The growth was enveloped in a firm pseudo-cyst of cellular tissue, and presented all the obvious and microscopical characters of melanotic cancer. The eyeball itself was free from all deposit whatever; the vitreous was fluid; the retina partly separated; the lens nebulous. The tumour recurred *in situ* in three months, when Mr. Laurence transferred the case to Mr. Weeden Cooke; in another three months the patient died, by which time the secondary tumour of the orbit had attained the size of a cricket ball and growths were found within the cranium. Mr. Laurence said he considered the case remarkable from the extremely acute course it had run, differing in that respect from the cases of melanotic cancer in the eye he had hitherto observed, and resembling rather encephaloid cancer of the eyeball as it occurs in children. Mr. Laurence, in corroboration of his opinion, instanced a second case of extensive melanotic cancer of the orbit, which he had removed some years ago; in this case no recurrence of the growth had taken place when he saw the patient one year and four months after the operation.

Dr. Hilton Fagge showed several specimens of

BRONCHIAL POLYPUS.

The specimens were from a girl, seven years old, under the care of Mr. Fagge, of Hythe. She died suffocated by a cast blocking up the bronchi at the bifurcation of the trachea. The child had been for some time subject to fits of spasmodic cough, relieved by expectoration, when one evening she expectorated a cast, and afterwards one every day. After one of these attacks the child suddenly died. At the autopsy, a large fibrinous cast was found blocking the bronchi. It extended into the right bronchus and overlay the left. The larynx and trachea were healthy. The structure of the cast was like that of those described by Dr. Peacock. In very few of Dr. Peacock's cases were the casts formed from coagulated blood. Dr. Fagge then mentioned a case which had recently come under his notice. The father of one of the students had in August an attack of hæmoptysis; for months afterwards he was troubled with cough. He then expectorated a cast, and got quite well.

In reply to a Member, Dr. Fagge said he was unable to give any account of the condition of the mucous membrane, as he had not seen it.

The President did not know any case of sudden death from bronchial casts. The majority of cases were children. He had not seen a case in a patient so young, the youngest of his patients having been ten years; the others were adults.

Dr. Hillier wished to know if diphtheria had been prevalent in the neighbourhood. The cast might have been diphtheritic, although the disease had not extended so high as usual.

Dr. Fagge said there was no epidemic of diphtheria.

The President suggested that drawings should be made of the specimens for the *Transactions* of the Society.

Dr. Broadbent gave particulars of a case in which, after death, casts were found occupying the bronchi of the whole of one lung; the other lung was tuberculous. He believed from the lamination of the casts that the material forming them had come from the air cells.

After some remarks by Dr. Harley and Dr. Gibb, Dr. Fagge said that he considered that the cast from the child was from the mucous membrane, and was not coagulated blood.

The President said there was little likelihood of confounding casts formed by a secretion from the mucous membrane with casts from coagulated blood. The first, he said, were glistening and white, and were composed of concentric laminæ, whereas blood clots were never white, but more or less dark coloured, and were not laminated.

Dr. Wilks said that Dr. Gull had long taught that casts were the result of the moulding in the tubes of material poured out in the air cells.

Dr. Sanderson said that Dr. Fagge's case resembled precisely cases met with in epidemics of diphtheria. There did not appear to be any material difference in the symptoms during life. Dr. Murchison had recorded such a case. Many cases of the kind had occurred in an epidemic of diphtheria at Launceston.

Dr. Dickinson exhibited some urine, and a drawing of the urinary sediment, from a man who had

INTERMITTENT HÆMATURIA.

The case was brought before the Society, not as any novelty in Medicine, for the disease had been described by Rayer in his work on diseases of the kidneys more than twenty years ago, and had occasionally been referred to by other writers; but from its comparative rarity it was thought that it might be interesting to the Society, more particularly as some similar cases had recently been brought forward by Dr. Harley.

Dr. Harley gave particulars of the further progress of his patient. He said that at first he had given him blue pill, and afterwards quinine and iron. The result had been very encouraging. He asked Dr. Dickinson if the quantity of urea was diminished or increased. In his patient's case it was double the usual amount; whereas in Bright's disease it was diminished.

Dr. Dickinson said that the amount of urea had not been ascertained by analysis, but from the specific gravity of the urine, which was sometimes as low as 1011, it might be supposed that it was not much increased. As to the effects of treatment, the man had been so often under the care of different Physicians that, as might be supposed, he had been the subject of every experiment on this head. But whether he was treated actively, with cupping on the loins, vapour bath, gallic acid or quinine, or whether he was left alone, the result was always the same. The hæmaturia ceased when the action of cold was withdrawn, and came on again with as much readiness as ever on the next exposure. Medicine appeared to have no influence on the disease.

Mr. Gay said that he had under his observation a case exactly similar in the symptoms, but the hæmaturia was ascribed to calculus, and not to cold, as it was invariably worse after exercise.

Dr. Dickinson said that his patient could take the most violent exercise without bringing on the hæmaturia.

PSOAS ABSCESS CONNECTED WITH TUBERCULOUS KIDNEY.

Dr. Dickinson brought forward the case of a young man who had been admitted with a psoas abscess in which the matter had proceeded from the kidney, which was stuffed with crude tubercle and pus. The matter had escaped from an opening in the back of the kidney at its lowest part, and had made its way into the psoas muscle, to which the kidney was adherent. It had resulted in an opening in the groin, and during life it was not possible to distinguish the disorder from the more common form of psoas abscess which follows from diseased vertebra. The difficulty of diagnosis was increased in this case by the fact that there actually existed caries of the spine, though not on the side on which the kidney was affected. The patient also had phthisis.

A case was also brought forward in which a man, 70 years of age, who had died rather suddenly of bronchitis and emphysema of the lungs, was found to have

ENCEPHALOID DISEASE OF THE PROSTATE.

The growth had extended from the prostate over the lower part of the bladder, and had narrowed the openings of both ureters. These ducts were much dilated, and the kidneys had become atrophied by pressure. No symptoms of the disease had been detected during life.

Mr. Jabez Hogg then showed a specimen of

EFFUSION OF BLOOD IN THE BRAIN OF A PATIENT WHO DIED WITH EPILEPTIFORM CONVULSIONS.

The patient, a man, 56 years of age, was found in a fit, the convulsions affecting the left side of his body. He had a succession of these, and before his death, thirty hours later, he had had twenty-six. Five ounces of blood were found effused in the right hemisphere of the brain. This large effusion of blood was due, Mr. Hogg considered, to the frequent and violent attacks of epileptiform convulsions.

Dr. Gibb exhibited for Dr. Logan

HYDATIDS FROM THE LIVER, PRODUCING GREAT ABDOMINAL DISTENSION.

They were taken from a boy who had suffered from abdominal distension for two or three years, which at last became so great as to destroy life. After death the belly was found to be filled with an enormous accumulation of hydatids, extending to every part, and so compressing the viscera as wholly to interfere with their functions. They were counted by thousands, and chiefly originated in the anterior border of the left lobe of the liver. None of the other organs were found to be diseased.

MEDICAL NEWS.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, February 23, 1865:—

Lionel Dixon Spencer, Newcastle-upon-Tyne; William Hughes Clarke, Bernard-street, Russell-square.

The following gentleman, also on the same day, passed his first Examination:—

William Matthews Bobart, Derby.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Budd, Samuel, M.D. Edin., has been elected Consulting Physician to the Exeter Dispensary.

Cooper, Frank W., L.R.C.S. Edin., has been appointed House-Surgeon to the Sheffield Public Hospital and Dispensary.

Earle, Lumley, M.D. St. And., has been appointed Honorary Medical Officer to the Birmingham and Midland Free Hospital for Sick Children.

Edwards, Joshua P., L.F.P.S. Glasg., has been appointed Medical Officer to the Tunstall Board of Health and to the Police.

Elliot, Dr. has been elected Consulting Physician to the Exeter Dispensary.

Fairbank, T., M.B., has been appointed Resident Medical Officer to the Metropolitan Free Hospital, Devonshire-square.

Horan, Patrick C., L.R.C.P. Edin., has been elected Medical Officer to the Workhouse and Fever Hospital of Cootehill Union, Co. Cavan.

Mackenzie, S. C., M.D., has been appointed Resident Medical Officer to the Chalmers Hospital, Edinburgh.

Shapter, Thomas, M.D. Edin., has been elected Consulting Physician to the Exeter Dispensary.

DEATHS.

Chadwick, John W., M.R.C.S. Eng., at King's Lynn, Norfolk, on February 14, aged 78.

Clark, John, Surgeon R.N., at Wycombe House, Hurstpierpoint, Sussex, late of Yarmouth, Isle of Wight, on February 23.

Connor, Shewbridge, F.K.Q C.P.I., at Carlow, Ireland, on February 17.

Evans, David, M.R.C.S. Eng., at Towyn, Newquay, Cardiganshire, on February 12, aged 45.

Gordon, John, M.D., at South Frederick-street, Dublin, on February 17.

Healy, William, M.B., Dub., at 9, Harcourt-street, Dublin, on February 22, aged 45.

Kirkpatrick, James, Surgeon, at Scalby-grange, Howden, Yorkshire, on February 13, aged 76.

Wakem, John W., M.R.C.S. Eng., at York House, West-square, Southwark, S., on February 28, aged 39.

Triple Birth.—On February 13, at 1, Devonshire-place, Wandsworth-road, the wife of Savill Coombs, M.R.C.S., of three daughters; all well.

Professional Honours.—At a recent meeting of the Obstetrical Society of Berlin, diplomas of honorary membership were conferred on Dr. Murphy, of University College; Dr. Henry E. Eastlake, of the British Lying-in Hospital; Dr. Leishman, of Glasgow; and Dr. Greenhalgh, of St. Bartholomew's Hospital.

University of Dublin.—At the Spring commencement held in the Examination Hall of Trinity College, on Shrove Tuesday, the 28th ult., the following Degrees and Licenses in Medicine and Surgery were conferred:—*Baccalaurei in Medicinâ*—Gulielmus C. Hassard, Jacobus Marshall Skelton, Adam P. Newman. *Magistri in Chirurgiâ*—Thomas Agmond Vesey, Henricus Josephus O'Brien, Johannes W. Y. Fishbourne. *Doctores in Medicina*—Maxwell Fleming, Robertus Bernard, R.N., Thomas Macdougall Bleckley. *Licentiatus in Medicina*—Rawson, Edvardus Albertus. *Licentiatus in Chirurgiâ*—Rawson, Edvardus Albertus.

The Admission of Lady Nurses into the Gloucester Infirmary.—At a special meeting of the Governors of the Infirmary the following resolution was passed, after a long debate—"That in the opinion of this meeting it is expedient that the resolution of the Weekly Board of the 29th December last, as to the admission of pupil nurses into the Infirmary, be not acted upon during the present year, nor afterwards, until the same shall have received the sanction of a special general meeting duly convened for the purpose."

Alleged Murder.—A case has lately occurred in the neighbourhood of Weston-super-mare, in which an open verdict given by a coroner's jury seems to have produced much dissatisfaction. The body of a young man named John Hooper was found in a wood. The Medical evidence appears to have been to the effect that there were no sufficient marks of violence to indicate foul play, and that the deceased had probably died from congestion of the lungs, the result of cold. There were, however, several suspicious circumstances connected with the case, and a subscription is being got up at Weston-super-mare for the purpose of instituting further inquiry.

Dr. Livingstone's proposed expedition to the district between the north of Nyassa and the south of Lake Tanganyka, assumes a substantial form. The Royal Geographical Society have held out the prospect of £500, the Foreign Office are understood to promise a similar sum, and a private friend and admirer of Dr. Livingstone's has given anonymously £1000. In addition to all this, it appears that Dr. Livingstone's position as Consul to the native races of Eastern Africa, with a salary of £500 a year, remains unmodified, though his duties as Consul at Quillimane have ceased. Adequate funds are therefore in existence for the maintenance of the expedition, conducted as it is proposed to be, in a simple and economical manner.—*The Reader.*

Surgical Mutilation.—A most affecting scene occurred the other day in a Berlin military Hospital. In going the round of the wards the King noticed a man who had lost both his arms and legs. The King inquired if there was anything he could do for him. The human torso, a victim of the late campaign, replied, "Your Majesty, have me shot." Deeply affected, the King replied that he could not possibly fulfil this un-Christian wish. Upon this the unfortunate man, flying into a passion, cursed the Doctors that had kept him alive. The King turned away crying.—*Times' Correspondent.*

Terrible Effects of Chloroform.—We hardly know whether, on reading the following case, we should simply admire the ready ingenuity of the prisoner's counsel, or, with shame and humility, acknowledge another of those lessons which the legal profession so often and so kindly reads us on our ignorance; for we must confess that, notwithstanding Medico-Chirurgical Committees and other modes of studying the effects of chloroform, this is the first time we have heard of its producing kleptomania. "Forewarned" is, however, or ought to be, "forearmed," and no doubt in future Medical men will bear this history in mind whenever they feel inclined to prescribe this fearful drug:—"Isabella Freeman, a well-dressed and respectable-looking married woman, described as of Barrett-grove, Bethnal-green, was charged before Mr. Cooke, at the Worship street Police-court, with shoplifting. Mr. Abbott said his client had been for some time past suffering from a disease for which she had been obliged to take medicine containing large doses of chloroform, and there was reason to believe that it was while she was under the influence of this she had reverted to a course which had, as he could not deny, before entailed punishment upon her. He asked the magistrate, under the circumstances, to deal summarily with the prisoner. Mr. Cooke said he must send her for trial."

Corrosive Sublimate and Stedman's Soothing Powders.—An inquest has been held at Wells on the body of William Coles, aged seven months, before Dr. Wybrants, coroner. From the evidence it appeared that a packet of Stedman's powders was purchased from a chemist in Wells a month ago. One of the powders was given to the child without injuring it. Another was subsequently given, and the child died in ten minutes afterwards. In the same packet, which was produced in court, there were ten grains of a deadly poison called corrosive sublimate. The wholesale druggist from London and the present proprietor of Stedman's powders attended, and after their examination the coroner adjourned the inquest.

Mrs. Partington Rediviva.—The good folks at Cheltenham are in a most excited state, because Parliament will not assuage their thirst at the expense of the source of the Thames. At a recent meeting to take into consideration their water supply, a Mr. Jackson announced that he was quite ready to set Parliament at defiance. He said he was prepared to enter into a contract with the town of Cheltenham to bring to Cheltenham without an Act of Parliament the water from the South Cerney spring, if the owners of land intervening would give their consent to the laying down of the pipes. This announcement was received with loud applause.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

M.R.C.S. Eng.—We cannot publish letters unless authenticated by the writers.

X. L.—We cannot recommend Medical men. Any Hospital Surgeon, or, if the case be constitutional, any Hospital Physician, or other Practitioner of eminence, will undertake the treatment of syphilis.

L.K.Q.C.P.—Candidates for the degree of M.D. of the Erlangen University must undergo an examination in writing, which lasts for some days, and another *vivâ voce*, which lasts for some hours. They need not reside there longer than the time necessary for examination. No Englishman can procure the degree unless his name appear in the Medical Register. The subjects of examination are:—Anatomy and Physiology, Pathological Anatomy and General Pathology, Special Pathology and Therapeutics, Surgery and Midwifery. The fee amounts to about £20. Degrees *in absentiâ* and without examination are not given. The Hall license we know is preferred by the Poor-law Board. We do not know that it is indispensable.

There can be no doubt that a Medical man who hires out his name and qualifications to any unqualified person who may take a shop, and call himself his assistant, commits a fraud on the public. It must be clearly shown that the "assistant" is the *bona fide* servant, and acts as the representative of his employer, before the master can recover.

Mr. Hugman begs to announce the following subscriptions to the "Norton and Medical Defence Fund:"—

Dr. Robinson, 10s. 6d.; R. Cuff, Esq., £1 1s.; Dr. Stevens, £1 1s.; Mr. Holden, 5s.; Dr. Goodfellow, £1 1s.; — Gibbons, Esq., £1 1s.; T. R. N. Mursom, Esq., 5s.; G. Yarde, Esq., 5s.; Mr. Mitchenor, 10s. 6d.; — Hugman, Esq., 10s. 6d.; — Goodhugh, Esq., 2s. 6d.; — Stagg, Esq., 5s.; E. Taylor, Esq., 2s. 6d.; — Steet, Esq., 2s. 6d.; Dr. Watson, 10s.; Dr. Ablett, 5s.; Borlase Childs, Esq., £1 1s.; H. M. Simmonds, Esq., 10s.; R. W. Lammerman, Esq., £1 1s.; J. P. Berryman, Esq., 5s.; Dr. Driffield, 10s. 6d.; Dr. Hughlings Jackson, £1 1s.; J. Byass, Esq., 1s.; M. T. Coleman, Esq., 5s; W. B. Woodman, Esq., 2s. 6d.; J. W. McWhinnie, Esq., 10s. 6d.; Anon., 2s.; Dr. Roberts, 10s. 6d.; J. Moncrieff Arnott, Esq., 10s.; — Murrell, Esq., 5s.; F. G. C. Edwards, Esq., 5s.; T. H. Graham, Esq, 5s.; Oswold Foster, Esq., 10s.; Edward Hall, Esq., 2s. 6d.

Griffin Testimonial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following subscriptions have been further received on behalf of the above fund:—J. Thos. Muriel, Esq., Hadleigh, 5s.; G. C. Edwards, Esq., Ipswich, per ditto, 5s.; amount previously announced, £117 1s.; received at *Lancet* office, £7 17s. 6d. I am, &c.

Robert Fowler, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, March 2, 1865.

The Bowen Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A meeting was held at the Medical Institution, Liverpool, on February 24, when it was resolved by the donors to the "Bowen Fund," unanimously, that the surplus—£49 10s. 6d.—be appropriated to the Medical Benevolent Fund. I am, &c.

H. D. Scholfield, M.D., Treasurer.

14, Hamilton-square, Birkenhead, February 28, 1865.

The Production of an Inverted Image by a Convex Lens.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In my last letter "on the production of an inverted image by a convex lens," I left Mr. Cresswell but partially convinced of the error he was labouring under. I did not reply to Mr. Cresswell's second letter simply because I did not consider your columns should be occupied by optical education. But I do hope, after Professor Zehender's able exposition of the subject in his letter in your impression of to-day, Mr. Cresswell will see that he has *ad initio* been led by some will o'-the-wisp of his own fancy to dispute that, than which nothing is more firmly established in the whole science of geometrical optics. In fact, it is susceptible of the most rigid of proofs—that of mathematics—for which I beg to refer Mr. Cresswell to Mr. Parkinson's (of Cambridge) excellent "Treatise on Optics."

I am, &c.,

February 25. J. Z. Laurence.

The Naval Medical Service.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you allow me, through the medium of your valuable journal, to address a few words of warning to those students who, approaching the term of their Medical education, and casting about in search of a career wherein they may gain an honourable livelihood, are entertaining the idea of entering the Medical Service of the Navy?

The ill-treatment said to be endured by Medical officers at the hands of the executives appears to me to have been much exaggerated. In common with all officers, we are subject to the caprices of the captain of the ship, but, from our duties, are less so than are the executives, the paymasters, or engineers; and that the civil branches are sometimes snubbed, sometimes spoken of with a certain contempt, by the military branch cannot be marvelled at when it is remembered that members of the latter are brought up to command from a very early age, and thus naturally learn (and the Admiralty regulations on dress, rank, precedence, etc., seem specially designed to inculcate such knowledge) to rate themselves as much superior to those over whom they do now, or at some future time will, enjoy an almost absolute power.

I refer you to the Navy List for the various distinctions of coats, buttons, lace, devices, cocked hats, etc., by which the Medical officer is to be carefully separated and distinguished from his executive comrades. Trifles, you may well say these, but trifles become of moment when they are emblems of rank in a service where rank is all in all. It must be remembered that the executive uniform is the outward standard of rank; and every distinction from it further than what is absolutely necessary appears to me invidious. Yet I cannot entirely exonerate Medical officers from the charge of sometimes assuming to themselves functions to which they have no right whatever; but I believe that such "snobs" are a very small minority.

The Assistant-Surgeon must serve six years on full pay before he attains the rank of lieutenant; thus, at an age of 27 to 30 years he has a rank equivalent to that of a boy of 19 or 20,—equivalent, not equal, for civilian rank is merely nominal. He only enjoys a cabin on sufferance, and may at any period be sent to a hammock in the steerage as a sacrifice to the "exigencies of the service."

These and some other facts are real grievances, but they are the work of the Admiralty alone, and I believe that most executive officers are quite indifferent to any such invidious distinctions. But what the Assistant-Surgeon has most to complain of is that he has not only, in common with other officers, to suffer from the caprices of the captain, but has further to endure the caprices of the Surgeon; and I have no hesitation whatever in asserting that the Assistant-Surgeon receives much more insolence and petty tyranny at the hands of his Professional than at the hands of his military superior: for his duties, except in the absence of the Surgeon, are merely those of an apothecary's boy or of a first year's dresser: rolling of pills, making of powders, and attending to wounds not more complicated in their nature than a cut finger. It would be tedious to recapitulate all my experiences, all the facts of which I have knowledge, and I will merely give you the following instances of what I conceive to be very unprofessional conduct:—I have known a Surgeon make both his assistants stand like footmen behind his chair at the visit, and there execute his orders. I have known men forced to weigh each separate pill as they made them, spend a morning in tearing and rolling up bandages, etc., etc. I have heard Assistant-Surgeons rebuked by the Surgeon for presuming to differ with him on points Professional and non-Professional, and "blackguarded" for being a minute late at the morning visit; and I speak the literal truth when I say that similar practices are far from uncommon in H.M. ships.

Let those who aspire to tack R.N. to their names consider well these facts before they present themselves at the farcical examination at Somerset House, and expose themselves to the comfortable sneers of the departmental clerks, who style themselves Esquires and us plain Misters.

And what ulterior reward has the Assistant-Surgeon to hope for? After ten years' service, promotion to a Surgeoncy; after ten more, the nominal rank of Staff-Surgeon, equivalent to that of a commander (a rank rarely gained before 45 years of age, while the commander obtains his generally at 30 to 32); after twenty-five years' full pay, equal to thirty years' ordinary time, retirement on £337 per annum. Still, such an income is a competency even for a man over 50, and has the advantage of being a certain one. As affording such, then, the service deserves the attention of Professional students. I conceive the naval service worth the consideration of an unambitious Medical man, utterly destitute of any reasonable prospects of success in practice ashore. But to men who are not entirely unambitious, who aim at any eminence in their Profession or in any other pursuit of life, who have any love for liberty and independence, who have the smallest chance of success in civil practice, I most strongly recommend a strict avoidance of the Naval Medical Service, and of such discomforts and insults as have for three years been endured

By yours, &c.

"Cui fugit Interea fuoit irreparabile Tempus."

I enclose my card, but not for publication.

COMMUNICATIONS have been received from—

Dr. T. C. Shinkwin; Royal Medical and Chirurgical Society; Mr. J. Z. Laurence; Epidemiological Society; Apothecaries' Hall; Harveian Society of London; Mr. T. Cocker; Royal Institution; M R.C.S.E.; X. Z.; An Hospital Physician; Mr. Curgenven; Mr. Fleetwood Buckle; Dr. Fotherby; Mr. David Walker; Dr. John M. Sellors; Mr. F. W. Cooper; Dr. H. D. Scholfield; Microscopical Society; Obstetrical Society of London; Medical Society of London; Ethnological Society; Dr. Robert Fowler.

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 25, 1865.

BIRTHS.

Births of Boys, 1144; Girls, 1146; Total, 2290.

Average of 10 corresponding weeks, 1855-64, 1890·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	804	786	1590
Average of the ten years 1855-64	683·6	684·7	1368·3
Average corrected to increased population..	..	..	1505
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	7	6	2	8	7	3
North ..	618,210	3	3	6	2	8	22	3
Central ..	378,058	..	1	2	..	14	13	3
East ..	571,158	2	2	10	..	17	11	..
South ..	773,175	10	7	10	1	17	16	5
Total ..	2,803,989	16	20	34	5	64	69	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·880 in.
Mean temperature	38·3
Highest point of thermometer	51·3
Lowest point of thermometer	28·5
Mean dew-point temperature	32·3
General direction of wind	S.W. & N.W.
Whole amount of rain in the week	0·65 in.

APPOINTMENTS FOR THE WEEK.

March 4. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

6. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

Epidemiological Society, 8 p.m. Dr. Smart, R.N., Deputy-Inspector-General of Fleets and Hospitals, "On Diphtheria in Bermuda." Dr. Swarbeck Hall, "On Vaccination in Tasmania." Dr. Lawson, Deputy-Inspector-General of Army Hospitals, "On the Epidemiology of the Cape of Good Hope and Natal."

Medical Society of London, 8½ p.m. General Meeting for the Election of Officers and Council. Dr. Sansom, "Chloroform in Surgery."

Royal Institution (General Monthly Meeting, 2 p.m.), 3 p.m. Prof. Tyndall, F.R.S., "On Electricity."

7. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Ethnological Society of London, 8 p.m. Mr. Travers, "On the Destruction of the Aborigines of Chatham Island by a Maori Invasion." Mr. Hyde Clarke, "On the Inhabitants of Asia Minor previous to the Time of the Greeks."

Pathological Society, 8 p.m. Meeting.

Royal Institution, 3 p.m. Prof. Hofmann, F.R.S., "An Introduction to Chemistry."

8. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

Hunterian Society (Council Meeting, 7½ p.m.), 8 p.m. An Open Meeting.

Medical Society of London. Anniversary.

Microscopical Society, 8 p.m. Dr. Greville, "On Diatomance."

Obstetrical Society of London, 8 p.m. Mr. Rouse, "Marks on the Neck of a New-born Child." Mr. A. Harris, "Membrane Expelled some Days before Labour." Dr. Meadows, "Remarks on a Case of Monstrosity."

9. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Royal Institution, 3 p.m. Prof. Hofmann, F.R.S., "An Introduction to Chemistry."

10. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

Royal Institution, 8 p.m. Prof. Ramsay, F.R.S., "On the Eozoön, or earliest known Fossil."

ORIGINAL LECTURES.

LECTURES ON CHEMICAL AND MECHANICAL DISEASES AND THEIR RELATIONSHIP.

By H. BENCE JONES, A.M., M.D., F.R.S.

Lecture III.

DISEASES OF SUBOXIDATION—ON THE OXALIC ACID DIATHESIS.

(Continued from page 220.)

On the Consequences of Oxalic Acid.

The formation of an oxalate of lime calculus in the kidney or bladder is the secondary disease which the oxalic acid diathesis produces. But for this mechanical complaint the chemical disorder would be of little or no importance at all. Hence the great object of detecting oxalate of lime in the urine is to prevent the formation of mulberry stone in the urinary organs.

In my paper in the 26th vol. of the *Transactions* of the Medico-Chirurgical Society, I state that out of 450 distinct deposits forming calculi, 135 times uric acid was found alone or mixed with other substances, and 163 times oxalate of lime occurred either alone or mixed with other deposits. In other words, the greater degree of acidity which is marked by uric acid crystals occurred rather less often than the lesser degree of acidity which led to the formation of the oxalic acid diathesis. In other collections the greater degree of acidity appears to have more frequently caused the formation of the calculi. From the analysis of many collections, Dr. Prout says, p. 590, "If a mulberry stone had not been formed and detained in the bladder, two persons out of about nine who suffer from calculus would not have been troubled with that affection." As he previously said that six out of nine had a nucleus of uric acid (or urates), it follows that imperfect oxidation to a greater or less degree gives rise to no less than eight out of nine cases of stone.

With regard to the mechanical effects of mulberry stone, they scarcely differ from those produced by uric acid. Usually the mulberry stone is rougher and harder than all other stones; and hence the roughness is more apt to cause blood by hurting the kidney or bladder, and greater mechanical force is required to crush this stone, and the fragments are sharper and harder than those of any other kind of stone.

In addition to the mechanical diseases of stone in the kidney, ureter, or bladder, the oxalic acid diathesis, or in other words, that degree of oxidation which causes the formation of oxalic acid instead of carbonic acid, may perhaps hereafter be found to produce secondary chemical disorders.

Thus in diseases which are accompanied with great difficulty of breathing or in extreme states of debility, as perhaps in asthma or at the end of different fevers, oxalic acid may accumulate in the blood or in the textures, and either alone or with the help of carbonic oxide gas produce a state of narcotic poisoning not to be distinguished in its phenomena from the effects of a fatal dose of morphia.

In the *Transactions* of the Medico-Chirurgical Society for 1849, p. 171, Dr. Garrod records a case of Bright's disease with effusion in the chest and abdomen, in which oxalate of lime was found in the blood; the patient became senseless eight hours before death, possibly, however, from urea in the textures.

On the Treatment of the Oxalic Acid Diathesis.

The treatment of the oxalic acid diathesis and the treatment of oxalate of lime in the urine are almost, though not altogether founded on the same indications. The cure of the oxalic diathesis is to be obtained by promoting oxidation in the body. In this respect this disease and diabetes have the closest possible resemblance. The best treatment for flatulent dyspepsia is the best treatment for diabetes. I must refer you, then, to all I have said on the treatment of diabetes for the fullest information on the treatment of the oxalic diathesis. I might sum all up, however, in four words—meat in moderation and weak spirit; nevertheless a diet as rigid as in diabetes need not be insisted on in this complaint, because it is often so slight an aberration from health that the functions of the body are scarcely interfered with, and if it were not for the formation of oxalate of lime it might often be altogether neglected.

Hence the treatment of oxalate of lime becomes of more importance than the treatment of the oxalic acid diathesis. Two methods may be simultaneously carried out—first, the amount of lime passing through the body may be lessened, and secondly, the formation of the octahedral crystals may be stopped.

The effect of diminishing the amount of lime taken into the body by the drinking water may be seen from what results when the quantity of lime in the urine is increased, either by adding it after the water is made or by giving lime salts as medicine. The following experiments among many others that I might give, are quite sufficient to show the importance of giving rain or distilled water when much oxalate of lime is found in the urine:—

250 c. c. of fresh nearly neutral urine were divided into five equal parts.

To the first part nothing was added; it was examined twenty-one hours afterwards, and gave no octahedral crystals.

To the 2nd. One drop of chloride of calcium solution, sp. gr. 1146, was added; octohedra were found.

To the 3rd. Two drops of ditto; octohedra.

To the 4th. Three drops of ditto; octohedra.

To the 5th. An excess; many octohedra.

Seven other experiments were made with different healthy urines.

Two equal portions of the same urine were taken, and chloride of calcium was added freely to one after it was passed.

Experiment 1.—The urine without chloride of calcium contained very few octahedral crystals; with chloride of calcium many small octahedra.

Experiment 2.—The urine without chloride of calcium contained no oxalate; with chloride of calcium plenty of octahedral crystals.

Experiment 3.—The urine without chloride of calcium contained urates and only a few octahedra; with chloride of calcium a large amount of octahedra, large crystals.

Experiment 4.—The urine without chloride of calcium contained no octahedra; with chloride of calcium exceedingly small crystals not quite distinct as octahedra.

Experiment 5.—The urine without chloride of calcium contained very few and very small octahedra; with chloride of calcium plenty of octahedra.

Experiment 6.—Doubtful increase of oxalate by adding chloride of calcium.

Experiment 7.—Doubtful increase.

If lime water or acetate of lime or carbonate of lime are given as medicine, oxalate of lime may be looked for in the urine.

C. W., aged 30, was admitted with chronic rheumatism into St. George's Hospital July 30. The urine was acid and perfectly natural, excepting that occasionally a little bladder epithelium was seen. Forty-five grains of acetate of lime dissolved in water were given thrice daily; in four days oxalate of lime crystals in plenty were found in the urine.

L. B., aged 26, admitted with slight rheumatism. The urine was acid and perfectly natural, except that it contained a quantity of pus cells, the result of gonorrhœa. Thirty grains of acetate of lime were given thrice daily for two days, and then forty-five grains for two more days, when much oxalate was found in the urine.

Distilled water or rain water are therefore likely to be useful when octahedral crystals are found in the urine. Even the removal of some of the lime from the drinking water by boiling it well, and then filtering it, or, better still, by adding a little carbonate of soda before boiling, may be of use in stopping the formation of oxalate of lime gravel in the urine.

It is quite impossible to stop all lime from going in or coming out of the body; and, therefore, by the anti-lime treatment, only a partial good can be done, and other methods of stopping the crystallisation must be adopted, or still better the oxalic acid diathesis must be removed.

The second method of treating the oxalate of lime deposit in the urine consists in stopping the formation of the crystals. Removing the oxalic acid diathesis would stop the crystallisation as surely as it would be effected if no lime could be allowed to pass out of the body; and though both these methods may be of use, a still more immediate effect on the crystallisation may be obtained by the mineral acid treatment.

Dr. Prout first ordered a mixture of one part nitric and

two parts hydrochloric acid. This is called nitro-muriatic acid. It varies in composition according to the temperature at which the acids are mixed and kept, and according to the time they remained mixed before they are used. Sometimes it is a mixture of nitric and hydrochloric acid, or it may contain chlorohyponitric, NO_2Cl_2, and chloronitrous acid, NO_2Cl, or even hyponitrous acid, HO_4, and chlorine. It is, no doubt, possible that a mixture of these substances may be more beneficial as a medicine than any one of them used separately; and if this can be proved to be true, such a mixture should be used; but the progress of our knowledge of remedies depends on the use of each substance separately, in order that the greatest possible clearness may be obtained as to the effect of each remedy; and, as it is by no means proved that so-called nitro-hydrochloric acid is superior in any respect to the mineral acids taken singly, I consider that an advance in clearness of intention, if not in power of treatment, may be obtained by using each acid separately, according to the properties which each must be considered or may be found to possess.

And first regarding hydrochloric acid. As this is more especially the acid of the gastric juice, it seems reasonable that it should be prescribed, more particularly when there is feeble digestive power; after long illnesses, when animal food begins again to agree, it should be taken almost immediately before each meal of animal food. Thus the greatest immediate use can be got out of hydrochloric acid.

Secondly, regarding nitric acid. This acid was at one time strongly recommended as a substitute for mercury in syphilis and in the liver diseases of India. Generally, it may be considered to promote secretion and perhaps oxidation; and with this intention it should be given so as to be absorbed before food enters into the stomach. If taken one hour or two hours before meals on an empty stomach, the nitric acid acts on the system and not on the food.

Thirdly, sulphuric acid has been always used as an astringent to stop perspiration, to stop hæmorrhage, to stop diarrhœa. It may be, therefore, regarded as the opposite of nitric acid in its action on the system; and to obtain the greatest action it also should be given in time to admit of its absorption before food is eaten.

Thus, then, rightly used, hydrochloric acid promotes digestion, nitric acid secretion, sulphuric acid constriction.

In addition to these special actions, there is a direct local action of these substances on the stomach. When used in small quantities, with care, they all probably render the stomach less irritable than it otherwise would be; but if the dose of any of them be too strong, it probably increases the sensitiveness of the mucous membrane, and may cause violent pain and spasm, increased chemical action producing altered mechanical and chemical actions in the mucous membrane of the stomach.

All these acids also have a distinct action on the urine. Although there is as yet no positive proof that dilute mineral acids increase the acidity of the urine at all to the same degree that dilute vegetable acids will do—for example,

Variation of the acidity of the urine during the day when three drachms of dilute sulphuric acid, sp. gr. 1·1077, are taken in water.

Variation of the acidity of the urine during the day when eighty-four grains of tartaric acid are taken in water.

yet, if the amount of sulphates, for example, in the whole quantity of water passed in twenty-four hours for three successive days when no sulphuric acid is taken is compared with the amount of sulphates in the whole quantity of water passed in twenty-four hours for the three succeeding days when sulphuric acid is taken, it is certain that dilute sulphuric acid taken in very large quantity does pass off combined or uncombined in the urine. Thethird day after half an ounce of dilute sulphuric acid, specific gravity 1·1084, had been taken daily, 43 cunces of urine were passed of specific gravity 1025·4. 12·95 grains of sulphate of baryta were precipitated from 1000 grains of this urine; when no acid was taken, 42 ounces of urine were passed of specific gravity 1023·4. These gave 9·19 grains of sulphate of baryta per 1000 grains of urine.

All the mineral acids lessen the tendency of the oxalate of lime to form crystals in the urine. If two equal portions of urine are taken, and the minutest quantity of mineral acid is added to one portion, whilst the other is kept for comparison without acid, oxalate of lime may be found in the urine to which no acid has been added, whilst in the other no crystals will form. The same action may occur when these acids are taken as medicine, and with nitric acid there is the additional recommendation that the oxalic acid diathesis itself may, by the promotion of oxidation, be lessened or, with perseverance, removed.

ORIGINAL COMMUNICATIONS.

HOLIDAY NOTES ON CONTINENTAL SPAS.

(Second Series.)

BAGNÈRES-DE-LUCHON.

By HERMANN WEBER, M.D., F.R.C.P.,
Physician to the German Hospital.

(Continued from page 171.)

Bagnères-de-Luchon is a small town, of about 3000 resident inhabitants, situated in the very heart of the Pyrenees, in the angle formed by the Gaves (torrents) la Pique and l'One. The distance from Paris, by way of Bordeaux and Toulouse, is about 628 miles, and rather less by way of Bordeaux and Tarbes. It lies in 42° 45′ north latitude, and 35′ east of London. Its elevation above the level of the sea is 2060 feet.

The valley of Luchon is one of the finest in the Pyrenees, it is less narrow than those in which most of the other spas are situated, and is surrounded by noble mountains, which are covered up to a considerable height with forests and pastures.

The *climate* of Luchon may be termed agreeable; the *summer temperature* is, owing to its elevation, only slightly higher than that of Paris; the extreme changes lie, according to Lambron ("Les Pyrénées et les eaux thermales Sulfurées de Bagnères-de-Luchon." Par le Docteur E. Lambron et

par T. Lezat. Paris. 1862. P. 371), between 42°· 8 F. and 98°· 6 F.; the changes are said to be sometimes rather sudden, but the extremes are, in general, only of short duration. The mean height of the barometer is 27·94 inches; the extremes are 27·47 and 28·41 inches; the sinking to 27·47 inches is very rare, and occurs almost only with the "vent d'Espagne" (south wind) and before storms. The humidity of the air is about the same as in the plains of the south of France, but the transitions are more sudden. The predominant winds are those from the west and south-west; the east wind is generally accompanied with fine weather; the south wind (vent d'Espagne) has a peculiarly enervating influence. According to Lambron and Lezat's observations, extending over five years, 38 days out of 109 (from the middle of June to the end of September) are perfectly fine; en 19 the mountains are quite enveloped in clouds, the sun never coming through; on the remaining 52 days the weather is variable. Rain falls only on 38 days out of the 109, and on 16 days out of these 38 there are thunder storms. The greatest heat occurs in July and August, but the heat is said not to be oppressive, except when the wind comes from the south. The nights are, even on the hottest days, much cooler than in the plains. On account of the surrounding mountains the sun appears in the morning a few hours later and disappears in the afternoon considerably sooner than in the plains.

On the whole the summer climate of Luchon may be called one of the most favourable among the Pyrenean spas; it possesses already, to some degree, the tonic qualities of a mountain climate, and agrees well with conditions of anæmia, weakness from acute disease, and various other causes, and especially also with chronic catarrhs of the respiratory organs, if the occasional sudden changes of temperature are provided against.

The sources of Luchon have been, without doubt, resorted to already by the Romans, as ample remains have been dug up at different times. Although most of these remains have been removed to Toulouse, yet several of importance may still be seen at Luchon, amongst which are a votive altar and some tablets. One of the latter bears the inscription,—

LIXONI DEO
FABIA FESTA
V.S.L.M.

It is by some supposed that the name "Luchon" is derived from this heathen deity "Lixon." The four letters V.S.L.M., which are met with on most of the tablets, may signify "*Votum solvit liberata (or liberatus) morbo*," or, according to other interpreters, "*Votum solvit libens meritum.*"

Bagnères-de-Luchon has more than fifty mineral sources, most of which are sulphuretted, a few only being chalybeate and saline. The variety existing in the different sulphuretted springs is very great, some of them ranging among the strongest, others amongst the weakest, in the Pyrenees. The temperature, too, varies considerably in the different sources, the "ancienne source, Sengez No. 4," having a temperature of only 82° F., the "source Bayen" of 150°·8 F.

It would be out of place to describe here all the sources; I will, however, insert the analysis of the most important of these, as given in Filhol's work ("Les eaux Minérales des Pyrénées," Toulouse, 1853, p. 265):—

Table indicating the Chemical Composition of the Principal Sources of Bagnères-de-Luchon.

Names of the Sources.	Sulphuret of Sodium.	Sulphuret of Iron.	Sulphuret of Manganese.	Chloride of Sodium.	Sulphate of Potash.	Sulphate of Soda.	Sulphate of Lime.	Silicate of Soda.	Silicate of Lime.	Silicate of Magnesia.	Silicate of Alumina.	Carbonate of Soda.	Free Silica.	Alumina.	Magnesia.	Organic Matter.	Total.(b)
(In one litre.)(a)	grm.	grm.	grm.	grm.	grm.	grm.	grm.	grm.	grm.	grm.	grm.	grm.	grm.	grm.	grm.		grm.
Reine	0·0508	0·0022	0·0028	0·0624	0·0092	0·0312	0·0312	traces	0·0102	0·0048	0·0255	traces	0·0209	—	—		0·2511
Bayen	0·0777	traces	traces	0·0829	traces	traces	traces	,,	0·0220	traces	traces	,,	0·0444	—	—		0·2270
Azémar	0·0480	0·0022	0·0024	0·0620	0·0072	0·0465	0·0178	0·0058	0·0432	0·0147	0·0237	,,	0·0076	—	—		0·2811
Richard, sup. ..	0·0895	0·0028	0·0018	0·0659	0·0058	0·0101	0·0400	traces	—	traces	0·0292	,,	0·0328	—	—		0·2557
Grotte, sup.	0·0314	0·0027	0·0013	0·0723	0·0059	0·0682	—	0·0094	0·0376	0·0057	0·0109	,,	0·0103	—	—		0·2559
Blanche	0·0338	0·0011	traces	0·0500	0·0038	0·0610	traces	traces	0·0759	0·0067	0·0101	,,	0·0105	—	—		0·2529
Ferras, sup, No. 2..	0·0053	0·0009	,,	0·0160	0·0109	0·0580	0·0212	,,	0·0506	traces	traces	,,	0·0397	0·0022	0·0059		0·2002
Bordeu, No. 1 ..	0·0690	0·0003	,,	0·0858	traces	traces	traces	0·0233	0·0162	0·0025	0·0073	,,	0·0262	—	—		0·2306
Grotteinfér	0·0589	0·0021	,,	0·0736	0·0113	0·0265	0·0200	traces	traces	traces	0·0141	,,	0·0499	—	—		0·2564

The quantity has not been determined.

(a) The litre is equal to 35·21546 fluid ounces; the gramme to 15·4325 grains troy.
(b) Every source contains, besides, traces of sulphuret of copper, iodide of sodium, hyposulphite of soda, phosphates, and hydrosulphuric acid.

In connexion with this table it is to be observed that the chemical composition of the different springs of Luchon is not quite constant, but is subject to rather considerable variations. Thus the amount of sulphurets as indicated by the *sulphurometer* (c) increases simultaneously with a steady rising of the barometer, while a steady sinking of the latter is accompanied by a diminution of the sulphurets; the amount of sulphurets varies further with the temperature and the seasons, being greater during cold than during warm weather, and the periods of melting of large masses of snow are characterised by a diminished proportion of sulphurets. The quantity of other constituents, as of chloride of sodium, undergoes likewise at different times appreciable changes.

It would take up too much space to give a description of the organic substances contained in the waters of Luchon, a short account of them may be found in the general remarks on the Pyrenean Spas previously given.(d)

Of some importance amongst the sources of Luchon is the "source froide," because its water is used as admixture to that of other sources. The "source froide," by far the most abundant of all the sources of Luchon, possesses a temperature of about 60°F. and contains about 0·152 grm. of solid substance in the litre. Filhol has found in this spring no sulphurets, and only traces of hyposulphite of soda; the sulphates of lime, magnesia, and soda, silica, chloride of sodium, carbonate of lime, and organic matter are the principal constituents, with traces of oxide of iron and iodine.—Lambron, l.c., p. 432.

There are, in addition, several chalybeate springs at Luchon which contain sulphate of iron and almost all also alum. Their composition has not been accurately determined, and they are, as yet at all events, of only secondary importance, as compared with the other sources of Luchon, and will probably remain so, as all the chalybeate springs containing the sulphate of iron as their ferruginous elements are much less digestible than those containing carbonate of iron with an excess of carbonic acid, as Schwalbach, St. Moritz, Bruckenau, Spa, and others.

The thermal establishment of Luchon is the largest and most complete in the Pyrenees; it is about 290 feet long, and about 160 feet deep. The colonnade of white marble in front of the building makes an agreeable impression, although the style is not pure. The interior may be called handsome, and the arrangements, in general, good. All the sources of Luchon, with the exception of some chalybeate, have been conducted to this establishment, and are, therefore, concentrated in a small space, which is a great advantage to the Physicians and to many of the patients. The establishment contains two basins, or "piscines," for twenty persons each, a larger swimming basin ("piscine ou bassin de natation"), eighty-two separate baths,(e) with moveable local douches, twenty-eight other separate baths provided with the "douche percutante," seven grand douches, or "douches spéciales," furnished with the newest improvements, for the regulation of temperature, force, and volume, similar to those at Aix-les-Bains,(f) and, in addition, several "douches ascendantes" for rectum and vagina. A large room is devoted to the administration of the pulverised or minutely-divided thermal water to the fauces, the eyes, ears, etc. There is provision made for twenty-four "buvettes," or drinking fountains, of which,

(c) The name of *sulphurometrie*, or, according to the French way of spelling, *sulfurométrie* or *sulfhydrométrie*, has been given to Dupasquier's volumetric method of ascertaining the quantity of sulphurets in mineral waters. It is based on the fact that iodine added to a solution of hydrosulphuric acid or of a monosulphuret displaces the sulphur, producing hydriodic acid or an iodide.
(d) *Medical Times and Gazette*, 1865, vol. i., p. 170.
(e) The separate baths throughout the Pyrenees are rather small, as compared with those in the principal spas of Germany, and would certainly not lose either in comfort or efficacy if they were to be made larger.
(f) Conf., *Medical Times and Gazette*," 1861, vol. ii., p. 552.

however, as yet only eighteen have been established, viz., three in the building itself, and fifteen in its close proximity.

Adjacent to the establishment is the "*étuve sèche*," a kind of *sudatorium*, a semicircular excavation in the rock, heated by means of two of the sources ("la Reine" and "Bayen"), which, united, form a streamlet of a temperature of about 134° F., and, passing underneath the "étuve," communicate with it through an aperture which may be kept open or shut, according to the effect desired, the temperature of the "étuve" being in the former case between 100° F. and 102°·5 F., and in the latter between 91°·4 F. and 95° F.

There are further to be mentioned the "*galeries souterraines*," subterraneous passages, more than twenty in number, cut out of the rock, most by M. Francois, the well-known engineer, in order to follow the sources up to their emergence from the rock itself, and to conduct them in closed channels (in part of brick, in part of wood and china), with as little loss and alteration as possible to their places of utilisation. As these "galeries" are, in general, over six feet high, and almost five feet wide, they can likewise be employed as sudatoria, or as rooms for the inhalation of the gases. The temperature in the different "galeries" varies from 68° F. to 98°·6 F.; the air contains a considerable amount of hydrosulphuric acid, and is poor in oxygen.

With regard to the manner in which the various sources are distributed in the bathing establishments, it is important to know that several sources, which in themselves do not yield a sufficient amount of water, and which, by their chemical composition and the places of their emergence from the rock, seem to belong to each other, have been united into groups of sources, called "sources alimentaires." Thus, under the able direction of Filhol and François, out of the forty-eight thermal springs, ten groups or alimentary sources have been formed, which are conducted to reservoirs, and thence distributed to the different portions of the establishment. Those of the alimentary sources which possess a higher temperature than 95° F. are reduced to that degree by the admixture of water of the "souree froide"—a practice which appears very objectionable, and which might easily be remedied by the substitution of properly cooled sulphuretted water for that of the "source froide." The practice now in use may be quite harmless in those cases in which either a very weakly sulphuretted or only a common warm bath is required; but it is, no doubt, to be condemned, wherever a more strongly sulphuretted bath is indicated, as the effect of the admixture of the common cold water consists not only in the direct diminution of the percentage of the sulphurets, but also in a more rapid decomposition of the sulphuretted water.

All the sulphuretted waters of Luchon which at their sources are limpid, and have scarcely any smell of sulphuretted hydrogen, undergo alteration more or less rapidly, and more or less completely. Filhol, to whom we owe so much regarding our knowledge of the chemical composition of the Pyrenean spas, has carefully examined this important subject; and Lambron, too, has an instructive chapter on it. The water of the baths and piscines possesses, owing to this alteration, a different composition from that of the sources which supply it. The quantity of the sulphuret of sodium is considerably diminished, while sulphite and hyposulphite, sulphate, carbonate, and silicate of soda — substances which exist only in traces in the unaltered sources—are found in perceptible proportions. The different sources exhibit, however, great differences with regard to these changes. Some turn yellowish without losing their transparency, and gradually lose all their sulphurets by transformation into hydrosulphuric acid, which escapes, and into sulphites and sulphate of soda. Others become at first yellowish and then white, like milk by the precipitation of sulphur in the form of an emulsion. "*Blanchiment*" is called this phenomena of alteration, which is peculiar only to some sources of Luchon, Ax, Cadéac, and Molitg. The admixture of cold water increases the rapidity of decomposition, as shown by the source "*Blanche*" and source "*Ferras nouvelle*," which receive streamlets from the source froide already in the subterraneous passage. It is impossible here to enter more fully into this most pregnant question of the alterability of the various sources. As yet our knowledge on these points must be considered as very limited; thus it is not yet explained why some waters lose their sulphur rapidly, while others, to all appearance of the same chemical composition, retain it for a long time without decomposition. In this difference, probably, lies the cause of the difference in the physiological and therapeutical actions of waters seemingly of analogous composition.

A subject often overlooked, but of great interest, is the *composition and temperature of the air in the bath-rooms, the piscines, the douches, and étuves*. It is again Filhol (l.c. p. 291) to whom we owe much of our knowledge on this subject. The principal alteration in the localities just mentioned consists in the elevation of the temperature, in the admixture of water, vapour, and hydrosulphuric acid, and in the diminution of oxygen, part of which is absorbed by the sulphuret of sodium contained in the water. The inspiration during a lengthened period of air thus constituted cannot be without important physiological effects. Thus, during an hour's stay in the piscine at Luchon a man who is supposed to inspire 320 litres of air inhales, according to Filhol, 3 62 cubic centimetres of hydrosulphuric acid and at least four litres of oxygen less than under normal circumstances.

(To be continued.)

CASE OF

EPILEPSY, PAINFUL MENSTRUATION, AND PERIODICAL VOMITING, SUCCESSFULLY TREATED CHIEFLY BY MEANS OF ICE.

By JOHN CHAPMAN, M.D., M.R.C.P.

Miss D., aged 21, consulted me for the first time January 10, 1864. She is tall, thin, pale, and feeble. She suffered from the blue disease from birth until she was 16 years old, when she became of natural colour. Her head is abnormally small, the forehead especially so: mental power less than the average. She suffers from epileptic fits, which recur several times a-month: she had two fits last week. The fits last from one to four minutes. "She would sleep an hour or so after each fit," her mother says, "if allowed to do so." Began to menstruate when 12 years old; has generally, her mother says, been regular, and is four or five days poorly. She had, however, a slight show of menstruation at the end of last month, a fortnight after the previous period. About the time of becoming "unwell," or an hour or two after the discharge has begun, she is seized with violent pain in the lower part of the abdomen, the thighs, and along the back extending upwards as high as the cervical vertebræ. Her sufferings at each menstrual period are described as peculiarly intense, amounting to agony. They continue from five or six to twenty-four hours each time. On the last occasion they continued twenty-four hours. During the whole of the painful periods she vomits or retches continuously, and at these times her fits recur the most frequently. Appetite feeble; bowels constipated; hands and feet always cold; pulse 82, very feeble. To apply ice in each cell of the ice bag during thirty minutes three times a-day, one layer of flannel being placed between the bag and the back; to take a brisk walk after the first and second application each day. Ammonii bromidi, gr. iv., infusi calumbæ, ℥j., bis die.

January 19.—Has taken the medicine, and continued the ice, but only twice a-day. Has had no fit since last visit. The feet and hands have become warm. Pulse 64; tongue clean; bowels rather confined. To use the ice as ordered three times a-day, and to continue the medicines.

27th.—Became "unwell" on the 24th. The pain which she usually suffers lasted only about ninety minutes, and though she felt nausea during this time she vomited only twice. Has had no fit since last here; the feet have become quite warm; tongue clean; bowels open daily; pulse 52; ceased to menstruate yesterday. Continue in all respects as before, except to apply the ice-bag next the skin, and in addition to the medicine already prescribed to take before dinner each day ferri et quinæ citratis, gr. v.; infusi calumbæ, ℥j.

February 27.—Began to menstruate on the 19th inst. On the 18th felt a slight wave of vertigo, but did not lose her consciousness. On the 19th had "very slight pain" lasting about an hour, but neither vomited nor felt any nausea whatever. Was unwell about four days, more copious than formerly, the ice being continued during the period. Has had no fit of any kind since. Says she has "got very fond of the ice." Bowels open sometimes daily, sometimes on alternate days. They are open, her mother says, much oftener than formerly. To continue as before as soon as she has recovered from a cold which she took while at a party in a low dress, and in consequence of which the ice has been left off.

March 5.—Has been prevented by her cold from resuming

the ice during the last week. Meanwhile has not felt well otherwise, and has had one fit. To resume the ice at once; to continue the bromide of ammonium in infusion of calumba; and to take, instead of the citrate of iron and quinine, quinæ disulphatis, gr. 1; acidi sulphurici diluti, ɱ v., ex aqua, once daily.

I never saw this patient again; but, in answer to an inquiry which I addressed to her mother, I received a letter dated July 9, 1864. She says:—"After I last saw you my daughter continued in good health. We went on April 4 into Kent, and remained there some weeks; during this time she took her medicine regularly, but we could get no ice to speak of. Still she improved, and the sickness did not return; but instead of sickness (at the menstrual period), she could not, for some hours, rest, but turned in bed from side to side; after this went off she was quite well. This happened three times in nine or ten weeks. On May 30 we returned to town, where we have staid ever since, during which time my daughter has had two attacks (of pain and sickness at her menstrual periods); The first on the 9th ult., and the second to-day—this more severe than that on the 9th. Since our return to London, my daughter has not applied the ice, nor taken the medicine. I now intend steadily going on with the ice and medicine (the first you prescribed). I am glad to say that during all this time she has not, that I remember, had a fit; they used to be frequent."

Comments.—This case is peculiarly interesting in several respects, and not less instructive. The disappearance of the blue disease when the patient was about sixteen years old is very remarkable. Assuming the disease to have been due, as is most usually the case, to imperfect closure at birth of the foramen ovale, it seems not improbable that this orifice was finally closed during one of the patient's fits. (a) At the first consultation it was stated that the patient's menstrual function was "regular," and of ordinary duration —four or five days. Information afterwards obtained seems to prove that the first statements on this point were not quite accurate, and I believe that one important feature of the patient's malady was defective menstruation. Before the treatment began she had a slight menstrual discharge only a fortnight after the previous period, and when in February she continued "unwell" four days, the discharge was said to have been more copious than formerly. It is clear, indeed, that the treatment adopted caused this function to be performed more completely with respect both to its duration and copiousness. I must observe, however, that I do not regard the irregularity and inadequacy of the uterine secretion as causes either of the pain, the sickness, the constipation, the coldness of the extremities, or the fits from which the patient suffered. They were each, I believe, co-ordinate symptoms of one common cause—a congestive condition of both the spinal cord and the ganglia of the sympathetic nerve. When this condition was removed these symptoms disappeared. It is instructive to observe how quickly they denoted the beneficial change which was being wrought in the patient's system. On the first recurrence of menstruation after the treatment had been adopted the pain was limited to ninety minutes, and though nausea was still felt, vomiting occurred only twice. On the next occasion the pain, though it lasted about an hour, had become "very slight," and there was no vomiting and no nausea whatever. By January 19, the constipation of the bowels had already lessened; and by the 27th they had become open daily. In nine days from the beginning of the treatment the extremities had become warm, and they continued so. With the exception of a slight wave of vertigo without loss of consciousness on February 18, not one single fit occurred during the whole time the treatment was continued, and excepting the one fit which happened in the beginning of March while the treatment was omitted because the patient had taken cold, she continued quite free from attacks during six months—viz., from January 10 to July 9, 1864, the last date at which I heard from her.

(a) I am led to form this opinion by the recollection of a case (an account of which was published in one of the Medical journals) of a girl who suffered both from the blue disease and from hare-lip. When three years old, she underwent an operation for the closure of the lip. As a preliminary proceeding it was necessary to cut through and bend downwards the abnormally projecting premaxillary bone. In consequence of the presence of cyanosis, the Surgeon did not give chloroform. The division of the premaxillary bone caused such a shock to the patient that she fainted, and remained so long unconscious as to make the Surgeon fear she might not recover. At length, however, she returned to consciousness, and astonished him by the rosy hue of her lips and cheeks, now suffused with arterial blood; whereas up to the time of the operation, owing to the circulation in them of semi-venous blood, they had been blue.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

LIGATURE OF BOTH EXTERNAL ILIACS FOR ANEURISM OF COMMON FEMORAL OF BOTH SIDES—SUCCESSFUL ON THE RIGHT SIDE—LIGATURE OF LEFT EXTERNAL ILIAC SOME MONTHS AFTERWARDS—DEATH FROM SECONDARY HÆMORRHAGE AND PYÆMIA—AUTOPSY.

(Under the care of Mr. HENRY SMITH.)

CHARLES B., aged 45, was admitted on May 30, 1864, with aneurism of the common femoral of both sides; a thin, spare-looking man; always enjoyed good health. No evidence of arterial disease elsewhere. His attention was first drawn to the fact of his having aneurism by noticing a swelling in his right groin about a fortnight before admission. The swelling on the left side appeared some few days afterwards. The aneurisms at the time of admission were about the size of a pigeon's egg. When he first came into the Hospital a horse-shoe compress was applied to his right groin; this caused great pain, and did not effectually control the pulsation, owing to the difficulty of keeping it in position. Carte's hernia apparatus was applied to the tumour on June 1, but was discontinued, owing to the pain and excoriation produced by it. Pressure was also applied to the left groin.

On July 11, Mr. Smith proceeded to perform the operation of ligature of the right external iliac as follows:—Chloroform being administered, he first made an incision about three inches long through the skin and fascia, parallel to Poupart's ligament, and about an inch above it. He next divided the tendon of the external oblique muscle and some of the fibres of the internal oblique on a director, then the fibres of the transversalis and its fascia in the same way. Pushing aside the peritoneum, the artery was readily found, and a ligature placed round it, and the external wound closed by three stitches. The lower limb covered with cotton-wool.

13th.—Leg warm and comfortable; suffered some pain in the abdomen, but was relieved by vomiting; abdomen tender, but not tympanitic. Beef-tea; 4 ounces of brandy.

14th.—Skin moist; tongue slightly furred; leg warm and perfectly easy; pulse 77, and regular. To take Ammon. sesquicarb. acid citrat., āā. ʒij.; aqua, ʒviij., 4tis hôris.

15th.—Thirsty; skin hot, but moist. Pulse 76.

16th.—Pulse 70; respiration 21 (during sleep).

18th.—No pulsation in sac of aneurism; external wound nearly healed.

The ligature came away on the 27th, on the sixteenth day after operation. Discharged on August 15.

Re-admitted on March 28, 1865, for ligature of left external iliac. Since his discharge in August he has been remarkably well in health, the right leg giving him no inconvenience beyond a little numbness. The cicatrix of the wound in the right groin is quite firm and hard, though there is a slight tendency to protrusion of the bowel, for which he has worn a truss. The tumour on the left side has increased slightly in size since he went out.

On May 7 a similar operation was performed to that on the right side. In this instance, however, the deep epigastric artery was tied, being divided in the operation.

8th.—Passed a very good night; leg warm; complains of a little pain over the abdomen; pulse 86; has a bad cough. Ordered tr. camph. co., ʒij.; mist. acac., ʒj.; aq. ʒviij. ter die.

The ligatures from the main artery and from the epigastric came away on May 22, fifteen days after the operation. He went on very well until the 25th, when hæmorrhage suddenly broke out, and he lost about four ounces of blood. Pressure was applied, and the bleeding controlled. A dose of morphia was administered, and a bag of ice applied to the wound.

The bleeding recurred at intervals up to the 27th. In the evening of the 27th Mr. Wood, in Mr. Smith's absence, opened up the wound to tie the artery higher up. When the ligature was placed on the vessel, blood was seen coming from below the point of ligature; a large clot was turned out, and a thick jet of blood was found to proceed from a large hole in the sac of the aneurism. Mr. Wood tried to put a ligature round the bleeding point, but the coats of the sac were rotten and gave way. He then plugged the sac with lint steeped in

tr. ferri. perchlor. The external wound was then closed, and a pad tightly strapped down on in. Pulse 104, after operation. Ordered eight ounces of brandy in twenty-four hours. With the exception of a bad cough, he went on well until the evening of the 29th, when he was seized with an attack of shivering, his abdomen being slightly tympanitic. Pulse varying from 136 to 140.

June 1.—Abdomen very tympanitic; violent vomiting. Death, June 2.

Post-mortem, *June* 4 (from Case Book, vol. 1).—The intestines much distended with flatus; no signs of peritonitis. The cellular tissue between the iliacus and psoas and peritoneum covering them was infiltrated with pus. The last ligature was found lying loose upon the muscles. Pus oozing from internal iliac and epigastric veins on left side. The circumflex iliac below the first ligature was pervious. The internal circumflex artery came from the back of the sac; the profunda was also involved in it. The external circumflex arose normally. The deep epigastric and obturator, which arose together, were both pervious. The superficial femoral was quite pervious and much enlarged. The common femoral vein was entirely filled with a firm coagulum. There were signs of suppuration in the sac itself, and a thin layer of lymph at the commencement of superficial femoral. There was an aneurism of the abdominal aorta opposite the second lumbar vertebra. Viscera healthy.

ST. GEORGE'S HOSPITAL.

EFFECTS OF WORKING IN PHOSPHORUS.

(Under the care of Dr. J. W. OGLE.)

James D., aged 34, a worker in phosphorus, applied, owing to bleeding from the gums, redness and soreness of the lining of the cheeks, the mouth feeling as if "all on fire," and irritated by the air breathed. In many parts patches of the mucous membrane were quite destroyed. He complained, also, of being heavy and dull, and inclined to sleep. The pupils were equal, but dilated. He generally worked with "white" phosphorus, and had been doing so for two years; latterly, he had worked in black phosphorus, which evaporates more than the other, and also at times had to work in arsenic and mercury. He stated that on previous occasions the mouth had been tender. He had lost flesh of late. No symptoms of other disease were discovered. He was ordered quinine and steel, with nitric acid, three times a-day, and a lotion for the inside of the mouth of tannic acid, spirits of wine, and the compound decoction, with the tincture, of bark. He gradually improved, remaining absent from the workshop and continued his medicines for a month, when he discontinued attendance, as being well.

PECULIAR HYSTERICAL CONDITION OF VOICE—TEMPORARY DYSPHAGIA IN SWALLOWING SMALL PORTIONS OF FOOD—RELIEF FROM VALERIAN, QUININE, AND ETHER, GALVANISM, AND SHOWER BATHS.

(Under the care of Dr. J. W. OGLE.)

Francis C., aged 37, a thin, excitable looking man, had for two or three years been liable to hoarseness, and also to dysphagia at times. In swallowing he could, when affected, always manage a large piece, but could not manage a small piece of solid food. There was no cough, but he had a thin, weak voice, exactly like that of a young girl. He had not lost flesh. He stated that at times his voice was quite natural, but that the peculiar squeaky character would be brought on by any exertion, also by cold air, and was worse at the change of weather. The pulse was natural; the various organs on close examination appeared sound. At first I gave him a mixture with oxymel of squills, but soon changed it for valerian, the chloric ether, and the compound steel pill. The throat was also galvanised every other day.

At the end of ten days he said he was much improved, and certainly his voice was better. Later on he took quinine and iron, and had shower baths every morning. After using the shower baths two weeks, he stated that he had not once lost his voice during their use, and at the end of three weeks more he observed that the exception was to lose the voice. Subsequently, he complained that after walking far or very quickly his voice would at times become squeaky. For three or four weeks more he continued his remedies, and then ceased to attend, but rarely having any peculiarity of voice, and never any dysphagia.

PULSATING TUMOUR (FREE FROM THRILL) ABOVE THE RIGHT CLAVICLE, WHICH PROVED TO BE OWING TO A BILOCULAR ANEURISM SPRINGING FROM A DISEASED AORTA—RUPTURED AND DISEASED AORTA VALVE FLAPS.

(Under the care of Dr. J. W. OGLE.)

James C., aged 47, was an out-patient, under the care of Dr. Ogle. He had enjoyed general good health until four years previously, when immediately after lifting a heavy weight he felt an uneasy sensation about the chest, and brought up a quantity of blood of a scarlet hue. Since that time he had brought up blood, with a considerable cough and dyspnœa which he had every winter. Two weeks before his application at the Hospital he noticed a tumour pulsating in the right side of the neck; this had remained stationary in size. His countenance was pallid, his lips blue, the conjunctivæ of the eyes yellow. There was much orthopnœa; the impulse of the heart was increased, the apex beating slightly to the left of the nipple, and there was a loud systolic bruit at the apex, diminishing towards the base, but from the base upwards again increasing towards the inferior clavicular region of the right side. Immediately above the right clavicle was a pulsating tumour, of about the size of a small orange, beneath the sterno-cleido-mastoid muscle. Over this a distinct bruit was audible, but there was no thrill connected with it. Loud musical râles existed at the lower parts of both lungs behind, and there was much cough, attended by thick mucous expectoration. The extremities were cold. The pulse was somewhat jerking, but the same at both sides. There was œdema of both legs. The tongue was coated, but moist; the bowels quite regular. I ordered him the tincture of digitalis 12 drops, with the spirit of chloric ether and camphor mixture, every six hours, and 5 grains of the compound storax pill every night. I only saw him once alive again, when I substituted the spirit of nitric ether and tincture of squill, with nitrate of potash, for the other medicine. He died suddenly three weeks after he first appeared at the Hospital, and I got permission to make an examination of the body at his own house. This I did with the assistance of Mr. Henry F. Smith and Mr. Cartwright.

On post-mortem examination I found the lungs much congested posteriorly, and the kidneys also very congested. The pericardium contained a slight degree of fluid. The heart was very large, its cavities much larger than usual, containing loose coagula, and their walls thickened. The walls of the arch of the aorta were occupied by much atheromatous and calcareous matter. The aortic valves were much thickened, and occupied by calcareous matter, and one of its segments was torn down from its attachments. Springing from the arch of the aorta was a bilocular aneurism, pressing upon and involving the large innominate vein; it was one of the compartments of this aneurism which had been felt and seen as a tumour above the right clavicle.

MIDDLESEX HOSPITAL.

A CASE OF INFLAMED SEROUS CYSTS IN THE GROIN AND PERINEUM SIMULATING STRANGULATED HERNIA.

(Under the care of Mr. J. W. HULKE.)

February 21, 1863, at twelve o'clock at night, a boy, aged 9, was admitted into Percy Ward. In his left inguinal canal was an elastic, oblong swelling that descended through the external ring, between the scrotum and thigh, into the perineum, as far as a line drawn between the ischial tuberosities, instead of taking the usual course of a rupture into the scrotum. The perineal end of the swelling was rounded and well-defined, while the upper end was obscure and lost at the external ring. The belly was tender. The groin and scrotum were red and œdematous, and the left side of the latter was distended with a solid swelling, evidently an inflamed testis, which was separated by a shallow vertical groove from the inguino-perineal tumour. He retched incessantly, and his bowels had not been open for three days. These symptoms were said to have begun suddenly, two days before, while he was in good health.

From its characters, its apparent escape from the belly through the internal ring, its situation in the inguinal canal, the constipation and retching, collectively, Mr. Hulke inferred that the tumour was probably an inflamed, strangulated hernia, complicated with orchitis, the latter probably due to the persevering use of the taxis; but the unusual direction of

the tumour after leaving the external ring, with the possibility that the retching was symptomatic of the orchitis, and the constipation accidental, occasioned him some doubts. The deviation of the supposed hernia into the perineum was the most suspicious point, since a rupture, at the boy's age, would almost certainly have been of the congenital variety, and its descent into the perineum would have been preceded by the misdirection of the testis to this region. An example of this had been seen by Mr. Hulke several years before, but in the present case the left testis was in its proper place, and the rupture was as plainly not in the tunica vaginalis.

The inflamed state of the parts precluding a further trial of the taxis, it was resolved to make an exploratory operation. An incision in the long axis of the inguinal swelling laid bare a thin membranous sac, deeply girt by the external ring. This was divided without relief. The sac was opened and about an ounce and a-half of clear yellow serum ran from it. It was an oblong cavity about one and a-half inches long, ending above in two short, blind diverticula at the internal ring, while below it communicated by a small aperture in the level of the middle of the scrotum with the perineal swelling. This was next laid open. It contained only serum and fibrinous clots, but a second deeper swelling was felt through its posterior wall. This was another cyst of less regular outline than the superficial one. Its only contents were an ounce of serum. It was now evident that the cysts were not a hernia. The boy was placed in bed and the wound poulticed.

The retching continued until 6 o'clock p.m. on the 22nd. His pulse was 128, and the perineum much inflamed. The belly was soft and painless. Constipation persisting an enema was given, but it was soon expelled without fæces. Next day the inflammatory swelling was greater, and his pulse had risen to 140. In the evening three grains of calomel were ordered, and on the following morning he passed three very copious stools. From this time the orchitis subsided. A small superficial abscess burst through the front of the scrotum. The cysts suppurated and were obliterated, and the wound healed soundly. At the patient's last visit, May 18, the only trace was a hard cord running from the back of testes to the groin and perineum. The connexion of the scar with the lower part of the spermatic cord makes it not improbable that the cysts originated in some of its structures, perhaps in an unobliterated portion of the vaginal process, and were really encysted hydroceles of the cord. Orchitis occurring, inflammation extended to them from the testes, and the scrotum being distended, the rapidly-enlarging hydroceles took the direction of least resistance towards the groin and perineum.

WEST NORFOLK AND LYNN HOSPITAL.

CASE OF DIAPHRAGMATIC HERNIA CAUSED BY A HEAVY WEIGHT PASSING OVER BODY.

(Under the care of Mr. KENDALL.)

[Reported by FLEETWOOD BUCKLE, M.D., House-Surgeon.]

JAMES G., aged 40, a strong, healthy labourer, in attempting to get on to the shafts of a cart (containing a ton of hay) whilst in motion, slipped and fell, and the wheel passed over his body obliquely from the right hip to the left shoulder, January 21, at 3 p.m. He was picked up and brought to the Hospital, where he arrived at 11 p.m. On admission he was in a state of collapse, and his friends stated that he had vomited a considerable quantity of blood. The right tibia and fibula were found to be broken, the skin lacerated, and a piece of the bone driven into the muscles of the calf forming a compound comminuted fracture. Slight bruise over right hip, none elsewhere; no ribs broken. The leg was set, and stimulants administered, when he seemed to rally a little, and passed a quiet night, with the exception of occasional sickness, each time bringing up a large quantity of dark, thin watery fluid.

On the 22nd he appeared a trifle better, but complained of pain and tightness across chest. The abdomen was flat, not tympanitic, nor was it tender. The sickness continued at intervals, causing but little pain. An effervescing draught with ammonia and burnt brandy was ordered every three hours. At 3 p.m. he complained of more pain in the region of the liver; a hot fomentation was applied, but had to be removed, as he said it increased his discomfort. Pulse 104, small. Skin warm. Bowels not open since accident. A beef-tea enema was administered and retained. 10 p.m.—Sickness continues; more tenderness over liver; pulse 120, small, sharp; resp. 24, thoracic; no respiratory murmur down left side, and resonance increased; free breathing down right side with some crepitation towards base; decubitus dorsal and inclined to right side; ice to suck. Omit all else by mouth; continue enemata of beef-tea every four hours.

January 23, 4 a.m.—Restless and wandering; skin warm and moist; pupils much dilated; pulse 124; resp. 38; more worried; no sleep; sickness continues. Unable to pass water, so drawn off by catheter; sp. gr. 1021, normal, no albumen. 12 noon.—Sickness not quite so frequent, otherwise same. 4 p.m.—More restless; aspect anxious; pupils widely dilated; pulse 136, smaller; resp. 32, short catching; sickness constant; increased pain over liver. From this time he gradually sank, the respirations becoming shorter and more difficult, and an accumulation of mucus obstructing the bronchial tubes of the right side, which he had no power to bring up. All enemata retained. Nothing passed by bowels since accident. Died quietly at 11 p.m., fifty-six hours after accident.

Autopsy Fourteen Hours after Death.—On opening the chest the diaphragm was found ruptured to the extent of four inches, from the tendinous portion downwards and towards the left side, a straight slit in the direction of the muscular fibre; through this opening the stomach, transverse colon, and about two feet of the small intestines had protruded, filling up the left side of the chest, compressing the lung against the spine, and slightly pushing over the heart. Other organs found healthy, but congested. Right lung in a state of œdema.

CASE OF FRACTURED PATELLA IN AN OLD MAN TREATED WITH MALGAIGNE'S HOOKS—GOOD RESULT.

Henry R., aged 70, a fairly healthy old man, in getting out of bed caught his toe in the clothes, and fell to the ground. On attempting to rise he found he had lost the power of extending his left leg. He was therefore brought to the Hospital August 31, 1864, at the time suffering severe pain in the knee-joint. On examination the patella was found to be fractured transversely, the lower portion being much the larger. The smaller fragment was drawn up about three inches, and considerable swelling had taken place into the tissues around. The fragments were brought into as close apposition as possible by means of pads, plaster, and bandage, and he was placed upon a fracture bed, with head and heels raised to relax the quadriceps muscle. As there was some difficulty in retaining the fragments *in situ*, it was determined to apply Malgaigne's hooks, which were accordingly fixed August 27, causing but little pain, and no irritation of consequence. Full diet and beer Ojss. daily. By October 8 the bones were found to be united, and the hooks were consequently removed; but unfortunately shortly afterwards he got an attack of erysipelas in the leg, followed by considerable œdema, which kept him in bed for another three weeks, when he was able to get about with the aid of a stick, a short back splint being applied. He was then made out-patient.

January 8, 1865.—Splint removed. Can bend knee well, and walk with the aid of stick. General health good.

February 28.—Quite well; gets about without assistance. A slight depression about one-eighth of an inch broad indicates the situation of the fracture.

DEATH FROM CHLOROFORM.—A remarkable instance of this occurred to Assistant-Surgeon Wagner, United States' army, at the Beverley Hospital, New Jersey. A private was admitted for a gunshot wound calling for amputation of the leg. Chloroform was administered during the operation without ill effect. Sloughing of the flap supervened, and the bones so protruded that on November 15 a second operation was determined on. At this time his general condition was favourable, and there was nothing in his appearance nor any symptom present to contraindicate the employment of chloroform, except nervous agitation arising from dread of the operation. About half an ounce of chloroform was administered upon a sponge, the room being well ventilated at the time. The patient had been under its influence about fifteen minutes when he began to sink, and in about five minutes death took place. Six Surgeons were present, and the ordinary means of restoration were tried in vain. At the autopsy the heart and lungs were found quite healthy. On the first occasion the chloroform had been administered in much larger quantities.—*American Journal Med. Science*, January.

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Medical Times and Gazette.

SATURDAY, MARCH 11.

MODERN SYPHILOGRAPHY.—No. VII.—*Continued.*

THE COURSE, VARIETIES, AND PATHOLOGY OF SYPHILIS (INTERNAL SYPHILIS, ETC.)

(Continued from page 230.)

Before we discuss the facts which morbid anatomy has brought to light, we must call attention to M. Diday's late work,(a) which we had not read until after the earlier numbers of these papers were written.

In the "Natural History of Syphilis" we have the labours of a keen and sagacious observer conveyed to us by an extremely pleasant and acute writer. The work is bold in design, and abounds in original and suggestive doctrines. M. Diday has had the courage to watch the evolution of syphilis, and to study the natural course of the phenomena undisturbed by specific treatment. He has endeavoured to account for the various degrees of intensity of the syphilitic manifestations in different cases, and makes a plausible attempt to reduce the varied and conflicting phenomena of this disease to something like uniform laws. The work is too long, and contains too much "backbone" for us to give anything like a fair analysis of it. Let it suffice that the author is a strong supporter of the duality or non-identity of the poisons which produce the indurated chancre and the local venereal ulcer, and that he recognises two different types of *syphilitic* infection—the weak and the strong—as the result of his extensive series of observations. Discarding the hypothesis of the existence of several poisons, he regards differences in the sources of infection as the main causes of the different degrees of severity. He has endeavoured to classify the special symptoms by which the weak and the strong types of syphilis are marked, and he deduces very important therapeutical conclusions from his inquiry. Most of his conclusions have been already published and canvassed by the Medical journals, and we have ourselves had on many occasions to advert to his labours as a Syphilographer. We strongly recommend every one, however, to read the book for themselves.

Imprimis, we will speak of the morbid deposits which belong to the disease, and we shall then be better able to appreciate how far the character and condition of these products afford an indication of the forms, stages, and different conditions of health which belong to the disease.

The pathological course of syphilis—as far as it is patent to our senses—appears to proceed in that structure which is denominated the connective tissue, or modifications of it. There is a tendency to the production of a lowly organised lymph in various parts; for example, in the integument, the mucous membrane, the iris, the periosteum or bones, the cartilages of the larynx, the throat and tongue.

It is the interstitial effusion super-added to the original lesion, be this a pimple or abrasion, that constitutes the important anatomical feature of the true chancre. The impression which the touch derives from an indurated sore is,—that it is composed of a dense fibroid material. Such, however, does not appear to be the case—at any rate, where the induration is not of more than seven or eight days' standing. We had the opportunity of microscopically examining two specimens of induration recently. In the first, the tissues of the dermis and the more superficial layers of areolated tissue were swollen and infiltrated with new products, composed of cells,—granular and nucleated, and, for the most part, of very small diameter,—embedded in a granular basis. The sore had been exposed to some irritation, so that the cells upon the surface of the ulcer resembled ordinary pus. Around the periphery, however, they were small, granular, ill-developed, and bounded by cloudy bands of connective tissue, in the meshes of which were little depôts of new and very elementary growths. No new fibre existed apparently. In the second, a "ball" of induration, which had remained for four years after the healing of a chancre, was excised and examined. It felt like a small firm tumour, encapsulated by the connective tissues circumscribing it. The histological elements were essentially such as we have described: numerous cell growths, in some places still germinating apparently, and at others undergoing a fatty degeneration, and interpenetrated by delicate fibres of connective tissue. Upon the addition of the iodine test, which we had the curiosity to apply, a well-marked reddish-brown colour was developed.

Now, the character and pathological changes in these products of syphilis can be thus explained:—Being infiltrated into, and intimately combined with, the normal tissues, they give rise, according to their amount, to a papule, a tubercle, or Hunterian induration. These growths, possessing little succulency, and being often unaccompanied by inflammatory phenomena, it follows that the primary lesions of true syphilis possess a circumscribed firmness, different from a mere inflammatory swelling. By their disintegration at the surface of a sore, and by their absorption from beneath it, there may remain little or no loss of substance on their removal, or a band of fibroid thickening may exist in the midst of atrophied tissues.

The products which occur during the later stages of syphilitic cachexia are composed essentially of the same elements, and they appear to arise in the same way—a proliferation of nuclei in the cells of connective tissue.

When syphilitic exudations occur in internal organs we can understand how the functions of these will be impaired according to the amount and the site of the deposits, and the metamorphoses going on in such deposits. It can scarcely be asserted that they have any special and constant histological characters by which they may be differentiated from the products of other diseases. They possess, however, certain characters in common, which are very suggestive of their origin. They are frequently discovered in the bodies of syphilitics—as Dr. Aitken emphatically declares—and, when a history of syphilis can be traced, there does not seem to be much room for doubt.

The lesions, produced in the viscera by syphilis, may be grouped under the following forms:—1. Gummata, or Tumours; 2. Interstitial inflammations; 3. Cicatrices; 4. The amyloid or waxy degeneration of vessels and internal organs may also be reckoned among the remote effects of the syphilitic cachexia.

The *Gummata* are well-defined tumours, firm and elastic, or succulent and soft. They tend to undergo some shrinking, deliquescence or softening, and to assume the characters of a gummy or a semi-purulent fatty material, according to their age, site, and the quality of the morbid material composing them.

The *Interstitial Inflammations* are characterised by effusion of a material composed of cell germs and elementary fibre into the meshes of a parenchymatous organ. From the subsequent changes in this, we have various degrees of atrophy

(a) Histoire Naturelle de la Syphilis. Par le Dr. P. Diday. 1863.

and contraction, giving rise to furrows, depressions, and fine bands on the surface of organs, and to a peculiar form of cirrhosis in the liver—according to M. Lancereaux—or to an induration, softening, and interstitial inflammation of the kidney, lungs, etc.

The *Cicatrices* are but the markings and effects of some previous disease, appearing as puckerings, depressions, and furrows. Fibrous bands or cysts may frequently be traced in connexion with them.

The *differentiation* of these syphilitic products from inflammatory deposits, cancerous growths, fibrous and fibro-plastic tumours, tuberculous and scrofulous deposits, etc., is most carefully laid down by Dr. Aitken.

The exact changes which occur in the syphilitic affections of the brain and nerves have not yet been fully investigated, although the subject has had many inquirers—Continental and British. According to Dr. Wilks's experience, the new material has been observed upon the surface of the brain and involving the membranes. The character was uniform, and consisted in the union of the brain and membranes by a firm exudation, similar to that met with in other parts, the neighbouring bone not being necessarily affected, although this was once supposed to be the case.(b) Gummata and syphilitic nodules may also occasionally be found in the brain substance and in the tissue of the nerves, according to some observers.

Among the nerve lesions witnessed in syphilitic subjects, paralysis of a motor nerve of the eye is not uncommon: the third pair of nerves are the most frequently, then the sixth, and the fourth pair the least frequently affected. In these cases Von Graefe traced a constitutional taint in nearly half of those he met with. In Dixon's two cases,(c) a tumour—surmised to be syphilitic tubercle—was found in the substance of the nerve. We have ourselves seen more than once in syphilitic subjects, an affection of the orbit, giving rise to undue prominence of the eyeball, diplopia, pain, and lacrymation. Syphilitic affections of the internal eye (retina and choroid) are recognised forms of disease, and there are some very beautiful plates illustrative of the appearances under the ophthalmoscope in Liebrich's "Atlas d'Ophthalmoscopie."

Dr. Eade, of Norwich, published a highly interesting and suggestive paper, not long ago, upon "Syphilitic Albuminuria." He traced a connection between the renal symptoms and the syphilitic disease, and—what was of much practical importance—he showed that these cases were very amenable to the action of such remedies as iodide of potassium, etc. It is probable that these were instances of the interstitial inflammation of which we have spoken.

Not only may the presence of the syphilitic poison be the cause of numerous deposits in various organs, but it may induce an impairment of the constitution corresponding to the cachexia resulting from other diseases; and we may discern a similarity in the pathological products, as much the effect of the cachexia itself, probably, as of the syphilitic virus. There would seem to be good reason for thinking, for example, that amyloid degeneration may have as intimate a connection with the syphilitic as the tuberculous cachexia. Virchow and, quite recently, Dr. Grainger Stewart, of Edinburgh, have furnished some important evidence of this.(c)

Instances of the following may be occasionally met with in the subjects of syphilis who have, perhaps, been put fully under the influence of mercury at some prior date:—

An individual suffering from a wasting disease brings a history of the following train of symptoms:—Increasing weakness; increased flow of urine (50—200 oz. daily); increased thirst; ankles and feet œdematous after a day's exertion, but subsiding after a night's repose; urine of low specific gravity (1005 to 1015), slightly albuminous, and occasionally exhibiting a few waxy casts; some hypertrophy of the liver and spleen. Upon this, diarrhœa, bronchitis, general dropsy, etc., may supervene. These are the cases of amyloid kidney, so ably delineated by Dr. Grainger Stewart, and the syphilitic cachexia is undoubtedly one of its causes.

Our space will not permit anything more than the bare mention of those syphilitic diseases of the lung which mimic pulmonary phthisis so closely, and which, indeed, may be the product of the tuberculous and syphilitic diatheses combined.

The *syphilitic diseases of bone*—particularly the lesser forms of these, which are commonly overlooked—are particularly deserving of attention. Virchow declares that lymph is not only effused beneath the periosteum, but into the canals of the bone, and that either an ossification, or a softening and caries may take place. Traces of these affections are occasionally found upon the cranial and other bones of syphilitic subjects where no suspicion of them existed during the lifetime of the patient.

The reader is referred to Dr. Aitken's book (e) for an ably-written summary of all our present knowledge of these internal syphilitic lesions; and for the symptoms and pathology of congenital or inherited syphilis, he may consult the very admirable works of Mr. Hutchinson, M. Diday, and Professor Simpson.

The diagnosis is not wanting in practical importance, for the cases in which the syphilitic element is present cannot be so infrequent as imagined, and they possess, as a whole, marks which distinguish them from ordinary inflammations and diseases, and they are ofttimes very amenable to the action of appropriate remedies.

(b) Guy's Hospital Reports, vol. ix., 1863. We may refer the reader to the records of the practice of the Hospital for Epilepsy and Paralysis and other Hospitals, *Medical Times and Gazette*, 1863, vol. ii., pp. 408, 537; also, 1863, vol. i., p. 111, for much important information on the subject of syphilis in connection with diseases of the nervous system.

(c) *Medical Times and Gazette*, October 3, 1858.

(d) See *Edinburgh Medical Journal*, October, 1864, and the *British and Foreign Medico-Chirurgical Review* of same date.

(e) "Science and Practice of Medicine," by Dr. Aitken. Third Edition. 1865.

THE WEEK.

PROFESSORS SYME AND SIMPSON.

In another column we are glad to print a letter from Professor Syme, which goes far to remove the most offensive features of the public destruction of Professor Simpson's pamphlet. Of course Professor Syme is not obliged to give in his adherence to any new system of suppression of hæmorrhage, and the new operation of acupressure can but be benefited by the fullest discussion of all the objections which can be brought against it by so acute and experienced a Surgeon as Professor Syme. If the quarrel be merely one about supposed discourtesies of manner, we can only express our belief that if anything has fallen from Professor Simpson's pen which can be called offensive, he will be the first to retract it. If we venture to do so with due regard to delicacy, we will offer one word of comment on Professor Syme's letter. He seems to lay stress on the fact that the Professor of *Midwifery* has meddled with a subject strictly *Surgical*, as if the whole of Professor Simpson's labours on acupressure were a kind of intrusion on ground already appropriated. We believe the truth to be that the investigation into the safest and best mode of suppressing bleeding arose quite incidentally in the course of Professor Simpson's inquiries into the causes of mortality after Surgical operations, and on this point we must say that great benefit is likely to arise to humanity from the circumstance that an energetic Professor of Midwifery has done for Surgeons what Surgeons ought long ago to have done for themselves. No obstetric professor in Great Britain could go on calmly, with folded arms, whilst patient after patient was dying after parturition; and, comparing the lining surface of the womb after child birth to the equally raw and bleeding surface left after a Surgical operation, Professor Simpson inquires whether the same causes which destroy patients in the one condition are not found to

operate against the others also. The Surgeons should have been beforehand with Professor Simpson, and have done the thing themselves; but they have no right to be angry if he reaps the laurels which they themselves were too dignified, or self-satisfied, to stoop to gather.

THE PATHOLOGICAL SOCIETY'S "TRANSACTIONS" AND INDEX.

If ever book had special claims to the eulogy of a Medical journal, it is the new Index to the Pathological *Transactions*.(a) As we learn from a preliminary notice, and as every one engaged in the pursuit of any branch of Medical science must have felt, a general index to the enormous mass of matter dispersed throughout the fifteen volumes of the Pathological Society's *Transactions* was most desirable. But who could be found to undergo the labour of compiling? and whence the funds to defray the cost of the work? Mr. T. Holmes, than whom no one could be better qualified to do such a task with accuracy and lucidity, generously undertook the literary part; Mr. Prescott Hewett, whose presidency of the Society has been marked by more than usual activity, success, and harmony, undertook the cost, and has presented the volume in its present form to the members of the Society. The index is a double one—first of subjects, most minutely classified, then of authors, with an accurate list of their contributions. If Abernethy, whose attempt at classification of tumours from their resemblance to natural structures would now provoke a smile, could re-visit the scene of his earthly labours here, he would stare at the list of thirty-five tumours in the Index, besides about a dozen or more undetermined.

THE DIRECTOR-GENERAL'S RECRUITS.

We publish in another column a list of the candidates who have been successful in the examinations of the Army Medical Department. We may notice it as a fact that out of 77 gentlemen

35	studied at	Dublin
13	,,	Galway, Cork, and Belfast
8	,,	Edinburgh
8	,,	Aberdeen
2	,,	Glasgow
2	,,	Birmingham
9	,,	London.

COMPULSORY CERTIFICATES OF DEATH, SCOTLAND.

A special meeting of the Glasgow Medical Association was held on February 27, to consider the best mode of attempting to procure a repeal of that section of the Registration of Deaths Act by which the Medical Practitioners of Scotland are obliged, under penalty, to give certificates of death. In our Parliamentary report last week we noticed the curt refusal of the Lord Advocate to take any steps to relieve our Scotch brethren from this most unjust enactment; and it appeared from letters read at the above-mentioned meeting that appeals to the Lord Advocate had only elicited the certainly not very courteous response, that it was "no part of his Lordship's official duty to answer such questions" as were put to him about the working of the law, questions which "related to matters which might be made the subject of criminal prosecutions." It being thus amply evident that the Profession had nothing to expect from the justice or the courtesy of Government, the Association have determined, with the advice of Dr. Christison, to use all the strength of the Profession to bring forward a bill on the subject in the new Parliament. We hope every Medical man in Scotland will bear this subject in mind when candidates come forward at the General Election. It is quite evident that it is only by a determined exercise of their personal influence and power that they can hope to obtain the repeal of this obnoxious law, the insult and injustice of which are rendered more glaring by the fact that it applies to no part of the United Kingdom except Scotland. The Profession elsewhere may also note this as one of the many proofs that Government is always ready to demand and enforce gratuitous work from them, though never willing to afford them any protection or support—a mode of treatment to which it does not venture to subject any other of the learned Professions.

(a) A General Index to the First Fifteen Volumes of the *Transactions* of the Pathological Society of London. J. W. Roche, 5, Kirby-street. 1864.

SOUTH AMERICAN BEEF.

For more than a year we have had on our table a parcel of some of the earliest imported dried beef from South America—the same, we believe, which was specially reported on by Dr. Mapother, of Dublin, who was amongst the first to recommend it to the notice of his Professional brethren and the public. Of late rather unpleasant rumours have been afloat respecting the quality of much of the beef which is at present offered in London for retail sale to the working classes. These rumours took a more decided shape on the appearance in *The Times* of Tuesday of a report of proceedings before the Lord Mayor, which resulted in the condemnation of a large quantity of beef, which had been seized by the City Inspectors at the shop of Mr. Harper Twelvetrees, in Bishopsgate. It appeared to us that the report was spiced with irrelevant matter, calculated to prejudice Mr. Twelvetrees in the eyes of the public. We therefore procured specimens of the beef that had been condemned in the City. The first was moist, salted beef, in large rolls. It looked of a good colour, had no unpleasant smell, and tasted quite sweet. We directed a piece weighing about three pounds to be soaked for an hour in cold water, then to be put into a stewpan with water; after about a quarter of an hour's maceration the first water to be thrown away, then more water to be added, with carrots, turnips, and onions, so as to make a stew *secundum artem*. Alas! when the beef had been stewed about three-quarters of an hour, on lifting the lid of the stewpan, the cook was almost knocked down by a disgusting odour, which, be it observed, had not been perceptible at the earlier part of the operation. Nevertheless, the cooking was finished and the dish presented; but no sooner was the cover removed than there was a general *move* on the part of those who were curiously expecting it; and a poor wretch from the streets was bribed to take it and throw it on the nearest dungheap. Evidently the meat had become tainted before it was cured, and the antiseptic process, though sufficient to arrest or disguise decomposition, still could not restore the meat to a fresh state; and so soon as it was softened and prepared for the stomach the ill odours began to revive. The *dry jerked beef* was also quite sweet to the taste; it looks like leather or gutta percha in strips, and when soaked and cooked, though a little hard and lean, was quite nice and relishable. We shall experiment further and report on it, and meanwhile hope that an occasional failure like this will not deter merchants from importing this much-needed beef, but that greater care will be taken in the original manufacture.

PARLIAMENTARY.

An important debate took place in the House of Lords on Monday last, on the subject of Military Hospitals. The Earl of Dalhousie, who opened it, is the nobleman to whom is due whatever credit may attach to the choice of the site and the erection of the Hospital at Netley. Nor did he, on Monday night, abstain from indulging in a fair *quantum* of self-gratulation on the success of Netley and a proportionate amount of reflection on those who had opposed the situation and the plans on which the Hospital is built. He said that he had visited Netley, and been assured by the Medical officers that its situation was not unhealthy.

"A Medical school had been established, and the arrangements made for the invaliding of soldiers who came from India and from our colonies were so complete that he was informed that within three weeks after their arrival such of

them as did not require Hospital treatment were discharged and forwarded to their places of residence without being exposed to or falling into the temptation of spending a shilling of the money with which they might arrive in this country. Under these circumstances he maintained that the success of Netley Hospital had been so great as to reflect upon those who in the first instance attempted to prevent its erection, and who had done their best to run it down as an establishment on which the public money ought not to have been expended. The only fault which he had to find was, that the quarters for the Medical officers had been curtailed of certain appliances, the plans for which were approved while he was in office, and all for a paltry saving of £4000 or £5000, which was struck off the Estimates by Lord Herbert when he was Secretary of State."

He then drew attention to the pier which is about to be ereeted for the landing of invalids at Netley, which, he said, would be insufficient to meet the wants of the Hospital. It would not extend far enough into deep water to allow transports to go alongside it. In reference to the new Hospital in course of erection at Woolwich, he said it had cost the public £200,000 :—

"He was prepared when he visited the building to see something singularly unique in its construction, but he found it was built upon the principles of those hygeists who, he thought, carried their opinions in this matter somewhat too far. It was certainly a most gorgeous Hospital, with a very handsome *façade*, in which there was no architectural fault. It was, however, built in blocks and wards of glass, in which, in his opinion, it would be absolute cruelty to put an invalid, as their lordships were doubtless aware that the first anxiety in illness was to relieve the brain and the eyes from too much light, whereas in these wards the plan seemed to be to introduce what he could only denominate as the glass and glare system. If intended for a flower show, the idea was admirable, or if for a museum, nothing could be more delightful ; but as a Hospital for the reception of invalids, nothing could be more absurd. The site was very unfortunate, as the building was erected upon the side of a hill, the foundations being laid almost entirely upon clay, and the result was that, to a certain extent, they had perished. He did not pretend to have any knowledge of engineering or of building, but he had inspected the building under the singularly favourable circumstances of being in the company of the contractor, his friend, Mr. Myers ; and although that gentleman naturally desired to gloss over these failures, there were so many formidable supports and buttresses still unremoved as showed him that the rents in the blocks were almost as likely to be fatal as 'the rent the envious Casca made.' The Hospital must have been built either for a general, a garrison, or a regimental Hospital. The site was wholly inappropriate for a general Hospital, and there did not appear to be any proposition for attaching to it any quarters for the residence of the Medical officers. With regard to the inappropriateness of its site, he need merely point out that army invalids coming from abroad in large transports, such as the *Himalaya* and the *Urgent*, which could ascend the river no higher than Gravesend, had to be transhipped into small steamers, which were obliged to discharge their passengers at the landing-place at Woolwich Arsenal, two miles from the Hospital. If it were intended for a regimental Hospital for the garrison at Woolwich, he thought the expenditure of £200,000 was most unnecessary, inasmuch as the garrison at Woolwich rarely exceeded 4500 men, and they possessed at present an exceedingly favourable specimen of the old style of Hospital capable of accommodating 330 invalids, although not more than 200 beds were ever required. When he visited that building the other day, he found that it required very little to adapt it to modern requirements. The new Hospital was to make up from 600 to 650 beds, which could never be required for the Woolwich garrison ; but, in any case, why remove the regimental Hospital from the situation where it was most required—namely, the vicinity of the troops who were to occupy it, and the residence of the Medical men who were to practise in it? Therefore, whether the building was intended for either a general or a regimental Hospital, he was prepared to show that it was not fit for the first, and that it was beyond the necessities of the second. He had further visited the regimental Hospital at Hounslow, which was also built upon what he would take the liberty of calling the glass and glare principle. It was a very pretty little Hospital, containing sixty-eight beds, but much larger than the necessity of the case required. Attached to it was a barrack for the accommodation of about five and a-half troops of cavalry. He found one wing of this Hospital shut and locked up, it never having been used ; but he was much gratified to find that the four small comfortable wards in which the worst cases of the Hospital were accommodated were as airy and quiet rooms as any of their lordships would desire in their own residences. The glass of the lower windows had been painted a dark green, in order to exclude that light it was the object of the designers to bring into the rooms. He was about to give credit for this to the commanding officer, but he was informed that it had been done by the directions of the Medical officers of the first regiment quartered there." He then proceeded to criticise the fittings of the Hospital, which he thought were too expensive, and in case of being broken entailed too great an expense for reparation. "He could not help thinking that all these, he must call them unnecessary knick-knacks in Hospitals were introduced partly from the habit which prevailed in the War Office of consulting hygienists not connected with the army. To a certain extent he believed he was to blame in this matter ; for at a time when it was absolutely necessary to put the Hospitals on a proper footing, and to adopt proper principles of hygiene, he did employ civilians for that purpose, because he did not find to his hand in the army gentlemen sufficiently educated in those principles, or, at all events, who had had experience in them ; but times had changed since, and the principles of hygiene were now studied by the Medical officers of the army with the same assiduity and zeal, and with the same desire to turn them to good account, as they were by civilians ; and when he looked at the *Army List*, he found that there was at this moment a branch of the War Department called 'the sanitary branch,' and that 'Inspector-General P. Logan, M.D.,' was at hand to advise the department in any matter of sanitary arrangement. He found also that in the Military Medical School at Netley one of the most distinguished authorities on the subject had been appointed Professor of Military Hygiene. Under these circumstances he could not see that it was at all necessary to have recourse to the advice of civilians ; but he was told that even up to this hour his old friend, Dr. Sutherland, whom he had consulted about the Hospitals at Scutari and other places, was still advising the War Office. The name of Dr. Sutherland was so hidden away on the list that he could not find out exactly where he was, but he had no doubt he was not far from the elbow of his noble friend, or from that of the Under Secretary for War. His noble friend ought at once to make up his mind to give up such a system, for he had connected with the Medical Department of the Army persons capable of advising him, and none more so than the Director-General of the Medical Board. In conclusion, he had to express a hope that in building Hospitals his noble friend would see that they were not merely Temples of the Sun, and that in building barracks he would see that they were something more than Temples of the Winds."

Earl de Grey, after referring to the alleged insufficiency of the pier at Netley, and stating that the present plan was adopted in consideration of the great difficulty of getting transports up to Netley at all, and that a new arrangement had been made, by which the Admiralty were to provide a special vessel for the conveyance of invalided soldiers from Spithead to Netley, directed his remarks to the subject of the new Hospital at Woolwich. He defended the "pavilion plan" on which it was built. By the pavilion plan was meant long galleries built out at right angles to a corridor, so as to leave light on both sides. That plan had been adopted in a new civil Hospital at Paris and in the new military Hospital at Vincennes. There appeared to be a great weight of competent authority in favour of the pavilion principle. The Woolwich Hospital was to be a general one, and to supplement that of Netley as a training place for Medical officers in the management of general Hospitals. Both it and the Hospital at Hounslow had been erected on the calculation that the sick would amount to 10 per cent. of the strength of troops, an average existing at the time of their construction. But recent hygienic measures had reduced the average to 7 per cent. With regard to the civil element in the counsels of the Secretary of War, his lordship said :—

"I think we ought to speak with gratitude of the great advantages we have derived from the assistance of civilians whose

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suggestions for the improvement of the sanitary condition of barrack Hospitals have been adopted by successive Secretaries of State. With the noble earl, I look forward to the time when the Medical officers of the army will be possessed of as ample knowledge as any civilian upon the subject of sanitary hygiene. My noble friend alluded to Dr. Logan and to the Professor of Military Hygiene at Netley. Dr. Logan is a member of the Committee now consulting upon this subject, and the Professor of Military Hygiene is a civilian. That Committee was the work of Sir G. Lewis, who regarded its labours as of great value. There is, indeed, a Sanitary Committee which is consulted by the War Office. That Committee consists of the Quartermaster-General as president; of Dr. Logan, the head of the sanitary branch of the Army Medical Department, the head of the barrack-building branch, and Captain Belford of the War Office, who are *ex officio* members. The other members of the Committee are Captain Galton, who has done so much as an engineer for sanitary improvements, and Dr. Sutherland. I certainly think Dr. Sutherland is entitled to the gratitude of the country and of the Government for the services he has so long rendered. My noble friend consulted him, and placed him upon the first Commission, and I do not think the time has yet come when we can entirely dispense with the services of all those who were members of the Commission. There are three other members, who are specially appointed by the India Department. In dealing with this subject the Government is acting upon the experience of the Commission which was appointed by my noble friend, and that experience was confirmed by the Indian Sanitary Commission appointed by General Peel, and presided over with so much ability by my noble friend Lord Stanley, so that we have the latest as well as the first authority to sanction the course we have pursued."

After some observations by Lords Ellenborough and Longford and the Duke of Cambridge, the subject was allowed to drop.

In the House of Commons, Mr. Bentinck's motion respecting railway accidents, by which it was proposed to give Government power to inquire into the causes of accidents, and to examine witnesses on oath, and to issue regulations for the conduct of the traffic on railways, was negatived.

On Tuesday, in the House of Commons, Sir Fitzroy Kelly's resolution for the reduction and final repeal of the duty on malt was negatived by 251 to 171.

On Wednesday, in the House of Commons, Lord R. Montagu, in moving that the River Waters Protection Bill be read a second time, referred to the calls made for a measure of this nature, and the recommendations of the Committee of last year, upon which the bill was founded, and observed that he asked to have it now read in order that it might be sent before a Select Committee, where its details might be examined and improved. He then gave a graphic description of the evils and broods of secondary evils flowing from the pollution and contamination of our rivers by foul and disgusting matters which might furnish an acceptable nutriment to the land. Besides its pernicious effects upon the public health and public morals, he showed how this cause destroyed property, and sacrificed capital by killing fish and even cattle, and by raising the beds of rivers, and thus occasioning floods. He cited the evidence of Professor Acland, Mr. Rawlinson, C.E., and other scientific men, to prove that these evils were rapidly increasing and assuming a form of so much national importance as to demand a prompt and effectual remedy, which might be found in the utilisation of sewage by applying it to the land, thereby augmenting its fertility. He explained, in conclusion, the machinery of the scheme embodied in the bill, showing that no right or interests would be interfered with without the sufferers being amply compensated.

Sir G. Grey observed that Lord Robert had mixed up two distinct subjects, one of them being contemplated by the Sewage Utilisation Bill. He thought Lord Robert had failed to show that the present Bill provided a practical remedy for actual evils (which he had, however, greatly exaggerated), and that was the question before the House. In his opinion, it would be most unwise and inexpedient to adopt the scheme proposed in the Bill, which was not really sanctioned by the recommendations of the Committee. He then proceeded to examine the main features of the scheme, pointing out objections, and expressed a hope that the House would not adopt the principle of the Bill by assenting to the second reading.

Mr. Kendall opposed the Bill, as did

Mr. Jackson, who moved that the second reading be deferred for six months.

This amendment was seconded by Mr. Bright, who dwelt upon the serious consequences of passing such a Bill, and recommended that it should be withdrawn.

A long further discussion ensued, in which Mr. Selwyn, Mr. Hibbert, Mr. Adderley, Mr. G. L. Gower, Colonel Edwards, Colonel Sykes, Mr. Ferrand, Mr. Locke, Mr. W. Forster, Mr. Liddell, and other members took part, most of whom concurred in suggesting that this measure should not be pressed, though some legislation upon the subject was imperatively required.

Ultimately Lord R. Montagu, in his reply, said, under the advice tendered to him, he would withdraw the bill.

Lord R. Montagu then moved the second reading of the Sewage Utilisation Bill.

Sir G. Grey said he entirely concurred in the principle of this bill.

After a few remarks by Mr. F. Powell, the bill was read a second time, and ordered to be referred to a Select Committee.

FROM ABROAD.—RECONSTRUCTION OF THE HÔTEL DIEU—SPONTANEOUS GENERATION.

The members of the Paris Société de Chirurgie, at the period of their recent discussion on Hospital Hygienics, which was continued during ten meetings, thought that they had reason to congratulate themselves on at least partial success in attaining the object they had in view—viz., the prevention of the construction of a vast Hospital on the site of the present Hôtel Dieu. It was said that this discussion, characterised by great ability and by the unanimity of its condemnation of the erection of large Hospitals in crowded cities, had had its effects upon the municipal Administration, and that in place of the gigantic establishment intended a modest Hospital of some 400 beds would be substituted. Much satisfaction was naturally expressed, and the orators reposed on their laurels, gratified that the teachings of statistics and the conclusions of common sense had exerted their due effect. This turns out to be an illusion; for M. Velpeau has just communicated to the Society the fact that the Administration, after all its wavering, has determined to erect a Hospital with more than 800 beds. It has in view, in fact, not so much the true necessities of the case as the providing the site with an edifice which by its vastness and architectural proportions shall not discredit the magnificent cathedral in the vicinity of which it has the misfortune to be located. It will form part of the general plan of dazzling the Parisians by the grandness of its aspect, which has now become the rule in their capital, no matter what other considerations may have to be sacrificed. M. Velpeau, with that simplicity and confidence in the power of truth which it is pleasant, although somewhat surprising, to meet with in such a veteran, has recommended the Society to circulate among all the members of the "Conseil de Surveillance des Hopitaix" copies of the discussion which took place within its walls, in the hope that it is not yet too late to avert the impending mischief.

The Committee appointed by the Academie des Sciences to investigate the rival statements of MM. Pouchet and Pasteur concerning spontaneous generation, and consisting of MM. Flourens, Dumas, Brongniart, Milne-Edwards, and Ballard, has just made its Report. Spontaneous generation, it observes, is one of those questions met with during the cultivation of the sciences of observation which can never receive an absolute solution from experiment. It is a doctrine which has been debated from the remotest periods, and as nothing is more abundant than vague observations destitute of precision, arguments apparently derived from direct experiment have never been wanting to maintain its reality. These have disappeared before exacter observation, only to be revived at other epochs in relation to smaller organisms requiring for their detection and verification instruments of improved construction. The bodies brought under discussion became at last so minute that their detection may require instrumental aid of a perfection of which we have at present no conception. Awaiting this,

the doctrine is one of mere discussion, capable of being sustained by arguments on either side. With such discussions and merely opposite opinions the Academy can have nothing to do; as its mission has never consisted in adopting either this or that doctrine, but in verifying the facts on which the various opinions have been founded; and when any of these facts of capital importance are affirmed by the one side and denied by the other, it becomes the duty of the Academy to ascertain how far these are conformable to the truth and entitled to serve as elements of serious discussion.

Among the experiments brought forward in relation to spontaneous generation, there is one of striking importance, and which is regarded on all sides as capital. In a memoir published by M. Pasteur, he makes this affirmation—"That it is possible to take from a determinate locality a notable volume of ordinary air which has undergone no chemical or physical modification, and which will still be entirely unsuitable for inducing changes in an eminently putrescible liquid." To this M. Pouchet opposes the assertion that "on whatever part of the globe a cubic decimetre be taken, when this is brought into contact with a putrescible liquid in a mattrass hermetically closed, living organisms are constantly produced." The Academy named the Committee now reporting to superintend the experiments intended to justify the one or other of these statements. After some difficulty in arranging matters, the Committee met June 22, having determined that M. Pasteur should use a decoction of yeast and M. Pouchet an infusion of hay in their respective experiments, these being the putrescible fluids each had been accustomed to employ. M. Pasteur first presented three flasks filled with air on Mont Auvert in 1860, and containing yeast water. Transparency was found to be completely maintained, no organic matter being developed, and on analysis the air was found to contain its normal proportion of oxygen. Thus this air had been kept in contact with the yeast during four years at a temperature of 25C., without any alteration having been produced. M. Pasteur next filled to a third of their capacity sixty flasks with the decoction of yeast, closing, after two two minutes' ebullition, the narrow necks of the flasks by means of a lamp. Three test glasses were also filled with the decoction. The fluid in these last became turbid the next day, and myriads of bacteria were developed; the fluid in the flasks remaining perfectly limpid at the end of a month. The flasks were next divided into three series, and their necks having been broken with great precaution, air was allowed to enter them from three different localities—the interior of the great amphitheatre of the museum, the upper part of the dome of the amphitheatre, and the open air near some poplars at Bellevue. These three series in a day or two all exhibited organisms, but in very different proportions. Of the 19 in which the air was derived from the body of the amphitheatre, 5 only exhibited such, and 14 remained unaltered; of the 19 having air derived from the dome 6 produced living beings; and of the 18 exposed in the open air at Bellevue 16 underwent alteration. This last fact, the Committee observes, is just what would be expected, seminal germs being far more abundant in a meadow under the trees than in the middle of towns. But four of the vases, instead of having their necks hermetically sealed, had them much contorted and narrowed, but left open to the air. The fluid had undergone no more change than it had in the vases hermetically sealed at the period of the reading the report seven months after the experiment. This was attributed to the very slow manner in which the air gained access through the contorted neck, the germs in the air, if present, becoming in fact, deposited in some of the inflections of the narrow tube. This was proved to be the case, for the neck of a similar vase, which M. Pasteur had kept unclosed for three years, having been sealed, the flask was well shaken so as to detach the germs from the sinuosities of its neck, and in the course of two days numerous organisms were developed in the hitherto transparent fluid. The Committee declare M. Pasteur's observations to be rigorously exact, and conclude that "Fermentable liquids may remain whether in contact with confined air, or with air frequently renewed, without undergoing alteration; and when under the influence of this fluid living organisms are developed, it is not to the influence of its gaseous elements we must attribute this development, but to solid particles which may be separated from it by various means."

At an early stage of the inquiry M. Pouchet, refusing to be bound by the conditions which the Committee regarded as indispensable, withdrew from the investigations, not without being charged by the Committee with endeavouring to evade the true point at issue, and which he had at first formally acknowledged as such.

GYPSUM BANDAGES.

Our readers will not fail to have noticed the exceedingly practical and lucid, though condensed paper on the Gypsum Bandage which we published in the *Medical Times and Gazette* of last week from the pen of Dr. T. E. Stark, of Utrecht. It will be indeed a boon to the whole Surgical Profession, civil and military, when a few flannel strips, dusted with powdered plaster of Paris, and done up in tin boxes, can be substituted for a cumbersome apparatus of splints. In America, where the natural ingenuity of the people is stimulated by the necessities of their gigantic war, the gypsum bandage is in universal request; though even there they have scarcely attained to the perfectness and convenience of the form so well described by Dr. Stark. We have been favoured with the following woodcuts, the first of which shows the gypsum bandage cut open, in order that it may adapt itself, like an elastic mould, to variable sizes of the fractured limb. The second shows how a valve may be cut by inserting a sheet of paper at *a* whilst the bandage is being first applied, so as to leave an aperture for the scissors to cut two curved lines, ending at the hinge at *c*.

Fig. 1.

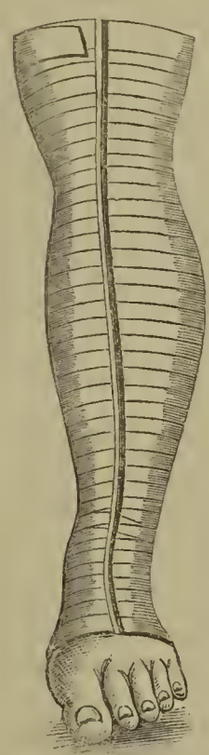
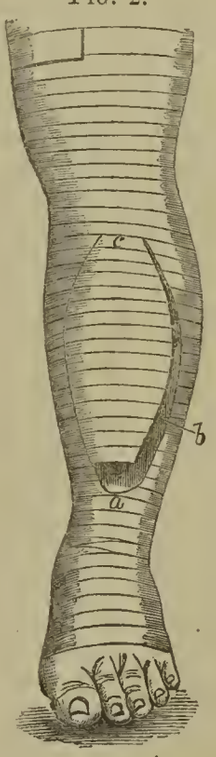


Fig. 2.



Popular Anatomical Museums.—The so-called "Anatomical Museums," which by the Profession here are considered a disgrace to the police management of London, seem to be in better repute at Vienna; for in the *Wiener Medicinische Wachenschrift* we find the following advertisement, headed by the figure of a cranium:—"Reimer's Anatomical Museum, the most famous in existence. Gentlemen admitted from 10 to 7 daily, and ladies Tuesdays and Fridays, from 2 to 7. Admission eighteenpence."

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BATH.

MODERN BATH.

Modern Bath is a city of palaces in a basin of light: to descend into the city at sunrise on a bright morning is a pleasure for which one might be glad to live for the hour alone. At the same time, when the city is entered, and its streets and thoroughfares are being trodden, it is seen to be a busy city. In this respect it differs greatly from other fashionable places where health-seekers look for repose.

I said in a previous chapter that modern Bath waited for a pump-room before it became what could be called a fashionable, and therewith a wealthy, city. This is quite true; the old histories tell us that at the latter part of the seventeenth century few cities were poorer or more mean in appearance: its inhabitants were rude and unpolite, and it had no places of amusement or assemblies. A few families of distinction resorted there for about six or seven weeks in spring time, and when the company were numerous enough to form a dance they repaired to a bowling-green, open and exposed to the air, and, to the sounds of a hautboy and violin, reeled away. In 1703 one Captain Webster, a resident of the city, and amongst the selected, took the company to the Town Hall, and opened a half-guinea subscription. Next year a pump-room was built, and soon afterwards Captain Webster, who may be considered as the first master of the ceremonies in the city, was so fortunate as to secure for his aide-de-camp Beau Nash, who, in a little time became the leader of the merry life of Bath. At the request of the Physicians of the city, Nash induced the visitors to go to the Pump-room to hear a good band of music; next he persuaded the citizens to repair their roads, and anon he led them to build and decorate. In time, aided by the waters and the friendly Physicians, the father of modern Bath raised it from obscurity to be the most elegant and the most delightful city of Europe. There, says one of our last century authorities, there the young, the old, the grave, the gay, the infirm, the healthy, all resort as to a vortex of amusement. Ceremony, beyond the essential rules of politeness, is totally exploded. Every one mixes in the rooms upon an equality; and the entertainments are so wisely regulated that, although there is never a cessation of them, there is never a lassitude from bad hours or from an excess of dissipation. The young ramble about in a manner vastly enlivening and cheerful. In the morning the rendezvous is at the Pump-room; from that time to noon in walking on the parades, or in the different quarters of the town; thence to the Pump-room again; from the Pump-room to a fresh stroll, and then to dinner; from dinner to the theatre or the Rooms, and, after dinner, dancing, or cards, early to bed.

Modern Bath has not retained *all* these first and fashionable buddings of her fame and prosperity: she is still fashionable, but she blends with fashion utility. She retains all her beauty, but she has now a good strong back of honest work in her which sustains her lustily as well as proudly.

The occupations of the citizens at this time show a much more numerous collection of the industrial classes than would be assumed in the absence of statistical facts. Thus, of persons aged 20 years and upwards, the classes, six in number, into which they are divided, by the last census commissioners, stand as follows:—

Total of all classes over twenty years, 40,706

1. Professional classes	. .	2,299, or	5·6 per cent.
2. Domestic	,, . .	16,915, or	41·6 ,,
3. Commercial	,, . .	1,395, or	3·4 ,,
4. Agricultural	,, . .	2,810, or	6·9 ,,
5. Industrial	,, . .	13,319, or	32·8 ,,
6. Indefinite and non-productive		3,968, or	9·7 ,,

It would be impossible for me to convey to the reader in this limited history any detailed account of the buildings of this beautiful city. It will be most to the purpose to pass to the consideration of the principal points of Medical interest—the Hospitals.

THE BATH GENERAL OR MINERAL WATER HOSPITAL.

The Bath General or Mineral Water Hospital was founded in the year 1738 on a site where before a theatre had stood. The foundation-stone was laid by the Right Honourable William Pultney. The building progressed rapidly, and in 1742 it was ready for the reception of patients.

A remarkably liberal spirit actuated the founders of this institution. Implicitly believing in the specific value of the Bath waters in the cure of diseases which, without these waters, were intractable or incurable, they determined that the Hospital should not be local merely, but national. The Hospital, therefore, was raised on the principle that all poor sick persons in England or Ireland who should come to it should be admissible save and except those who belonged to the city of Bath itself; the latter, it was thought, being at the waters, could have all the advantages at little cost.

The proposition thus made and carried out in the most generous spirit told in the end largely in favour of Bath itself. It were impossible that an offer of relief such as was thus made could fail to bring many sufferers from all parts of the kingdom, and it was equally impossible that these could return to their native places cured, as they often were, without making known the means by which they had recovered, and distributing the fame of the remedy. In turn the wealthy strangers who visited the city took an interest in the Hospital, and favoured it; so that in time it gained a body of supporters, widely spread through the kingdom, and more numerous than pertained to any other similar charity. In the first attempts to raise this charity the noted Beau Nash again took a conspicuous part, and the admirers of this eccentric character are forced to excuse many of his faults and frivolities by referring to his natural benevolence and practical love of doing good. Beau Nash was seconded ably by Mr. Hoare and by a distinguished member of our own Profession—Dr. Cheyne. Dr. Oliver Goldsmith tells an excellent story in reference to the efforts of Nash to raise funds for the "Bath General." "The sums he gave and collected," says Goldsmith, "for the Hospital were great, and his manner of doing it was no less admirable. I am told that he was once collecting money in Wiltshire's Room for that purpose when a lady entered who is more remarkable for her wit than her charity, and, not being able to pass him unobserved, she gave him a pat with her fan, and said, 'You must put down a trifle for me, Nash; I have no money in my pocket.' 'Yes, madam,' says he, 'that I will with pleasure if your Grace will tell me when to stop;' then, taking a handful of guineas out of his pocket, he began to tell them into his white hat, one, two, three, four, five. 'Hold, hold,' says the Duchess, 'consider what you are about.' 'Consider your rank and fortune, madam,' says Nash, and continued telling six, seven, eight, nine, ten. Here the Duchess stormed, and caught hold of his hand. 'Peace, madam,' says Nash, 'you shall have your name written in letters of gold, madam, and upon the front of the building, madam;' sixteen, seventeen, eighteen, nineteen, twenty. 'I won't pay a farthing more,' says the Duchess. 'Charity hides a multitude of sins,' replied Nash; twenty-one, twenty-two, twenty-three, twenty-four, twenty-five. 'Nash,' says she, 'I protest you frighten me out of my wits; I shall die.' 'Madam, you will never die with doing good; and if you do, it will be the better for you,' answered Nash, and was about to proceed, but perceiving her Grace had lost all patience, a parley ensued, when he, after much altercation, agreed to stop his hand, and compound with her Grace for thirty guineas. The Duchess, however, seemed displeased the whole evening; and when he came to the table where she was playing, bid him 'stand farther, an ugly devil, for she hated the sight of him.' But her Grace afterwards having a run of good luck called Nash to her. 'Come,' says she, 'I will be friends with you, though you are a fool; and to let you see I am not angry, there is ten guineas more for your charity. But this I insist on, that neither my name nor the sum shall be mentioned.'"

The first Physicians appointed to the Hospital were Dr. Oliver, who was also Vice-Chairman, Dr. E. Harrington, and Dr. A. Rayner; the first Surgeon was Mr. J. Peirce.

Soon after the commencement of the Hospital—viz., in 1793—an Act of Incorporation was obtained. The Act underwent modifications in the progress of time, and in 1830 a new Act was obtained, by which the governors were enabled to construct baths on the Hospital premises; and in 1835 the law which excluded the inhabitants of Bath from taking part in the benefits of the institution was rescinded.

Rules for the Admission of Patients.

I have before me a copy of the rules for admission of patients published in 1783, and a useful epitome of the rules published by Dr. Tunstall, in 1860, in his essay on the Bath waters. It may be of importance to many readers to know how they must proceed in order to get a patient admitted into the Institution, and I therefore append from Dr. Tunstall the regulations at present in force :—

"Those only are admissible whose diseases are deemed capable of being benefited by the Bath waters, and which are, —palsy, gout, rheumatism; certain nervous derangements, in which the brain is not materially affected, among which St. Vitus's dance may be particularly noticed; leprosy, and other chronic diseases of the skin; dropped hands from lead, poisonous effects of mercury or other minerals; pain, weakness, or contraction of limbs; dyspeptic complaints, biliary and visceral obstructions, etc.

"It should also be particularly noticed, that when these complaints are accompanied with pain of the chest, cough, or spitting of blood; palpitation or other disturbance of the heart; evidence of too great a determination of blood to the head, acute inflammation in any part, or general fever, abscess, suppuration of the joints, or ulcer of any kind; or if epileptic fits have occurred; the waters are not applicable. And in cases of apoplectic palsy it is deemed necessary that six months should elapse after the attack before the patients are admissible.

"The eligibility of each case can be ascertained only by such circumstantial report as may enable the Physicians and Surgeons of the Hospital to determine how far the patient is likely to derive benefit by the use of the Bath waters, for which reason the report of each case must contain—

"1. The name, age, and parish of the applicant.

"2. A brief history of the disease, comprising its origin, date, progress, and present symptoms, mentioning the parts principally affected, and to what extent.

"3. A correct representation of the state of general health, particularly certifying the absence of all disorders which render the Bath waters inapplicable, as above enumerated.

"A blank form for making the report may be obtained of the Registrar. When practicable, such statement should be made by a Medical man acquainted with the case and sent to the Registrar, who will submit it to the Medical Board, who meet weekly.

"Accuracy of reports is important, for when, from defective or erroneous statements, improper cases are sent to Bath, they are immediately returned, to the great inconvenience of patients; and when sent from a distance, with considerable expense.

"In a few days notice will be given to the party applying whether the application will be admitted or rejected.

"If admitted, the letter to that effect will be accompanied by a blank certificate, relating to the parish settlement and poverty of the patient, to be signed by the minister, churchwardens, and overseers of the parish to which the patient belongs; but the patient is enjoined to remain at the usual place of residence until notice is received that a vacancy has occurred.

"On receipt of the notice of vacancy, the patient should proceed without delay to the Hospital, bringing the letters of notice and the certificate duly executed, as well as the caution money, which is three pounds for patients coming from any part of England or Wales, or five pounds for those from Scotland or Ireland.

"The object of the caution money is to ensure the means of returning patients to their respective homes when discharged from the Hospital, or to defray the costs of interment in the event of death. When not required for these purposes or for supplies of necessary clothing, when this is greatly deficient, the whole of the caution money is returned to the party who provided it.

"Soldiers may, instead of parish certificates, bring certificates from the officers commanding their respective corps, acknowledging them to belong to such corps, and agreeing to receive them back when discharged, in whatever state of health they may be. The same regulation applies to pensioners of Chelsea and Greenwich. With respect to all these, however, reports are to be transmitted and caution money provided, as in ordinary cases."

The Hospital with but little alteration remained until 1859; then it was determined, after a long consideration, to erect a new building, which should include day-rooms, a chapel, board-rooms, and other important additions. The first stone of the new building was laid on June 4th of that year, and the result was the present beautiful building, which, if it stood in a more open space, would be a model sick Hospital. The new and the old buildings are connected by a bridge-way on the first floor.

Those members of the Profession who attended the meeting of the British Association for the Advancement of Science last year will remember the Mineral Water Hospital as the centre of the natural sciences during that period. The entrance hall is spacious and handsome. On ascending the staircase we reach two large rooms—the men's day room and the women's day room; these rooms are very large, the first is seventy feet long, forty-three wide, and twenty-two feet high; the second is seventy-eight feet long, twenty-six feet wide, and twenty-two feet high. The other wards are also large and open, and in all there is excellent ventilation and warming. Connected with the Institution there is an exercise ground—or garden it were better to call it—for the patients, and a chapel, which, for classic beauty, could not be excelled. I know not what in the old time the Romans did at Bath for architectural excellency; but if they ever placed on that spot any more perfect art than this, which a modern architect—Mr. J. E. Gill—devised and carried out, they deserve even more credit than we, even in our blind admiration and contrast of everything that is not modern, are accustomed to award them.

The board-room of the Hospital, which is on the ground floor, and in which last year the physiological meetings were held, is alone worth a visit from the Medical traveller in Bath. There is one painting which is in itself a study. It represents Dr. Oliver and Mr. Peirce, the one Physician the other Surgeon to the Hospital in its first days, prescribing for their poor patients. Of the patients presented in the field one wears a countenance of hope and the other a face of gladness, as believing that the relief sought for has come at last. The Professionals, dressed in the becoming costume of the day, are holding what may be considered a casual consultation; they are neither of them sad, nor are they in the least affected. It is the fault of most artists who have essayed a Medical consultation to make the Doctors either mutes or buffoons, as though the vein of Drelincourt on the one hand, or of Molière on the other, must needs be the spirit of inspiration. In this picture the artist—W. Hoare, Esq., R.A.—has studied simply the natural, and has succeeded admirably. His Medicals are gentlemen who evidently are of easy manners and well to do, who know what to order for the sick at a ready and practised glance, who are in agreement and friendship, and who take what comes before as the business of their lives in a quiet and earnest spirit, unmoved, but not uninterested. The contrast of expressions between the patients and the Medical men is admirable, and a certain hardness which indicates just sufficiently, and not more, that the Mr. Hoare fell short of the very highest position in his art, is almost atoned for by the general effect. The governors and Medical staff naturally prize this picture much.

At the present time the Mineral Water Hospital holds 142 beds. From the commencement of the Hospital it has, I believe, received 42,000 persons, of whom more than one-fourth have been dismissed as cured.

The results which have been attained in the treatment of disease in this Hospital are without doubt very remarkable and beneficial. It is here that we would look for evidence of the real scientific value of the waters, and it is just to say that the Physicians have carefully endeavoured to determine the exact value which the patients derive from them; it is also fair to say that the opinion expressed by these observers, who have at all times been men remarkable for their powers of observation, is in favour of the specific curative properties of the waters. Dr. Falconer, to whom I have before referred, deserves special credit for the care with which he has attempted to analyse the facts presented to him.

From November 1, 1859, to the same date 1860, Dr. Falconer tabulated 156 cases, consisting of 113 men and 43 women, including cases of rheumatism, sciatica, gout, paralysis, lead paralysis, cutaneous affections, hysteria, chorea, hip disease, and injuries: a brief account of this analysis cannot but be of value.

Of the cases, 49 were cases of *rheumatism* in men, and 20 were cases of *rheumatism* in women. Their ages varied from 10 years to 70, and their occupations were varied. The average duration of each man in the Hospital was 62 days, and of the women 81 days. Of these, 62 were treated by the waters alone; the rest were treated with the waters and other remedies.

RESULTS.

Waters alone.

Men.		*Women.*	
Cured	18	Cured	5
Much better	14	Much better	8
Better	8	Better	5
No better	3	Improper	1
Total	43	Total	19

Waters and other Remedies.

Men—Cured, 3; much better, 2: better, 1. *Woman*—Better, 1.

There were also twenty-five cases of sciatica—twenty-one men and four women. The ages of the sciatic patients ranged from ten to seventy years. The men remained in Hospital for an average of fifty-one days each, and the women sixty-five days.

RESULTS.

Waters Alone.

Men.		*Women.*	
Cured	11	Cured	2
Much better	6	Much better	1
Better	4	No better	1
Total	21	Total	4

Three men were admitted in the year suffering from gout. Their ages respectively were thirty-five, forty-four, and forty-nine years. The average stay of each one in Hospital was one hundred and thirty-six days.

RESULTS.

Water Treatment Alone.

Cured	2	Much better	1

Five men and five women were admitted with paralysis. The stay of each man was seventy-four days on an average; of the women, twenty-seven days.

RESULTS.

Waters Alone.

Men.		*Women.*	
Much better	4	Much better	1
Better	1	No better	1
Total	5	Waters disagreeing	3
		Total	5

Twenty-two cases of paralysis from lead were admitted. They were all men, of ages ranging from twenty-three years to fifty-seven. Their occupations were very various. Twenty-one of the men remained in Hospital seventy-three days each on an average; the remaining one died after fifty-seven days of residence.

RESULTS.

Water Treatment Alone.

Cured	13	Better	1
Much better	7	Dead	1

Ten men and ten women were admitted for cutaneous affections. Ten of the men remained in Hospital seventy-nine days each; nine of the women, one hundred and eight days each, and one woman died after twenty-eight days.

RESULTS.

Men.

Waters Alone.		*Waters and other Remedies.*	
Cured	5	Cured	1
Much better	1	Much better	2
No better	1		

Women.

Cured	1	Cured	1
Much better	5	Much better	1
Better	1	Died	1

A case of *hysteria* in a woman, twenty-one years old, was cured in fifty-one days by the waters and other remedies. Two children with *chorea*, one aged seven and the other *eleven* years, were in Hospital twenty-six days each, and were treated by the waters alone. They were both discharged cured. One man, aged forty-four years, was in the Hospital for forty-four days for *hip disease*, and was treated by the waters. He was dismissed as "better."

There were also admitted three cases of *injuries*, two in men and one in a woman. The men were in the Hospital sixty-two days each; one was discharged as better, the other as no better. The woman, who was in the Hospital twenty-two days, was cured.

To the record of his cases, Dr. Falconer adds the following summary:—

SUMMARY OF RESULTS.

Waters Alone.

Cured	60	
Much better	49	
Better	21	
No better	7	
Improper	1	
Waters disagreeing	3	
Died	1	
		142

Waters and Other Remedies.

Cured	5	
Much better	5	
Better	3	
Died	1	
		14
Total discharged		156

I have placed these results before the reader because I doubt not they represent a very fair estimate of the practice at Bath from the systematic employment of the waters. The observations are made by one of the most intelligent Physicians of the day, and by one who is unprejudiced and most careful in the collection of his facts. I must refer to the book of Dr. Falconer for the details of the cases, but I may state in brief that many of them were very severe, and apparently, according to the ordinary run of practice, intractable. There can be no doubt as to the correctness of the results, and there can be no less doubt that those results are excellent, such as few other Hospitals could show. Still, there remains unsettled the one question, the value of the waters—their *specific value*. To my mind, the exclusion of other remedies—I mean medicinal remedies, does not settle the question. To prove the case in favour of the waters, the other elements of treatment—the good food, the pure air, the freedom from overwork, the mental relief, the regular hours, the confidence inspired by the Physician—these have to be considered as connected most intimately with the word "*cure*." To prove the case for the waters it would be necessary to place an equal number of similar cases in the Hospital under precisely the same conditions, except in one particular. Half the cases should be treated with the thermal water, and the other half with ordinary water at the same temperature, the patients themselves not being made conscious of the difference. Then if, after twelve months' practice it were shown that there were a large balance of cures amongst those who had taken *the* waters, we should have before us direct proof that the said waters were essentially curative in character.

In the absence of such an exhaustive analysis as is above suggested, we cannot fairly say more than that the patients under treatment recovered. We may possibly say with great truthfulness and equal satisfaction that many cases of an extreme kind would probably not have got well unless they had been treated at Bath, and it would consequently be most unjust to deprive the fair city of one tittle of its fair and noble fame. At the same time, it is of the profoundest interest to Medical men to know the exact reason why recovery occurred. If we could be certain that more than 40 per cent. of special cases now in our Hospitals could be cured by these waters, it would answer well to let every Hospital in the kingdom have some of the remedy that now flows so swiftly into the sea by the Avon—at least, for internal administration. Or, again, if the waters do cure, it is certain that they cure because there is in them some special remedy or some compound which might, under experiment, be isolated and brought into general use, both as an internal and external remedy.

The most interesting and important of all the facts yielded by the results of treatment by the Bath waters relates to paralysis produced by lead. I confess that I have seen cases of lead paralysis resist every kind of treatment, medicinal or hygienic, while it is certain that in Bath very severe cases recover. The fact opens a suggestion. Can it be that in cases where the tissues of the body contain lead the poison can be eliminated by the mere imbibition for a long time of warm water, and that muscular tone can be restored by the same simple means? I have seen, in physiological experiment, paralysed muscles contract vigorously by the mere introduction into them of warm water, and we know that moderate dilution of blood leads to free secretion. It would be important, therefore, to ascertain whether treatment of lead paralysis by the

continued administration of three or four pints of warm water daily would give relief or effect a cure, and I trust that some members of the Profession who have many cases of the kind under observation will put this simple inquiry to the test of experience.

MEDICAL STAFF.

The present Medical staff of the Bath General Hospital consists of three Physicians and three Surgeons. The present officers are:—

Physicians.—Dr. Watson, Dr. Falconer, Dr. Coates.

Surgeons.—G. L. Wood, Esq., J. Bartrum, Esq., T. G. Stockwell, Esq.

Resident Medical Officer.—S. Roberts, Esq.

REVIEWS.

On the Temperature of the Body as a Means of Diagnosis in Phthisis and Tuberculosis. By SIDNEY RINGER, M.D., Professor of Materia Medica and Therapeutics at University College, etc. London: Walton and Maberly. 1865. Pp. 92.

In the work before us, the small size of which, by the bye, is not to be taken as the index of its value, Dr. Ringer extends his observations upon the temperature of the body in disease to the important class of tuberculous affections. His former papers have appeared in the *Medico-Chirurgical Transactions*, but, we think, that in this instance he had exercised a wise discretion in publishing his observations in a separate form, in such a form as shall ensure the general diffusion of the important results which have come out of them among the mass of the Profession. The observations upon which his conclusions are based are, he tells us, very numerous, but the cases which he relates amount only to twenty-four, and these suffice to illustrate the subject. Several of the cases narrated are accompanied by a diagram showing the daily fluctuations of the temperature of the body. The temperature in each case was taken in the axilla, and Dr. Ringer lays down the precautions necessary to render an observation so taken trustworthy. The general results which he has arrived at are the following:—

"1. There is probably a continued elevation of the (temperature) of the body in all cases in which a deposition of tubercle is taking place in any of its organs. 2. This elevation of the temperature is probably due either to the general condition of the body (tuberculosis) or to the deposition of tubercle in its various organs (tuberculisation). 3. This elevation is probably due to the general condition (tuberculosis) rather than to the deposition of the tubercle (tuberculisation). 4. The temperature may be taken as a measure of the amount of the tuberculosis and tuberculisation, and any fluctuations in the temperature indicate corresponding fluctuations in the severity of the disease. 5. The temperature is a more accurate indication of the amount of tuberculosis and tuberculisation than either the physical signs or the symptoms. 6. By means of the temperature we can diagnose tuberculosis and tuberculisation long before the physical signs and symptoms are sufficient to justify such a diagnosis. 7. By means of the temperature we can diagnose tuberculosis even when, during the whole course of the disease, there are no physical signs indicative of tubercular deposit in any of the organs of the body, and in which cases the symptoms (apart from the temperature) are inadequate to enable us to arrive at such a diagnosis. 8. It is probable that by means of the temperature we can conclude that the depositions of the tubercle have ceased, and that any physical signs that are present are due to obsolescent tubercle and the chronic thickening of the lung tissue between the tubercular deposit. 9. It is probable, though further observations on this point are necessary, that the temperature of the body affords a means by which we can diagnose between diseases in which the symptoms and physical signs are either too scanty or too much alike to enable us to decide between them."—P. 4.

The author then proceeds to consider these propositions seriatim. We shall limit our remarks to a few points only in the discussion. *a.* It might be objected to the first of Dr. Ringer's propositions that the elevation of temperature observed was due, not to the tuberculosis, but to the secondary complications, the most important of which were bronchitis and albuminuria. In reply to this he states generally that all the complications in his twenty-four cases were slight in amount: next, that in five patients suffering from more or less severe capillary bronchitis he found no elevation of temperature, and that in his tuberculous cases the elevation of temperature was in no way proportionate to the amount of bronchitis conjoined. As to albuminuria, he states that in several patients suffering from this condition there was no elevation of temperature discoverable. *b.* With respect to the temperature as a measure of the tuberculosis, Dr. Ringer says:—"In some cases the temperature is considerably and permanently elevated throughout the day. In others, though normal, or nearly so, at one period of the day, at another period it rises to a considerable height, whilst in other cases this rise is far less considerable. The first description of temperature is accompanied with very severe general symptoms, and an active deposition of tubercle: the second description with the severe symptoms, and with a less active deposition: and the third description is accompanied with but few symptoms, and with a very slow deposition of tubercle in the body: and lastly, in those cases in which the temperature becomes and remains normal, all the symptoms disappear, and the deposition of tubercle ceases."—P. 16. *c.* While discussing temperature as more trustworthy than either physical signs or symptoms, Dr. Ringer passes under review the more important of the latter class of indications. With respect to *weight*, he observes that this is chiefly regulated by the appetite, and if the appetite remains good, the patient may maintain or even increase in weight, though the tuberculosis be sufficient to elevate the temperature as high as it usually reaches in scarlet fever—that is, to 103° or 105° Fah. Then, with regard to the pulse, although the pulse and temperature in disease generally coincide, yet cases occur in which, with a considerable elevation of the temperature, the pulse remains normal, or nearly so. Besides, other causes beside pyrexia may increase the frequency of the pulse, such as debility or exhaustion, and even hysteria. *d.* Dr. Ringer, while discussing his sixth proposition, says that he "trusts that it has been shown to be probable that there is a *continued* elevation of temperature in all cases of tuberculosis and tuberculisation: and he is further able to state that, after very numerous observations of the state of the temperature in various diseases, with one exception, this continued elevation has been observed only in tuberculosis, rheumatism, and ague. . . Thus, if we meet with a case in which the temperature rises daily during a considerable time, if this be not rheumatism nor ague, it is probably tuberculosis. . . How long must the elevation of temperature continue before we can with probability suspect tuberculosis? The author thinks from ten to twenty days, each day adding considerably to the probability of the correctness of the diagnosis" (p. 29), for by this time inflammations and specific fevers would have declared themselves by their characteristic symptoms. *e.* The ninth proposition is illustrated by emphysema of the lungs, dilated bronchi, cancer of the lung, aneurism of the aorta, and diseases of the brain simulating tubercular meningitis. The subject is an eminently practical one, and the book ought to be studied by every Practitioner of Medicine.

A Treatise on the Chronic Inflammations and Displacements of the Unimpregnated Uterus. By W. H. BYFORD, A.M., M.D., Professor of Obstetrics, etc., Chicago Medical College Medical Department, 32nd University, Philadelphia. Lindsay and Blakiston. 1864. Pp. 215.

We have read this little book with much patriotic complacency, because, in reading, we were continually reminded that it is a re-echo of a voice with which we Englishmen are familiar.

We do not say this in any spirit of detraction: it is inevitable that an original thinker should make disciples, and that these disciples should seek to found little branch schools of their own, and propagate the doctrines with which they are imbued. It unfortunately happens that occasionally the original thinker arrives at incorrect conclusions. Still his doctrines become generalised, and the fruit of his teaching is often evident long after the teacher himself has recanted from his errors.

Every one knows that not very long ago a certain section of the obstetrical world made the discovery that almost every ill that female flesh is heir to is produced by ulceration of the cervix uteri. The idea was eagerly seized upon; it was delightful to think that every one could cure every uterine complaint with a small piece of lunar caustic: and the bubble grew and rose. Alas! its very growth was the cause of its collapse: it became so formidable that its real merits were inquired into. A Croonian lecturer took up the subject, and

showed clearly that it is a mistake to suppose that inflammation of the "uterine neck" is in gravity or frequency either superior to, or equal with, inflammation of the body of the uterus.

Dr. Byford is a disciple of Dr. Bennet's. He is a great believer in *eervieitis*, and the virtue of caustics. His book is carefully and well written, and abounds with little praetical hints of great value. There is not much that is new in it, but there is a good account of the symptoms, etiology, prognosis, and diagnosis of uterine inflammation. Many of the remarks on treatment, too, are excellent, for Dr. Byford is no mere extremist. On the contrary, he lays down the most careful rules for general treatment, insisting upon the distraction of the patient's attention from the state of her uterine health—an object, we think, which must be attained with difficulty as long as the local treatment is being carried on. Dr. Byford distinguishes between mucous inflammation of the cervix and submucous inflammation—the former accompanied by a feeling of soreness, the latter by a feeling of tenderness. The panaeea for the former is caustic, the treatment for the latter antiphlogistic, or, that failing, caustic. In almost all eases of endo-cervicitis Dr. Byford uses the stick nitrate of silver, and he lays considerable emphasis on the necessity of having a flexible *porte-caustique*, which may, like the uterine sound, be bent to any angle that is necessary. Among the inconveniences which Dr. Byford has seen arise from the prolonged use of nitrate of silver is atrophy of the uterus. He has known the uterus to become smaller than natural, its tissues to be condensed, and obstinate or permanent amenorrhœa to be established.

Where endo-cervicitis and submucous inflammation co-exist, the latter ought to be first treated; indeed, Dr. Byford confesses that there is some risk of this submucous inflammation being set up by the nitrate of silver treatment.

What are we to do? We are to keep the bowels open; and here we may incidentally say that Dr. Byford has a very good section on the treatment of constipation. We are, if necessary, to give calomel and opium, and we are to deplete the uterus locally by means of leeches and scarification. If the cervix be indurated and enlarged, we are to use caustic potash, with the object, as Dr. Bennet says, not of destroying so much as of inducing a change in the action of the vessels that will cause an absorption of the fibrinous deposit upon which the enlargement depends.

Dr. Byford, in his last chapter, treats of uterine displacements, which he seems to believe to result, in almost every case, from inflammation of the cervix uteri. He even here outstrips his master, for while Dr. Bennet believes that inflammation limited to the anterior wall of the womb may cause anteversion, while inflammation of the posterior wall may cause retroversion, Dr. Byford asserts that versions and flexions and all other displacements are often caused by inflammation of the cervix alone. With such views it is manifest that Dr. Byford must usually treat displacements by removing their cause. "But," he says, "there are cases where this cannot be done for various reasons, among which are the prejudices of patients and Medical men against the treatment necessary for the cure of inflammation, the impossibility of curing the inflammation when every opportunity is enjoyed, and even sometimes when the inflammation is removed there may be continuance of displacement with its symptoms." It becomes thus necessary to use pessaries, and Dr. Byford runs over the various forms with which we are all familiar: the globe, the ring, the disk, the stem, the lever. He thinks that the stem-pessary, while theoretically the best, can in practice be rarely borne; he believes that the ring formed by an elastic watch-spring will be found an efficient support in retroversion and in prolapse, and that the globe is the best form for anteversion. He is of opinion, however, that every case must be judged upon its own merits, and that the careful Practitioner will soon find out which is the best way of giving mechanical support to the uterus which he is treating. Unlike most writers on uterine displacements, Dr. Byford has not any "little modification of his own" to bring forward, and we think that his opinion is on that account all the more weighty.

The Laryngoseope; Directions for its Use, &e. By G. Johnson, M.D. London: R. Hardwicke.

These lectures were delivered last year at the Royal College of Physicians, and are devoted to the object of showing that laryngoscopy is not so difficult as to be suecessfully practised only by a select few, but that its difficulties may be easily overcome by a very moderate amount of praetiee and perseverance. We can commend Dr. Johnson's little book to those who desire to become familiar with the use of the laryngoscope.

On some Points Connected with the Pathology, Diagnosis, and Treatment of Fibrous Tumours of the Womb; being the Lettsomian Leetures on Midwifery and Diseases of Women delivered before the Medieal Soeiety of London, November and Deeember, 1863. By C. H. F. Routh, M.D. Lond., etc., etc. London. 1864.

In choosing fibrous tumours of the uterus as the subject of his Lettsomian lectures, we think Dr. Routh chose wisely. The subject is one of great importance. The lives of many women are constantly depending upon the amount of acquaintance which their Medical attendants have with it; and, as Dr. Routh tells us, its literature is widely seattered and not easily attainable, because the brilliant results which have recently been obtained by gastrotomy have not as yet found their way into class-books, but are for the most part scattered over the pages of home or of foreign journals.

To any one who pays particular attention to the treatment of the diseases of women, there is perhaps no subject of greater present interest than the differential diagnosis of ovarian and uterine tumours. Serious mistakes are from time to time committed, chiefly for the reason that uterine fibroids, as well as ovarian tumours, are occasionally eystic; that they contain fluid, and that fluctuation is consequently perceptible in them. It was but natural that Physicians and pathologists should have turned their attention to the manner in which this change was produced, and we are therefore by no means astonished that Dr. Routh enters at some length into the question. He relates five different ways in which the transformation may be effected—by sarcomatous transformation, by œdema, by eonversion into a cyst, by suppuration, and by fatty degeneration. We have no doubt that each of these changes may occur, and may each, in turn, account for the fluctuation occasionally perceptible in fibroid tumours. With all deference, however, to the Lettsomian lecturer, we believe that true eysts are to be found in fibroid tumours of the womb far more frequently than he supposes, and that their presence is generally to be accounted for by a prolongation of uterine glands into the substance of fibroid tumours in the way pointed out so ably by Rokitansky.

Ever since the publication of monographs upon obstetrical auscultation by Naegele in 1838 and by Depaul in 1847, the attention of the Profession has been directed to the stethoscope as a valuable assistant in the differential diagnosis of abdominal tumours. Dr. Routh appears to have taken great trouble with this part of his subject, but still we cannot altogether concur in the conclusions at which he has arrived. Dr. Routh distinguishes two varieties of *bruits de soufflet*, a tubular murmur due to compression by a solid body, of the large abdominal vessels, and a vesicular murmur generated in the uterine vessels themselves. The former sound is, according to him, rarely to be heard in pregnancy or ovarian disease, while in fibroid tumours both may be met with.

Now, we believe that it is quite true that a bruit may be produced by compressing the abdominal vessels, and that one slightly differing from it may have its cause in the uterine sinuses.

We even believe that in this way may be explained the supposition of an Italian Accoucheur, that the death of an intra-uterine fœtus may be diagnosed by the harsher thrill of the *bruit de soufflet*. We believe, however, that both murmurs may be heard both during pregnancy and in the course of ovarian disease, and that therefore the occurrence or non-occurrence will not aid us in differentiating those conditions.

We are again at issue with Dr. Routh when he asserts that the double aortie sound is to be heard only through solid tumours, and not through that formed by an ovarian cyst or by the pregnant uterus. We are convinced that in very many pregnant women the double aortic sound is to be heard through the gravid uterus. We have even seen one of the most distinguished European Accoucheurs deceived by this sound into diagnosing a twin pregnancy in a case where there was only one infant in utero. We think it a pity that Dr. Routh has attempted to revive the metroscope of Nauche. The instrument had a fair trial, and it was rejected because its inconveniences were great and its utility slight. It would have been but just had Dr. Routh, in rechristening Nauche's instrument, at least mentioned the name of its inventor.

That part of Dr. Routh's book which will be turned to by many with the greatest interest is where he speaks of the

Surgical treatment of fibrous tumours, of their enucleation, and of their removal by gastrotomy. Enucleation may be either primary or secondary, either completed by the operator at once, or effected by the artificial induction of gangrene. There are 27 cases of primary enucleation recorded; 19 of these recovered, giving a mortality of 29·6 per cent. There are 24 cases of induction of gangrene; of these 14 recovered, making the mortality 41·7 per cent. This clearly shows the danger of the latter method, and Dr. Routh, to make the cause of the greater mortality more plainly evident, points out that when it was the common practice to tie a uterine polypus and allow it to slough off the mortality of the operation was 40 per cent.

Dr. Routh has collected forty-eight cases in which gastrotomy has been performed for fibrous tumour, In fifteen cases no attempt was made to remove the tumour; in the other thirty-three the tumour was removed either in whole or in part. Of these, twenty-three recovered and ten died, giving a mortality of 80·3 per cent.—nearly the same as in ovariotomy. Dr. Routh divides the cases into several classes, and attempts to show that if the fibroid be extra-uterine it may be removed with comparative safety; but, if not, then the best plan is to remove the whole uterus and both the ovaries. Dr. Routh insists very strongly upon the removal of the ovaries, and instances several successful cases in which they were removed. It seems to us that in these cases the result was successful because the tumour had risen well out of the pelvis, and that the ovaries were removed because the tumour drew them up along with it. There can, however, be little question that in most cases when removing the uterus it is wise also to castrate. Were this not done, it is too probable that hæmatoceles and ovarian disease would be the consequence.

We have some difficulty in following Dr. Routh in what he says about the treatment of fibrous tumours by simple incision of the os uteri. He says, p. 117—"But a method which is likely to supersede in great measure these more bloody operations is simple incision of the os subsequently carried right through the tumour." He gives as an illustration a case in which the tumour itself was deeply cut into and dressed with oiled lint, so that sloughing was set up. We cannot see any difference between this treatment and the nucleation by gangrene which Dr. Routh has shown to be so fatal. At the very next page Dr. Routh includes this case among nine others in which "this simple plan of incision of the external os was practised with the best results." And as no details are given, we do not know whether "this simple incision" did or did not in all cases involve the tumour so as to cause its death. Further, we are informed that even "so simple an operation as opening the cervix has a mortality of 30 per cent.;" so that altogether we fail to appreciate the great advantages which this operation offers. We conclude by thanking Dr. Routh for his laborious research, which has enabled him to present his Professional brethren with the interesting facts which are to be found throughout these Lettsomian Lectures.

A Handbook of Obstetric Operations. By W. S. Playfair, M.D., M.R.C.P., Assistant-Physician-Accoucheur to King's College Hospital. London: H. Renshaw. 1865. Pp. 232. Price 6s.

We have long thought that a good handbook of obstetric operations would fill up a blank in the modern English literature of midwifery. Dr. Playfair has come forward to fill up this blank, and we cordially wish him success. A book of an exclusively practical nature is a great boon to the busy Practitioner who already knows his subject, but may wish to refresh his memory on details. On the Continent, Hatin, Kilian, Gustave, Braun, and others have supplied such books. In England Davis published his "Elements of Operative Midwifery" in 1825, but from that time to the present, with the exception of a handbook afterwards embodied in a general treatise of midwifery, there has been no attempt to meet the want we speak of.

Dr. Playfair's book consists of a number of short practical essays on the more important obstetrical operations. His plan is to take up each operation, and, after giving a short account of its history, to lay down its indications, and describe the manner of performing it. The essays are carefully written, and will be perused with interest. The most recent improvements in each operation are detailed, and in the article on "Transfusion of Blood" Dr. Playfair gives the results of experiments which he has himself performed on the lower animals.

The chief fault which we have to find with the book is that there is not enough of it. Dr. Playfair has been so anxious to condense, that he has made some serious omissions.

In his second edition he will probably see the importance of adding chapters on the management of prolapsed cord, the management of placenta prævia, the extraction of the placenta, and other points scarcely less capital. No doubt Dr. Playfair purposely omitted the consideration of these subjects, because he judged that they scarcely came within the meaning of what he wished to express by operative midwifery. Here, however, we cannot agree with him. The plugging of the vagina, the reposition of the cord, the extraction of an adherent placenta, are operations for each of which rules ought to be laid down in a work purporting to be "a guide in the trying emergencies of practice."

Dr. Playfair has been as sparing of his woodcuts as he has been of his letterpress. We hope that the next edition will be much more profusely illustrated, and that the woodcuts will be scattered over the book, instead of being collected, as at present, into a couple of plates.

The Works of Sir Benjamin Collins Brodie, Bart., D.C.L., Serjeant-Surgeon to the Queen, President of the Royal Society, etc. With an Autobiography. Collected and arranged by Charles Hawkins, Fellow of the Royal College of Surgeons. 3 vols., demy 8vo. Longmans.

(PRELIMINARY NOTICE.)

No higher or more lasting tribute can be paid to the memory of a thoroughly earnest man, who spent his life in useful and unremitting work, than the publication in a collected form of the results of his life's labour and thought. Nor is it possible for the friends of such a man to confer a greater benefit upon the Profession to which he belonged than by placing before it what he did, by showing how he worked and lived, and by directing attention to the results of his experience. For collecting and arranging Sir Benjamin Brodie's works Mr. Hawkins truly deserves the thanks of the Profession. The work is arranged in three volumes, and contains in all more than 3000 printed pages.

In Vol. I. we find the "Autobiography," perhaps the most interesting part of the work; "psychological inquiries;" several "introductory lectures," "addresses," and "orations," which will be new to most of us; and papers on Quacks, Homœopathy, Tobacco, and Special Hospitals.

Vol. II. contains Brodie's scientific researches; several papers from the Philosophical *Transactions;* his work on the Diseases of Joints; lectures on the Diseases of the Urinary Organs; and his Notes on Lithotrity.

In Vol. III. the reader will find several important papers; lectures on Pathology and Surgery; and forty different "Pathological and Surgical Observations," never before published. These were taken down by Dr. Reginald Thompson from Sir Benjamin Brodie's dictation during the winter of 1861-1862.

We may refer to an elaborate analysis of Brodie's works which was published in the *Medical Times and Gazette* soon after his death; but there is much in these volumes that is new, and we shall therefore give, at a future time, further notices of the life and works of this great Surgeon from Mr. Hawkins' "Works of Sir B. C. Brodie." In the meantime, we commend the volumes to our readers.

The book is published by Messrs. Longman, and printed by Spottiswoode in a very clear and good type. It is illustrated with copies of the medal presented to Sir Benjamin Brodie when he resigned the office of Surgeon to St. George's and a facsimile of his handwriting.

Practical Observations on the Hygiene of the Army in India. By Stewart Clark, M.R.C.S. Eng., Inspector of Prisons North-west Provinces, India. Smith and Elder. 1864. Pp. 162.

In 1862 Mr. Clark read a paper before the British Association on the best means of ventilating the barracks and other public buildings of India. His present work is of wider scope, and treats of food, water supply, the supervision of the soldier, drainage, the construction of buildings, prisons, and prison discipline, etc. The writer appears thoroughly conversant with the wants of India, and of the European resident and soldier. In the matter of ventilation, he is of opinion that ventilation by artificial means is in India absolutely necessary, that in hot climates natural ventilation will not proceed during

certain atmospheric conditions, and that "if fresh air will not go where we wish it, we must drive it." In the case of barracks, which in India are generally only one story high and cover a considerable area, economical ventilation is not an easy matter. His proposal is that ventilation should be carried on by means of fans driven by steam or bullock power through a system of underground masonry flues with which the barrack flues are to communicate. The fans are to be placed at least three hundred feet to windward of the barracks to prevent foul air being returned with the fresh. The full details of the plan are illustrated by a number of ingenious woodcuts. The author has some useful practical remarks on the influence of daily atmospheric variations on cholera and fever. He states it as a fact that at about 2 or 3 o'clock a.m., that is towards the termination of the period of dead calm which commences about 6 or 7 in the evening, a sudden change takes place in the atmosphere, more or less perceptible to the outward senses, although not always indicated by the thermometer. The sensation it produces is one of a decided fall of temperature in the air. Persons in health fall asleep under the agreeable change, but it is the time when fever patients should be carefully watched, for not unfrequently marked depression or fatal collapse are ushered in by it, and it is very frequently the period at which the first liquid stool warns of the approach of cholera. In the matter of diet, Mr. Clark thinks that the English Government have fed their soldiers, on the whole, too highly—with too large an amount of animal food. He believes one meal of meat per diem is sufficient, and traces the better health enjoyed by European residents at least in part to the abandonment of the daily luxurious luncheon—the *tiffin* which the novels of our younger days taught us to associate with nabobs, liver disease, and elephants. On the whole, we can speak well of Mr. Clarke's book, which contains much of useful information and ingenious contrivance, and many hints that cannot but be valuable to the young Medical officer who is starting for one of the three presidencies.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 28.

Mr. PARTRIDGE, President.

A PAPER, by Mr. J. W. HULKE, was read on a

CASE OF ICHTHYOSIS OF THE TONGUE.

Ichthyosis is a term provisionally applied by the author to an affection of the mucous membrane of the tongue, which consists in hypertrophy of its epithelial and papillary tissues. It is characterised by yellowish-white, raised, tough, leathery patches, which are clinically distinguished from syphilitic nodes, condylomata, and cancer. Mr. Hulke had seen but one case, which he relates.

Mr. BIRKETT, in 1853, saw a patient, an old sailor, who had a similar affection to that described by the Author. It had existed many years, and was merely an annoyance.

Mr. HOLMES COOTE remarked that he had published a similar case in Holmes's "System of Surgery," but had not given a name to the affection. It occurred in an old woman. There was no evidence of syphilis; it was not cancerous, but merely a thickening of the epidermis.

Dr. STEWART said that the year before last a gentleman from India came to ask him if an affection of his tongue was syphilitic or not. After due inquiries there was no ground for the slightest suspicion of that as a cause. He had had syphilis four years ago, but had got well of it, and then married. Mr. Henry Lee saw him, and thought he was free from syphilis. All sorts of detergents were applied, and the solution of the chloride of zinc had no effect. Dr. Neligan had described a similar condition of the tongue in a case which, after slight irritation, ended in cancer. His (Dr. Stewart's) patient was still in good general health.

Mr. PAGET said the affection described by the Author was sufficiently rare to warrant each member giving his individual experience. He referred to a specimen in the museum of St. Bartholomew's Hospital taken from a patient who died of cancer of the tongue, with disease of the lymphatic glands. Although ultimately the disease was cancerous, it had for ten years resembled the condition described by the Author of the paper. This patient also used to pare down the growth as if it were a corn. He (Mr. Paget) did not wish to imply that this form of disease was more likely to end in cancer when the patient became old than many other diseases of the tongue which were accompanied by irritation. The Author's case was the first of the kind placed on record, and was interesting as suggesting that diseases of the tongue should be studied in connection with those of the skin. Mr. Paget then related a case which was, he believed, an instance of ringworm of the tongue.

Mr. C. H. MOORE alluded to a case in which it was difficult to distinguish cancer of the tongue from other affections of that organ. He referred to a case then under his care in the Middlesex Hospital, in which there was an ulcer of the tongue, and opposite the growth was a patch of disease, like that described by the Author. There was also a similar patch on the cheek. Although it was clear that Mr. Hulke's case was not yet one of cancer, yet it would be a bold thing to assert that cancer would never occur in the part diseased. At present, although only an hypertrophy, it might afterwards become cancerous.

The AUTHOR then briefly replied. He had no doubt, he said, that the patches Mr. Moore spoke of in his patient's case resembled the masses on the tongue in his (the Author's) patient; yet the clinical history of the two cases was very different.

A paper, by Mr. THOMAS LONGMORE, was read, entitled,

REMARKS UPON OSTEO-MYELITIS CONSEQUENT ON GUNSHOT WOUNDS OF THE UPPER AND LOWER EXTREMITIES, AND ESPECIALLY UPON THE TREATMENT OF STUMPS AFFECTED WITH OSTEO-MYELITIS AFTER AMPUTATION NECESSITATED BY SUCH INJURIES.

The author commenced his communication by noticing the particular interest which had been excited amongst military Surgeons, especially French Surgeons, during the last few years in the subject of osteo-myelitis, or endosteitis, as it is called by some writers, after gunshot wounds of the extremities, and of its proper treatment. The interest arose, not from any belief that a difference existed between the nature of the inflammation of the medullary tissue when developed after gunshot injuries, and the corresponding inflammation occasionally seen after the ordinary injuries and amputations of civil life, but from the comparative frequency of its occurrence after gunshot injuries, and after amputations consequent upon them, together with its severe and obstinate character, often in men of previously sound constitutions, in military practice, contrasted with the comparative rarity of its occurrence in sound constitutions in civil practice. After the Crimean campaign, Dr. Valette, a French military Surgeon, who had had one of the large Hospitals at Constantinople under his charge during the period of the war, and again, since the Italian campaign of 1859, M. Jules Roux, the principal Surgeon at the large marine Hospital of St. Maudrier at Toulon, had both written at considerable length on the subject. Dr. Valette's observations were chiefly directed to this inflammation in its earlier and more acute stages, as witnessed amongst the wounded sent directly after the battles of Alma and Inkerman, amongst whom it had produced the most fatal consequences. The author remarked that in perusing Dr. Valette's reports, the conclusion could scarcely be avoided that the so-called osteo-myelitis, in a large number of the instances referred to, must have been truly cases of pyæmic poisoning, and that in all, the symptoms of the osteo-myelitis must have been greatly aggravated by circumstances tending to the development of pyæmia. Dr. Valette found all attempts to check the disease ineffectual, and came to the conclusion that all resections and amputations for the effects of this inflammation after gunshot fractures should be abandoned, and exarticulations substituted, the wounded being scattered at the same time in tents as widely as possible. M. Jules Roux's observations were made on the disease in its more chronic condition, and he was led to advocate the same views with regard to the necessity for exarticulation as had been advocated by Dr. Valette. M. Roux had under his care about 2000 soldiers who had been wounded in the Italian campaign, a considerable number of whom presented diseased conditions demanding consecutive amputation or other Surgical interference. At first M. Roux practised amputation, but with such unfavourable results that he was induced to try exarticulation in similar cases instead. This operation proved remarkably successful. There was no death out of twenty-two successive cases, among which were four cases of exarticulation

at the hip-joint. In a memoir on the subject which was read before the Imperial Academy of Medicine at Paris in 1860, M. Roux argued that when osteo-myelitis after gunshot wounds assumes a chronic form, amputation generally only takes away a portion of the inflamed bone, and in consequence of this incompleteness in the operation the disease is aggravated in the remainder. Hence, he asserted, the failures of secondary amputations for gunshot wounds of bones; and hence, also, in his opinion, the preference which ought to be given to exarticulation, or removal of the whole of the diseased bone, when a Surgical operation becomes indispensable. The views of treatment propounded by M. Roux has led to several protracted discussions at the Academy of Medicine at Paris. They were particularly analysed in an elaborate discourse by Baron Larrey, which he afterwards published. In this discourse Baron Larrey arrived at certain conclusions, six in number, with the general terms of which the author said he believed most English army Surgeons would agree. The following are the conclusions referred to:—1st. Osteo-myelitis after gunshot wounds is more frequent than has been hitherto supposed; but is not inevitable, and in most instances is a means of cure. 2nd. It may either be limited to a given point of the bone, extend itself partially, or invade the whole of the bone more or less quickly. 3rd. Every rational mode of treatment must be adopted in the first instance. We are encouraged to do so because we know osteo-myelitis is susceptible of spontaneous cure. 4th. Sometimes it necessitates resection, and sometimes consecutive amputation, and sometimes, in certain cases, exarticulation is preferable. 5th. The existence of osteo-myelitis is sufficient to explain the want of success which occasionally follows partial operations in bones affected with this inflammation. But, 6th. It does not justify the too exclusive proposition in Surgery, that resection of joints and amputations in the shafts of bones are to be abandoned for exarticulation in all such cases. The author of the present paper thought, however, that the settlement of the question of the proper treatment of chronic osteo-myelitis might be carried a step further in precision, especially in cases where want of success had seemingly followed partial operations on account of its presence. Many cases, he stated, came before military Surgeons, in which, after amputation had been performed in continuity for gunshot injuries, or for the effects of osteo-myelitis consequent upon them, the portions of the limbs left afterwards presented such diseased conditions as to necessitate further Surgical interference in order to avert fatal consequences from the patients. In these cases, where the morbid state of all the tissues is manifestly due to the continued osteo-myelitic action subsequent to the amputation, what is the course to be pursued? The arguments of M. Jules Roux would urge most forcibly in these cases, that exarticulation is the only treatment that can scientifically be adopted; and even according to the conclusions of Baron Larrey these would appear to be the "certain cases" to which he refers in his 4th conclusion, where curative treatment in the first place and consecutive amputation in the next place having failed, disarticulation would be the preferable course to follow. The author had been led to adopt a different conclusion; and, in order to show to the Society the grounds on which his conclusions had been based, he called attention, firstly, to certain preparations belonging to the Museum of the Army Medical Department from cases in which exarticulation had been performed or death had occurred on account of osteo-myelitis; and secondly, to the histories of some similar cases in which a cure had been effected without exarticulation being resorted to. The first three preparations exhibited consisted of the upper portions of three humeri. In each of these the history was—amputation at the middle of the upper arm for a gunshot wound, and exarticulation at the shoulder within a year afterwards for osteo-myelitis. The fourth preparation was one of the upper part of the femur which had been removed from the patient after death. Amputation had been performed in the middle of the thigh for a gunshot wound in India, and the patient died about a year afterwards from the effects of osteo-myelitis in the stump. There was every reason to believe that in all these cases the osteo-myelitis was due to the shock of the original gunshot injury, and not to any peculiarities in the amputation or other causes. To show that the simple shock of a gunshot wound is capable of giving rise to general endosteitis in a bone, another preparation was exhibited in which the entire shaft of the femur had been subjected to the action of this inflammation. In this case a musket ball had only penetrated the soft tissues and struck the bone, without producing complete or even a partial fracture of its substance. Another preparation of the upper half of a humerus was exhibited from a case in which the author had performed exarticulation for osteo-myelitis four years ago, before his attention had been turned to other modes of treatment. In this case the previous amputation had been performed for the effects of a kick from a horse, and the preparation was exhibited to show that the consequences of the osteo-myelitis were exactly similar to those which had occurred after the gunshot injuries. All the preparations above named showed that in each case extensive necrosis of the shaft had resulted from the endosteitis with which it had been affected; that the necrosed portions were well defined within fixed limits; that in no instance was the necrosis continued to apophysis, although in all the cases the apophyses were more or less in the condition known by the term "osteo-porosis;" and that the sequestrated portions of the shafts were surrounded by copious shells of new bone, as in cases of ordinary necrosis. Three cases were then related in which amputation at the middle of the thigh had been followed by osteo-myelitis in the stump, but in which cures had been obtained without exarticulation. The amputation had been performed in two of these cases for gunshot wounds, in the third for the consequences of a compound fracture from a fall. In each of these cases the removal of the sequestra left by the osteo-myelitic action was effected by Surgical interference, and a sound and healthy condition of the stump resulted. In the case first described, the patient at the time of his admission into Hospital at Fort Pitt, from India, had suffered so severely from the effects of the prolonged irritation to which he had been subjected, and the thigh-stump was so extensively diseased throughout, that at a consultation of the staff of the Hospital the removal of the stump at the hip-joint was determined to be the only course which held out a fair hope for the patient's recovery. Fortunately, before this serious operation was undertaken, a study of the preparations laid before the Society, and some others of a similar kind, led the author of the paper to determine, as a preliminary measure, to open freely the cicatrix of the amputation-wound, and to take steps for removing all pieces of necrosed bone that might be found within the remaining portion of the shaft. The operation was so conducted that, if necessary, it could have been converted at the time into amputation at the hip-joint, or this formidable operation be reserved for a subsequent resource, if the removal of the necrosed bone did not lead to cure. Complete success, however, attended the first effort: the dead portion of the shaft, which reached up to the trochanters, was extracted, together with some smaller detached fragments. The patient rapidly improved in all respects afterwards, and eventually walked from the Hospital with an artificial limb applied to the stump, which had become perfectly sound. The second and third cases mentioned were those of soldiers, who had suffered amputation of the thigh for gun-shot wounds, and from subsequent endostitic necrosis in the stump. In both cases the necrosed portions of the shaft were removed by gradual traction through openings in the line of cicatrix of the amputation-wound. In one of these instances, in which the man's limb had been smashed by a round shot just above the knee, at Lucknow, in 1857, an opportunity was afforded of examining the state of the stump five years after the date of the amputation. The stump was then thoroughly sound, and the man able to perform hard work and long journeys by wearing an artificial limb upon it. The motions of the hip-joint were perfect. The author of the paper stated his present conviction to be that if similar steps had been adopted, and the necrosed sequestra removed, in the instances brought before the Society in which exarticulation at the shoulder had been performed by himself and others, the stumps might have been similarly preserved; and that in the instances of the femoral stump, and the femur affected with endostitie necrosis, the lives of the patients might probably have been saved by such a proceeding. In cases where amputation had been previously performed, the amputation cicatrix should be opened for the removal of sequestra, or, if more convenient, the stump could be opened from other directions; where no previous amputation had been done, the sequestra should be extricated as in ordinary cases of necrosis. Though not a matter of such importance to avoid exarticulation of a humeral stump as it is of a femoral stump, owing to the danger to life in the latter operation, and the important use of a thigh-stump for the adaptation of mechanical contrivances for assisting in supporting the weight of the body, yet the author maintained the preservation of a humeral stump to be of great value to the

possessor, especially when the power of compressing it to the side is retained. An osteo-porotic condition of the articulating heads of the bones, corresponding with the condition shown in the preparations, will not interfere with a successful result if the necrosed sequestra be completely removed. The author alluded to a case in which he had removed a foot at the ankle-joint, in which, on sawing off the two malleoli, the extremities of both the tibia and fibula were seen to be extensively affected with fatty osteo-porosis; yet the ends of these bones became firm and solidified under an improved condition of general health, the removal of the source of irritation which had previously existed in their immediate neighbourhood, and the stimulus of use. There could be no doubt that the head and neck of the femur in the case of the thigh-stump which had been preserved by the removal of the sequestra, the largest of which was exhibited to the Society, was in a state of osteo-porosis at the time these sequestra were extracted. The amount of irritation to which the bone had been subjected, the length of time that had elapsed, together with the conditions observed in analogous cases where the opportunity of examining the conditions had been afforded, sufficiently established the fact. The author concluded by observing, that while adopting generally the views of Baron Larrey, before quoted, in reference to the nature, progress, and treatment of osteo-myelitis after gunshot injuries, the following appeared to be fair deductions from the facts and observations he had brought to the notice of the Society:—1st. In gunshot injuries of bone, it will be found for the most part—what might be anticipated from the intimate connexion which exists between the periosteal and endosteal investments of the bony tissues, and from the violent general mischief effected by the stroke or passage through them of a projectile—that all the structures participate not only in the immediate local destruction, but also in the extended inflammation which follows, whether the inflammation after a time subsides, and terminates in repair, or whether it continues in a chronic form. 2nd. There exists this difference between the inflammation of the endosteum and that of the periosteum: that of the endosteum has a special tendency after gunshot injuries to degenerate into a chronic condition analogous to that of suppuration in other tissues, to extend itself along the cancellated structure, and thus to produce disintegration and death of the bony substance; that of the periosteum, at the same time, will exist only to such a degree as to cause it to exert a protective influence by the formation of new bone around the diseased tissues, just as in ordinary cases of necrosis from other causes. 3rd. If amputation in continuity be performed while the endosteum is suffering from the inflammatory irritation excited by the violent injury to which the whole bone has been subjected, especially when this has assumed a chronic form, the endostitis will most probably still pursue its course, even though the divided soft parts may at first become healed, slowly inducing death, more or less extensive, of bony tissue, and, in time, the usual consequences of such a condition throughout the whole stump. 4th. The morbid condition of the endosteum does not usually extend from the shafts of bones into their apophyses. 5th. When amputation has been followed by these consequences, exarticulation should not in any case be resorted to for the removal of the diseased stump until the effect of complete extraction of the dead bone by proper Surgical interference has been ascertained. 6th. Experience shows that, even although a patient's constitution may be greatly impaired by the prolonged local diseased action to which it has been subjected; and though there may be every reason to conclude that the articular extremity of a bone is in the condition understood by the term "osteo-porosis," yet the complete removal of the endostitic sequestra may speedily be followed by restoration of the general health, and by a condition of the stump so sound and firm that it may be applied to any purpose of utility for which, according to its length and position, it may be competent.

Mr. Fergusson said the Society was under special obligations to the Author for his able and interesting paper. The principles he had laid down applied to civil as well as to military practice, and he regretted that examples from the field of civil Surgery had not been brought forward. It had fallen to his (Mr. Fergusson's) lot to see a number of instances like those described—viz., of gunshot wounds—and also of cases so exactly similar in results, though from other causes, that the two classes could scarcely be dissevered. The author had travelled over an interesting field, and it was scarcely possible to do more than make a few brief remarks on some of the points in the paper. The subject of inflammation of bone was one of great interest, and he fancied that even the most practised Surgeons could never tell to what extent inflammation would occur after an injury. There was a great similarity in gunshot wounds and in compound fractures. The matter formed after gunshot wounds produced compression, and this excited inflammation of the periosteum, or of the internal lining membrane, which he considered to be analogous to the periosteum. He considered the Author's views were correct, whether applied to military or civil practice—viz., the extraction of dead bone rather than amputation. He spoke for the good of Surgery when he stated his decided conviction that many cases of amputation for diseased bone were not required, the extraction of the necrosed part only being sufficient. He cordially agreed with the author that we should do all in our power to remove the sequestra.

Mr. Holmes Coote had listened with the greatest interest to the Author's paper. It occurred to him that cases of the disease described admitted of being classified under two heads. He related two cases in point which had occurred in civil practice. Mr. Lawrence removed a leg for disturbance in the circulation of the limb. The stump did not close. He amputated again, and afterwards for a third time. The man left the Hospital, but was still not well, and at another Hospital a fourth operation was performed. The bone in this case presented precisely the appearance described by the author. In another case a young man had his knee crushed; amputation was performed, and he got quite well. Afterwards swelling of the stump occurred; it inflamed, and necrosis occurred. A piece of dead bone was removed, and recovery followed. In some cases he thought the disturbance was due to the shock of the accident, and in others to disease creeping up the bone.

Mr. Barwell said the patient whose case Mr. Coote had related first in his remarks came to the Charing-cross Hospital, where the bone was disarticulated. He (Mr. Barwell) brought the specimen to the Pathological Society. The bone was softened, and also inflamed and thickened. He asked the Author if he believed osteo-myelitis always ended in necrosis. He had seen cases in civil practice in which inflammation of the bone had not been followed by necrosis. In reference to extension of disease after injury, he said that after excision of the knee disease sometimes travelled up, but never down. With regard to the practice of the Author, he had no doubt as to its superiority over that of M. Roux.

Mr. Birkett showed a drawing of a thigh-stump from which necrosed bone had projected several inches. It had been pulled at, and had gradually protruded. On admission at Guy's a little more force was used, the bone was pulled out, and the boy got well. In reference to the paper, Mr. Birkett said that the Author, having been much abroad, was perhaps not aware that the practice he recommended was generally carried out in civil practice in England.

The Author, in reply to Mr. Barwell, said that in all the cases to which he had referred necrosis followed. He did not bring forward the views contained in his paper in order to contrast military with civil practice, but because M. Roux's views had attained immense influence. He had been led to doubt M. Roux's views by observing specimens in the Museum, and then came to the conclusion that in cases in which the bones had been disarticulated, not only the limb, but life, might have been saved if the simple operation of removing the sequestra had been practised. Since he had forwarded his paper to the Secretary he had received from Dr. Fayrer, of Calcutta, a Surgeon of great experience in military Surgery, a pamphlet strongly recommending M. Roux's practice. He mentioned this to show the great influence M. Roux's opinions had had.

ANNUAL ADDRESS.

The President then delivered the annual address. After alluding to the continued prosperity of the Society, both as to its scientific labours and the matter of its finances, he proceeded to give obituary notices of the Fellows who had been lost to the Society by death since the last annual meeting. Some of these, he said, had been contributors to the *Transactions*, and had adorned their Profession by their eminent career. Amongst them were some who had long retired from active practice, and others who had been stricken down in the prime of life and in the midst of their labours for the advancement of Professional knowledge. The list included the following names, to some of which an abstract of the notices given has been appended.

Samuel Cartwright, sen., F.R.S., F.L.S., who died on June 10, 1854, at Nizell's House, near Tunbridge, aged 76. Mr.

Cartwright was born at Northampton, and, without the aid of any pecuniary support or countenance from family or friends, had attained by industry, perseverance, and Professional skill, the highest eminence as a Dentist. His life was traced from its commencement, and particular reference made to the energy of character and physical power which enabled him to bear the extraordinary exertions imposed upon him by his extensive practice. He was appointed Dentist in Ordinary to George IV., and numbered amongst his friends and patients the most eminent persons in every class of life. He was a Fellow of the Royal and of most of the scientific and Medical Societies in London, and was the first President of the Odontological Society. He had retired from practice since 1857.

James Bird, M.D. Aberdeen, F.R.C.P., died at his house at Gerrard's Cross, Bucks, on July 10, 1864, aged 67. The greater part of Dr. Bird's Professional life had been passed in India, where he was Physician-General of the Bombay army. He had long retired from practice, but took an active interest in all that concerned military Medicine, Surgery, and hygiene. He lectured on these subjects at St. Mary's Hospital, and had been Vice-President, Treasurer, and Lettsomian Lecturer to the Medical Society. The President gave a summary of his contributions to the literature of military hygiene and sanitary reform.

Robert Dundas Thomson, M.D., F.R.S., died August 17, 1864, aged 53, at Dunstable House, Richmond. Dr. Thomson was the son of a Scotch minister in Berwickshire, and his chemical studies were pursued under his uncle, Dr. Thomas Thomson, and subsequently under Liebig at Giessen. In early life he made a voyage to India and China. On his return he resided for a time in London, afterwards went to assist his uncle in the duties of the chemical chair at Glasgow, and subsequently settled in London, where he was appointed lecturer on chemistry at St. Thomas's Hospital. On the establishment of Medical Officers of Health, he was the successful candidate for St. Marylebone, and devoted himself assiduously to the duties of his office. He organised a system of inspection which was adopted by his colleagues in their parishes; and on their forming an association he was elected their president. He became a great authority in all sanitary matters, and applied his chemical knowledge to the elucidation of numerous physiological and hygienic inquiries. His health failed him during the last two years, and he died of malignant disease of the alimentary canal.

John Drummond, R.N., Inspector-General of Fleets and Hospitals, died at Dover September 17, 1864, aged 72.

Samuel Maclean, F.R.C.S. Ireland, died October 18, 1864, at the age of 46. Mr. Maclean practised as a dentist in Wimpole-street.

Richard Roscoe, M.D. Edin., M.R.C.P., formerly consulting Physician to the Westminster General Dispensary, died on October 3, at Humberstone, Leicestershire, aged 71.

Thomas Sunderland Harrison, M.R.C.P., F.L.S., formerly Lecturer on Midwifery at the Charlotte-street School of Medicine and Senior Physician to the Farringdon Dispensary, for many years a magistrate of the county of Somerset, died at Bath December 22, 1864, aged 64.

Archibald Robertson, M.D., Edin., F.R.S., Lond. and Edin., died at the West Mall, Clifton, October 19, 1864, aged 74. Dr. Robertson was for many years Senior Physician of the Northampton General Infirmary. In early life he had served for a short period in the Royal Navy. He retired from practice about ten years ago, but continued a warm friend and supporter of the British Medical Association, over which he once presided at Northampton.

Charles Hall Clarke, M.D., Edin., died at Stoneyhurst College on January 14, 1865, aged 49. Dr. Clarke was the son of a clergyman at Reading. After graduating in Medicine at Edinburgh in 1839, he went to Bath, and was there elected one of the Physicians to the United Hospital. He subsequently established himself in practice as a Physician at Florence, and, having become a Roman Catholic, was appointed Physician to Stonyhurst College, which appointment he held at the time of his death.

William Senhouse Kirkes, M.D., F.R.C.P., died December 8, 1864, at Lower Seymour-street, aged 41. Dr. Kirkes was born in 1823 at Holker, in Lancashire. In 1841 he entered the Medical School of St. Bartholomew's, and the memory still remains there of his industry, talent, and blameless life. He became M.D. in 1846, and having successively been Medical Registrar, Demonstrator, and Assistant-Physician to St. Bartholomew's, was elected full Physician on the retirement of Dr. Burrows in 1864. The fifth edition of his well-known "Handbook of Physiology" appeared in 1863. He was the author also of numerous papers in the Medical journals, and of a paper on "Embolism" in the Medico-Chirurgical *Transactions*, which was the first English essay on the subject. At the time of his death he was on the Committee recently appointed by Government to investigate the subject of syphilis. His last illness commenced while engaged on that Committee, whither he still persisted in going, and in a few days he fell into a state of constitutional collapse, with symptoms of pleuro-pneumonia and pericarditis. His mind remained remarkably clear up to a few hours of his death. Some extracts from a letter from Dr. Burrows were read, stating that he had never known a more perfect character, and speaking of his ardent and indefatigable exertions, both as a student and a teacher, his conscientious discharge of duties, amiable disposition and Christian principles, and his perfect submission in his last illness to the Divine will.

Jones Quain, M.D., died January 30, 1865, aged 71. Dr. Quain was a native of the South of Ireland. He graduated in Arts and Medicine at Trinity College, Dublin, and afterwards received his M.D. degree there. After spending some time in Paris, at the close of his college career, he came to London, and became one of the anatomical teachers at the Aldersgate School of Medicine, at which time he published his admirable "Elements of Anatomy," which was such an improvement on the systems previously used in the schools, and which, enlarged by a succession of able additions, has now reached a seventh edition. In 1831 he accepted the Professorship of Anatomy and Physiology in University College, and soon established his claim to rank amongst the most able of the lecturers on anatomy in the metropolis. On his resignation of the Professorship in 1835 he was appointed to a seat in the Senate, and since that period lived a retired life, mostly in Paris, devoting himself to literary and scientific studies.

The President then added a few remarks relative to the improvement of the Society's residence. He stated that the hope of obtaining apartments amongst other learned and chartered societies at Burlington House had for the present failed; and he made various suggestions as to changes and improvements in the premises of the Society, for the consideration of which he thought the present was, for several reasons, not an unfavourable time. The President concluded by thanking the Fellows for the considerate kindness and support which they had always shown him during his occupation of the presidential chair, and had no doubt the Society would continue its prosperous career under the auspices of the eminent Physician and accomplished gentleman whom they had that day chosen to succeed him.

The result of the ballot for officers and Council for 1865-66 was announced by the President as follows:—President: (a) *Dr. Alderson, F.R.S. Vice-Presidents: *Dr. Weber, Dr. Basham, *Mr. S. Lane, *Mr. John Simon, F.R.S. Treasurers: Dr. Pitman, *Mr. Spencer Smith. Secretaries: Dr. Fuller, Mr. J. Birkett. Librarians: Dr. Stewart, *Mr. Luther Holden. Other Members of Council: *Dr. Barclay, *Dr. E. L. Birkett, Dr. Goodfellow, Dr. Meryon, Dr. Oldham, *Mr. O. M. P. Clayton, Mr. Holmes Coote, *Mr. Critchett, Mr. C. H. Moore, *Mr. Alfred Poland.

Votes of thanks were given to the retiring President for the able and efficient manner in which he had presided over the meetings of the Society, to the retiring officers of the Society, and to the members of the Scientific Committee on the Uses and Effects of Chloroform.

THE WATER SUPPLY OF CHELTENHAM.—Mr. Parsonage, the chairman of the meeting at which Mr. Jackson amused his audience by defying Parliament, has written to the *Times* complaining of the report which appeared in that paper, and which stated that Cheltenham is "a watering place without an adequate supply of water for ordinary purposes." He indignantly asserts that the supply to the town is only too small for extraordinary purposes. The *Times'* reporter vindicates himself by quoting Mr. Parsonage's own words at the meeting, and by asserting that the favour with which the proposition of bringing to Cheltenham from Cerney a million gallons of water a day was received was a tacit admission of the want.

(a) Those gentlemen to whose names an asterisk is prefixed were not on the Council, or did not fill the same office, last year.

GENERAL CORRESPONDENCE.

MR. SYME AND ACUPRESSURE.

LETTER FROM PROFESSOR SYME.

[To the Editor of the Medical Times and Gazette.]

SIR,—The duty of a Surgical teacher requires him not only to inculcate the principles and procedures which promise to be useful, but also to warn his pupils against those that threaten to be injurious. When, therefore, the Professor of Midwifery proposed to suppress hæmorrhage by means of needles instead of ligatures, I did not hesitate to say that such a change of practice seemed to me uncalled for, inexpedient, and, in most cases, impracticable. It appears that the expression of this opinion gave offence to the Professor of Midwifery, who, in addition to his thick volume on the subject, has lately printed and extensively circulated a pamphlet in which my deliberate statements with regard to a subject strictly belonging to my own department of instruction are characterised as "foolish," and otherwise referred to in most offensive language, imputing not only ignorance of my Profession, but a want of good faith in teaching it. In noticing this publication it was not the mode of treatment in question, as has been most untruly stated, but the personal attack, to which I called attention, and gave the only reply it deserved. I am, &c.

Edinburgh, March 6. JAMES SYME.

LIST OF SUCCESSFUL CANDIDATES AT THE ARMY MEDICAL EXAMINATIONS.

THE Director-General of the Army Medical Department presents his compliments to the Editor of the *Medical Times*, and begs to enclose a list of the candidates who were successful at the competitive examination in August last, and who have passed through a course at the Army Medical School, showing the combined results of the examinations.

6, Whitehall-yard, London, March 6.

Names.	Studied at.	No. of Marks.
Jameson, W. H.	Edinburgh	5247
Harvey, R.	Aberdeen and Glasgow	5020
Whipple, J. H. C.	London	4813
Cleghorn, J.	Edinburgh	4610
Tomlinson, W. W.	Dublin	4545
Price, W. S. M.	Dublin	4197
Duffy, G. F.	Dublin	4490
Bennett, J.	London	4369
O'Dwyer, T. F.	Cork	4310
Boileau, J. R. H.	Dublin	4305
Cook, H.	Cork	4302
Carpenter, W.	Dublin—Galway	4295
Campbell, G. Mc. I.	Aberdeen	4202
Foster, J. F.	London	4190
Farquharson, R. A.	Aberdeen	4160
Keir, W.	Aberdeen	4040
Corban, L.	Cork	3925
Tuite, F.	Dublin	3925
Taylor, W.	Glasgow	3895
Smith, P. A.	Cork	3887
Shepherd, P.	Aberdeen	3882
MacLean, J. Mc. K.	Edinburgh	3855
Power, P. G.	Cork	3855
Hedley, W. T.	Edinburgh	3793
Purcell, T. A.	Dublin	3782
Kemp, R. D.	Aberdeen	3756
Handy, S. W.	Dublin	3705
O'Sullivan, E.	Dublin and Cork	3699
Hale, A. E.	Birmingham	3690
MacCreery, J.	Dublin	3646
Gillespie, H. C.	Cork	3630
Spurway, C.	London	3530
MacConnell, W.	Dublin and Belfast	3528
Hector, J.	Aberdeen	3520
Eames, W. L.	Cork and Edinburgh	3512
Shaw, C. E. M.	London	3494
Dunn, A.	Dublin	3490
Stono, V.	Edinburgh	3469
Macaw, K.	Belfast and Glasgow	3460
Riordan, W. E.	Dublin	3426
Bourke, T.	Dublin	3417
Murray, J.	Aberdeen	3405
Kelly, J. B.	Dublin	3399
Bourns, D. C. G.	Dublin	3397
Welsh, J. T.	Edinburgh	3396
Hughes, J. H.	Galway and Dublin	3337
Jones, J. W.	Dublin	3331
Walker, S. E.	Birmingham	3292
Blake, J. F.	Dublin	3290
Robinson, A. B.	Dublin	3284
Thorburn, D. A. S.	Edinburgh	3247
O'Brien, E. R.	Cork and Dublin	3178
MacCully, J.	Belfast and Dublin	3170
Jagor, W. H.	Dublin	3170
Blake, W.	Dublin	3163
Smith, C.	Dublin	3135
Duhy, J.	Dublin	3116
Hayward, E. T.	London	3097
Grose, D. C.	Dublin	3040
Dickinson, T. F.	Galway and Dublin	3040
Bairrie, A.	Glasgow	3038
Doake, S.	Belfast	3027
Flood, S.	Dublin	3000
West, G. B.	Dublin	2993
Canny, D. I.	Dublin	2975
Vallance, E.	London	2969
Candy, J.	London	2861
Ryan, J. B.	Dublin	2785
Hutchinson, C. F.	Dublin	2735
Eustace, E.	Dublin	2705
Peatfield, T. J.	London	2693
Coulten, J. R. R.	Dublin	2619
Backhouse, C.	Dublin	2600
Ward, E.	Dublin	2581
Maturin, J.	Dublin	2537
Renton, D.	Edinburgh	2455
Healy, C.	Dublin	2392

LEGAL INTELLIGENCE.

SUCCESSFUL PROSECUTION UNDER THE VACCINATION ACT.—A FINE INFLICTED FOR NEGLECTING TO BRING A CHILD FOR INSPECTION.

ON Wednesday, at the Marylebone Police Court, James Maunders, a cabman, was summoned before Mr. Yardley, at the instance of Mr. James George Gerrans, district vaccinator, for refusing and neglecting to cause his child to be taken to him for inspection upon the eighth day after vaccination, in compliance with the Vaccination Act, 16 and 17 Vic., cap. 100, sec. 3.

The defendant said: My wife was not well enough to take the child; besides, the child was ill. Another thing, I have already lost three children through vaccination. The scabs had dried up, and I did not deem it necessary that the child should be taken.

Mr. James George Gerrans said: I reside at No. 6, Wyndham-place. I am one of the vaccinators for the district, and am also appointed by the Vaccine Board. On the 20th of February the defendant's child was brought to me. I vaccinated it, and told the mother to bring it again on the eighth day following. The child has not been brought to me since.

Defendant: I did not want to have it done at all or taken to him, but he kept asking and pestering me about it.

Mr. Yardley: He was looking to your child's welfare. It was incumbent upon you to have it done.

William Denzelow was then called, and said: I am a student at St. Mary's Hospital. I went by request of Mr. Gerrans to the defendant's house on the same day that the child ought to have been brought. I forget the date or the day. I know it was the day the child ought to have been brought. I saw the defendant's wife, and told her to bring the child. She said she did not like, because some others had died before.

In reply to Mr. Yardley, defendant said he had no question to ask, but added, "I did not like to have my child taken there to be tormented by a lance, and then its poor little flesh scraped."

Mr. Gerrans: The defendant's child was the only one that I had for a week from which to get a supply of lymph, and on the day that the mother ought to have brought it I had at least a dozen children waiting in my Surgery to be vaccinated.

I sent Mr. Denzelow to her, and she would not come. The consequence was, I had to dismiss all the patients.

Mr. Yardley said that this being the first case under the Act, he would not inflict the full penalty of 20s., but would order the defendant to pay a fine of 5s., or in default to be imprisoned for seven days.

MEDICAL NEWS.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, March 2, 1865:—

Thornton Gerald Simpson, Westbourne-road, Arundel-square, Islington, N.; Henry Cornelius Libbey, 240, Dewsbury-road, Leeds.

The following gentleman, also on the same day, passed his first Examination:—

William Evatt Wright, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ADAMS, A. B., M.R.C.S. Eng., has been appointed House-Surgeon and Secretary to the Hants County Hospital, Winchester.

ANDERSON, J., M.D., has been appointed a Fellow of the University of Calcutta by the Governor-General of India in Council.

CARPENTER, ROBERT H. S., L.R.C.P. Lond, has been appointed Consulting Surgeon to the Northumberland and Durham Miners' Permanent Relief Fund.

CAUNT, WILLIAM, Mr., has been elected Dispenser at the Horncastle Public Dispensary.

DAVYS, FRANCIS J., L.K.Q.C.P.I., has been appointed Coroner of the Northern Division of the County of Dublin.

DIGGES, WILLIAM H., L.A.H. Dub., has been elected Resident Apothecary to the Meath Hospital and County Dublin Infirmary.

KEENE, FREDERIC, L.R.C.P.L., has been appointed Medical Officer for the Headley Incorporation.

POLLOCK, A. JULIUS, M.D. St. And, has been elected Physician to the Foundling Hospital.

PYLE, THOMAS H., M.R.C.S. Eng., has been appointed Consulting Surgeon to the Northumberland and Durham Miners' Permanent Relief Fund.

TUKE, JOHN B., M.D. Edin., has been appointed Medical Superintendent of the Fife and Kinross District Asylum.

WEBB, WILLIAM, M.D. St. And., has been appointed Surgeon to the Wirksworth District of the Derbyshire County Police.

DEATHS.

BELL, DOLWAY, L.F.P. and S. Glasg., at Bellgrove, Glenary, Co. Antrim, on February 17, aged 65.

CAMERON, HUGH, L.F.P. and S. Glasg., at Clackmannan, N.B., on Feb. 24.

CRICHTON, Sir ARCHIBALD W., M.D., D.C.L., at St. Petersburg, on February 15 (27), aged 74; for many years the Physician in Ordinary to the late Emperor Nicholas I. of all the Russias.

GILLESPIE, JOHN, M.D. St. And., at Constitution-street, Leith, on Feb. 20.

HASTINGS, A., Surgeon, at High-street, Warwick, on February 24, aged 46.

HILL, JOHN, M.R.C.S. Eng., at South Cave, Brough, Yorks., on February 23, aged 63.

HOWELL, GRIFFITH, M.R.C.S. Eng., at Llanchaiadc, Oswestry, on February 20, aged 32.

JACOB, ARTHUR E., M.D., late of H.M. 82nd Regiment, at Yea, Victoria, on February 7.

WILLIAMS, NICHOLAS, L.R.C.P. Edin., at Bride-cottage, Crookstown, Co. Cork, on March 1, aged 28. His career while a student in the Carmichael School of Medicine, Dublin, was most distinguished, as he carried off prizes in every branch of his Profession.

ROYAL COLLEGE OF SURGEONS.—The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such on March 9—viz., Messrs. Henry Hemsted, Newbury, diploma of membership dated October 3, 1828; Charles Lindsay Cox, the Queen's Indian Army, May 18, 1838; Henry Pitman, the Queen's Indian Army, April 13, 1840; and William Yeoman Sheppard, Bristol, February 18, 1842. At the same meeting of the Council, Mr. Edward J. A. Trimmer, M.A. Cantab, was elected secretary of the College, in the vacancy occasioned by the decease of Mr. Edmund Belfour, who held the office more than half a century.

TESTIMONIAL TO DR. HAMILTON, OF FALKIRK.—A handsome silver epergne has been presented to Dr. Hamilton by the members of the Falkirk School of Arts, in recognition of Dr. Hamilton's valuable services to that Institution.

THE LEVÉE.—The *levée* on Wednesday was attended by the following members of the Medical Profession:—Mr. R. W. Beaumont, R.N.; Mr. Parr W. Hockin, Deputy-Inspector of Hospitals; Dr. E. L. M'Sheehy; Mr. W. Purcell, R.N.; Staff Assistant-Surgeon Frank Simpson; Sir Henry Holland, Bart.; Sir Rutherford Alcock; Drs. Sieveking, Francis Hawkins, Minter, James Brown Gibson, C.B., Arthur Farre, Frederick G. Reed.

MUNIFICENT BEQUEST.—The funds of University College Hospital will shortly be augmented by the handsome sum of two thousand pounds, bequeathed to the institution by Mr. Arthur Woodriff Jaffray, a wealthy and benevolent American merchant, formerly of St. Mildred's-court, Poultry.

PROFESSIONAL EXAMINATIONS.—The next preliminary examinations on the subjects of general education will take place at the Royal College of Physicians on the 28th and 29th inst., and at the Royal College of Surgeons probably in June next. At the latter institution the next primary or Anatomical and Physiological examinations for the present session will take place on Saturdays, the 8th, 15th, and 29th April, and the pass or Surgical and Pathological examinations for membership on the 22nd April and 6th of May. The examinations for the Fellowship will take place as usual in May next, when the Midwifery Board will also meet.

CAPITAL PUNISHMENT.—The Capital Punishment Commissioners met on Friday and Saturday, the 3rd and 4th inst., at No. 2, Victoria-street, Westminster, when the Duke of Richmond; Lord Stanley, M.P.; Mr. Horatio Waddington; Mr. Gathorne Hardy, M.P.; Mr. Charles Neate, M.P.; Mr. John Bright, M.P.; Mr. G. Ward Hunt, M.P.; and the Lord-Advocate attended. The Secretary, Mr. J. H. Patteson, was also present.

THE FRENCH MEDICAL CONGRESS.—The third Medical Congress is to be held at Bordeaux on October 2, and will continue its sittings during six days. Practitioners residing at Bordeaux will pay 10 francs, but non-resident Practitioners may obtain cards which will admit them to the Congress free of all expense by applying to the Secretary, Dr. Charles Dubrueilh, 1, Rue Victor. The following six subjects are to be discussed, but others may also be introduced at the option of members of the Congress:—1. Rheumatism. 2. Expectation in acute disease. 3. The malignant forms of furuncle and anthrax. 4. Sudden death following traumatic injury and in the puerperal conditions. 5. On the suppression of *tours* (receiving boxes at Foundling Hospitals), in relation to their effects on morals and society. 6. The external and internal parasites of man, and the means suitable for their destruction. Any member of Congress wishing to communicate written or oral observations on these or other topics should apprise the Secretary thereof before September 15.

ROYAL INSTITUTION OF GREAT BRITAIN.—General Monthly Meeting, Monday, March 6, 1865.—William Pole, Esq., M.A., F.R.S., Treasurer and Vice-President, in the chair. The decease of his Grace the Duke of Northumberland, K.G., F.R.S., the President, on February 12 last, was announced from the chair. Ernest L. S. Benzon, Esq.; I. J. Unwin Clarke, Esq., jun.; Henry H. S. Croft, Esq.; Woronzow Greig, Esq., F.R.S.; Richard Belgrave Jackson, Esq.; John Macpherson, M.D.; Farquhar Matheson, Esq.; Henry Wilkes Notman, Esq., F.R.G.S.; Charles Rogers, Esq.; James Vaughan, Esq.; Lieut.-Colonel G. F. Whitelocke; were elected members of the Royal Institution. The Chairman announced the following addition to "The Donation Fund for the Promotion of Experimental Researches"—Henry Bence Jones, M.D., Sec. R. I. (second donation), £20; S. R. Solly, Esq. (third annual donation), £20; Adam Murray, Esq., £5 5s. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

TESTIMONIAL TO R. GARNER, ESQ., OF STOKE-UPON-TRENT, F.R.C.S. and F.L.S.—A number of the friends of this gentlemen, most of whom have long experienced the advantages of his Medical skill, and have highly esteemed him for his unwearied attention to the duties of his Profession, have just shown their high appreciation of his public and private character in a very pleasing and practical manner. On Tuesday last there was to be seen at Mr. Farr's, coachmaker, Newcastle, a handsome new circular-fronted brougham, built in Mr. Farr's best style; a fine young horse suitable for the carriage, and fitted with a set of silver-mounted

harness, everything of the best, and quite complete. The carriage was purchased by the subscriptions of the ladies, and the horse and harness by those of the gentlemen. The cost of the set out is about £180, the whole of which has been most freely subscribed without any other effort than the simple suggestion that such a thing was going on. Testimonials are, it is true, very common in the present day, but all who know the many years Mr. Garner has gratuitously devoted his time and talents to the benefit of the North Staffordshire Infirmary, as one of its Surgeons, and the unselfish manner in which he has pursued his general Professional course with signal benefit to his fellow-creatures, will allow that this is a well-timed offering of esteem and commendation, and will join in the wish that he may be long spared to enjoy it.—*Staffordshire Advertiser*, March 4.

The Examination of the Spinsters of Lochend.—This scandal has drawn the attention of the Free Church General Assembly. At a meeting held at Edinburgh, Dr. Candlish called attention to the extraordinary advertisement lately published by the Free Church minister of Lochend in the *Inverness Courier*. The advertisement, it will be remembered, stated that all the young and unmarried women of Lochend had assembled in the vestry of the Free Church to get their characters "adjusted" by Dr. Campbell, in consequence of an imputation arising from the circumstance that the dead body of an infant had been found in Loch Ness, the certificate being that the Medical man had examined a number of young and unmarried women of Lochend, and had "no reason to believe that any of them had been recently confined." Dr. Candlish hoped that the local presbytery would lose no time in investigating the case, and should they fail in their duty he had no doubt that the next General Assembly would take cognisance of the matter.

Another Road Murder.—Dr. Wybrants, Coroner for East Somerset, has just been investigating a most mysterious case at Emborough, a small village, lying between the cities of Bath and Wells. This inquiry, which was twice adjourned, resulted in a verdict of "Wilful murder." The facts of this very remarkable case are as follows:—On February 8, William, the only surviving child of Mr. Charles Coles, aged 7 months, died very suddenly, in consequence of a powder administered to him by his mother, and which powder she supposed to be one of "Steadman's Soothing Powders," from a packet of which she took it. Death resulted in ten minutes. It appeared that on December 31 a woman named Ann House purchased of Mr. Habgood, chemist, Wells, a packet of Steadman's powders for Mrs. Coles, and that in January Mr. and Mrs. Coles themselves purchased another packet of the same powders. One was given to the child with a good effect, and the remainder were placed in a cupboard in the parlour. In the evening of February 8, Selina Young, the nursemaid, was sent by Mrs. Coles to the parlour for the powders, and she took them to where Mrs. Coles was nursing the child. Mrs. Coles took out a powder, mixed it with moist sugar, and gave it to the child, who died within ten minutes after. Mr. Cartner, a Surgeon, was sent for, and when he arrived he requested a Mr. Ham, who was present, to take charge of the remaining powders. He did so, and subsequently Mr. Cartner made a post-mortem examination of the child, and found that he had died of a collapse produced by corrosive mineral poison. On examining the powders given to Mr. Ham, he found that one of them contained ten grains of bichloride of mercury; the other powders contained none. Mr. Habgood, the chemist of whom the powders were bought, Mr. Faulconer, of 5, Queen's-row, Walworth-road, the proprietor and manufacturer of the powders, and Mr. White, the managing clerk of Messrs. Barclay and Co., the agents who supplied Mr. Habgood, were severally examined, and stated that by no possible means could poison have been introduced into the powder as issued by them, inasmuch as they were sealed and stamped with the Government stamp. It was further proved that Mr. Coles kept lump mercury in his house for the purpose of treating his sheep, and that Joseph Chard, the shepherd, also had a lump, which he had lost. Mr. Deane, of London, an analytical chemist, proved that the powders he examined contained particles of hair or wool, and also some dirt. He was of opinion that it was impossible that such particles could have entered packets in a chemist's shop. The Coroner summed up at considerable length, pointing out the incontestable fact that the child had been poisoned, and that poison had been substituted for the powders, as was proved by one packet of poison still remaining among the others. The jury returned an open verdict to this effect, which is substantially one of "Wilful murder against some person or persons unknown."—We mentioned this case in our journal of last week. Our readers will not fail to observe that the purity and proper preparation of the patent medicine were taken by the witnesses for granted, *because* they were sealed and stamped with the Government stamp!

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

We shall publish in our next the very interesting case of Excision of the Knee-joint, by Dr. James A. Grant, F.R.C.S., of Ottawa, Canada West. We shall also commence the first of a series of practical papers by Dr. Wm. Murray, of Newcastle. Our readers will remember that Dr. Murray published in the Medico-Chirurgical *Transactions* the first successful case of treatment of aortic aneurism by pressure.

Irenæus.—We think it was Lieut. Hawkey, of the R.M.

A Student of St. Bartholomew's.—A very good guide to the Medical schools of Paris was written by Dr. Wiblin, of Southampton. Inquire of Mr. Renshaw, Strand.

A Fellow, Bengal Presidency, at Home.—Having been elected in 1860, the Diploma could not be conferred on you until your return to England. Report yourself at once to the Secretary, as there will be a meeting of the Council on Thursday next to elect and admit to the Fellowship.

The Royal Medico-Chirurgical Society.—The debate of which we published a full report last week was well adapted to ventilate a principle, and will bear fruit in due time. It is not the question whether the Obstetrical and Pathological Societies are well accommodated for the sum they pay, and are content with their bargain; and as no complaint proceeds from these Societies, we must suppose that they are. The question is whether or not it is consistent with the dignity of the Medico-Chirurgical to exact anything like profit out of the younger Societies. It is a question in which differences of opinion may be amicably entertained by honourable men on either side, and it is quite fair that it should be fully debated and fully reported. For our own parts, we adhere to the principle that the *shop* element should not be allowed to enter the question, and that the Medico-Chirurgical Society might gracefully accommodate its tenants at a sum just sufficient to save itself from loss, and to replace wear and tear.

Epigram on Mead, from the Welsh.

Nectar of bees, not Bacchus, here behold,
Which British bards were wont to quaff of old;
The berries of the grape with Furies swell,
But in the honeycomb the Muses dwell.

—The original appeared in *The Times*, September 27, 1850.

Poor-law Medical Reform.

to the editor of the medical times and gazette.

Sir,—I shall feel obliged by your giving insertion to the accompanying letter, in order that the Poor-law Medical officers may know that I am not unmindful of their interests. During the last three months I have been in correspondence with Members of Parliament; but in the face of a general election there is evidently an indisposition to bring in a bill for Medical relief. One M.P. writes: "I shall see Mr. Villiers on the subject of your bills, and see what support we may expect from that quarter;" and in a postscript he adds, "I feel that it would be next to useless to attempt the passing of a bill or bills unless the Government would give some support. Unfortunately, the Profession is so disunited that all Governments can take advantage of us in our individual exertions; *not so the law.*" From this gentleman I have not heard since January 31—the date of the above letter—although I have addressed three letters to him. I am, &c. Richard Griffin.

12, Royal-terrace, Weymouth, March 7, 1865.

"12, Royal-terrace, Weymouth, March 6, 1865.

"My Lords and Gentlemen,—On the 2nd of September, 1864, I had the honour to receive a letter from you, in which you say, 'The Poor-law Board beg to inform you that the subject to which you refer has been under their consideration; but that they have not yet come to a decision as to the measures which it may be desirable to recommend the guardians of the different unions to take with reference to the resolution of the Select Committee on Poor Relief, as regards the supply of expensive medicines. The question, however, will receive the attention of the Board forthwith.'

"It is now just twelve months (March 11, 1864) since the Select Committee on Poor Relief recommended 'that in future cod liver oil, quinine, and other expensive medicines, shall be provided at the expense of the guardians, subject to the orders and regulations of the Poor-law Board;' and six months have elapsed (September 2, 1864) since your honourable Board said 'the question, however, will receive the attention of the Board forthwith;' and yet no order has been issued. I therefore trust you will not think I am too pressing in urging this question again upon the immediate attention of your honourable Board. If you are in any difficulty about the matter, and desire to have a deputation of Medical

officers to confer with you on the subject, I will willingly call them together for the purpose, on any day you may name, after allowing me two clear Saturdays to intervene, as it is only through the medium of the Medical journals that I can announce the fact to them. I was in hopes your honourable Board would bring in a bill this session to regulate the payments of your Medical officers, and not allow the present capricious mode of fixing the salaries, and giving some officers extra Medical fees and others none, to continue. It is perfectly clear, from the several amendments of the Select Committee, that the committee itself was far from being unanimous on the subject of Medical relief; and even their ultimate decision—'that there are no sufficient grounds for materially interfering with the present system of Medical relief'—clearly proves that there are grounds for interfering, although not *materially* doing so. I therefore trust your honourable Board will yet place the whole system on a proper footing.

"I have the honour to be, my Lords and Gentlemen,
"Your most obedient servant,
"The Poor-law Board." "RICHARD GRIFFIN.

SYPHILOGRAPHY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your article on Syphilography you mention the observations of Virchow, Wilks, Simpson, Aitken, and Hutchinson. Can you refer me to the most recent works on the subject by these or any authors?

Newcastle-on-Tyne, March 5. I am, &c. M.D.

*** Virchow: Cellular Pathology. By Chance.

Wilks: Guy's Hospital Reports, New Series, vol. ix.

Simpson: Transactions of the Epidemiological Society, vol. i., p. 2 Published by Hardwicke, Piccadilly.

Aitken: Principles of Medicine, third edition.

Jonathan Hutchinson on Inherited Syphilis.

Papers in *Medical Times and Gazette*, 1862, on Syphilis and Vaccination.

Diday on Infantile Syphilis. Sydenham Society.

THE BOWEN FUND AND THE MEDICAL BENEVOLENT FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I beg to acknowledge with many thanks the receipt of £49 10s. 6d. being the balance of the "Bowen Fund." I am, &c.

JOSEPH TOYNBEE,
March 7. Treasurer Medical Benevolent Fund.

FEES FOR MEDICAL EXAMINERS UNDER THE GOVERNMENT INSURANCES AND ANNUITIES ACT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I should be glad to know the opinion of the Profession on the scale of fees proposed by the Postmaster-General for the remuneration of Medical examiners under the Government Insurances and Annuities Act. It strikes me that a fee of 2s. 6d. will not compensate us for the time and trouble involved in examining proposers and filling up the forms; to say nothing of the responsibilities of such an office in the event of a policy being disputed. The distinction made between the fees paid for persons insuring for more than £60 and those insuring for less than that amount is also unjust to the examiner, who must devote as much time and skill to the one class of insurers as to the other.

I am, &c. HENRY S. TAYLOR.

Guildford, March 9, 1865.

BRANDIED WINE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I beg that you will insert in your valuable journal the following extract from the article "Wine" in the *Penny Cyclopædia*. The intrinsic truth of the statements contained in it, as well as the fact that the article in question comes from the pen of an eminent Physician, who is, perhaps, one of the most distinguished Œnologues in the world, will commend it to the attention of your readers. I am, &c. Δ.

"The addition of any distilled spirit to wine is always to be reprobated, as it destroys the finer qualities of the wine, making it flat and mawkish. That much alcohol is not necessary to the keeping of wine is clear, since the Rhine wines keep for a century, yet in these the quantity of alcohol is seldom more than eight or nine per cent. Dr. M'Culloch has forcibly pointed out the evils of adding brandy to wine in his 'Remarks,' p. 140. This practice is universal in the wines of Spain, Portugal, and Sicily which are intended for the English market. So far from assisting in preserving the wine, it decomposes it. However slow the effects of this decomposition may appear, they are not the less certain. The first and most conspicuous effect is the loss of that undefinable lively or brisk flavour which all those who possess accuracy of taste can discover in French wines or in natural wines, and a flatness which must be sensible, by the principle of contrast, to the dullest palate which shall compare the taste of claret with that of port, or that of hock or grave with Lisbon or Bucellas. It tends equally, although in a greater length of time, to destroy the union of the colouring principle, which is well known to be deposited in port wines, and apparently in a great measure from the action of this foreign substance. This fact explains why dishonest wine merchants add brandy to their port wines, to give them earlier the appearance of age, by producing the *crust*, a criterion by which no experienced or intelligent wine drinker allows himself to be misled. Moreover, no quantity of brandy can hinder the process of acetification, if the circumstances favourable to it are present. The only effect of adding brandy is to make the vinegar stronger, not to prevent its formation. The alcohol thus uncombined acts on the organs of the body in the same way as alcohol only diluted with an equivalent quantity of water. This is manifest even in the difference of the moral effects of unadulterated wine, in which the spirit is an integral element, and those of the coloured liquids which serve merely as a vehicle for a large portion of alcohol. The pure light wines of France and Germany produce an agreeable exhilaration of mind, very unlike the mere physical excitement, almost amounting to ferocity, which results from the largely brandied wines which are too much in vogue in England. The diseases, also, which attend spirit drinkers, chiefly disorders of the liver, are commonly met with among the consumers of wines to which brandy or whisky has been adventitiously added, though such disorders rarely, if ever, follow even the intemperate use of pure wine. Much, therefore, of the ill-health supposed to follow the habitual use of wine must be attributed to the alcohol with which they are adulterated, not to the wine itself. Certain it is that intoxication is a very rare occurrence among the inhabitants of the wine-producing countries. The light wines of France, of the Rhine, the Moselle, or the Amontillado and Manzanilla of Spain, to which brandy is not added, are much to be commended, as more wholesome and not very much more expensive; at all events, the health would gain where the purse suffers. This is a subject of great importance, as it is to be feared that habits at once discreditable and difficult to be relinquished are contracted by women by the use of these highly stimulating mixtures."—*Penny Cyclopædia*, Vol. 37, "Wine," pp. 464-5.

THE NAVAL MEDICAL SERVICE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—My attention has been drawn to a letter in your last number bearing the above heading. It is a very remarkable production, and the total absence of *esprit de corps* on the part of the writer may be designated as lamentable.

He professes to instruct intending candidates respecting the position and pay of Naval Medical officers, and to inform them of the treatment which they may expect. He takes especial care to warn them against the Surgeons whom he stigmatises as insolent and tyrannical. And why, forsooth? Simply because they endeavour to make their assistants do their duty. The idea of a Surgeon occupying a chair and giving orders to his assistant is gall and wormwood to him. He objects to dressing cut fingers, to compounding medicine, and, in fact, as far as I can gather, to doing anything at all. It is difficult to say what arrangement respecting duty would satisfy your correspondent. Probably he would not object to sitting in a chair and giving directions to the Surgeon.

He speaks of having been "blackguarded" for being a "minute" late; he probably means by "blackguarded" being found fault with. As to the minute, I fear it means at least twenty.

I will conclude by reminding your correspondent that the idea of liberty and independence in any "service" is simply ridiculous. It would not be a "service" at all if every one could do as he pleased. There is a state of bondage on shore as well as afloat. The man who grudges the small amount of work which falls to his lot on board ship would, it is probable, be badly adapted for pushing himself on elsewhere.

I am, &c. S.

COMMUNICATIONS have been received from—

Dr. JAMES ARNOTT; Dr. HARRY FOOTE; FRIENDS OF THE DOCTOR; Mr. JOSEPH TOYNBEE; Mr. R. GRIFFIN; S.; ROYAL INSTITUTION; Mr. JAMES SYME; M.D.; Mr. OLIVER LODGE; IRENÆUS; THE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT; Dr. R. H. S. CARPENTER; Mr. JOHN CRESSWELL; Dr. WILLIAM MURRAY; Dr. T. MASSEY HARDING; APOTHECARIES' HALL; Dr JAMES A. GRANT; ANTHROPOLOGICAL SOCIETY OF LONDON; JUNIOR MEDICAL SOCIETY OF LONDON; Mr. HY. S. TAYLOR.

BOOKS RECEIVED.

On the Early Symptoms of Phthisis, and the Means best Adapted to Prevent or Arrest its Development. By P. W. Latham, M.D. Cambridge: Deighton, Bell, and Co. 1864.

*** A remarkably good graduation thesis, which augured well for the Professional future of its author. We are not aware that it contains any new points of diagnosis or treatment; but it gives some interesting cases observed by the author, and it is carefully and thoughtfully written. We notice one observation, however, which certainly is not in accordance with our experience. The author is opposed to the practice of painting the subclavicular space with tincture of iodine, on the ground that he has seen it frequently produce absorption of the pectoralis muscle. We cannot say that we have ever noticed such result, and should be almost inclined to suppose that he has mistaken an event in the natural progress of the disease for the effect of the application.

Le Congrés de Genève. Geneve: Jules Guillaume Fick. 1864.

*** The object of the Congress was the amelioration of the condition of the wounded in time of war. Representatives from sixteen Governments were present—viz., Baden, Belgium, Denmark, Spain, the United States, France, Great Britain, Hesse, Italy, Netherlands, Portugal, Prussia, Saxony, Sweden, Switzerland, and Wurtemburg. Ten articles of convention were agreed to by twelve of these Governments, the remaining four—viz., the United States, Great Britain, Saxony, and Sweden—being only omitted on account of insufficient powers having been granted to their representatives. The representative of Russia arrived too late at the Congress; but Austria, Bavaria, and the Papal Government declined altogether to take part in it. The result of the Congress is an honour to humanity and a sign of progress—it establishes the neutrality of the wounded, of the Medical officers, or others engaged in attending to them, and of the people of the country, and provides for this neutrality being properly respected.

A Contribution to the Anatomy of the Amphibean and Reptilian Retina. By A. W. Hulke. Reprinted from the Royal London Ophthalmic Hospital *Reports*.

*** An important contribution to Comparative Anatomy. Mr. Hulke says: "In all the species which I have examined (eight are described in his pamphlet) a uniform type of structure occurs; and this is subject to modifications which show how well founded was Müller's anticipation, that a special study would bring out specific characters, which would enable the anatomist, from the examination of a piece of retina, to name not only the class, but the genus and species."

Clinical Observations on Diseases of the Stomach. By B. W. Foster. No. 1—Gastric Ulcer Birmingham: Cornish, Brothers. 1864.

*** Two cases are here published. We have no desire in what we say to discourage the author from his proposed publication, but having regard to the serious inconveniences that arise to the reading public from the accumulation of pamphlets of all kinds in our drawers, etc., would it not be better if Mr. Foster reserved his observations until he could publish the whole together in one volume? He need be under no apprehension of the work falling "still-born from the press."

Lithotrity. By Charles Hawkins. London: Spottiswoode and Co. Pp. 40.

*** A reprint from Holmes's "Surgery," and also from the Medico-Chirurgical *Transactions*.

Dr. Guy's Contributions to Sanitary Science. No. 1—The Case of the Journeymen Bakers. London: Renshaw.

*** Dr. Guy proposes reprinting his contributions to sanitary science, scattered about in various forms. The collection of them will be acceptable, and not the less so on account of the philanthropic spirit which pervades his sanitary writings.

A Few Words on the Choice of a Microscope. By J. J. Plumer, M.A. London: John Churchill and Sons. 1865.

*** Thirty-one pages of very excellent advice. Eighteenpence would be well spent in the purchase of this little book by any one about to provide himself for the first time with a microscope.

On the Treatment of Rheumatic Fever in its Acute Stage Exclusively by Fever Blistering. By H. Davies, M.D. London: John Churchill and Sons.

*** A reprint from the "London Hospital Clinical Reports." We noticed this paper in our review of the first volume.

Practical Dietary for Families, Schools, and the Labouring Classes. By E. Smith, M.D. London: Walton and Maberly.

*** When "Modern Syphilography" no longer occupies our readers' attention, and "Modern Dermatology" is finished, we must invite our readers' attention to "Modern Trophology," and especially to Dr. Edward Smith's very laborious investigations.

The History of a Bit of Bread: being Letters to a Child on the Life of Man and Animals. By Jean Macè. London: Saunders, Ottley, and Co.

*** We say of this as of the former part which we reviewed some months ago, that it is a popular introduction to physiology, human and comparative, very well meant, but a little too diffuse.

On the Cause of the Respiratory Murmur. By A. T. Waters, M.D. Pp. 3.

*** A reprint from the *British and Foreign Medico-Chirurgical Review*. Dr. Waters believes the air-cells of the lungs to be the seat of the murmur, and that it arises from the impediment to the current of air entering the air-cells through the circular openings by which they communicate with the bronchi, and which are smaller than the cavity to which they lead.

The Brown Book for 1865. London: Saunders and Ottley.

*** A book of ready reference to London hotels, lodging and boarding-houses, breakfast and dining-rooms, metropolitan railways, public and circulating libraries, amusements, picture galleries, Hospitals, schools, charitable institutions, religious, learned, and artistic societies, post-offices, cab stands, police, fire, telegraph offices, etc., etc. All this for a shilling!

On the Relations, Structure, and Function of the Valves of the Vascular System in Vertebrata. By J. B. Pettigrew, M.D. Edinburgh: Neile and Co.

*** A reprint from the *Transactions* of the Royal Society of Edinburgh. An important paper.

Two Months of Fever Duty in the Glasgow Royal Infirmary. By W. T. Gairdner, M.D. Glasgow: William Mackenzie.

*** A reprint from the *Glasgow Medical Journal*. It contains brief notes of 126 cases, mostly of typhus.

A General Review of the Subject of Capital Punishment. By William Tallack. Office: Southampton-street, Strand.

*** There is a good deal to be said against as well as in favour of the total abolition of capital punishment. We are not quite sure that we agree altogether with Mr. Tallack; but we must decline discussing the subject with him now.

An Effectual and Simple Remedy for Scarlet Fever and Measles. By C. Witt. Fourth edition. London: Trübner and Co.

*** Inquiring amongst our *confrères*, we find very few who have given the carbonate of ammonia even a trial. Our own experience, so far as it goes, is in its favour, and we should be glad to see Union Medical officers using it and giving in the results of their observation.

Ideas, Opinions, and Facts. No. I.: Touching Clerical Celibacy. No. II.: Convents and Lunatic Asylums. London: R. Hardwicke.

*** These are controversial religious pamphlets. If the writer does not convince his antagonists, he will be sure to annoy them, which, perhaps, will please him as well.

Transactions of the County and City of Cork Medical and Surgical Society. Session 1863-64.

*** Reprinted from the *Dublin Quarterly Journal of Medical Science*. Contains several interesting cases.

Eighteenth Report of St. Mark's Ophthalmic Hospital, Lincoln-place, Dublin, 1863-4.

*** Dublin or London—it is everywhere the same. The governing board "especially request benevolent persons wishing to procure admission or advice for patients to inquire into their pecuniary circumstances, and to recommend those only who are really *fits objects for charity*." It is a cheap benevolence which expends other people's money for the benefit of one's own dependants.

Fifth Annual Report of the Cranley Village Hospital.

*** We have commended the plan of the Cranley Village Hospital before. We can only repeat our commendation.

Undine: a Tale, by Baron de la Motte Fouqué. Translated from the German by Anne Burden. Belfast: A. Mayne.

*** The profits will be devoted to the Belfast General Hospital. Miss Burden's translation of this unique tale seems done quite *con amore*.

The Chemist's Desk Companion, 1865. The Year-book of Pharmacy. Edited by C. H. Wood and Charles Sharp. London: 158, Aldersgate-street.

*** A very useful annual; containing references to the chief innovations and improvements in pharmacy during the past year.

Dictionnaire Annuel des Progrès des Sciences et Institutions Medicales. Par M. P. Garnier. Paris: G. Baillière. Pp. 500. Prix 5 francs.

*** The first number of a very useful annual. It contains, in alphabetic order, a short notice of most novelties in Medicine and its allied sciences, and with reference to most new books issued during 1864.

De l'Ataxie Locomotrice par le Dr. Paul Topinard. Paris: J. B. Baillière et Fils.

The Sixth Annual Report of the Herefordshire Medical Association. Hereford. 1864.

An Introductory Address delivered at St. George's Hospital, October 3, 1864. By W. E. Page, M.D.

The Turkish or Hot-air Bath. By J. Capper, M.D. Hastings: H. Diplock.

Illustrations of Dissections. By G. V. Ellis. Part 13. London: Walton and Maberly.

A Treatise on Military Surgery and Hygiene. By T. H. Hamilton, M.D. New York: Baillière Brothers.

The A B C Railway Guide. London: W. Tweedie.

Traité Theorique et Pratique des Maladies de l'Oreille. Par le Dr. Bonnafont. Paris: J. B. Baillière et Fils.

A Manual of the Practice of Surgery. By Wm. Fairlie Clarke. London: H. Renshaw.

Braithwaite's Retrospect of Medicine. Vol. L. July to December, 1864. London: Simpkin and Co.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 4, 1865.

BIRTHS.

Births of Boys, 1125; Girls, 1117; Total, 2242.
Average of 10 corresponding weeks, 1855-64, 1923·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	763	719	1482
Average of the ten years 1855-64	687·3	666·7	1354·0
Average corrected to increased population..	..	..	1489
Deaths of people above 90	..	..	7

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	2	7	1	2	8	13	3
North ..	618,210	9	4	6	1	12	24	1
Central ..	378,058	2	..	4	2	23	7	2
East ..	571,158	1	2	11	..	20	10	1
South ..	773,175	2	4	11	2	18	13	3
Total ..	2,803,989	16	17	33	7	81	67	10

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·749 in.
Mean temperature	42·1
Highest point of thermometer	52·7
Lowest point of thermometer	30·9
Mean dew-point temperature	36·8
General direction of wind	S.W. & N.W.
Whole amount of rain in the week	0·32 in.

APPOINTMENTS FOR THE WEEK.

March 11. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

Royal Institution, 3 p.m. Prof. Marshall, "On the Nervous System."

13. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

14. *Tuesday*.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Anthropological Society of London, 8 p.m. W. Winwood Reade, Esq., F.R.G.S., F.A.S.L., "On Missionary Efforts amongst Savages."

Royal Institution, 3 p.m. Prof. Hofmann, F.R.S., "An Introduction to the Study of Chemistry."

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Southam (of Manchester), "Aneurism by Anastomosis of the Scalp Treated by Setons and Ligature of the Common Carotid." Dr. Hillier, "On Congenital Hydronephrosis."

15. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

16. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Royal Institution, 3 p.m. Prof. Hofmann, F.R.S., "An Introduction to the Study of Chemistry."

17. *Friday*.

Operations. Westminster Ophthalmic, 1½ p.m.

Royal Institution, 8 p.m. Balfour Stewart, Esq., F.R.S., "On the Latest Discoveries concerning the Sun's Surface."

ORIGINAL LECTURES.

CLINICAL REMARKS

ON A CASE OF

CONTRACTED MITRAL ORIFICE, WITH AURICULAR-SYSTOLIC MURMUR.(a)

DELIVERED AT

THE GLASGOW ROYAL INFIRMARY,

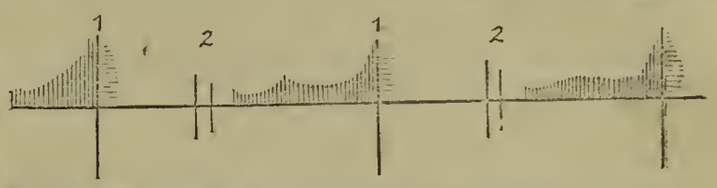
By W. T. GAIRDNER, M.D., F.R.C.P. Edin.

(Reported by Dr. WYBER.)

We have to-day an opportunity, which I am unwilling to lose, of discussing a disputed point in cardiac diagnosis; and although we have spoken about it before, and there are many other questions of practical importance at present demanding our attention, I shall give a few words, in passing, to this one. Many of you have heard me explain the importance of the pre-systolic, or, as I call it, the *auricular-systolic* murmur, as indicating a contracted mitral orifice, of which lesion, indeed, it may be said to be pathognomic, if we exclude a few cases of tricuspid obstruction, and some of disease of the pericardium, in which a more or less similar murmur may be present.

I show you here the heart of Jas. McL., who died a few days ago in Ward 7, and whose body was examined, in my absence, by the Resident Physician, Dr. Wyber. As the mechanism of the heart was found to be considerably deranged, it was preserved for your inspection. You observe that while the heart, as a whole, is very considerably enlarged, weighing, on being removed from the body and emptied of blood, twenty-eight ounces, or more than double the proper weight for the heart in a man of his size, the left auricle is dilated much out of proportion to the other cavities; so much so, that with a little stretching it would probably hold a very large orange. You have, on the other hand, the cavity of the left ventricle of a moderate size. With regard to the auriculo-ventricular valves, you observe that while the tricuspid orifice, without any other marked deformity, is somewhat widened, admitting nearly four fingers, the mitral is very much contracted, and does not fully admit the point of even one finger. The pulmonary and aortic semilunar valves are normal, though the aorta itself is rather small, owing probably to the relatively small amount of blood passing through the left auricle. The only valve that is the subject of distinct disease, therefore, is the mitral, and that disease is obstruction. I do not say that there was no regurgitation in this case. I believe there was. But as the two lips of the valve come pretty accurately together, and as the small size of the mitral orifice is due not to vegetations, but to a contracted state of the orifice, regurgitation, if present, must have been slight in amount, and entirely subordinate to the obstruction. One other fact that illustrates the condition of the circulation in this heart is the thickening and loss of translucency of the left auricle as compared with the rest of the endocardium, showing a stasis of the blood in this auricle; and in further proof of this stasis of the blood you observe that the auricular appendix is blocked up by a clot which, from its consistency, density, adhesive and granular character, has evidently been formed during life, and probably long before death. You have, therefore, multiplied proofs in this case that there was a very decided obstruction in the mitral orifice, the only question being whether there was not also a slight amount of regurgitation through the same orifice; and in connexion with this I wish to read you the facts of the case relating to the murmur, as reported in the journal at the time.

This man was twice under observation. He came into Hospital for the first time on September 13 of last year, and was dismissed improved on November 18. During this time he was subjected to very minute, careful, and repeated examination. He was readmitted on February 9, 1865, and he died on the 25th of the same month; but this time he was so ill that he was only examined sufficiently to satisfy my own mind that the physical signs were the same as on his first admission. Now, here is an exact diagram of the murmur as



Murmurs in case of Jas. M'L. Lengthened auricular-systolic; brief ventricular-systolic murmur; 2nd sound reduplicated, but free from murmur.

we figured it at the time, within forty-eight hours after his first admission, on the back of his Hospital ticket. In the journal of like date the murmur is described as a "distinct and protracted auricular-systolic murmur, followed by brief ventricular-systolic, at left apex." The murmur, as you observe here, beginning at a brief interval after the second sound, extends close up to the first sound, and there is a very short, almost doubtful, murmur after the first sound, but no murmur directly in contact with the second sound. Next day we noticed that "the ventricular-systolic element in the murmur is to-day indistinct and doubtful; otherwise the facts are the same as yesterday. The cardiac dulness is somewhat extended both to left and right; greatest transverse diameter is probably nearly six inches, but not quite distinct at right border." There was great dilatation of the heart, therefore, as ascertained by percussion, quite in consistency with what you observe here. We find also the following note:—"Tested at the apex, the first sound is decidedly the sharper of the two, insomuch that it might easily be mistaken for the second. Tested towards the base, the second sound regains its natural relation to the first, but developes a distinctly reduplicated character, which even at the apex serves to identify the sounds." Now, I wish to tell you that it sometimes happens in these cases that the first and second sounds are rather difficult to distinguish from each other on account of this peculiarity, frequent in cases of mitral disease, that the second sound is very much increased in intensity at the base over the pulmonary artery, while the first sound is somewhat similarly increased in intensity and sharpness at the apex, where, indeed, it often assumes very much the character of the second sound. But when the first and second sounds are in this manner difficult of distinction, though you can generally get out of the difficulty by employing a little extra care, the best way, beyond all question, is to employ this instrument, the differential stethoscope of Dr. Scott Alison. Putting one bell of the stethoscope over the apex and the other over the base of the heart, the erroneous impressions as to the sounds of the heart formed by the one ear are corrected by the other. In this case, however, the reduplication of the second sound was of great assistance in enabling us to identify the sounds both at the base and apex, and thus to come to a proper understanding of the rhythm of the heart.

You see, then, that we made a very careful examination of this case, and what made me particularly anxious that you should observe the facts of the murmur for yourselves was the circumstance that this was one of three cases which I published some time ago in the *Medical Times and Gazette*, and in regard to which I said that "if any one of these three cases should turn out to be other than a case of mitral (or just possibly tricuspid) obstruction I shall be the first to confess that the whole pathology and diagnosis of the subject, as I have hitherto viewed it, requires reconstruction." Now, one of these three cases died while my communication was in the hands of the printer, and the state of the heart is described in a foot-note.(b) This case of J. M'L. is therefore a second illustration of the significance of the auricular-systolic murmur in cases of mitral contraction; and if any of you wish to examine the matter still more closely, by referring to

(a) Formerly noticed in the *Medical Times and Gazette*, October 29, 1864, p. 460.

(b) This case was an exceedingly complicated one, and undoubtedly a difficult diagnosis. The murmurs were auricular-systolic and ventricular-systolic, with an occasional ventricular-diastolic murmur heard at the base and along the sternum. The facts, as stated in a condensed form in the paper above referred to, led to the inference that the case was "one of aortic and mitral disease in combination and possibly also of disease of the valves of the right side." The state of the heart revealed by post-mortem examination was briefly as follows:—"Mitral orifice of size only sufficient to admit the thumb, and the edges of the valve roughened with vegetations; similar vegetations on the free edges of the aortic valves, which were somewhat deformed and incompetent; tricuspid orifice just admitting two fingers, and evidently contracted, but without much shortening of the chordæ tendineæ, or roughness of the edges of the opening; pulmonic valves normal." See *Medical Times and Gazette*, as above, p. 462.

the journal of the ward you will find an exact description of the murmur as heard during life.

The third case which was noticed in the paper in the *Medical Times and Gazette*, viz., that of Mary O'M., has been dismissed from the Hospital improved, but we shall very likely see more of her. If she comes back you must not allow your scientific curiosity to make this girl the subject of uneasy inquiry; but I shall endeavour, if she is in a fit state for examination, to give you further opportunity of becoming acquainted with the auricular-systolic murmur. There is, however, another case of this murmur in the ward at present, and yet another case was only recently dismissed. These cases, indeed, are not at all rare, as you might suppose from the writings of some authorities. I have seen numbers of them every year since I began Hospital practice, and you cannot possibly fail to have many opportunities of observing them, although, perhaps, few cases are so perfectly clear and uncomplicated as that of Mary O'M, and even the case of J. M'L., now under notice. The more common form of disease is perhaps the combination, in about equal proportion, of mitral obstruction and regurgitation, each giving rise to its own characteristic murmur.

ORIGINAL COMMUNICATIONS.

ON NUTRITION.

By LIONEL S. BEALE, M.B., F.R.S.,

Fellow of the Royal College of Physicians; Physician to King's College Hospital; Professor of Physiology and of Morbid Anatomy in King's College.

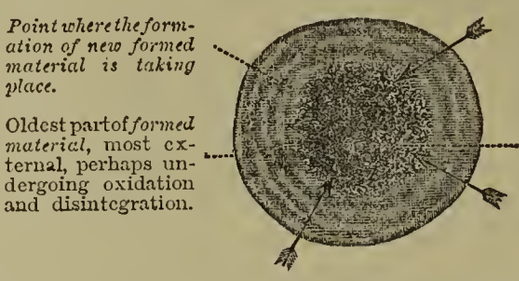
(Continued from page 222.)

THE third stage of the process of nutrition comprehends the conversion of the living or germinal matter into *formed material*, which is added to that already produced. I have endeavoured to show that the formed material results from changes in the germinal matter. It seems probable that particles of the germinal matter after going through certain stages of active existence lose their active powers or *die*, and that the formed material results from this death. The ultimate atoms of the germinal matter are constrained during life to occupy such relation to one another that at death they enter into combination to produce the peculiar formed material, among perhaps many other substances. The former would be deposited in an insoluble form, while the latter would pass away in a state of solution in water from the cell.

The composition and properties of the formed material necessarily depend upon the relations the elements were made to occupy or take up during life, and this is determined, I think, by that agency, force, or *power* which we are compelled to admit, and this I speak of as *vital power*. No *force* known can compel elements of matter to take up different and special relations to one another at the same temperature in the same animal, or effect the re-arrangement of the elements of the same pabulum so as to give rise to the production of such very different compounds as occurs in the case of different cells in the same organism. But, as I have before said, if any chemist or physicist should offer a reasonable explanation of the results occurring in different cells of an organism—nay, in any one living cell—without assuming the existence of some such peculiar agency or power distinct from ordinary force, his view would be at once received, and all would thenceforth cease to speak of vital power as distinguished from physical force. Hitherto, however, no chemist or physicist has ventured to discuss what really takes place in a single cell. Nay, I cannot help thinking that there is a strange indisposition on the part of those who have expressed themselves most strongly in favour of the physical force theory of life to discuss the question at all, or to answer the objections raised to their statements by physiologists.

The formed material, having resulted in the manner above-described, is incorporated with that already produced, or it is added as a distinct layer within previously existing layers. (See figure.) In the former case it will appear more or less homogeneous; in the latter, it will exhibit concentric markings; or it may be deposited so as to form distinct capsules one within the other. The outermost portion of the formed material is often ragged, and not unfrequently is seen to be undergoing disintegration. Sometimes it serves as a nidus for fungi, which live and grow at its expense, as may be seen in the case of the old epithelial cells upon the dorsum of the tongue.

The consistence of formed material varies greatly. It is always soft when first found, but becomes very hard in many cases, owing to the absorption of water and to other changes. Sometimes it remains soft, like ordinary mucus; and sometimes it is diffluent, and is carried off as fast as it is produced.



A living cell to show that the process of nutrition consists of

1. The passage of the pabulum through the formed material when it reaches the germinal matter.
2. The conversion of some of its constituents into germinal matter.
3. The conversion of some of the germinal matter previously existing into formed material which is deposited layer within layer, as it were, upon the *inner surface* of the formed material already produced. In many cases the successive layers are incorporated with one another.

The process of *oxidation* probably affects the outer and oldest part of the formed material chiefly, and, in some instances, occur in this situation only.

The formed material of a cell may then accumulate as the cell advances in age, in which case this part of the cell (formed material or tissue) is said to *grow* as age advances; or the formed material may be carried off as fast as it is formed, in which case the cell may remain without change in size, or it may even become smaller, although it absorbs a great quantity of nutrient pabulum. This is just the difference between the growth of tissue and those examples of secretion where the entire cell is not destroyed, and thus resolved into the products of secretion. The *formed material* of a cell may become oxidised or otherwise disintegrated and converted into *products of secretion*, at the same rate, and in the same proportion, as the germinal matter is converted into new *formed material*, to replace that which is removed, and the latter process may be exactly compensated by the formation of new germinal matter from newly absorbed pabulum.

Growth of Tissue.

Pabulum becomes germinal matter, while germinal matter is converted into new formed material, which is added to that which already exists, and, unless condensation, drying and shrinking occur, to compensate for the addition—increase of bulk and growth of tissue must take place.

Secretion.

Pabulum becomes germinal matter, while germinal matter becomes converted into new formed material. The quantity of old formed material converted into the products of secretion is exactly compensated for by the conversion of pabulum into germinal matter, and germinal matter already existing, into formed material. Hence much pabulum may be absorbed, much secretion may be produced and carried away, although the cell does not alter in size. No *growth* is manifested.

From the foregoing observations it will be noticed that I endeavour to make a sharp and definite distinction between the phenomena occurring in the *germinal matter* of the cell and those which take place in the *formed material*. I consider the formed material as resulting from the *death* of the germinal matter, and by the word death I mean that the matter cannot produce matter like itself; it has no inherent power of movement, nor any of those wonderful properties or powers possessed by matter when in the living or germinal state. I am aware that in considering tissue as dead matter I shall be met by many objections; but as the results of my observations compel me to accept this view, I will venture to offer a few remarks upon the general bearings of the question.

In an old epithelial cell of the mouth the outer part is invaded by fungi, and is therefore certainly *dead*, for the fungi are living at its expense. Living matter lives upon dead, never upon living, matter. If my observations are correct, the formed material of the epithelial cell corresponds to, or is homologous with, that of cartilage or fibrous tissue. If, then, the first is dead, I must admit the last to be so. Or, take the case of a living, growing seaweed, the outer part of which forms the nidus for other living structures. The matter upon which these are growing must be dead, and yet this dead matter gradually passes into the more

recently formed material, which was but a short time previously germinal matter. It would be indeed difficult to advance reasons for considering the old layers of the formed material to be dead and the young layers alive, while there is, as has been already shown, the widest difference between germinal matter and formed material. Surely, if anything is dead, the cortical cells of the free end of a hair or those at the extremity of a nail are dead. Nor are they less *dead* while they remain attached to the body than when removed from it; for if it be maintained that textures merely *attached* to a living body are for this reason *living*, while those detached are *dead*, the words *dead* and *living* no longer denote essentially distinct conditions or states of existence. If the matrix of cartilage or fibrous tissue be dead, the contractile material of muscle and the nerve fibre, which are homologous with it, must be equally dead.

To such an inference as this, no doubt, many physiologists will demur. My friend Dr. Carpenter, to whom my thanks are specially due for giving an excellent summary of my views, and for many interesting remarks of his own upon them, dissents from me in this particular. In his new edition of his well-known "Manual of Physiology," just published, he makes the following observations:—"In adopting to this extent the views of Professor Beale, the author cannot go the length with him of asserting that all 'formed material' has lost its vitality; since it does not follow that in losing its power of self-increase it has thereby lost the other attributes which distinguish it as a living structure. Nothing, for example, can more characteristically exhibit vital properties, as distinguished from any that can be ascribed to its physical or chemical nature, than *muscular fibre;* yet this belongs to the category of 'formed material.'"(a)

(To be continued.)

PAPERS ON

THE THERAPEUTIC AND PHYSIOLOGICAL ACTION OF REMEDIES.

By WM. MURRAY, M.D., M.R.C.P. Lond.

Physician to the Dispensary, and Lecturer on Physiology in the College of Medicine, Newcastle-on-Tyne.

No. 1.—On Digitalis.

Few drugs have been the subject of more conflicting statements than Digitalis, and yet there are none on whose action the Profession has more implicitly relied. The drug has a special action on three separate organs—the brain, the kidneys, and the heart; in proof of this, witness its decided action in delirium tremens, in dropsy, and in various forms of heart disease.

As the action of the medicine upon this latter organ seems to have been little understood, and is still scarcely established, although the observations of Dr. Handfield Jones and others have been well put forth, it therefore seems right to add any new facts or observations on the subject.

I have carefully observed from twenty to thirty cases of cardiac disease treated by Digitalis, from which the following conclusions have been drawn; some of these will be quoted as very decided cases showing the true action of the medicine. As the proposed explanation of the action of Digitalis accords fully with the ingenious and well-supported theory put forth by Dr. Anstie in his work on "Stimulants and Narcotics," it may be well to say that he holds that all true stimulants tend to bring tissue action to its normal standard; that when such action is in excess a true stimulant will reduce it, and when below par will bring it to its proper level; he proposes "that the word stimulant be restricted to agents which, by their direct action, tend to rectify some deficient or too redundant natural action or tendency." I believe that the action of Digitalis when properly investigated will confirm these views; and at the same time the investigation of its action will be materially assisted by bearing them in mind. I shall show—

1st. That digitalis will stimulate and strengthen a weak heart, and that the weaker the muscular tissue of the heart the safer will be the administration of the medicine.

2nd. That in a hypertrophied heart it will fail to reduce the pulse either in frequency or strength, and in such cases will prove dangerous.

3rd.—That in a weak organ, acting because of its weakness with great rapidity, it will reduce the number of its contractions, and, as it were, strengthen or tone them down. To strengthen and quicken the action of a weak slowly acting heart, and to reduce the number of the rapid strokes of a feeble heart is, according to Anstie, to do the work of a true stimulant, bringing action up to the normal standard on the one hand, and reducing it to that level on the other.

I. The following case is one of many in which the remedy has removed irregularity and intermission of the pulse, has given power to the heart when exceedingly weak, and increased the rapidity of its action:—

A lady, aged 50, had suffered for nine years from cardiac disease, and was in an extremity of suffering when I first saw her, having a very largely dilated and weak heart whose cavities were overladen with blood, and considerable disease of both aortic and mitral valves. A confused tumbling and heaving impulse was all that could be felt in the cardiac region, and feeble blowing murmurs supplanted the natural sounds of the organ. There was no pulse at the wrist, and the large vessels in the limbs had scarcely a pulsation in them.

A dropsy of the legs and belly was making fast progress, and the usual stimulants and diuretics had failed to give relief. Although thus pulseless and faint, with the heart in so weak and burthened a condition, I prescribed digitalis in doses of ten drops and upwards. In a day or two the organ began to beat more forcibly, the pulse came again at the wrist, the turbulent or confused action became replaced by a quiet steady stroke, the breathing, before laboured, became easy, and the dropsy began to disappear. In a week the patient was out of bed, and very shortly she so far recovered as to go about in her usual way. After this she lived for more than a year in comparative comfort and good health, when suddenly the organ again failed, and before digitalis could be administered she died.

I might add to this cases of aortic regurgitation with dropsy; many cases in which both aortic and mitral orifices were diseased with dilatation of the walls of the heart and a weak irregular pulse at the wrist; cases of simple weakness of the organ without appreciable disease; cases of dyspnœa from an emphysematous state of the lungs and sluggish pulmonary circulation—all of which were most decidedly benefited by digitalis. I would especially direct the attention of the Profession to the use of the drug in cases of bronchitis depending on sluggish circulation with weakness of the heart's action and emphysema of the lung.

I have alternated the use of digitalis with the strongest of our stimulants in some of these cases, and have been astonished at the superiority it possesses as a stimulant. From the observation of a few cases in which the drug has been given continuously for a lengthened period, I do not find anything like failure of the heart's action to occur under a month or six weeks, and then a few days of intermission will clear the way for a fresh course of the medicine. In dyspnœa the relief obtained is sometimes most marked. I remember a poor girl with frightful disease of the mitral orifice, having to rest on almost every doorstep on her way to my house, who was so relieved by digitalis as to walk to and fro with ease. I do not think, after trying it in almost all the affections of the heart, that there is a single disease or condition of that organ *attended by weakness* in which it may not be given with safety and benefit.

II. The next condition to which I would refer is that of hypertrophy. In this my experience is not large; but in one uncomplicated case of hypertrophy of the left ventricle without valvular disease, in a man who had an almost Herculean frame, digitalis was fairly and carefully tried. The heart's action in this case was rapid and at the same time very forcible; the digitalis not only failed to reduce this, but it caused an increase in the symptoms, and the patient almost fainted after trying it for one week, so that the medicine had to be changed to tinct. veratr. virid., from which decided benefit was derived. I might say that a converse experiment was tried in a boy with mitral disease and rapid action of the heart. Here tinct. verat. virid. failed to give the relief which was most effectually derived from Digitalis.

III. Lastly, as a cardiac stimulant, digitalis ought to reduce too great rapidity of action *when this depends on weakness*. In this respect the drug has been well tried, and almost universal testimony to its value has been given.

In inflammatory diseases, in fevers, in phthisis, it is acknowledged to reduce the rapid pulse. In one case of phthisis at present under my care, it does this, and most materially lowers the temperature of the body and relieves the daily hectic paroxysm. While, however, it checks the excessive rapidity of the heart's action, it does not, therefore, weaken its

(a) Manual of Physiology, including Physiological Anatomy. By William B. Carpenter, M.D., F.R.S. Fourth Edition. 1865.

force; so that, as a true stimulant, it brings the organ down to a slower rate of action, but at the same time affords it more power to do its work.

Thus it appears that the *physiological* action of digitalis is that of a stimulant, in Dr. Anstie's sense of that term; and that in its *therapeutic* properties it is especially useful in cardiac weakness, whether that weakness be accompanied by extremely slow or extremely rapid action. Further, its physiological action as a stimulant may be explained by supposing that in the case of the slow heart it improves the molecular arrangement of the sarcous elements, or that it excites the nerve centres from which the nervous power of the heart is derived; and in the case of the weak but rapid heart, it acts by strengthening that regulating or restraining (vital) influence which, while maintaining the activity of tissues at a normal rate, checks undue and riotous action in the same (Radcliffe). Lastly, let me say that as a diuretic it is at once the safest and best we possess, and the dose may vary from ten drops to half an ounce. This very day I have given nearly half an ounce in fifteen-drop doses every two hours to a child three years old, and by so doing have subdued a rapidly-developing general dropsy which was threatening the little sufferer's life.

P.S.—In some cases of mitral regurgitation accompanied by a loud distinct murmur, I have felt satisfied that Digitalis reduced the intensity of the murmur most decidedly, and in one case it seemed to disappear altogether.

EXCISION OF THE KNEE-JOINT.—RECOVERY.

By JAMES A. GRANT, M.D., F.R.C.S.E., M.R.C.S.L., etc.,
Surgeon, General Protestant Hospital, Ottawa, C.W.

Henry M., aged 39 years, a farmer, of regular conformation, and robust habit of body prior to disease attacking his knee-joint. Parents healthy, and neither consumptive nor scrofulous. Admitted into the General Protestant Hospital October 20, 1864.

History.—The infliction of the injury, which was supposed to have originated the diseased condition of his knee-joint, dates back about twelve years, at which time the joint was severely wounded by a drawing-knife. The convalescence from this injury was exceedingly tardy, months elapsing before the foot could be placed to the ground. The usual remedies, such as stuping, leeching, counter-irritation, etc., were all had recourse to, but with unsatisfactory results, there having remained a lingering pain associated with considerable uneasiness in the joint upon even the slightest pressure or most moderate exertion. As time rolled on the joint became painful at night, so much so as to interfere with rest and gradually reduce his system, the various organs participating more or less in that debility, which had its origin, doubtless, in pathological changes taking place in the joint, and just in proportion to the activity or inactivity of those structural alterations was to be observed an increase or diminution in the intensity of suffering. This train of symptoms continued with little variation throughout the greater portion of the time which elapsed from the date of the accident to his admission into the Hospital. A glance at his *physique* was alone sufficient to point out that changes of a most marked character were taking place in his system. The haggard expression of face, the general flaccidity of the muscular system, the loss of appetite, and tendency to occasional diarrhœa and night sweats, were highly characteristic of that general relaxed state of the system which results from long-continued and perverted functional activity of a joint, associated with, and depending upon, most marked organic change of structure.

Attitude of Patient—Appearance of the Joint Externally.—In the erect posture, the attitude of the patient was sufficient to point out the seat of disease, the limb having a flail-like appearance. The leg could not be extended; the flexed condition of the thigh, and consequently shortened condition of the limb, removed the substantial support of the sole of the foot, and substituted the slight support of the tips of the toes; and even on these the most moderate pressure was sufficient to excite pain in the affected joint. The outline of the limb gave an accurate idea of the distortion which had taken place; and the atrophied condition of the muscular structure of the thigh, possessing complete nervous sensibility, was in itself an index of protracted articular disease in the affected joint. The natural contour of the joint was lost, being considerably enlarged, irregular as to its outline, and possessing no small degree of solidity; more or less pain on pressure, which can be localised in particular spots, with a marked increase towards night; very slight motion in the joint, the limb constantly retaining its semi-flexed position. No sinuses were to be observed about the joint, and the integument over it presented only a moderate degree of discoloration. The flexed position of the limb and marked difference, when contrasted with the healthy knee, placed beyond a doubt the likelihood of the destruction of the crucial ligamentous connection, associated with articular structural alteration. On the slightest manipulation of the knee-joint, pain was produced, attended on several occasions with marked indications of syncope, and the parts when thus irritated seldom became free from pain for at least six or eight hours. The patella was firmly anchylosed anterior to the right articular surface of the femur, and on either side of the joint the hamstrings could be felt, tense, firm, and unyielding, in a perfect state of spastic contraction.

In this condition Mr. M. became an inmate of the Hospital, much reduced by occasional fever, night sweats, and attacks of diarrhœa. In consultation with the Medical staff—having made a careful examination of the joint as to the extent of bone diseased, the implication of surrounding parts, the non-co-existence of any internal organic disease, the dependence of fever upon the joint disease, and the favourable appearance of the patient, notwithstanding the duration of the disease (a period of twelve years)—the propriety of excising the joint was decided upon, the combined local and constitutional indications being favourable to such a proceeding.

November 2.—I excised the joint, adopting the U incision. The flap being carefully reflected, the quasi-joint was exposed, and the soft anterior tissues being divided, as well as the lateral connecting structures, its whole interior was rapidly brought to view, by flexing the leg backwards upon the thigh. The patella was first removed, and afterwards the articular surfaces of the joint were sawn off, from before backwards, with an ordinary amputating saw, the extent of bone removed being, from the femur, fully an inch and a-half, and from the tibia over three-quarters an inch. Two or three small vessels required a ligature. All clots being now washed away, and the sharp edges of the bone pared off, the leg was extended, the flap secured, and the limb, after being bandaged, was carefully placed in Butcher's box, thoroughly wadded, which answered every purpose most admirably; the entire operation being accomplished under the influence of chloroform. Half a drachm of liq. opii. sedat. was given immediately after the operation. 8 p.m.—Has had some sleep and feels comfortable; pulse 90; tongue moist. Opium repeated.

3rd.—Had a very tolerable night; finds the knee free from pain; rather copious oozing from the wound; it entirely ceased after the third day.

8th.—Knee dressed; looking well. No tension or inflammatory appearance about the sutures. Very slight discharge from the wound.

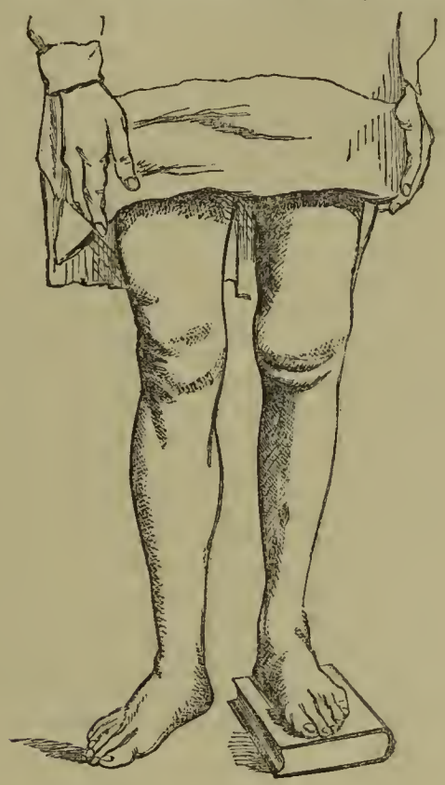
12th.—All the sutures were removed, not one having sloughed out, and the greater portion of the wound having united by the first intention. From this date the wound was dressed every two days, with simple cold water dressing, until all discharge had ceased, which was about the end of the tenth week. Three months previous to the date of operation an issue had been formed on either side of the joint. These had perfectly healed; but after the operation, at the end of the fourth week, reopened spontaneously, and discharged more or less until the end of the ninth week, at which time they completely closed. In fact, this spontaneous effort of nature appeared to modify the intensity of the inflammatory action, which might otherwise have taken place; for during the whole progress of the case no purulent matter could be detected except from the seat of the issues.

December 10.—The strength of the limb much increased, and from all appearance there is evidently some soft union between the bones and the external wound. The limb is quite straight, and the general health of the patient very much improved.

January 18, 1865.—The parts are firm, and he can move about the ward with ease, supported by a small crutch.

30th.—Drove to the city without any difficulty, and had a photograph taken, from which the woodcut was executed, giving a somewhat exact representation of the limb, now changed from deformed angularity, with œdematous leg and attenuated thigh, to a healthy-looking extremity, free from pain, and, although stiff, moved about with ease and freedom by a set of thigh and leg muscles, which have in a great

measure recovered their tonicity and corresponding healthy development. After the first week his system was supported by porter, in conjunction with beef-tea,—a point of vast importance where Nature has to build up parts of great extent, and in a system much debilitated by long-continued disease.



February 5.—He was discharged, to enjoy the home comforts of a rural seat, the limb being now quite strong and sufficient to support the body without any stick, and only 2¼ inches shorter than the opposite leg.

Pathological State of the Joint.—Integument over the patella immovably fixed down upon the bone; but laterally and posteriorly it possessed considerable mobility. Patella otherwise healthy, except in its ossific attachment. Interarticular structures entirely changed, the exposed substance appearing to be partly thickened synovial membrane associated with the well-known peculiar softening of the proper tissue of the ligaments, the result of degeneration combined with more or less infiltration of inflammatory products. Thus, by gradual softening, yielding, and successive attempts at organisation of the lymph effused—the result of a low grade of inflammatory action,—a description of connecting tissue was slowly built up, wedge-shaped, between the bones becoming further and further apart, and at the same time retaining the joint in its spuriously anchylosed condition. This structure being divided, and the joint exposed *in toto*, showed an absence of the proper articular cartilages, and a deeply eroded state of the articular facets of the tibia, from which there exuded a small quantity of sero-purulent material. The section of the bones afforded little resistance to the saw, and on the cut surfaces there were not to be observed any circumscribed patches of yellow induration of bone, such as have been described by the leading European pathologists.

Ottawa.

Laryngoscopic Demonstrations.—M. Fournié, the other day, exhibited to a large class a polypus of the larynx with the laryngoscope and the magnesium light. By the aid of a Plassy lamp he projected the luminous rays upon the mirror placed at the bottom of the throat. The image of the parts reflected upon the mirror being very small, he placed a biconvex lens in front of the mouth, and so enlarged it that it was distinguishable at the distance of several yards. M. Fauvel has for some months employed Drummond's lime light for the purpose of producing a brilliant flame in his laryngoscopic clinique. He prefers it to the magnesium light, as it is not liable to the interruptions incident to that, while it costs only fifteenpence per hour instead of a shilling per minute. M. Fauvel recently removed, by aid of the Drummond light, a polypus from the cordæ vocales.—*Gaz. des Hôp.*, No. 30.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

NOTES OF A CLINICAL LECTURE ON SYPHILITIC DISEASE OF THE RECTUM AND COLON.

(Delivered by Mr. PAGET, Surgeon to the Hospital.)

Mr. Paget began by remarking that a great advance in pathology had of late years been made by the recognition of an important fact respecting constitutional syphilis. It was long supposed that this disease was limited to the skin, the osseous system, and such parts of the body as could be examined during life; and that the internal organs remained unaffected. It had lately, however, been clearly established that the internal organs enjoyed no immunity, but that they were occasionally the seat of lesions as definite and characteristic as any that were found elsewhere. This inquiry was by no means exhausted; for although it could now be said with certainty that some affections which till recently were looked upon as anomalous, and as belonging to no particular order, were in reality syphilitic in their origin, yet a distinct and sufficient description of many of them was still wanting. A valuable paper(a) published by Dr. Wilks on "Syphilitic Affections of Internal Organs" was by far the best that students could read on this subject.

Mr. Paget said the history of the patient upon whose case he was about to speak was briefly as follows:—She was admitted into the Hospital in November last, being at the time 28 years old. She stated that seven years previously she had been affected with syphilitic sores, shortly followed by a scaly cutaneous eruption. About a year subsequently she became subject to an itching about the anus, and a growth of skin appeared reaching a short distance into the rectum. Two years after this, a large ulcer formed in the neighbourhood of the anus, and she was received into University College Hospital. The ulcer was destroyed by the application of some corrosive fluid. The growth before mentioned was removed, and rectum bougies were passed for a stricture, which was already in process of formation. At the end of a fortnight, being much relieved, and her general health having much improved, she was made out-patient; but soon becoming pregnant she ceased to attend. The child she afterwards gave birth to was born dead. Three years ago she was admitted into St. George's Hospital, having, in addition to the previous disease of the rectum, a recto-vaginal fistula. The sphincter ani was divided; bougies smeared with unguentum hydrargyri were frequently passed, and she was placed under the influence of mercury by means of the calomel-vapour-bath. Under this treatment she improved rapidly, and was soon discharged. About two years ago, having in the interval borne another child, she applied at King's College on account of a relapse into her previous condition, and having received relief from the same kind of treatment as that before employed, she soon left the Hospital. In July last she became a second time in-patient at St. George's Hospital. The canal of the rectum was now so much narrowed that only a catheter could be passed through the stricture; her general health, which up to this period had been tolerably good, was beginning to fail, and suffering from sickness and diarrhœa for some days she lost flesh rapidly. After her discharge she remained for a few weeks at home with her friends, and was then brought to St. Bartholomew's.

At this time she was in a state of extreme emaciation and misery, and evidently suffering from pulmonary phthisis; so that any expectation of affording her permanent relief seemed hopeless. She continued to decline, and died on March 1st.

At the post-mortem examination, the lungs presented the ordinary appearances of extensive ulceration around tuberculous deposits, numerous cavities existing in the upper lobes, but no syphilitic affection could be detected; the heart was normal; the liver was rather large, pale, and tough, but it gave no reaction with solution of iodine, and exhibited no specific alteration; the spleen and kidneys were normal.

Mr. Paget continued:—The chief points of interest are in the characters of the disease found in the rectum and colon,

(a) Guy's Hospital Reports, Third Series, vol. ix.

which may be studied as an example of syphilitic affection of those parts. The anus of this patient did not present more than remnants and traces of the cutaneous growths which are generally significant of syphilis. They had existed in her, but they were cut away. The like may be seen, however, in a patient in Magdalen Ward, who has disease of the rectum just like the one before us. They are growths of skin grouped round the anus, in texture pinkish, soft, fleshy, glistening, moist, and thinly secreting; in shape irregular, flattened as if by mutual pressure, or pressure between the nates, sharp-edged, or conical. If they must be compared with something, they may be with cocks' combs, which, indeed, they are very like. After describing the differences between these growths and the warts and condylomata common in syphilitic patients, Mr. Paget said:—I will not venture to assert that these cutaneous growths are never found except with syphilitic disease of the rectum, but they are very common in association with it, and so rare without it that I have not yet seen a case in which they existed either alone or with any other disease than syphilis. In this rectum are found the results of wide-spread ulceration. Its whole mucous membrane is destroyed except one small patch, which is thickened and opaque. The exposed sub-mucous surface has a lowly tuberculated, undulating, uneven appearance, and is thickened by infiltration. In the early stages the tissue is soft, as if from recent inflammatory effusion, or œdema, but as the infiltration organises it hardens, becoming callous, with fusion of the mucous and submucous coats, and then contracts, and thus brings about the state of stricture. The affection commonly extends from the anus, as if by continuity with the excrescence, to about five inches up the rectum; but it is rarely so marked in the first inch of the rectum as it is higher up. Hence the chief seat of the stricture is usually from an inch to an inch and a-half above the anus. Of this diseased state, as of the anal growths, I will not venture to say that it is never seen except with syphilis. Certainly it is a frequent disease among syphilitic women; but perhaps other forms of ulceration of the rectum may, by long continuance and repeated irritation, acquire characters not distinguishable from these. But the doubts that might exist as to the specific character of the disease of the rectum, if we had it alone to examine, can in this case be removed by observing the connexion and continuity of the ulceration of the rectum with ulcers of the colon, which are altogether peculiar. On the mucous membrane of all parts of the colon there are ulcers of regular, round, or oval shape, from a-sixth of an inch to about two-thirds of an inch in diameter, with clean, sharp-cut, scarcely thickened edges, surrounded by healthy, or only too vascular mucous membrane. Their bases are for the most part level, flat, or with low granulations resting on submucous tissue, nowhere penetrating to the muscular coat, with no marked subjacent thickening or hardening. On some of them are ramifying blood-vessels; on some few there is at the centre of the base a small island of mucous membrane, giving to the ulcer an evident likeness to the annular syphilitic ulcers of the skin. At some places two or more of these ulcers, extending and uniting, have coalesced into a large ulcer of irregular shape, and rather deeper than the smaller, but in all general characters similar to them. By such coalescence some of the ulcers in the lower part of the colon are continuous with the ulcerated surface of the rectum, making it probable that at first similar forms of ulcers may have existed in the rectum, though now superadded thickening and partial scarring have destroyed nearly all traces of any primary shapes of ulcer. The ulcers of the colon are placed without plan or grouping, except that they decrease in number and closeness, and, on the whole, in size also from the rectum to the cæcum. In the cæcum there are none; in the ileum only one, very small and of rather doubtful character. The only question as to the diagnosis of these ulcers may be whether they are syphilitic or tuberculous. They are so different from all the forms of catarrhal, follicular, typhoid, dysenteric, and cancerous ulceration of the intestine that there is no need to compare them; but from the tuberculous they must be distinguished, not so much because of any near resemblance between them as because the patient had tuberculous disease of the lungs, and was therefore not unlikely to have it in the intestine. Here, then, are the chief grounds of diagnosis.

These ulcers are limited to the large intestine, and decrease in size and number from the rectum upwards—conditions which, I think, are never observed in tuberculous disease.

There is not a trace of tubercle—*i.e.*, of circumscribed crude or softening tuberculous deposit—in the submucous or any other tissue of the intestine; none in a Peyer's patch, or at the base or edge of any ulcer, or in the subperitoneal tissue below an ulcer.

The shape and other characters of the ulcers are quite unlike those of intestinal tuberculosis: they are regular, with sharp, even, well-defined edges, with level bases; they are not excavated; they do not extend through the submucous tissue; their edges are nowhere eroded or undermined, sinuous, thickened, or brawny, or infiltrated; the subjacent and intervening structures appear healthy, except at the rectum.

These ulcers are not grouped, and where, by extension and coalescence, they have lost their first shape they have acquired one altogether irregular, and have in no instance even tended towards that girdle-like shape, encircling the canal of the intestine, which is so characteristic in the large coalesced tubercular ulcers.

Thus, by negative as well as positive characters, these ulcers are clearly distinct from the tuberculous; and, as I have said, there is no other form of intestinal ulcer to which they bear even a remote resemblance. We are justified in regarding them as syphilitic by their occurrence in a patient with a complete syphilitic history; by their coincidence and continuity with a disease of the rectum and anus which is very rarely, if ever, seen except in those who have had secondary syphilis; by their likeness in many features to some of the admitted secondary syphilitic ulcers of the skin; and by their unlikeness to any other intestinal ulcers. Some, indeed, may choose to call them "lupous;" but to this name it would be necessary to add another to indicate the nature of the constitutional malady with which the "lupus" is connected, for lupus is not a single local disease depending on only one constitutional defect. It is in some cases strumous; in some tuberculous; in some syphilitic; in some it has a relation to cancer. If the ulcers in this colon are to be called lupous, they must also be called syphilitic.

Mr. Paget concluded by enforcing the importance of the study of syphilitic affections of internal organs. A mistake or oversight in diagnosis would lead to very serious errors in practice. Nothing could be greater than the difference between the proper treatment of syphilis and that required in tuberculous disease. The treatment adopted in all doubtful cases would, of course, be regulated by the diagnosis.

MIDDLESEX HOSPITAL.

CASE OF PIN IN THE LARYNX—REMOVAL.

(Under the care of Mr. HULKE.)

A WOMAN swallowed a pin which was in a piece of cake she was eating. She immediately felt a pricking in the left side of her throat and spoke with difficulty; her breathing was not affected. A Surgeon to whom she ran sent her to the Hospital. The House-Surgeon felt the pin lying at the left of the epiglottis, but could not seize it. An hour afterwards Mr. Hulke examined the larynx with the laryngoscope, but could not see the pin, though for a moment the rima was visible. The mucous membrane was congested. The examination was imperfect, owing to the excessive irritability of the throat. This was overcome with chloroform, and the head of the pin was felt lying against the left side of the rima, its point seeming fixed in the trachea. A convulsive cough drove the pin a little higher in the larynx, and it was hooked up with the finger nail. A little soreness and hoarseness remained for a couple of days.

A CASE OF TUBERCULAR DISEASE OF THE TESTES, VASA DEFERENTIA, VESICULÆ SEMINALES, AND PROSTATE, WITH ABSCESS OF THE LATTER BURSTING INTO THE BLADDER.

(Under the care of Mr. HULKE.)

The origin of tubercle in the testis has been placed by some persons in the secreting and efferent tubes, which it is said to distend till they burst and shed their contents; but a very careful and minute examination of the testes in this case led Mr. Hulke to regard the intertubular connective tissue as its source, a view in accordance with that expressed by H. Demme in Virchow's *Archiv*.

On December 31, 1863, a dwarfed, sallow tailor, aged 68, with the following history, was admitted into Pepys' Ward. He had always had fair health until his present illness, had been remarkably temperate, had married at 20 and reared a large and healthy family, and had never had gonorrhœa or syphilis. In August he noticed swelling of the right and then

of the left testis. In September he had occasionally pain above the pubis and in the perineum, and micturition was frequent and painful. Soon after this he observed pus in his urine. In December the right testis became very tender and painful.

State on Admission.—Worn out with want of sleep and pain; he could not stand without help. Both testes were enlarged and slightly hard. Both epididymes were very large, hard, and knotty; the right was very painful and tender, and its head was fixed to a red œdematous spot in the scrotum. The right spermatic cord was swollen and tender, and the inguinal glands were large. The prostate was very large and hard. He could not retain his water longer than half an hour, and voided the last drops with much pain and straining. It was always acid, occasionally clear, but often contained much pus, which usually escaped towards the close of micturition, the urine first passed being clearer.

In a couple of days an abscess in the right epididymis burst, and discharged a couple of drachms of thin, flaky pus. He grew weaker, and died in two days.

Dr. Cayley, who examined the body, found numerous traces of old tubercle in the lungs. The other viscera were healthy.

The testes and bladder were dissected by Mr. Hulke. The right testis with its epididymis measured $19\frac{1}{2}'''$ from front to back, and $29\frac{1}{2}'''$ vertically, $10'''$ of which belonged to the globus major. The connective tissue throughout the testis and epididymis was red and thickened. The epididymis, the back and the centre of the testis, contained an opaque, pale yellow, cheesy substance, in which a few traces of the normal tissues were recognisable. In the apices of the lobuli testis the tubuli were less wasted, and the cheesy substance was replaced by minute, translucent beads, scattered and aggregated in small masses. This was followed by a reddish band, in which the horny beads became fewer, and in the bases of the lobuli, near the surface, no abnormal appearances were noticed. The tunica vaginalis was thickened, and its parietal layer adhered everywhere to the testis and epididymis. A circular aperture in the head of the latter, about $4'''$ in diameter, was traversed by a fleshy button, which appeared to spring from the connective tissue rather than from the tubes, and protruded through the scrotum. The rough characters of the translucent, horny beads and the opaque cheesy substance were identical with those of tubercle in its miliary and crude forms. Two constituents were present, one originating within the other outside the tubes. The intra-tubular was a granular, opaque, oily *débris*, derived from the disintegration of imperfect epithelium shed into, and choking, the canal of the tubes, the walls of which were thick, and granular, and opaque from fatty degeneration. In the cheesy substance the walls of the tubules were broken, and their contents mingled with corpuscular elements of extra-tubular origin. Two forms of these corpuscles were seen: (*a*) roundish cells with a ragged indented contour, and granular, oily contents, without any nucleus, and not stained by carmine. These were functionally dead withering cells, (*b*) smaller, round, nucleated cells, taking a deep stain from carmine, and multiplying by division of the nucleus. On the one side they passed into (*a*), while on the other side they were traceable through intermediate forms to the corpuscles of the intertubular connective tissue. The left testis and epididymis were larger than the right. The head of the latter was riddled with small, ragged cavities filled with a puriform fluid, and the lower half of the body and the tail were hollowed out into two large caverns full of pus and broken-down tissue. The tunica vaginalis was much thickened. It adhered throughout to the testis and epididymis, except at the lower end of the former, where there was a small collection of flocculent serum. The bladder was contracted, its cavity not being larger than a pigeon's egg. Its muscular coat was very thick, and its mucous membrane was thick and purplish. Just behind and internal to the orifice of the right ureter, the vesical walls were pierced by a gaping, circular hole with ndurated edges, about $2\frac{1}{2}'''$ in diameter, which led to an abscess of the size of a nutmeg in the base of the prostate that ran backwards between the fundus of the bladder and right vesicula sem. The right vas deferens, filled with tubercle, ended in this abscess; the left was also full of tubercle. The prostatic ducts were distended with facetted, shining, translucent, brownish, laminated stones, ranging between $\frac{1}{6}'''$ to $1\frac{1}{2}'''$ in diameter: some of these had escaped into the abscess. A second abscess, thick walled and unconnected with the first, surrounded the membranous urethra, breaking into this through its upper wall, and also running upwards along the ligament. susp. penis in front of the pubis.

CASE OF EXCISION OF THE LOWER JAW.

(Under the care of Mr. J. W. HULKE.)

——, aged 29, a short, thin blonde, was admitted into Regent Ward, June 30, 1864, with a tumour of the lower jaw.

She related that eight years previously she began to be troubled by a soreness behind the second molar, which she attributed to the last molar that at that time had not cut the gum. Four years later the gum swelled; and a year later, as the swelling increased, the second premolar, the first molar, which was carious, and the second, were pulled out, some persistent source of irritation being suspected at their roots. They were all firmly fixed. The growth was not checked by this, and the jaw became less moveable, so that she could not take solid food. In June, 1863, the third molar fell out; it was carious. The following Christmas the gum was deeply lanced; no pus escaped at the time, but soon after a fœtid, ichorous discharge commenced.

At the time of her admission she was extremely emaciated, and feeble, and had a very sallow complexion. The right half of the jaw from the neck to the canine tooth was involved in a large, subglobular tumour, which distended the cheek, and reached upwards upon the zygoma, and backwards behind the lobe of the ear. It projected to a less extent into the mouth, thrusting the tongue towards the opposite side. The buccal surface of the mass was smooth and regular, except behind the canine tooth, where there was a small, bright, florid button, with constricted base. The alveolar line was not greatly distorted. An extremely offensive, glairy brown ichor oozed copiously from an opening in the tumour into the mouth. The mobility of the jaw was very limited, but it was sufficient to make it very probable that the tempero-maxillary joint was not invaded, and that the restraint proceeded from the impaction of the tumour in zygomatic fossa. Neither the skin nor the mucous membrane were structurally involved. The consistence of the mass varied in different parts; near the zygoma it had a bony firmness, while at the angle and along the lower border it was very elastic. Before the tumour appeared she was a stout, healthy woman, and she believed that none of her relations had had cancerous or other tumours. The growth had been by some persons (who were influenced chiefly by the patient's cachectic appearance) considered a cancer; but the absence of infiltration of the skin and buccal mucous membrane, and the freedom of the lymphatic glands at this advanced period—eight years after the first symptoms were noticed—were strongly against the correctness of this opinion.

Regarding it as a fibro-cystic tumour, Mr. Hulke next day disarticulated the left half of the jaw. Bleeding from the proximal end of the facial artery was prevented by compressing the vessel against the lower border of the tumour, and tying it and the enlarged transverse facial artery at once; its distal end bled slightly at the close of the operation, and required to be tied. The inferior dental artery bled very freely. While wrenching down the jaw in order to expose the attachments of the pterygoid and temporal muscles, it broke into several pieces, and in dissecting these out the internal maxillary artery was cut, but it was secured without trouble.

The greater part of the incision in the face healed immediately. During the first week she took milk and strong beef-tea freely, and ʒviii. of brandy per diem. After this she began to take solid food. She quickly acquired flesh and strength, and lost her cachectic look.

August 9 she was made an out-patient, but the final closure of the wound was delayed for several weeks by superficial necrosis of the cut surface of the mandible. She continues at this date in perfect health.

Treatment of Itch.—To the thousand remedies for the treatment of itch, each said to be more valuable than its predecessor, M. Metzel, of the Austrian army, adds another, which, he says, possesses the advantage, while it cures the affection as rapidly as any known means, never to induce consecutive eczema, which so often retards the cure. He terms his remedy phosphorised olive oil, and prepares it by boiling in a bottle closed by a bladder two drachms of phosphorus with a pound of olive oil. This is then allowed to cool, and the oil is decanted from any of the phosphorus which remains undissolved, great care being needed to prevent any of the undissolved phosphorus accompanying the oil, as it would irritate the skin.—*Rev. Med.*, February 15.

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Medical Times and Gazette.

SATURDAY, MARCH 18.

MEDICAL EVIDENCE IN CASES OF RAILWAY ACCIDENT.

Parliament, by rejecting Mr. Bentinck's motion, has refused to take active measures for the prevention of railway accidents, and there seems no reason for believing that they will be lessened either in number or severity. The remedy which the law at present applies to the evil does not at all touch its mainspring. It is true that the penalty of heavy damages lessens the dividends of the long-suffering shareholders; but it neither affects the officials from whose carelessness most of the accidents arise nor is it felt so acutely by the directors as to oblige them to enforce strenuous measures of precaution. At least, such have been the results of existing legislation; and we do not know why the public should expect that railway accidents will decrease when no new machinery is to be adopted for diminishing them. For aught we see to the contrary, they are still likely to furnish plenty of fees to the lawyers, and, we are sorry to add, many an arena for the battles of Medical witnesses.

It is to the latter point we would draw attention. It would almost seem as if railway accidents were, like gun-shot wounds, injuries *sui generis*, and that this new species of Surgical disorder had not been long enough known to the Profession to allow a satisfactory insight into its pathology, symptoms, diagnosis, and prognosis. Criminal insanity, and such impalpable conditions, have their difficulties for the Medical witness, but to judge by what is constantly ocurring these are quite equalled, if not surpassed, by those attending the effects of a railway concussion. Take, for example, two cases which have just been decided,—First, that of Joseland *v.* the Great Western Railway Company, tried lately at Worcester, in which the plaintiff obtained a verdict and £6000 damages. The plaintiff's case was supported by Professor Erichsen, Dr. Hastings, Mr. Carden, and Mr. Everett, who all gave it as their opinion that there was injury to the brain and spinal cord, and that the plaintiff's ultimate recovery was very doubtful. The railway company, on the other hand, produced Mr. Skey, Dr. Wade, of Birmingham, Dr. Cooper, of Slough, Mr. Braddon, of Upton-on-Severn, and two other Medical gentlemen, who swore that the plaintiff (allowed to be an energetic man of business) was suffering from nothing but hysteria! The other case, Crofton *v.* the North Eastern Company, was very similar. A Durham farmer, hale and hearty, was run down in his gig by a train of coal trucks. A friend with him was so much injured by the collision that he died two days afterwards; but Mr. Crofton, although 62 years of age, managed to throw himself on one of the trucks, and held on until the train could be stopped. He rode home on a neighbour's horse, and has been ill ever since, under the care of Mr. Jepson, Dr. Heath, of the Newcastle Infirmary, and Mr. Teale, of Leeds. Mr. Jepson, on his first visit, five days after the accident, states that he discovered a broken rib, and all the three gentlemen depose that the plaintiff has been, and is, suffering from the effects of inflammation of the spine. Mr. Teale diagnosed inflammation of the intervertebral substances, and spoke of the possibility of disintegration taking place, and the patient becoming a cripple for life. On the other side, Sir John Fife, Mr. Robson Shiell, and Drs. Murray and Charlton, of Newcastle, declared that they could see nothing in the case but hypochondriasis; and Dr. Charlton said, that "as regards disease," he believed the whole affair to be "a sham." The jury, however, did not agree with him, and found a verdict for the plaintiff, with £1000 damages.

We are not going to criticise the evidence given in these cases. We have formed no opinion as to the side on which truth was to be found. We impute no motives to either party. We only ask, "What must the public, the bar, and the judges think of the value of Medical evidence with such scenes constantly taking place before them?" They will doubtless attribute to it a value, but it will be simply a money one; and who can blame them? We know well the difficulty of dealing with these cases—the disturbing force exercised by the pecuniary magnet on the system of many patients, and the care required in deciding the amount of credence to be given to subjective symptoms when objective are absent. But these difficulties afford no reason why the Profession should tolerate such exhibitions as those to which we have referred. In their effect they are utterly demoralising, and we do not see how our Profession can maintain its ground as a high-minded and liberal one if they are to be continued. We would throw out two suggestions which we think would go far to prevent them. First, that the Medical witnesses for the railway company should never appear in court until they have had full conference and consultation with all the Professional men who have attended the plaintiff, until they have examined the patient together, and mutually discussed and tested his allegations; and secondly, that the result of one or two cursory examinations should never be urged by one Medical witness as sufficient to counterbalance a weight of opinion formed by another after weeks or months of attendance on the injured person. Were these rules carried out honestly and frankly, we believe that these scandals, if not abolished, would be infinitely rarer.

MODERN SYPHILOGRAPHY.—No. VIII.

THERAPEUTICS OF SYPHILIS.

We are not going to inflict upon our readers a long dissertation upon mercury, nor are we going to enumerate, much less analyse and review, the works which have been written by mercurialists and non-mercurialists, whose name is Legion. What we desire to do is to state the results of our examination into this question, so far as these are in conformity with our own observation.

As to any deductions from colossal statistics of the treatment of venereal ulcers, wherein all forms of the disease are lumped together, they are simply as valueless as conclusions must be where diseases are massed together under one common term, without any regard to their affinity or dissimilarity. We must at once discard all the gonorrhœas, simple ulcers, and soft, suppurating sores, by stating that these form by far the majority of venereal disorders, and that mercury is unnecessary, and should never be employed for their cure. Our remarks, then, are limited to the subject of syphilis proper.

It has been found by experience that not only do different remedies exhibit very different powers, but that the same remedy is not equally useful in all stages and forms.

Taking syphilis as a whole, there is no known remedy equal to mercury; none so reliable; and to certain complications, such as iritis, syphilitic orchitis, etc., this applies even more strongly. The stages in which it is of doubtful efficacy are the primary and tertiary. Of the forms, the pustular syphilides are the least amenable to it, and the scaly, chronic papular,

and certain forms of chronic superficial ulceration the most so. For the tertiary stages, marked by diseases of bone and periosteum, unhealthy suppurative sores on the integument, the iodide of potassium is the best remedy. The above may, we think, be taken as a correct expression of the views entertained by the more moderate section of mercurialists.

Whilst most practical men of large experience are content to stand aloof from a controversy which is being fought out upon uncertain premises, and to take their position upon the ground of their own observation, it cannot be gainsaid that the non-mercurialists have effected a very considerable amount of good by their efforts.

Before entering more fully on the subject, let us premise that syphilis is like any and every other disease; not an entity to be met with so much mercury, but one which will require the same amount of skill and foresight as the treatment of any other dangerous and important malady.

We venture to think that sufficient attention is not given to hygiène. The patient should be warmly clad; live upon a good, but plain diet; take moderate exercise in the open air; use warm baths occasionally; and avoid stimulants, unless specially indicated.

It is neither necessary nor desirable to depress the system for the cure of syphilis. The disease in itself tends directly to induce a chloro-anæmic state; and it too often happens that the sufferers from it are the subjects of some debilitating conditions—congenital or acquired. In all cases it is essential to elevate the general health to a normal standard; and we should neglect no means so to modify our treatment as to meet the exigencies of the case. As in other diseases, individual cases will almost always present a physiognomy of their own. Not only is there no reason against, but every reason for giving steel, quinine, vegetable bitters, or cod-liver oil, as circumstances require, at the same time that we apply a specific remedy.

Almost all, if not all, chancres will doubtless heal in process of time without specific treatment, and when the induration is slight or of moderate amount *it* will also be removed in time; but when this induration is large and dense the sore may become chronic, breaking out again and again, or it may be transformed into a secondary tubercle and the induration may continue almost indefinitely—in most cases for months, in a few for years. Now, according to the observation of most, and in accordance with our own, these are the cases which denote a severe and chronic form of the disease under any circumstances. That these primary sores are, as a rule, beneficially influenced by mercury—not only more rapidly healed, but the induration more quickly dissipated—is the experience of most practical men. It is in these cases that mercury is most frequently and most persistently used, and any subsequent severity in the manifestations of syphilis is set down, and most illogically, to the mercury employed.

If a chancre be the portal through which the system is first tainted; if it be the "*continuing* source" of infection, as Dr. Humphry epitomises Virchow's doctrine; or even if it be a mark and effect of the general taint being already present, as many Continental writers, who have regard to the period of incubation which precedes its appearance, seem to think, its continuance must, nevertheless, be an abiding source of contagion to others, and, it may be, a focus of infection to the system, so that its early removal is not a matter of indifference; spite of the low appreciation in which the knife and caustics have been held by some high authorities (Dupuytren and Vidal). In practice we cannot determine, at early dates, what is the exact nature of any given ulcer. If it prove of the non-infecting type, then its progress is, without doubt, capable of being arrested by excision or destruction; if it be infecting, no harm is done. If a primary lesion can be excised thoroughly as well as early the practice seems to be good; but if no secondary symptoms follow, we can manifestly have no proof that the operation averted their occurrence. Mind, we do not say that excision or complete and early distinction of a *true* chancre may not to be regarded as very good practice in influencing the severity and duration of the consecutive phenomena, for it may, and must indeed, effect this if every primary manifestation be a present and future focus of contamination. But excision, at any rate, must have a very limited range for many obvious reasons—the site of the lesion, the presence of induration in the glands, and refusal on the part of the patient.

If cauterants be used, these must be of the strongest and most penetrating, such as fuming nitric acid or the stick of potassa c. calce. In passing, we may remark that a rapid and continued affusion of cold water wonderfully mitigates the pain after the application of nitric acid.

What are the signs in the primaries from which we may anticipate severe and protracted forms of constitutional disease? Of course we must not set aside the constitution, previous and present health of the patient, as indifferent elements in forming a prognosis, but we will confine ourselves to the features of the disease, and, here, an approximation to the truth is all we mean to aim at. The density, size, and extent of the induration, and its persistence, in the chancre and inguinal glands; the amount of ulceration in the chancre,—these appear to stand in some connection with the nature and severity of the subsequent phenomena.

Now, it must be conceded that, do what we will, secondary symptoms will almost invariably ensue after true chancre. Mercury does not *prevent*—save in the most rare and exceptional instances—the occurrence of secondary disease. Mercury, says M. Diday, has been obliged to abandon the pretension of so *radically* curing syphilis as to render all relapse impossible. Its claims to use in the primary stage are—that it dissipates induration, and heals ulceration quicker than any other remedy, and it has the power, at least, of delaying the appearance of syphilitic symptoms. Some excellent observers go further than this, we are aware; some—as, for example, Dr. Marston—believe that mercury does so modify, in some instances, the course of the disease that the ordinary external manifestations are slight, or do not appear, although the patient may exhibit indications of the syphilitic cachexia in his pallid aspect, impaired health, and liability to rheumatismal and other pains.

If, therefore, there be the history of a previous attack of syphilis, if the induration be moderate or small in amount, if the attendant ulceration be limited, if it do not prove very indolent, and can be healed by the application of local remedies, and the induration tends to disperse, and if, moreover, there be any *doubt at all* about the nature of the sore, mercury may be withheld. Wherever there is sloughing, rapid ulceration, etc., whether depending upon hereditary, constitutional, or other causes, mercury is a dangerous remedy, and requires to be used, if at all, tentatively.

Now for the so-called secondary manifestations. It is here that mercury appears to us of such undeniable utility that most practical men, and patients too, are agreed upon its use.

So far we have endeavoured to hold the balances even, and we must here ask ourselves two questions: Is the prolonged administration of mercury (such as Ricord advised, for instance) necessary or justifiable? Does mercury always effect a cure, and is it necessary in all cases?

To the first, we may say, that it is always better to try the effect of the endermic use of the mineral by the moist calomel vapour bath, or by inunction, before we administer it internally; and we must add that we do not believe that any such prolonged courses are needed or advisable. When mercury has been continued for a long period with the view of preventing relapse, the health may be much impaired, a cachectic aspect acquired, and a tendency to a diseased action in internal organs engendered. But it is no good contending for a position which has been long since surrendered, for no one gives mercury in the wholesale way which characterised Hunter's day. Acknowledging many of the evils alleged against

mercury, our own observation has led us to form very different conclusions from those advanced by the anti or non-mercurialists. We can only regard the long array of charges laid to its door as highly exaggerated expressions. *If mercury be exhibited with ordinary care and discrimination, and particularly if it be applied through the skin, there would seem to be little or no risk of injury to the constitution.* Among the large number of cases which we have so treated, we have never witnessed any of those disastrous effects described by many authors. Of this we are quite sure, that some of the very worst forms of constitutional syphilis have appeared in those who have either taken no mercury or very little, and, on the other hand, the instances within our own cognisance are now numerous wherein the most remarkable recoveries from severe forms of constitutional syphilis have been effected by the aid of mercurials where every other treatment had been tried in vain. Those who are most severe in their denunciations of mercury—those who would seem to regard the use of the mineral with the greatest dislike, and who would debit every bad symptom which may appear in the course of a syphilis to the mercury used, instead of the syphilitic virus—seem to have lost sight of the fact that mercury alone has not only never been proved to be capable of giving rise to the combination of symptoms witnessed in constitutional syphilis when specifically treated, but that all experiment and observation is opposed to the assumption. If there be one thing more certain than another, it is that mercury was not employed for the treatment of syphilis for many years after the epidemic in 1494-5. We possess a history of its dreadful ravages then, and the descriptions given leave no doubt whatever of the terrible scourge that it then was, and of the effects it produced upon the bodies of the sufferers and the minds of those who were eye-witnesses. Of a given number of cases of true syphilis not specifically treated, all will exhibit secondary symptoms of some kind, and of these a certain proportion will be of a severe and chronic type, and followed by the phenomena of the so-called tertiary syphilis. The proofs of these statements are too ample for us to do more than allude to them.(a) Let it suffice that many of the patients which served to swell the Hamburgh lists went elsewhere to be *cured* of later manifestations; of those treated by syphilisation, some have exhibited tertiary phenomena, and very many more will turn up, in all probability; and there seems to be very good reason for doubting whether any remedy, or any combination of remedies, be as efficacious as mercury in preventing the hereditary transmission through the germ.(b) M. Diday, of Lyons, has established, by direct observation, that out of forty-three patients in whom the natural evolution of syphilis was carefully watched, in seventeen the symptoms assumed such a serious aspect as to threaten permanent injury to the constitution, and with these he was compelled to have recourse to mercury.(c) Diday is among the *most moderate* section of mercurialists, and his *positive* results may be relied upon. But it must not be forgotten that the *negative* observations can never be equally certain, because we know too well, unfortunately, that syphilis may remain latent for long periods, and manifest itself after very long intervals. In looking over our notes of cases, we find that of thirty-eight primary syphilitic sores not specifically treated twenty-one exhibited a mild form, eight a medium form, and nine a severe form of constitutional syphilis. How far these results might be modified if we possessed all the subsequent histories of these patients we cannot say, of course.

In order that our readers should more clearly perceive the tenor and spirit of our remarks on the therapeutics of syphilis, we must call their attention to the following illustrations of the forms, course, and progress of the disease.

We venture to think that a grouping into mild, medium, and severe types will be found to have some foundation in nature. We assume that the description applies to the first attack, because, as we have said already, there are either no subsequent ones, or these are very modified. The present and past health of the patients tolerably good: the subjects of no inherited taint.

1. *Mild.* The chancre, as a rule, with but little induration, and affected with a slight degree of ulceration; the inguinal glands enlarged on one or both sides, and moderately so. Within from five weeks to three months, some enlargement of the cervical glands; vague muscular and articular pains; a slight febrile disturbance, perhaps, preceding the appearance of a dull-red, mottled roseola, with slight vascularity of the fauces, and very trifling loss of hair; subject to some manifestations of the disease, decreasing in intensity, at intervals, which become wider as the case progresses; iritis, if it appears, yielding easily to treatment; no (observed) tertiary manifestations.

2. *Medium Severity.*—Induration of chancre, and glands well marked and persistent; moderate degree of ulceration, which tends to become indolent and chronic; chloro-anæmia and osteo-copic pains pronounced; exanthem (later in appearance than in the mild) papular, scaly; marked congestion of throat, which at later dates ulcerates; sores on lips and buccal mucous membrane; iritis, occasionally tertiary symptoms (nodes, swelling of tendons, etc., with pustular disease of skin). Frequent recurrences of syphilitic manifestations, which last longer and have shorter intervals of quiescence than the previous form. The disease produces very important modifications of the health, but is chiefly dangerous to life from a connection with predispositions to other constitutional maladies (hereditary or acquired).

3. *Severe Type.* Induration large and chronic, in chancre and glands; ulceration well marked and phagedenic, sometimes extensive, and liable to return after healing; chloro-anæmia, loss of health, emaciation, loss of hair, well marked and gradually increasing, making up a cachexia; osteocopic pains severe; eruptions discrete, and affecting deeper layers of skin, or pustular and relatively later in their appearance; iritis sometimes double, and often chronic or recurrent; throat affection severe; tertiary symptoms very common, affecting scalp, bones, tendons, larynx, or subcutaneous tissues, and often accompanied by some symptoms referable to diseases of internal organs. If engrafted in one the subject of some hereditary predisposition the effects may be permanent, or the cause of death, from acting as the excitant to other morbid processes. Of course, it is not meant that these limits are arbitrary, for they are approximative only; nor is it intended that all the symptoms should be present in any given case, but that these will conform to one or other of the above types.

In the first variety mercury is not *required* at all for the primary and may be deferred to the secondary stages, and then only used when any of the symptoms become intractable or chronic, or in certain kinds of iritis, or when a scaly syphilide appears. Warm baths, aqueous vapour baths, steel and diaphoretics, with strict attention to hygiene, often prove sufficient to cause a disappearance, at any rate, of the syphilitic manifestations.

In the second variety mercury alone appears to exercise any influence on the absorption of the interstitial deposits (indurations) present in the primaries, and frequently heals a chronic or indolent sore, when every other remedy has been tried; but mercury very rarely prevents the occurrence of the subsequent phenomena. For the cure of the constitutional manifestations, mercury, in the form of calomel vapour-bath, is by far the best remedy, and it is almost invariably followed by *most marked benefit*, if employed with ordinary care and judgment.

In the third variety the mineral is also the most trustworthy remedy for the dissipation of the primary symptoms, and it may be used, unless plainly contra-indicated by some

(a) Medizinische Jahrbücher, 1861, No. 3; Dr. F. C. Schneider's Investigations on the Elimination of Mercury; Dr. Overbeck's (of Detmold) Experiments under Absorption of Metallic Mercury, and its Effects; and Virchow's Investigations.

(b) Diday on "Infantile Syphilis," Hutchinson on "Inherited Syphilis," and *Edinburgh Medical Journal* for November, 1864.

(c) Nouvelles Doctrines sur la Syphilis.

constitutional causes, or a sloughy state of the chancre, particularly if the ulceration or unhealthy action in the sore advances when the mineral is employed. For the secondary phenomena it should be tentatively, and only endermically used with much discrimination, while the most diligent efforts are being made to raise the vigour of the body by tonics, good diet, etc. For the later stages mercury generally appears to be most injurious, but fortunately iodide of potass, in large doses, and iron here come to our aid as very reliable agents.

Dr. Wilks seems to us to have gone to the root of this question, in the paper to which we have already referred,(d) when he speaks of true syphilis and its sequelæ. The *effects* of the virus are shown in the albuminous deposition, while the *sequelæ* exhibit the degeneration of the tissues from the long continuance of the morbid action. Now, mercury opposes the first, but favours the second, hence the opposite views entertained about this drug.

Here our labours end. In these papers we have endeavoured to eliminate from what is on record many false or imperfect conclusions, and to reduce a large number of scattered fragments to a comprehensive whole. The task was as difficult in its nature as it has been imperfect in its execution. We must have exhausted our readers' stock of forbearance and good nature, and it only remains for us to express our thanks for their frequent exercise of these qualities.

THE WEEK.

SOUTH AMERICAN JERKED BEEF.

It will indeed be a public calamity if this, which promises to be so valuable an addition to the food of all classes, shall turn out to be worthless through want of care in the original manufacture. The proprietors of the Metropolitan Farina Company, Walmer-road, Notting-hill, whose very excellent malt flour for infants' food we shall shortly bring under our readers' notice, frankly invited us to take a sample of dry jerked beef from their stock, and to test and report upon it. It presented the usual white powdery appearance and cheesy smell when dry, but during the process of cooking exhaled a very disagreeable odour, and when brought to table smelled in such a way as to make us decline tasting it. There is not the least imputation on the respectable firms that sell it; the fault is in the article. As was shown some time ago in these pages, in an article termed "Ripe or Rotten?" our ideas of what conditions of food are wholesome must be formed solely from the appetite. Most of us would eat pheasant with a slight *fumet*, and some kinds of cheese absolutely stinking, with relish, and with no subsequent harm, whilst the slightest taint in butcher's meat or poultry would render it quite unbearable to the palate, and probably unwholesome in its after effects. We shall be glad to hear from our correspondents what their experience is. Dr. Ballard, at least, seems to have been more favoured than ourselves. We would also suggest the addition of a good dose of vinegar to the water in which the beef is steeped.

THE WINCHESTER CASE.

In another column we publish a letter from Dr. Fergushill-Crawford, one of the Consulting Physicians of the Hants County Hospital, in reference to an article which appeared some weeks ago in this journal under the title of "The Good Samaritan at Winchester." The *Hampshire Chronicle* for March 11, which our correspondent forwards us with his letter, contains a correspondence on the subject between Dr. Fergushill-Crawford, Mr. J. Bonham Carter, M.P., and the Rev. E. Stewart, the Chairman of the Hospital. With regard to the facts of the case, as stated in this journal, they are amply confirmed by the correspondence in question; indeed, it could scarcely be otherwise, as the contributor of the article only reproduced in a connected story the evidence of the witnesses at the Coroner's inquiry, for the most part in their own words. Mr. Bonham Carter, by styling our leader a "sensation article," implies that it was unjustifiably coloured to raise a sensation of indignation against some of the actors in the tragedy. We deny the justice of the imputation, and appeal to the article itself in proof. The writer of the article, as we have said, most carefully confined his narration to the evidence; he admitted no word of colouring, no epithet or expression of a denunciatory character. He allowed the facts to speak for themselves, and only set the picture in a frame of satire that relieved rather than enhanced the painful feelings which its intrinsic ugliness could not fail to raise. We are quite satisfied with the result. An examination has been instituted, the attention of Members of Parliament and other influential persons has been called to the facts, and we feel assured that no such deplorable "*mistake*" will ever occur again at Winchester. The rev. chairman has written a regretful letter, in which he acknowledges his error; and we are glad to believe him when he says it was one of judgment alone. The correspondence shows that he at least was not solely to blame. The House-Surgeon unhappily forgot his responsibility when he allowed the woman to leave the ward without a full examination of her condition. The whole case was of so terrible and, we are happy to believe, of so unique a character, that we, as Medical journalists, must have been held wanting in our duty had we not called attention to it; and the stern lesson which, with Mr. Bonham Carter, we would draw from it—that "evil is wrought by want of thought as well as by want of heart"—is one which neither Hospital officials nor any who have the lives of their fellow-men in their hands can afford to lose.

(d) Guy's Hospital Reports for 1863.

PARLIAMENTARY.

In the House of Commons on Thursday, March 9, Sir F. Kelly gave notice that on the following Thursday he should move for leave to bring in a Bill to regulate the qualifications of chemists and druggists.

On Friday, March 10, in answer to a question by Mr. G. Duff, Mr. Cowper said that the subject of a building for the University of London was still under the consideration of the Government, and that no decision had yet been come to.

Mr. M'Evoy moved a resolution that Her Majesty's Government should now adopt the recommendations of the Select Committee of 1858, to take into consideration the claims of Ireland to a grant of the half cost of Medical officers in unions, with the view of providing for the same in future, as is now the practice in England and Scotland.

The Chancellor of the Exchequer opposed the resolution, observing that the recommendations of the Committee of 1858 did not show sufficient reasons for adopting it; that it was not for the interest of Ireland to urge the principle of equality in local taxation; and that the general question of relative taxation had been recently referred to a Committee of the House.

The resolution was supported by Mr. Hennessy, Mr. Neate and Mr. Whiteside, and opposed by Mr. Peel.

Upon a division, the resolution was negatived by 37 to 34.

On Tuesday, March 14, in answer to a question by Mr. Ewart, Sir George Grey said that no order had been issued for the seizure of South American jerked beef either in London or in Liverpool. It was not till he saw the notice of his hon. friend's question that he knew of any seizure having been made within the metropolitan police district; but by a report of the police proceedings at the Mansion House a few days ago he found that the Sanitary Inspector under the Commissioners of Sewers had seized a quantity of meat that was unfit for human food. It was said to be South American jerked beef, but from the evidence given it would not appear to have been so. At least, it was condemned on inspection, not because it was South American jerked beef, but because it was not fit for human food. There was a question now pending whether, on the application of magistrates, South American jerked beef should not be used in gaols.

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FROM ABROAD.—INJURIOUS INFLUENCES OF TOBACCO.

THAT most hopeless of all associations the "British Anti-Tobacco Society" has just met with unexpected co-operation on the other side of the Channel in the shape of a learned academician. M. Jolly places before the Academy of Medicine a sombre picture of the mischief alleged to be due to smoking, and although it is hinted that he will never have the courage to demand a vote upon his propositions in an assemblage of which, grave as it is, the majority consists of confirmed smokers, his paper contains facts which it is desirable to notice, although the affiliation of these with the consumption of tobacco may not always have been rigorously made out.

Smoking has well nigh superseded the more innocent, if more disgusting, practice of snuff-taking in France as well as in our own country, and the immense progress that it has there made of late years may be judged of by the revenue returns. In 1832 the tobacco impost only yielded 28,000,000 francs—having continued at much the same amount since 1792—two-thirds of these arising from snuff-taking and one-third from smoking. In 1842 the amount rose to 80,000,000, in 1852 to 120,000,000, and in 1863 to 216,000,000—the amount derived from snuff remaining all this time well nigh stationary, and that from smoking tobacco thus rapidly increasing. In all those departments also in which the consumption of tobacco per head is greatest, the proportion used for smoking very far exceeds that employed for snuff-taking. The quantities consumed in the different departments vary from 1795 grammes per head in the Nord to 102 grammes per head in Charente. Taking the mean of the maxima and minima, comprising provinces in which very little smoking occurs, as Bretagne and Limousin, the probable calculation is that 8 kilogrammes (16 lb.) of tobacco are annually consumed by each smoker, which is equivalent to 50 to 60 grammes of nicotine per head, *i. e.*, more than sufficient to kill a squadron of cavalry. Of course, confirmed smokers far surpass this modicum.

Official statistics show that in exact relation with this increased consumption of tobacco is the increase of diseases of the nervous centres (insanity, general paralysis, paraplegia, ramollissement), and certain cancerous affections. And it may be asked what else could be expected from the use of a substance so eminently poisonous that in its concentrated form it is only equalled in power by curare and prussic acid, while even in its ordinary condition its effects have been found so redoubtable as to have led almost to its discontinuance as a therapeutical agent. It is to be observed, however, that all the varieties of this plant are not endowed with an equal degree of activity, this depending upon the greater or less proportion of nicotine which they contain. The most recent analyses show us that this proportion may vary much; as, for example, from 2 per cent. in Arabic, Brazilian, and Havannah tobacco, to 2·29 in Maryland, 3·21 in Alsace, 6·9 in Kentucky, 6·58 in Du Nord, 6·87 in Virginia, and 7·35 in Du Lot tobaccos. If Orientals, Turks, Greeks, Brazilians, and Hungarians smoke to an excessive extent with almost impunity, this arises from the fact that the indigenous tobacco which they employ contains very slight proportions of nicotine, and sometimes none at all; while other nations, as the English, Swiss, French, Swedes, etc., suffer much more severely from the tobacco they make use of. It is a remarkable fact that up to the present time no case of general or progressive paralysis has been discovered in any of the numerous localities of the East, where tobacco of so eminently mild a character, or some succedaneum, is employed. M. Moreau in a careful investigation which he has made in the Hospitals of Constantinople, Smyrna, Malta, and all the Mediterranean islands, has not been able to detect a single case of this kind. "The cause is plain enough, and eminently physiological. In all the regions of the Levant they do not intoxicate themselves with nicotine or alcohol, or the ambition of fortune or glory, but saturate themselves with opium and perfumes, sleeping away their time in torpor, indolence, and sensuality. They narcotise, but do not nicotinise themselves, and if opium, as has been said, is the poison of the intellect in the East, tobacco may one day prove in the West the poison of life itself."

Another unfortunate circumstance in the history of tobacco has been the displacement of the pipe by cigars, which is almost universally the case on the Continent. The juices of the tobacco as well as the smoke itself are thus swallowed and introduced into the system, while to the general effects we have added those due to local irritation. The gums and lips become red and tumified, and the teeth suffer much from caries; but the most important circumstance is the frequency with which cancer of the lips occurs among smokers, and especially on the side of the lip on which the cigar or pipe is held. From this form of cancer women are almost entirely exempt. The predominance of cancer observed in women for almost all the organs ceases, too, with respect to the stomach, which is found to be more frequent in men in the proportion of 53 per cent. The danger from chewing tobacco in this relation is very great, especially as tobacco containing 6 per cent. of nicotine is usually employed, and that fasting. Organic affections of the stomach are of great frequency among sailors who indulge in this habit.

That an atmosphere charged with the products of smoking is to a degree poisonous is proved not only by the effects which it produces on those uninured to it, but also by the detection, by M. Melsens, upon the average, of a proportion of $\frac{7}{10}$ per cent. of nicotine held in suspension by the tobacco smoke. The mischievousness of such an atmosphere is further seen in the poisonous effects exerted upon the greater portion of the workpeople employed in tobacco manufacture, as evidenced by cephalalgia, loss of appetite, colic, vomiting, etc. Plants exposed to such an atmosphere soon become sickly and die, as, indeed, do birds; and although habit obtains for the workpeople an exemption from some of the evils they first suffered from, their cachectic appearance, disordered digestion, and the signs of premature old age too plainly indicate the character of their employment.

Passing over M. Jolly's general picture of the effects of tobacco upon the confirmed smoker, which has already been often drawn, we may again advert to its assumed effect in augmenting the number of mental diseases. It is especially general or progressive paralysis—a disease scarcely met with thirty years ago—which seems to be making such rapid advance under, as is supposed, the increased abuse of alcohol and tobacco. That insanity and affections of the nervous centres have enormously increased in France there can be no doubt, and this increase is found to be in men almost entirely made up of cases of progressive paralysis (now forming more than 60 per cent. of the total cases); and whenever in the asylums the history of such cases has been investigated, their dependence on the abuse of tobacco has been rendered obvious. In contrast with this is the rarity with which this form of the disease is met with in female lunatics. Among these paralytic lunatics, soldiers and sailors, who so much abuse tobacco, are found occupying the first rank. M. Jolly's investigations have induced him to come to the conclusion that this abuse of tobacco is far more operative in the induction of this paralysis than is the abuse of alcohol or absinthe which so often co-exists. Among other facts tending to prove this, he adduces this one:—In certain provinces of France,—as Saintagne, Limousin, Bretagne, etc.—in which there is but little smoking, and an enormous consumption of brandy, progressive paralysis is well nigh unknown.

Finally, M. Jolly draws attention to the diminution in the population of France, especially of men from thirty to fifty years of age and upwards, as compared with women of the same ages. At these ages, too, diseases of the nervous centres form a far more common cause of death among men than women. As remedies for the evils he has depicted so strongly, M. Jolly suggests that the importation and consumption of the more innocent forms of tobacco should be encouraged, liberating the French soil from the cultivation of its poisonous

tobacco in order to devote it to more useful productions. If this be impracticable, the aid of the chemist should be called in to free the indigenous tobacco of its excessive proportions of nicotine, replacing this poisonous principle with a variety of perfuming agents, which would render smoking not only less pernicious, but more agreeable. Lastly, let the public be well instructed as to the relative value of the different sorts of tobacco.

M. Bertillon, in the *Union Médicale* March 9, supplies some interesting facts in relation to the effects of tobacco on the mental powers, derived from an investigation made at the Polytechnic School in 1855-56. He investigated in 160 of the pupils who had undergone their examination, what influence the fact of their having been smokers had upon the results. As large a proportion as 102 of these pupils were smokers. It was found that in the classification by merit which followed the examinations that, while in the highest series a third or fourth of the pupils were smokers, in the lower series three-fourths and in the lowest series four-fifths were smokers. Again, while among 66 confirmed smokers their mean rank of 94·5 on their entrance into the school had sunk to 98·3, in the case of the 60 pupils who were not smokers their rank of 71 on entrance (already 23 ahead of the smokers) rose to 67·7 —being, as the result of nine months' work in common, 30 in advance of the smokers. This result of the inquiry as regards these limited numbers was conformable to the prior experience of the school.

TEXT OF THE CONVENTION FOR THE AMELIORATION OF THE LOT OF THE WOUNDED IN ARMIES IN THE FIELD.

[Agreed to by the majority of the European Powers on August 22, 1864.]

Art. 1.—The ambulances and the military Hospitals will be recognised as neutral, and as such be protected and respected by the belligerents so long as they contain sick or wounded. The neutrality should cease if these ambulances or Hospitals were guarded by a military force.

Art. 2.—The *personnel* of the Hospitals and ambulances, comprehending those engaged in the management, the sanitary arrangements, administration, and transport of the wounded, as well as the chaplains, shall participate in the benefit of the neutrality while it is in operation, and so long as wounded persons remain to relieve or succour.

Art. 3.—The persons mentioned in the preceding articles may, even after occupation by the enemy, continue to fulfil their functions in the Hospital or ambulance to which they are attached, or they may retire in order to rejoin the corps to which they belong.

Art. 4.—The *materiel* of the military Hospitals shall remain subject to the laws of war; the persons attached to these Hospitals may, on retiring, only carry away with them such things as are their own private property. On the contrary, under the same circumstances, the ambulance will retain its *materiel*.

Art. 5.—The inhabitants of the country who afford assistance to the wounded will be respected and remain free. The generals of the belligerent powers shall be authorised to preclude the inhabitants from appeal to their humanity and from the neutrality which will be a consequence of it. Every wounded person received into, and taken care of, in a house shall serve as a safeguard to that house. The inhabitant who shall have received wounded persons into his house shall be excused from lodging troops, as well as from a portion of the war contributions levied.

Art. 6.—Wounded or sick soldiers shall be received and taken care of whatever the nation they belong to. Commanders-in-chief shall be authorised to remit immediately to the advanced posts of the enemy soldiers wounded in battle, when circumstances shall permit of it and with the consent of both parties. Such as shall be considered incapable of further service shall, after recovery, be sent back to their country. The others may be also sent back on condition of not bearing arms during the remainder of the war. Evacuations, with those who direct them, shall be covered by an absolute neutrality.

Art. 7.—A distinctive and uniform flag shall be adopted for the Hospitals and ambulances. It ought in all cases to be accompanied by the national colours. A bracelet shall be adopted for the *personnel* rendered neutral, but the delivery of it shall be left to the military authority. The flag and bracelet shall bear a red cross upon a white ground.

Art. 8.—The details of the execution of the present convention will be regulated by the commanders-in-chief of the belligerent armies, according to the instructions of their respective Governments, and conformably to the general principles enunciated in this convention.

Art. 9.—The high contracting powers have agreed to communicate the present convention to the Governments which have not been able to send plenipotentiaries to the International Conference of Geneva, inviting them to become parties to it, with which object the protocol is left open.

Art. 10.—The present convention will be ratified, and the ratifications will be exchanged, at Berne within the space of four months, or earlier, if possible.

ROYAL VISIT TO BROMPTON HOSPITAL.—Her Majesty on Tuesday morning surprised the inmates of the Consumption Hospital, Brompton, by a visit. The Queen, attended by the Duchess of Roxburghe, Lord Alfred Paget, Colonel the Hon. Arthur Hardinge, and Dr. Jenner, arrived at the Hospital at 11 o'clock, and was received at the entrance by the Hon. Arthur Kinnaird, Mr. Philip Rose, Hon. Sec. (the founder of the Hospital), Dr. Roe and Dr. Cotton (the two Senior Physicians), and the principal officials of the Institution. Her Majesty walked through the four "galleries," called respectively the "Victoria," the "Albert," the "Foulis," and the "Jenny Lind," entering many of the wards, speaking to several of the patients who were confined to their beds, and bestowing upon all kindly smiles and sympathising looks. Her Majesty then visited the chapel (which was built by the chairman, Sir Henry Foulis), entered the vestry, and inspected the library; after which she expressed a wish to see the kitchens, with which, as well as with the larder and the steam apparatus for cooking and for raising the lifts for the patients and the provisions, the Queen appeared much interested. Her Majesty wrote her name in the visitors' book, and examined the vellum scroll containing the signatures of the late lamented Prince Consort and of the distinguished visitors who were present at the laying of the foundation stone of the new building by his Royal Highness, on the 11th of June, 1844. During her somewhat lengthened visit the Queen narrowly inspected all the arrangements, and by her numerous questions manifested much interest in the charity, which has long been honoured by the Royal support and patronage. In addition to repeated and emphatic expressions of satisfaction, Her Majesty was graciously pleased on leaving to signify her entire approval of everything she had seen. To the patients, of whom there are 210, the Royal visit was an occasion of intense gratification and interest. Among those honoured by special notice was one of the gallant survivors of the famous Balaklava cavalry charge. This poor soldier was an inmate of the Hospital for the third time since his discharge from the army, having on each occasion been sufficiently restored to health to earn his livelihood.

DOWNING COLLEGE.—An examination for four minor scholarships will be held in Downing College on Monday, May 22 next, and the two following days, and will begin at 9 a.m. on Monday. The examination will be chiefly in Classics and Elementary Mathematics, but some weight will be given to proficiency in French and German. Two additional papers will be set, one on Moral Philosophy, in connexion with the principles of Jurisprudence, and on the Elements of International Law, the other on the natural Sciences in connexion with Medicine—namely, Chemistry, including Analysis, Mineralogy, Botany, Comparative Anatomy, and Physiology; and in awarding two of these scholarships considerable importance will be attached to any special proficiency in the legal or in the Medical subject. Persons who have not been entered at any College in the University, or who have not resided one entire term in any such College, are eligible to these minor scholarships, which will be of the value of £40 per annum, and tenable for two years, or until their holders are elected to foundation scholarships. No one elected minor scholar will receive any emoluments until he has commenced residence as a student of the College. Satisfactory testimonials as to their moral character must be sent to the master by all candidates for these minor scholarships, on or before Wednesday, May 17. Foundation scholars will, by the same examination, be elected from among the undergraduates of the College. Further information will, if required, be given by the Rev. W. B. Pike, or John Perkins, Esq., tutors of the College.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF BATH.

(Concluded from page 263.)

BELLOT'S HOSPITAL.

In the reign of James the First the Hospital called Bellot's was erected. The founder, Thomas Bellot, Esq., was one of the executors of the famous Lord Cecil. The institution was raised in Bell-tree-lane, afterwards Beau-street, and was placed under the guardianship of the Corporation. The patients admitted were to be of the male sex only, the number was limited to 12, and two shillings and one penny a week was allowed each patient for maintenance. The patients were to use the waters for their cure. Caution money in the way of deposit has since been demanded, the sum to be laid down being £1. Mr. Bellot arranged that the institution should be open for six months in the year only, and that no person should remain in it under treatment for a longer period than twenty-eight days. The Surgeon who examined the sick before admission was to receive for his services twenty shillings a year.

In course of time the rules thus laid down were broken. The patients admitted were allowed to remain for the whole six months of the year while the Hospital was open, six women were admitted for six of the men, and a Physician as well as a Surgeon was appointed to the charity. The management of the Hospital also passed from the Corporation into the hands of the Charity Commissioners. In 1856 and 1857 an attempt was made to transfer Bellot's Hospital to the General Hospital, and to open in the latter a Bellot's ward as a recognition of the founder. In favour of this reasonable suggestion an able article was published by Dr. Falconer in the *Bath Express* of October 10, 1857. It was shown in that communication that the Bellot institution was physically and morally defunct, and that to try and resuscitate it were to lose time and money, and in the end only injure the younger and more vigorous institution. The argument, good as it was, failed on technical and legal points, and a charity which had fulfilled its mission was let remain; but the old building has been pulled down, and the internal arrangements have been improved as far as circumstances allow.

BATH UNITED HOSPITAL.

The Bath United Hospital took its present name and position on December 21, 1826. Originally there were two institutions—one called the Bath City Infirmary and Dispensary, the other the Bath Casualty Hospital. It was considered that the interests of the two institutions would be best conserved by amalgamation, and at the date given above this idea was carried out.

Administration.

Annual subscribers to the institution receive one ticket of recommendation for the admission of an in-patient for every guinea subscribed. The ticket is available one year only from the date of the subscription.

Donors of ten guineas have for life the same privilege as subscribers of one guinea; of twenty guineas as subscribers of two guineas; of thirty guineas as subscribers of three guineas; and so on in proportion. The tickets of country subscribers are only available for the immediate district in which the subscriber resides; while subscribers residing in the Bath union district can only recommend patients who have resided at least one month within the limits of that district.

Every clergyman or minister of a dissenting congregation who may make or authorise collections to be made in his church or chapel for the benefit of this Hospital receives a ticket of admission for an in-patient, and should the amount collected exceed ten pounds, then for every additional sum of ten pounds he is entitled to an additional ticket.

The Physicians and Surgeons have one vote each at all general and special general meetings; they are not eligible as members of the Managing Committee, but may be present at all meetings.

The Physicians and Surgeons are allowed to take pupils, under such regulations as they may jointly agree upon; the Trustees and Committee reserving to themselves the power to reprimand or expel any pupil behaving improperly or not conforming to the established rules.

It is the duty of the Physician's assistant to visit at their homes all such out-patients as are unable to attend at the Hospital, provided they reside within the limits of the district.

No cases of lunacy or recent venereal disease are received into the house, nor are chronic cases admitted, except at the express desire of the Medical officers, and with the approbation of the Weekly Board, previous to admission.

Suitable wards are reserved for the reception of domestic servants of subscribers of one guinea, or upwards, provided the payment of 10s. weekly, or such other sum as the Trustees and Committee may appoint, be secured to the Hospital for each servant. No servant while so paid for can be transferred to the ordinary wards.

All in-patients are discharged at the end of two months after their admission, unless the attending Physician or Surgeon certify to the Committee that there is a probability of their being cured, or of their receiving considerable benefit, by being permitted to remain longer in the house.

The Trustees and Managing Committee are empowered to make suitable provisions for supplying to the ruptured poor trusses at reduced prices, or gratuitously, according to the exigency of each case.

Sanitary Condition.

The Bath United Hospital is at this moment undergoing such important structural modifications that it is difficult to speak of it in correct terms. The original Hospital was not a very favourable specimen of internal arrangement. The wards were dark and devoid of art, and the faults which I have described in many other similar institutions were present. The deficiencies have long been felt, and much discussion has, I believe, been carried on in reference to the propriety of removing the Hospital to a new site or of rebuilding it altogether. The result has ended in a compromise; the Hospital remains on its original site; but it is undergoing modification and enlargement by the addition of an "Albert Wing." This wing is now being built, and the walls are about one-third of their intended height. There are also new residences projected for the resident Medical officers, and with these will be included a new chapel, an operating theatre, dormitories for the nurses, a museum, a library, a dissecting-room, and improved accommodation for the out-door patients. The whole will be completed at the end of the year 1866. The Albert wing will contain two wards, each capable of holding sixteen beds. The lower ward is to be 13½ feet high, 24 feet wide, and 62 feet long; the entire cubic space being 20,088 cubic feet, or 1255 cubic feet per bed. The upper ward is to be 15½ feet high, 24 wide, and 26 long, affording a cubic capacity of 23,064 feet, or 1441 per bed. The wards will be warmed by open grates, and for extra warming coils of pipes for the circulation of hot water will be provided, six pipes in each ward. The ventilation will be by flues from each end of the wards, terminating in extracting shafts. The water-closets will be external to the building, and the pipes from them, which are of earthenware, will run, externally to the building, into the main sewers of the city. The walls of the new wards will be lined with the local oolite, and the floors will be fire-proof, on Dennett's principle.

The water supply of the Hospital is from the Company's reservoirs, and is considered efficient. The cleaning of the floors is by washing and scrubbing; the floors are cleaned twice weekly.

BATH UNITED HOSPITAL.—DIET TABLE—DAILY ALLOWANCE.

B., Breakfast; D., Dinner; S., Supper; M. T. W. Th. F. Sa. Su., Days of the Week.

Diets.		Meat cooked.	Bread.	Potatoes.	Rice Pudding.	Tea.	Sugar.	Milk.	Butter.	Beer.
Full (a)	Men	4 oz. D.	4 oz. B. D. S.	8 oz. D.	—	1 pint B. S.	½ oz. B. S.	½ pint B. S.	—	1 pint D.
	Women	4 oz. D.	4 oz. B. D. S.	8 oz. D.	—	1 pint B. S.	½ oz. B. S.	½ pint B. S.	½ oz. B. S.	1 pint D.
Half (b)	Men	4 oz. D.T.Th.Sa.Su.	4 oz. B. D. S.	8 oz. D.T.Th.Sa Su.	6 oz. D. M. W. F.	1 pint B. S.	½ oz. B. S.	½ pint B. S.	—	1 pint D.
	Women	4 oz. D.T.Th.Sa.Su.	4 oz. B. D. S.	8 oz. D.T.Th.Sa.Su.	6 oz. D. M. W. F.	1 pint B. S.	½ oz. B. S.	½ pint B. S.	½ oz. B. S.	1 pint D.
Low	Men	1 pint broth	3½ oz. B. D. S.	—	6 oz. D. M. W. F.	1 pint B. S.	½ oz. B. S.	½ pint B. S.	—	—
	Women	1 pint broth	3½ oz. B. D. S.	—	6 oz. D. M. W. F.	1 pint B. S.	½ oz. B. S.	½ pint B. S.	½ oz. B. S.	—

(a) On Wednesdays, men and women, D. broth 1 pint, bread 4 oz., rice pudding 6 oz., beer 1 pint.
(b) On Mondays, Wednesdays, and Fridays, D., broth 1 pint.
Tea may be exchanged for milk 1 pint.
Extras:—Chops, slices (4 oz. cooked meat), beef-tea (1 lb. meat to a pint), mutton broth, fish, eggs light, puddings, wine, spirits, porter.
No extras on full or half diets, except wine and porter instead of beer. The order for extras to be renewed daily.

The Nursing System.

The nursing staff consists of twelve nurses and four assistant nurses; the latter act as scrubbers, and attend to keep the wards clean. The twelve nurses act as day and night nurses, a certain number nursing by day and a certain number by night; these change duties about once a month. The whole staff is under the direction of a superintendent nurse, who has been educated at St. Thomas's Hospital, under the Nightingale Fund. In addition to these there are probationers training in the Hospital as nurses for the Home for Nurses, established in Bath.

Points of Practice.

The number of patients admitted into the Hospital yearly exceeds 1000. The following tables will show the practice of last year, 1864:—

A Statement of the Number of Patients admitted to the Bath United Hospital during 1864.

		Cured.	Relieved.	Died.	In the Hospital.	Total.
Medical In-Patients.						
Diseases of Thoracic Viscera.	Phthisis	8	47	10	1	66
	Pneumonia	13	2	1	1	17
	Pleurisy	4	2	..	..	6
	Bronchitis, Emphysema	16	15	6	3	40
	Morbus Cordis	..	6	1	..	7
	Laryngitis	..	1	1	..	2
Diseases of Abdominal Viscera.	Dyspepsia, etc.	14	5	..	1	20
	Cancer of Stomach	..	3	2	1	6
	Diseases of the Liver	9	..	2	..	11
	Colic	5	1	..	..	6
	Peritonitis, etc.	2	2	5	..	9
	Hæmatemesis	3	..	..	..	3
	Diabetes	..	1	..	..	1
	Anasarca	14	7	6	1	28
	Morbus Brightii	..	3	2	..	5
	Dysentery	2	..	..	1	3
	Uterine and Ovarian Diseases	32	23	1	..	56
Fever	Typhus	13	..	3	..	16
	Typhoid Fever	4	..	1	..	5
	Variola	1	..	..	..	1
	Scarlatina	18	..	4	1	23
	Rubeola	2	..	..	..	2
	Febricula	20	6	..	..	26
Diseases of Brain and Spinal Cord.	Delirium Tremens	5	1	..	..	6
	Paralysis	1	10	1	..	12
	Chorea	4	1	1	..	6
	Epilepsy	4	3	..	..	7
	Apoplexy	2	1	2	..	5
	Meningitis	..	.	1	1	2
Miscellaneous.	Cutaneous Diseases	15	5	..	2	22
	Debility, etc.	7	5	..	1	13
	Rheumatism	62	13	2	4	81
	Sciatica	4	3	..	..	7
	Tonsillitis	14	..	..	1	15
	Struma	4	1	..	..	5
	Tænia	1	..	..	..	1
	Total	303	167	*52	19	541
Surgical In-Patients.						
Fractures		54	12	7	9	82
Dislocations and Sprains		7	2	..	1	10
Wounds		55	25	2	3	85
Contusions		61	18	..	2	81
Burns and Scalds		10	3	3	3	19
Injuries to Head		6	4	5	1	16
Injuries and Diseases of the Eye		8	7	1	1	17
Wounds of Arteries and Veins		1	1	..	..	2
Hernia		4	5	4	2	15
Diseases of the Testis		5	4	..	..	9
Diseases of Bones and Joints		35	38	..	5	78
Ulcers		10	9	..	1	20
Abscess		12	7	1	..	20
Struma		5	13	1	2	21
Cancer		3	1	1	..	5
Cutaneous Diseases		15	13	1	2	31
Tumours		14	10	5	1	30
Carbuncle		1	1	..	1	3
Venereal Disease		4	2	..	..	6
Hare-lip		1	1	..	..	2
Diseases of Prostate and Bladder		1	6	1	2	10
Retention of Urine		9	4	..	..	13
Stricture of Urethra		2	10	..	..	12
Perineal Section		1	..	1	..	2
Lithotomy		1	..	1	..	2
Fistula		2	2	..	..	4
Amputation of Limbs		3	..	4	1	8
Hæmorrhoids		5	..	..	..	5
Exhaustion		2	..	..	..	2
	Total	337	198	*38	37	610

MEDICAL AND SURGICAL IN-PATIENTS.

Cured.	Relieved.	Died.	In the Hospital.	Total.
640	365	*90	56	1,151

* It may be proper to state that the mortality of the Hospital was considerably augmented by several cases dying almost immediately after their admission. Twenty of these were admitted, of which nearly all were patients who had met with such severe injuries as to prove fatal in a very short time. The fair mortality of the Hospital will therefore be 70.

Patients Visited at their own Homes.

Diseases.	Cured.	Relieved.	Died.	Under Treatment.	Total.
Phthisis	4	16	7	3	30
Pneumonia	7	..	2	..	9
Bronchitis, Emphysema	51	37	9	7	104
Morbus Cordis	..	1	1	..	2
Colic	26	2	..	..	28
Dyspepsia, etc.	20	6	..	..	26
Diseases of Liver	4	1	..	..	5
Anasarca	1	4	1	..	6
Pertussis	11	1	..	..	12
Diarrhœa	65	3	4	..	72
Uterine and Ovarian Diseases	28	2	1	3	34
Cutaneous Diseases	15	6	..	..	21
Peritonitis	2	..	1	..	3
Enteritis	1	..	..	..	1
Typhoid Fever	1	..	..	..	1
Scarlatina	83	..	20	..	103
Rubeola	8	..	1	1	10
Febricula, etc.	95	10	5	5	115
Variola	7	..	..	..	7
Epilepsy	1	3	..	..	4
Apoplexy, Paralysis	4	7	4	1	16
Convulsions	7	..	6	..	13
Senile Decay	..	19	..	1	20
Debility	18	9	3	1	31
Rheumatism, Gout	37	10	..	..	47
Tonsillitis	11	1	..	..	12
Struma	6	14	1	..	21
Ague	1	..	..	..	1
Dentition	6	..	3	..	9
Surgical Cases	55	18	1	2	76
Total	575	170	70	24	839

MEDICAL OUT-PATIENTS.

Cured.	Relieved.	Papers Unreturned.	Died.	Total.	Out-Patients Visited at Home.
1995	518	3972	39	6524	839

Total Medical and Surgical In-patients 1,151
" " Out-patients 10,763

Grand Total of In- and Out-patients in 1864 .. 11,914

SURGICAL OUT-PATIENTS.

Dental Out-patients.	Surgical Out-patients and Casualties.	General Total of Out-patients.
687	2,713	10,763

Mortality.

The mortality of the Hospital, by Dr. Farr's method of calculation, is placed exceedingly high—viz., at 102·56 per cent. Only two other Hospitals stand above it, except the Liverpool Northern Hospital and the Manchester Royal Infirmary. On the ordinary method of calculation, based on the mortality of the three years 1862, 1863, 1864, I find the mortality to have been, on the admissions, 7·17 per cent. The Surgical mortality for the same period of three years was 6·26 per cent.

Chloroform—Administration and Accidents.

Snow's apparatus for the inhalation of chloroform was at one time used in the Hospital, but for the last seven years it has rarely been employed.

The ordinary method of administering chloroform is on lint folded into the shape of a hollow cone with an aperture left at the smaller end to admit air. Sometimes a napkin is used and held some little distance from the mouth and nostrils.

All the assumed necessary restoratives of suspended functions are kept at hand—such as ammonia, galvanic batteries, etc. There have been three deaths since the first administration of chloroform. One in 1853, one in 1862, and one in 1864. The case in 1862 occurred at an operation for removal of the inferior maxillary bone, and the death was mainly from debility, the patient not having eaten food for a long time.

Notes of the last Case of Death during the Inhalation of Chloroform, by Charles Gaine, Esq., Bath.—John D., aged 15 (a twin). "Had chloroform administered for a Surgical operation. There was nothing in the external appearance of the patient to contra-indicate its use, with the exception of some slight malformation of the sterno-costal cartilage of one side of chest. On auscultation and percussion, healthy sounds were elicited. The chloroform was administered on a small napkin folded into a hollow cone. There was little excitement apparent, though the heart's action for the first minute or so after commencing the inhalation was slightly increased; but the tone and character of the impulse were normal. The

respiration was natural, the eye steady, and the pupils of ordinary size. The time occupied, from beginning the inhalation to the commencement of the operation, was from ten to twelve minutes, and the quantity of chloroform used about three drachms by measure. The boy was quite composed nearly the whole time, and inhaled the chloroform without its producing any of the phenomena, presented in most cases, indicative of transition from stage to stage towards anæsthesia. The eye remained sensible to touch, and the pupils unchanged, until within ten or fifteen seconds prior to the commencement of the operation, and the pupils then contracted slightly; the muscles were relaxed; the pulse and respiration remained unchanged. The operation was now commenced, and simultaneously with the entrance of the knife the boy made two strong convulsive starts and screamed out, and almost synchronously with the second spasm the heart's action suddenly failed. Restorative means were at once employed to endeavour to resuscitate him, and persevered with for some time, and though there were two or three convulsive respiratory efforts, these were but illusory, and life may be said to have ceased when the heart failed.

The post-mortem examination revealed no morbid lesions in any structure; and the fibres of the heart, examined microscopically, showed no symptoms of fatty degeneration. The kidneys were lobulated, but healthy. The brain was very large, weighing 60·89 ounces avoirdupois. The blood was dark and very thin and opaque throughout the body, apparently deprived of its fibrin.

The Registrar's report of the number of operations performed in the Bath United Hospital from May, 1849, to December 31, 1864, is 844; in all of these probably chloroform was administered. There are many cases, however, in which chloroform is and has been administered for minor operations in the out-patients' Surgery—probably an average of three or four weekly; of these no mention is made in the books; so that the 844 cases are chiefly capital operations."

Museum and Library.

There is a museum attached to the Hospital, containing 580 wet preparations, and about 1000 other preparations. The specimens are pathological and anatomical. The anatomical preparations include some very valuable and perfect preparations in comparative anatomy; these latter are the work principally of R. T. Gore, Esq., the senior Surgeon to the Hospital, and so well and widely known in the world of science as the translator and editor of "Carus' Comparative Anatomy," 1827.

There is also a Medical library containing from 2000 to 3000 volumes; there is a fair proportion of classical works in the library, and most of our modern English contributions to standard Medical literature.

OTHER MEDICAL CHARITIES.

In addition to the two large Hospitals there are in the city eight other Medical Institutions.

The Bath Eastern Dispensary.

This is a general Dispensary that has been in existence more than thirty years, and has a staff of three Physicians, three Surgeons, and a resident Surgeon. It receives about 3000 patients, and patients are visited at their own homes. The Institution does much good work.

Medical Staff.

Physicians.—Dr. Blackmore, Dr. Sylvester, Dr. Fitzpatrick. *Surgeons.*—W. Bush, Esq., T. G. Stockwell, Esq., J. K. Spender, Esq.

The Bath Western Dispensary.

The Bath Western Dispensary is also a general institution for the relief of the sick poor. It has been established nearly thirty years. The patients treated annually are about 1200. This Institution does for the west of Bath what the previous one does for the east. It is very useful.

Medical Staff.

Surgeons.—F. P. Hoblyn, Esq., A. B. Brabazon, M.D., G. D. Freeman, Esq.

Bath Institution for Idiots.

This charity is for the treatment of children who are idiot or imbecile. It is capable of receiving twenty-two patients. It was the first Institution of the kind in England, and was established by Miss Charlotte White, now Mrs. Graves. The patients are divided into a better and lower class; but the lower pays a small sum towards maintenance—viz., £12 per annum. The Institution is of great service.

Medical Staff.

Physician.—Dr. Falconer. *Surgeon.*—W. H. Brace, Esq.

There is one other general Dispensary, called the Southern Dispensary, to which Mr. O. Tucker is the Surgeon. This Dispensary is self-supporting, to a certain extent. One shilling is charged for tickets for persons above fourteen years, and sixpence for those under that age. There are four special Dispensaries, two for the eye, one for the skin, and the fourth for the diseases of the chest. Of these (1), The Bath Eye and Ear Infirmary receives about 700 patients annually. Mr. Bush and Dr. Barrett are the Surgeons. (2) The Bath Eye Infirmary, which receives also about 700 patients, fifty being in-cases. Mr. Watson is the Surgeon. (3) The Bath Dispensary for Diseases of the Skin and Urinary Organs, which receives about 650 patients. Mr. Mitchell is the Surgeon. (4) The Bath Institution for Diseases of the Chest, which receives nearly 900 patients annually. Dr. Lloyd is the Physician.

MEDICAL SOCIETIES.

The Bath Pathological Society is the local Medical Society. It holds its meetings once a month for six months in the year; pathological specimens are presented, and short papers, on cases, are read. The members meet in the Board-room of the Mineral Water Hospital.

The Bath and Bristol Branch of the British Medical Association holds its sittings alternately at Bath and Bristol. This branch is one of the most influential of the branches of the Association, and has at various times exerted a powerful influence on the proceedings of the parent Association. For many years the branch was nobly represented, on almost all occasions, by two Bath worthies whose names will not soon be forgotten—I mean the late Mr. Soden and Mr. Norman.

There is also a Microscopical Society in Bath, in which the Medical element largely but not exclusively prevails. The members hold nine meetings a year, the Session opening in October and closing in June.

PAROCHIAL MEDICAL PRACTICE.

The Bath Union District is divided into eight divisions or parishes. The following table gives these districts, with acreage, population, Medical officers, and fees:—

District.	Acreage.	Population.	Medical officers.	Ann. salary
No. 1	617	15,013	F. Hanham, Esq.,	£34
,, 2	617	11,268	H. Massy, Esq.	£33
,, 3	95	11,070	J. Barnett, Esq.	£35
,, 4	3369	15,003	J. Laurence, Esq.	£40
,, 5	6504	3688	W. A. Cox, Esq.	£40
,, 6	4517	5593	W. Hitchins, Esq.	£49
,, 7	10,536	3007	J. Hinton, Esq.	£45
,, 8	4193	3678	R. Biggs, Esq.	£35
Workhouse			R. T. Gore, Esq.	£150
The Union extras amount to				£83

SANITARY CONDITION OF BATH.

Value of Life in Bath.

A very interesting discussion was raised at the Science Meeting at Bath last year, by Mr. R. T. Gore, on the mortality of the city and the causes of the mortality. On this point Mr. Gore said that the total population of the city, according to the last Census, and including the workhouse and the Hospital, may be taken at 52,500; and the total deaths as follows:—Lansdown, 341; Walcot, 280; Abbey, 290; Lycombe and Widcombe, 214; Bathwick, 91; total, 1224. To these must be added, for deaths of persons belonging to the city parishes—in the workhouse, 50; in the United Hospital, 67; total deaths, 1350. Population, as above, 52,500; deaths, 1350; ratio to population, 25·714; thus ranging from Bathwick 17·28 to, in the Abbey district, 27·09. Of the total deaths the numbers at certain ages were as follow:—Under 10 years, 41·63; from 60 to 100, 28·82; intermediate ages, 29·25. In the debate that followed on Mr. Gore's paper, Mr. Field stated that the population of Bath by the last Census was nearly one thousand less than in 1841. The rate of mortality in June, 1843, was but little more than 21 in the 1000; now it was $25\cdot\frac{7}{10}$ in the 1000.

The annexed returns, on the same subject, are from the Registrar-General's returns:—

Average Annual Rate of Mortality in Bath from all Causes, at Different Ages, to 100 *Living, during the Ten Years,* 1851-60.

	Males.	Females.
All ages	2·478	2·007
Under five	6·866	5·671
Five to ten	·693	·726

	Males.	Females.
Ten to fifteen	·434	·509
Fifteen to twenty	·594	·614
Twenty to twenty-five	·954	·603
Twenty-five to thirty-five	1·227	·813
Thirty-five to forty-five	1·667	1·097
Forty-five to fifty-five	2·363	1·572
Fifty-five to sixty-five	3·646	2 732
Sixty-five to seventy-five	6·658	6·106
Seventy-five to eighty-five	16·801	13·488
Eighty-five and upwards	34·681	30·325

Average Annual Mortality in Bath from different Causes, to 100 Living, from 1851 to 1860.

	Males.	Females.
All causes	2·478	2·007
Typhus	·080	·068
Cholera, diarrhœa, and dysentery	·113	·974
Other zymotic diseases	·246	·168
Cancer	·028	·061
Phthisis	·313	·231
Scrofula, tabes mesenterica, and hydrocephalus	·104	·068
Disease of brain	·314	·246
Disease of heart and dropsy	·147	·149
Disease of lungs	·379	·300
Diseases of stomach and liver	·117	·118
Disease of kidneys	·055	·019
Violent deaths	·107	·047
Other causes	·475	·458

Water Supply and Drainage.

The water supply of Bath is at this time being considered by the Corporation, with a view to its improvement. At present the water is from the Corporation Reservoirs, from private companies, and from wells connected with private houses. The water is hard, but clear and sparkling. The quantity is not thought to be sufficient for the present population.

The sewage of the city is in great part drained into the river Avon. The sewers are reported to be large and well constructed, but the flushing is not sufficiently effective. Many cesspools still exist.

Epidemics.

An outbreak of typhus fever occurred in Bath last year. The epidemic is remarkable in that it appeared to be of local and of spontaneous origin. Dr. Goodridge, who investigated the matter carefully, has shown that the disease originated in the Bath Refuge for the Destitute. The room in which the vagrants slept was badly ventilated, and the cubic space allotted to each was only 387 feet. The first case was in the Superintendent, and from him the disorder spread. Speaking of its course from the Refuge into the city, Dr. Goodridge has been good enough to forward me a report, which I subjoin:—

"The history of typhus in Bath in 1864 began with the outbreak at the 'Refuge,' as indicated in my 'Inquiry,' etc.; but it did not end with it. In the second week of June, after a lapse of upwards of six weeks from the discharge from the Hospital of the survivor of the 'Refuge' cases, one of the nurses sickened with this fever; and two days later a young man was admitted from Avon-street, one of the lowest quarters of the city, suffering from the same. The difficulty of believing that infection could have remained latent in the Hospital during so long an interval, particularly as not a single case of extension occurred at the time, led to a further inquiry, which elicited that the young man from Avon-street was really by a day or two the first attacked, and that the nurse (as appeared from circumstantial evidence) probably had had some communication with him. As to the source of this young man's illness, his testimony went to negative contagion; but beyond this the inquiry was not pursued. A succession of typhus cases now set in, amounting in the aggregate to one dozen, received into the Hospital in the space of two months. They were most of them, but not all, from the locality mentioned, which, it may be as well to add, is the chief resort in Bath of the Irish poor. Not having myself had the charge of the majority of the cases, I speak with some hesitation; but I believe I am correct in saying that they were generally mild in character. Only one terminated fatally, the subject being a man of intemperate habits and impaired constitution. No post-mortem examination was made—perhaps a rather unfortunate circumstance, as the prominence more or less of diarrhœa in all these cases tended anon to raise the question whether the fever were typhoid or typhus. The character of the eruption, however, which was usually very copious, seemed conclusive. In one case of my own, in which the diarrhœa was so urgent as to require the administration of acetate of lead, there was not even any delirium from beginning to end; yet the characteristic eruption and dusky mottling were present in abundance. Convalescence usually commenced after the end of the second week. Petechiæ were comparatively rare — indeed, in respect of gravity, there seemed to be a marked difference between these cases and the earliest ones of the man and woman from the 'Refuge,' which might aptly have been designated 'petechial' fever.' It was understood that, besides the cases received into the Hospital, there were a few others in the town that came under the hands of private Practitioners, but I have no certain information on this point. The popular notion was that the fever was produced by the heat and drought of the season, and the consequent bad state of the river. It will be observed, however, that the first typhus case in Bath was prior to all this. The fever in its course no doubt was more or less propagated by contagion; but the cases in the Hospital were uniformly placed in separate wards from the general patients, and there was not a single instance of spreading within it. By the end of August the epidemic (if it may be so termed) subsided, so that after September 3 there was not a solitary case remaining in the house. In the course of October, however, another was admitted; it was under my care, and I clearly ascertained that it was an imported case, the patient, a young man, having arrived in Bath ill from a town, and from a house in that town, where typhus was present. This was a rather severe case, the diarrhœa very urgent, but the eruption demonstrably that of typhus. He was discharged on November 1, and thus closed the history of typhus in Bath in 1864. The present Resident Medical Officer, Mr. Freeman, informs me that he has seen one or two cases this year in his visiting district, but otherwise I am unaware of its continuance.

It may be interesting to add that during 1864 the admissions into the Hospital of *typhoid* fever were *five*, of which one was a fatal case."

The Registrar-General includes Bath in what he calls the Bristol cholera field. He records, in 1849, ninety deaths in the Bath district, the population then being 69,800. There were also 101 fatal cases of diarrhœa. Divided into the sub-districts, I find that 17 cases of cholera and 13 of diarrhœa occurred in the Twerton district. The cases were chiefly amongst colliers and weavers, and took place in September, October, and November. In Bathwick there were 4 fatal cases of cholera, and 1 of diarrhœa. The cases occurred in August. In the Abbey district there were 10 fatal cases of cholera, and 19 of diarrhœa. Diarrhœa prevailed in January, March, April, and June, but the first case of true cholera did not appear until August. In Lyncombe there were 21 cases of cholera, in August and September. All the deaths occurred at Widcombe. In Walcot there were 18 fatal cases of diarrhœa. In Lansdown there were 21 cases of cholera and 21 of diarrhœa. In Batheaston there were 17 cases of cholera and 11 of diarrhœa; all of these occurred in the Bristol-road, Weston, during the months of August, September, and October.

In the year 1854 there were no deaths from cholera in the Bath district, but 79 from diarrhœa.

The inference to be drawn from these facts is, that between the years 1849 and 1854 either certain improvements must have been made in the water supply of the various districts and in the drainage of the city, or that no case of cholera was imported into the district.

There are no epidemics or endemics special to Bath.

Climate and Site.

The climate and site of Bath are equally advantageous for invalids, and few, if any, cities in England are so favourably placed for securing the essentials of health. The soil is porous and at the same time dry, for the city rests on foundations which are unexceptionable. The town itself may almost be said to be built of its own foundations, for the limestone is from the beds of the great oolite quarried hard by. In the north of the city is a stratum of Fuller's earth, on which the residences are built, and beneath this is the inferior oolite, upon which and the lias the city, generally, stands, while lower down there are the red sand stones and the marls. The surrounding hills protect the inhabitants from easterly and northerly currents of air, and the result is that the climate is exceedingly equable, its mean temperature being from three to five degrees above that of any other city in the kingdom.

These facts in reference to Bath as a residence for invalids are, to my mind, more important than the fact of the waters, and I have wondered why the Profession of the city have not dwelt more on the questions of site, climate, and scenery, than upon the mineral springs. If a large winter palace of glass were erected in Bath, and were warmed after the manner suggested by Dr. Daubeny—I mean by application of the heated water which now flows into the Avon—Bath would be made one of the grandest resorts in the kingdom, perhaps in the world, for sufferers from various affections of the chest. Up to this time the city has not been famous as a resort for consumptives, simply because it seems to be an idea that the waters are not specific in consumption; but Bath is, in fact, the *beau ideal* of a winter residence for this class of invalid.

THE BATHS.

The baths of Bath are derived from four springs. One spring goes to the fountain in the Grand Pump-room, to the Mineral Water Hospital, to the King's and Queen's Public and Private Baths, and to a tepid swimming bath. A second spring goes to the Cross Bath only. A third goes also to the United Hospital, to what is called the Hetling Pump-room, to the Royal Private Baths, and to the Hot Public Bath. The fourth spring—the Kingston spring—belongs to the Earl Manvers, and supplies the Kingston Baths, to which a Pump-room is attached. The three first-named springs are the property of the Corporation.

The facilities for bathing and for the use of the waters are as good as can be wished; and the baths are the King's Bath, the Queen's Bath, the Cross Bath, the Hot Bath. These exclude the baths called the Kingston. The King's Bath is open, and, as we have seen, of great antiquity. In the year 1699 a statue of King Bladud was erected in the bath, beneath which was placed a grand inscription in memory of that famous potentate, and on the left hand of the bath was another inscription in poetry, of which the two last lines are a sufficient specimen:—

> "God and the King are here our free imparters,
> God gives the waters, and the King the charters."

The bath is capable of holding between 51,000 and 52,000 gallons of water. The temperature of the water is from 100° to 116°.

The Queen's Bath is also an open bath, capable of holding between 18,000 and 19,000 gallons of water. The temperature of the bath is 102°.

The Cross Bath, so called from a cross erected in the centre of it by the Earl of Melfort, in commemoration of the Queen of James the Second having bathed in it, is capable of holding between 11,000 and 12,000 gallons of water; the temperature is 100°.

The depth of all these baths is about four feet.

The Hot Bath is an open bath, capable of holding nearly 10,000 gallons of water. It also has a depth of four feet, or from that to four and a-half feet. It was originally called the Hot Bath because it was thought once to be of the highest temperature. The water, however, in the bath does not exceed 105 degrees, and is not in the main higher in temperature than that of the King's Bath. The poor, under certain conditions, and the out-patients of the United Hospital, are allowed to use the Hot Bath.

The Kingston Baths include a shower bath and a douche, a bath-room, and a hot-air bath. They are fitted up with great taste, and with reference to every comfort. The composition of the waters is not essentially different from the water of the King's Bath.

I need only add in reference to this subject that there are private baths, douche baths, a swimming bath, and every convenience that can be offered in the way of bathing in Bath.

MEDICAL BIOGRAPHY OF BATH.

William Turner, M.D.—The first Medical writer of celebrity in Bath was Dr. William Turner, whose writings began to appear in 1557. Turner was Dean of Wells. Dr. Falconer, writing on Turner's "Treatise on the Bath Waters," as the earliest publication on the subject, says—"He (Turner) recommends several alterations in the baths for the benefit of the bathers, and for preserving the water clean, and states that the waters owe their chief virtues and strength to brimstone. Turner was born at Morpeth, in Northumberland, and died on July 7, 1568."

John Mayow, whom some of us know for his physiological researches—who, according to my view, first discovered the properties of, if not the substance, oxygen—is connected with the history of Bath, in which city he was accustomed to practise during the summer months. He wrote a treatise on the Bath waters, in which he showed an advanced knowledge of their composition. Among other things, he exposed a trick at that time practised by the guides, to show that the Bath waters gave a yellow tinge to silver. He also proved that the residue of the Bath water, after evaporation, did not deflagrate. Mayow was born in London on September 17, 1621, was a scholar of Wadham College, took a degree in civil law, and afterwards studied Physic. He died in September, 1679, and was buried in St. Paul's, Covent-garden. It was this Mayow who did the great experiment of showing the change of arterial into venous blood under artificial respiration.

George Cheyne, M.D., F.R.S.—Known amongst us as the author of works on "Theory of Fevers," "Fluxions," "Philosophical Principles of Natural Religion," and "The English Malady," is connected with Bath by a paper which he wrote in 1730, entitled "Observations concerning the Nature and Due Method of Treating the Gout, for the use of my worthy friend, Richard Tennison, Esq.; together with an account of the Nature and Qualities of Bath Waters." Cheyne was remarkable for his obesity. He weighed at one time thirty-two stones, but reduced himself considerably by following out a plan of diet now ridiculously called "Bantingism." Cheyne was born in the year 1670, and died at Bath in 1742.

T. Smollett, M.D.—Smollett, the historian, after becoming a domestic man, by marrying his beautiful Creole, Miss Lascelles, and after giving to the world his "Roderick Random," in 1748, took seriously to physic, and amongst other things published an essay, in 1752, on the "External Use of Water, with particular remarks upon the present method of using the mineral waters of Bath in Somersetshire, and a plan for rendering them more safe, agreeable, and efficacious." Whether he ever intended to practise in Bath is doubtful, for he seems immediately afterwards to have returned to literature, and to the production of those wonderful works in history and fiction which have rendered his name so distinguished. Smollett was born in the Vale of Leven, Dumbarton, in 1721, graduated at Marischal College, in Aberdeen, in 1750, and died at Leghorn in 1771.

William Falconer, M.D., F.R.S.—In the beginning of this century, perhaps no English Physician in the provinces held so distinguished a place as Dr. William Falconer, of Bath, in which city he practised for nearly half a century. In the rooms of the Medical Society of London his name stands foremost as one of the Fothergillian gold medallists of that venerable Society, and his prize essay on the "Influence of the Passions on Disorders of the Body" retains its place in our standard literature. He also wrote a book entitled "An Essay on the Bath Waters," which went through several editions; and he first collected by the pneumatic method the gases which escape from the waters. It is also possible that he was the discoverer of carbonic acid gas—a discovery usually attributed to Black. Falconer was born at Chester in 1744, and died in 1824. The present Dr. R. W. Falconer is the grandson of this Physician.

In our time the city of Bath has lost two of its eminent Practitioners—I mean the late Messrs. Soden and Norman. I have already referred to them, with due respect to their memories; and if I have no record to render of their scientific works, the regret belongs to the world and to me.

THE SECOND ROAD MURDER.—In the case of the child poisoned at Wells by corrosive sublimate, administered instead of Steadman's soothing powder, the coroner's jury have returned the following verdict:—"That the deceased came to his death by the administration of poison, having been substituted for Steadman's powders by some person or persons unknown."

THE ZOOLOGICAL SOCIETY.—The Council of this excellent Institution has just decided to appoint a Prosector in their Gardens to take charge of, and to dissect the bodies of animals which die in the Society's menagerie, and to perform such other anatomical and physiological work as the Zootomical Committee may direct, and to keep an accurate record of his dissections and observations for publication in the *Proceedings* or *Transactions* of the Zoological Society. Applications and testimonials for the appointment must be sent in on or before the 22nd proximo. The salary offered is £250. There are already so many good candidates in the field that the Council will have a difficult matter to make a selection.

REVIEWS.

A Treatise on Military Surgery and Hygiene. By Frank Hastings Hamilton, M.D., late Lieut.-Col., Medical Inspector U.S.A., Professor of Military Surgery and Hygiene, etc., in Bellevue Medical College, etc. Illustrated by 127 Engravings. New York: Baillière Brothers. 1865. Pp. 648.

At the commencement of the present unhappy war in America the author of this volume published a short treatise on military Surgery; the edition was soon exhausted, and in place of a new edition Dr. Hamilton has presented the Profession with an entirely new work—the result of his extended experience,—and a very excellent book it is. A great part is necessarily occupied by a discussion of gunshot wounds; but as the duties of a military Surgeon are far more extensive than the treatment of injuries, Dr. Hamilton discusses in separate chapters the subjects of general military hygiene, the examination of recruits, the arrangements for the hutting, billeting, etc., of troops, the conveyance of the sick and wounded, and other kindred topics. In our review of the book it is to these chapters that we shall especially direct attention.

The introductory chapter is occupied mainly by a discussion of the place which the Surgeon should occupy in a military organisation. It appears that questions of rank and privilege arise between the Surgeons and combatant officers in the United States army at any rate as frequently as they do in our own. Dr. Hamilton very properly claims for his *confréres* their rightful position, but he does so with a most commendable moderation of tone and language. The letter of the Act of Congress of February 11, 1847, declares that "the rank of officers of the Medical Department of the army shall be arranged upon the same basis which at present determines the amount of their pay and emoluments; provided that Medical officers shall not, in virtue of such rank, be entitled to command in the line or other staff departments of the army." But notwithstanding this, there have been those who have refused compliance with the law upon the ground "that Surgeons are non-combatant, and that to combatants alone, upon whom, they affirm, rest the hazards and responsibilities of war, rightly belong its honours." Most ably does Dr. Hamilton refute this reasoning, and we cannot refrain from quoting a portion of his remarks upon this subject. "If exposure to hardship and danger," he says, "is to be the ground upon which rank is to be conceded to officers of the army or of the navy, we think the claims of the Medical officers may be easily determined. The Medical officers are exposed to the same hardships on the march or in cantonments as the officers of the line; and, while the latter have to incur the hazards of battle only occasionally, perhaps but once in a campaign, the former may be said to be doing battle daily, being constantly subjected to the dangers of pestilence by their exposure to the contagions and infections of crowded and unwholesome Hospitals. . . . But as compared with the quartermasters or subsistence officers, the hazards of the Medical officers are undeniably greater. The services of the first are never required upon the field; whilst the Surgeons are expected to accompany their respective regiments until the action commences—and then only to retire to some position of comparative but not absolute safety." And then, after quoting numerous instances of fatality which have attended the conscientious discharge of military Medical duty, he proceeds—"Napoleon always called his Medical officers 'my brave Surgeons,' and we believe that no class is less amenable to the charge of cowardice than Medical men generally. They are trained in a Spartan school, under, if we may so term it, a law of ethics which allows no man to turn his back upon danger. Whatever may be the peril, they are expected to go wherever their services are needed. They make no ado about it; nor are their names often mentioned in the official reports; and still less often are they brevcted for soldier-like conduct; yet they go, wherever they are called, quietly about their business, alone or in small detachments, in rain and in snow, by night and by day, on the march and on the bivouac, through watchfulness and fasting and fatigue, into the midst of malaria, contagion, and battle. Indeed the men who can remain cool and self-possessed in the midst of deadly contagions ought to stand well the fire of musketry. Can any one suppose that the forty Physicians who never turned their backs, but fell with their faces towards the enemy at Norfolk, or any one of those thousands—our compatriots in arms—who have fallen on other fields, have died any less heroically than Warren on Bunker's Hill? or that they would have marched any less steadily upon the batteries at Fredericksburg than did the brave men under Burnside and Hooker? We think they were all brave men alike, and alike entitled to public gratitude."—P. 30.

The following constitutes the daily rations of the soldiers of the American army:—"Pork or bacon twelve ounces, or as their equivalents salt or fresh beef twenty ounces; twenty-two ounces of bread or of flour, or twenty ounces of corn meal, or one pound of hard bread. To every one hundred men there may be issued also daily ten pounds of green coffee, or eight pounds of roasted and ground coffee, or one and a-half pounds of tea; fifteen pounds of sugar; eight quarts of beans or peas; ten pounds of rice or hominy; four quarts of vinegar, and two quarts of salt. There is allowed also in addition to the above to every hundred men one gallon of molasses, and three times per week one pound of fresh potatoes to each man, provided of course they can be obtained. When beans, peas, rice, hominy, or potatoes cannot be supplied in the quantities or proportions allowed by regulations, an equivalent in value is allowed of any other proper vegetable food; as, for example, desiccated potatoes one ounce to each man, or mixed desiccated vegetables one ounce to each man. In case also it is thought proper, and when the supply on hand will permit, these desiccated vegetables may be issued instead of beans or peas, or instead of rice and hominy. Fresh beef may be issued daily instead of salted meats if a sufficient supply can be obtained and the health of the troops demand it. Moreover, at the discretion of the commanding officer, onions, cabbages, beets, carrots, and various other vegetables may be occasionally added to the ration," p. 78. Dr. Hamilton speaks highly of the value of desiccated vegetables as a prevention of scurvy. With respect to the supply of vegetables to the army, Dr. Hamilton complains that subordinate officers evince as a rule little interest and manifest no alarm so long as men are not dying in considerable numbers from scurvy. "Even the Surgeons," he adds, "are not always fully awake to the danger which is upon them when one well marked case of scorbutus is brought to their notice. It is not often we find more than five or ten striking examples of scurvy in one regiment at a time, but if there is but one it ought to furnish a substantial ground of suspicion that the physical condition of the whole, or nearly the whole, of the command is impaired."—P. 82.

The chapter on "General Hygiene of Troops," from which we are quoting, abounds in valuable matter. The subject of personal cleanliness, he points out, has a wider scope than commanding officers are apt to acknowledge. "When no attention is paid to habits of personal cleanliness, when garbage lies everywhere in the company streets, and the air has a noisome odour both within and without the tents, we have found the men slovenly in their habits of dress, negligent of duty, but particularly attentive to sick-call; their muskets are rusty and out of order; their knapsacks are badly packed; they are improvident of their rations, and their cooking is badly done; they fall into line slowly, and straggle on the march; they are insubordinate, mutinous, without drill and discipline. They have no *esprit de corps*, no self-respect, no manliness, no courage, and they will not fight. These are the links which compose the chain; with defilement at one end, and cowardice at the other, commencing in the camp at Alexandria, and ending in the rout upon the plains of Manassas. They are inseparable, and, in our opinion, whoever is responsible for the one is responsible for the whole."—P. 92. The clothing of troops, of course, occupies a portion of this chapter. In the controversy between the relative value of cotton and flannel next the skin in warm climates, Dr. Hamilton decides in favour of the latter.

Dr. Hamilton throws in his experience in testimony of the superior value of tents or marquées over any other arrangement for Hospital purposes. "In January, 1862, after having organised the Central Park General Hospital in the city of New York, we found it necessary, on account of the appearance of Hospital gangrene, to erect tents, and these tents, eight or ten in number, have been occupied ever since. In neither of these extremes of climate (the valley of the Tennessee, Stevenson, Alabama, and Bridgeport are the other places referred to) and of season has there been found any difficulty in rendering the tents comfortable. . . One single fact which we shall state ought to settle for ever the value of tents for Hospital purposes. While we have seen many hundreds of cases of Hospital gan-

grene which have originated in buildings temporarily occupied, in transports, and even in well-constructed pavilions, we have never seen a case which originated in a tent; nor can we call to mind a case which was not at once benefited, if not speedily cured, by a transfer to a tent. Upon this point the testimony of all Army Surgeons with whom we have conversed is the same."—P. 133. Our readers will recollect the powerful arguments of M. Lévy to the same effect, arising out of his experience during the Russian war.

It is somewhat enlightening to the uninitiated, who read sometimes about bayonet charges in narratives of battle, to find that throughout the two chapters of Dr. Hamilton upon punctured and incised wounds not a single illustration is to be found based upon any such event. None of the wounds in the cases narrated were bayonet wounds. The chapters upon Amputations and Exsections are well illustrated by woodcuts, and are calculated to afford good practical information to the young military operator. Dr. Hamilton is no great advocate for the employment of anæsthetics, as may be concluded from the following summary of his views upon this subject:—"Anæsthetics are of inestimable value in their effects as remedial agents; in their power to extinguish sensibility temporarily, especially during the performance of certain painful Surgical operations; in the control which they exercise over muscular action, thus facilitating the reduction of dislocations, and in very many other ways. Anæsthetics, however, produce certain effects upon the system which tend to prevent union by the first intention, and, consequently, they must be regarded as, indirectly, causes of suppuration, pyæmia, secondary hæmorrhage, erysipelas, and Hospital gangrene. Ether ought generally to be preferred to chloroform, as being less liable to destroy life immediately; but no anæsthetic ought to be employed when the system is greatly prostrated by disease or by the shock of a recent injury, or by the loss of blood, unless the patient exhibits an unconquerable dread of the operation or the operation is likely to prove exceedingly painful. It ought to be particularly borne in mind that by the loss of a large quantity of blood the action of absorption is greatly increased, and that consequently such patients come more rapidly under the influence of the anæsthetic. The above conclusions have been well considered and are carefully stated, and we respectfully ask that Surgeons will at least attach to our opinions sufficient importance to induce them to continue their clinical observations upon the subject. . . . We are compelled to say that our success in capital operations, especially in primary thigh amputations, has not been as good since we began to use these agents as it was before."—P. 621.

The chapter upon Hospital gangrene is written by Dr. F. H. Hamilton, jun., who expresses his opinion upon the superior value of bromine as a local application over all other methods of treatment. The following are his remarks upon the method of using it:—"1st. If the operation promises to be a painful and a tedious one, Dr. Goldsmith advises that the patient be rendered insensible by the use of an anæsthetic. This I consider of doubtful propriety, inasmuch as I regard the depressing influence of chloroform as a predisposing cause of the disease. 2nd. The wound having been carefully cleansed by thorough sponging with warm water and soap, should be freed from all dead and gangrenous tissue by means of a scalpel or scissors aided by the forceps. The healthy tissue should be denuded as far as possible. 3rd. The surface to be treated should now be thoroughly freed from moisture. This is most readily done with a swab of linen on the end of a probe, with which the surface is carefully dried. Do not omit to penetrate the pouches and recesses. 4th. If the pure bromine be used, a small glass pipette should be introduced into the bottle containing the liquid, and then, being carried to the surface to be cauterised, thoroughly applied to every part. Cavities may be reached by means of small portions of lint dipped in the bromine and then carried by means of an eyed probe or a pair of forceps into the desired portion. 5th. It is frequently beneficial to paint the surrounding tissues to the extent of an inch, perhaps, with a solution of bromine, using a drachm of the bromine in four ounces of water. 6th. Immediately after the application of the bromine an emollient poultice should be applied. This tends to allay any undue irritation, and favours the speedy evolution of the slough."—P. 577. He considers the permanganate of potash to be scarcely inferior as a local application.

We recommend our own young military Surgeons to study this book. They will find in it very much that they ought to know, and each topic discussed is treated fully, but without verbosity, and amply illustrated out of the experience of the author.

The Practical and Descriptive Anatomy of the Human Body. By Thomas Hawkesworth Ledwich, F.R.C.S.I., and Edward Ledwich, F.R.C.S.I., Lecturers on Human and Comparative Anatomy in the Original (now the Ledwich) School of Medicine, Peter-street, Dublin. Second Edition, Revised and Enlarged by Edward Ledwich, Surgeon to Mercer's Hospital, Dublin. Fannin and Co. 1864. Pp. 779.

This is a very good book, albeit to our mind it has some serious faults in arrangement which a systematic work ought not to have. But after all the best sort of book for the use of a student of anatomy is just such as will direct him in the prosecution of the study while working with his own hands upon the subject, telling him what to look for at each step of his dissections, and how to look for it, and assisting him to observe with his own senses; and such as will serve to refresh his memory thus stored at a time when the objects he has looked at and handled are not before him. Mr. Ledwich's book certainly is not one of this kind, but still such a work as this has its uses.

Curvatures of the Spine; their Causes, Pathology, and Treatment. By Bernard E. Brodhurst, F.R.C.S. Second Edition. London: Churchill and Sons. 1864. Pp. 93.

Mr. Brodhurst's book is one of the best upon this subject that can be put into the hands of the young Surgeon who, except at special Hospitals, has for the most part few opportunities of becoming practically acquainted with this branch of his Profession. Mr. Brodhurst writes lucidly and concisely, and his researches are illustrated by a number of excellent woodcuts. This edition has been entirely re-written. The first part of the book is occupied by an account of the Physiological Spinal Curves, after which the Pathological Curves are discussed, a section being devoted to the Anterior, Posterior, and Lateral forms of curvature separately.

GENERAL CORRESPONDENCE.

MR. SYME AND ACUPRESSURE.

Letter from Professor Simpson.

[To the Editor of the Medical Times and Gazette.]

Sir,—Considering Mr. Syme's well-known character, he is certainly the very last man in the whole Profession who ought to venture to complain to that Profession of any supposed "personal attack" upon him. But assuredly, when, singlehanded, I attempted to reply fairly and frankly to the various arguments against acupressure that had been adduced by him and other distinguished Surgeons, I earnestly tried to avoid all personal discourtesies, though I spoke out my opinions earnestly and strongly, as I was entitled to do. And I am sorry indeed that any one—even Mr. Syme—should take umbrage at the tone of my reply.

Even, however, had I answered Mr. Syme in a very different spirit, and forgot myself so far as to descend to the use of personal discourtesies, I would have done nothing more than imitate a very bad initial example in the matter set me by another—that other being Mr. Syme himself. In truth, when Mr. Syme complains, as he does in his last week's letter to you, of "personal attacks," the whole case is merely and purely a case of mistaken identity. For in May, 1860, a few months after acupressure was first suggested by me, Mr. Syme read a paper on aneurism—not to the Medico-Chirurgical Society of Edinburgh, of which he was then a member, and where he would have been answered, but to the Medico-Chirurgical Society of London—and in the discussion which followed, in answer to a set question by Dr. Thompson, he stated to a large meeting of the metropolitan members of our common Profession that the "individual" who had proposed acupressure did not know "the meaning of Surgical language;" that "this proposal (acupressure) was the merest nonsense," one of those tubs which are constantly thrown out to amuse the whale, more especially the female whale (a); and latterly he went so far as, in his public class, to compare

(a) See *Medical Times and Gazette* for May 5, 1860, p. 458, and the *Lancet* of same date, p. 446.

this "individual" and his proposed employment of acupressure to "a quack and his powders," etc. One who could thus discourse was surely not entitled to make any plaint regarding personal attacks, even had I demeaned myself so far as to retaliate with them.

In addition to the discourtesies which he was allowed to utter to the London Medico-Chirurgical Society, Mr. Syme, on the same occasion, adduced what he himself considered three objections to acupressure. In his letter to you of last week he states that this expression of his opinions and objections gave offence to me. It was, no doubt, intended to do so; but, in reality, these three "encyclical" objections of his appeared to me so very feeble and *effete* as not to be worth the trouble of answering at the time. But last year, when writing a reply to all the arguments urged in various quarters against acupressure, I replied to Mr. Syme's three objections amongst the rest,—not that I considered them of the slightest weight; but I believe my omitting to notice them would have been interpreted as more disrespectful than my exposing their utter weakness and strange irrelevancy.

The head and front of my offending seems to consist in my using the word "foolish" in a prefatory note to the reprinted "Answers to Various Objections" adduced by different Surgeons. Mr. Syme avers that I have characterised as "foolish" his "deliberate statements" and instructions with regard to the subject of acupressure. Now, assuredly I have done no such thing. I have not characterised his "deliberate statements" on acupressure as foolish, whatever my private opinion may be. I applied merely the term in question to one of his objections (his second) as being really and truly not an "objection," in any sense of that word, to acupressure at all, and as having logically no bearing on the subject whatever. This second "objection" against acupressure was that if the ligature were discarded, bleeding arteries might be stopped by torsion. Virtually it was no more an "*objection* against acupressure" than it was an objection against the Armstrong gun or the fortification of Woolwich. If we wished to avoid deligation, we might close the bleeding arteries by the application of a red-hot iron; but surely it would be held by every Medical man an absurd or "foolish objection" to acupressure to urge that hæmorrhage might be arrested by cauterisation. And, to my mind, equally and totally ridiculous or "foolish," as an "objection" against acupressure, is the possibility of arresting hæmorrhage by torsion.

But, as the unfortunate phrase has offended Mr. Syme, I regret that I used it, and I most willingly withdraw it, and permit him and my readers to substitute for it any other adjective which they think milder and more fit.

Mr. Syme further complains that I have held up his teaching as wanting knowledge and good faith. I am quite at a loss to know how he could possibly draw any such conclusions from any remarks of mine. In refuting Mr. Syme's arguments against acupressure, I had little or nothing to do but to cite the opinions which, on the points involved, Mr. Syme had published before the days of acupressure. Certainly the statements thus adduced and contrasted sometimes appear to contradict each other most painfully; but these contradictions of Mr. Syme were almost all made by Mr. Syme himself, and not by me. They were mostly confutations of Mr. Syme's Surgical opinions, not by me, but by Mr. Syme. I am not surely answerable for Mr. Syme now and again systematically confuting himself in regard to his Surgical opinions; and if he does not always agree with himself in his Surgical doctrines, surely I may disagree with them also. And I know of no reason why I may *not* differ on Surgical points from Mr. Syme, and why I may not freely express that difference, too. Nor am I without hopes that he may change his opinion on some Surgical points on which we at present utterly differ. I have always advocated ovariotomy. After virulently denouncing that operation for years, Mr. Syme latterly has given in his adhesion to its propriety. At first he opposed anæsthetics in Surgery—as strongly as he now opposes acupressure. Yet betimes he yielded on that question.

In his bitter opposition to acupressure, Mr. Syme objects to reasons solely from theory and hypothesis, and not from practice. He has not yet, I believe, in a single instance either himself used, or seen other Surgeons use, acupressure, and hence he is still entirely unacquainted with the subject practically. The Surgeons of the Hospitals of Aberdeen, Edinburgh, Glasgow, etc., who have employed acupressure are necessarily in a far better condition to pronounce judgment upon it; and their judgment as to its simplicity and efficiency would, I have reason to know, be totally the reverse of Mr. Syme's. I felt from the first that, considering Mr. Syme's advanced age and his temperament, there was little or no chance whatever of his ever adopting a practice so revolutionary as acupressure. But I hope that his non-adoption of it will not be considered by my Professional brethren any reason why I should cease to defend against him, and its other opponents, a practice which I conscientiously believe will, after a time, assuredly and beneficially supersede the ligature in most, if not in all, operations. Already in fifty months acupressure has spread more than the ligature did in fifty years. But Mr. Syme seems to argue that it ought to be rejected by him and other Surgeons because it was suggested by an obstetrician. He forgets that a busy, practical Accoucheur has as many operations to perform as some Hospital Surgeons. If there were any truth in such narrow reasoning, the accoucheurs should reject from their code of practice version of the child in arm presentations, because it was introduced by Ambrose Paré, the Surgeon who first suggested the ligature of arteries. Surgeons should resist on the same ground the employment of chloroform by their patients, because it was first introduced and applied in Surgery by an accoucheur. I am a Member of the College of Surgeons as well as Mr. Syme, and I believe I bespeak the general sentiments of my obstetric brethren (I know I speak my own) when I say that if Mr. Syme will invent (what we much lack) some new, better, and simpler method of suppressing puerperal hæmorrhages, we will adopt the practice without cavilling at the special quarter from which it comes. The healing art, it has been justly averred, is one and indivisible; and all the members of it are bound to try and strive for the advancement and amelioration of it alike as a science and an art in all its departments.

Lastly, Mr. Editor, allow me in all kindness to observe that I lament greatly, for Mr. Syme's own sake, that he persists in maintaining, in his letter to you, that in destroying my pamphlet publicly before his class—by tearing it into pieces with his fingers—he "gave it the only reply it deserved." I appeal on this point from the opinion of Mr. Syme to the opinion of every gentleman belonging to our common Profession whether or not this was a proper piece of ethical instruction on the part of any teacher of youth, and particularly on the part of one, as Mr. Syme is, of the twenty-four members of "The Council of Medical Education in the United Kingdom." If he offer any further remarks on acupressure in your columns, I hope he will preface them by first offering a due apology to the Medical Profession, and to his own Medical school in particular, for this indiscretion. I am, &c.

Edinburgh, March 14. J. Y. Simpson.

P.S.—A correspondent of yours, in your number for March 4, page 237, alludes to the painful fact that Dr. John Brown, the representative or assessor of the Lord Rector in the University Court, was present at Mr. Syme's lecture on the occasion on which he immolated my pamphlet; and he suggests that probably Dr. Brown was there without having the least idea beforehand of what was to occur. I am very sorry indeed to contradict this. At first I believed it impossible that he could have been present, or at least could have remained present. But when I asked him, in presence of some mutual Medical friends, he stated both that he *was* at the lecture and that he had gone to it knowing that my pamphlet was to be attacked. How much higher a position would have been taken by Dr. Brown if, instead of abetting Mr. Syme in his unacademic proceedings, he had, as Mr. Syme's chief friend and adviser, kindly and honestly counselled him against them.

SOUTH AMERICAN BEEF.

Letter from Dr. Ballard.

[To the Editor of the Medical Times and Gazette.]

Sir,—With the present high price of butchers' meat—so high that one wonders how a proper proportion of wholesome animal food can find its place in the diet of the poor—the recent importation of South American beef, about which much has been written in the daily papers and in our periodicals, is of sufficient importance to render Medical men careful how they discourage its use on the one hand, or lend themselves to puffing it on the other. The few lines which you devoted to the subject last week induces me to believe that you will not be unwilling to find room for some practical observations upon the subject.

The South American beef appears in the shops in two forms —in the one it is dry, in large hide-like pieces; in the other it is moist and compressed. The first sample of the moist compressed meat that I saw was brought to me by Mr. Bradley, the Surgeon of the Pentonville Convict Prison, several weeks ago. As I saw it in bulk it was in the form of a large compressed block, made up of layers, fat and lean alternating in the section. The beef had been salted. After keeping for a few weeks exposed to the air the surface became rusty, and some of the beef, both the lean and fatty portion, dark and decomposed. When the sample was newly opened it had a strong *cheesy* odour, so strong as to be offensive at a considerable distance in a room. This meat had been sent to the prison from Liverpool. The offensive cheesy odour became more apparent during the process of cooking. The Governor of the prison informs me that the *loss* in cooking amounted to 50 per cent. In his experience the loss on boiling fresh meat for the prisoners' rations, including loss from bone, is about the same. But, then, much of this loss in the fresh meat consists of extractive matters, which are utilised by the liquor being converted into soup. In the case of the South American beef the quantity of salt drawn out in the cooking would have rendered the liquor valueless, even had no loss of extractive matters taken place in the process of salting. When it is considered that the price of the South American beef was 3d. per lb., while the contract price of fresh beef is 5½d., it will be seen that, had this meat been eatable, there would have been no saving effected by its use.

The next sample came under my notice in this way:—At the beginning of last week one of my sanitary inspectors informed me that some South American beef was on sale at an oil shop in my district, and that having inspected it he did not think it was fit for food, and asked me whether he ought to seize it. I told him to be careful, and that I would see it myself. Accordingly, I visited the shop with him, and found that at his recommendation the sale had been suspended, and all the meat put back. Both kinds of meat were in store. The dry, hide-like pieces were rusty on the surface, and had a very slight *tallowy* odour. The rustiness was similar to that seen upon a flitch of bacon. I cut out a piece of the fleshy part, and munched it, but as, with the exception of its being highly salted, there was nothing disagreeable in its flavour, I told the tradesman that I could not object to its sale. The moist beef was in the form of a large roll consisting of flattened strips, fat and lean alternating, the whole roll being tied round with string. Most of the thinner strips had a membranous layer on one side of them, as if they were portions of the abdominal parietes of the ox. This, too, was salt, and the roll possessed the *tallowy* odour more strongly developed than in the dry beef. I could not bring myself to apply the same test to this, and left the beef put back as I found it. Since then I have had some of it cooked in the form of an Irish stew, of which Mr. Bradley, another gentleman, a member of my vestry, and some of my own family, partook, as well as myself. No selection of pieces was made; it was cooked as fairly cut from the roll—fat, lean, and membrane all together. It was first soaked in cold water for twenty-four hours—this was the time I was recommended to soak it, but probably it was rather too long,—and the water was changed once. Two pounds, after soaking, weighed 2¾ lbs. It was now gently stewed for about 2½ hours, with onions, carrot, turnips, and potatoes. There was nothing at all repulsive in the odour of the mess when brought to table —indeed, it smelt very savoury. Two of my children, knowing what it was made of, declined it; another, however, ate his dinner from it, and reported that "it wasn't very bad." Mr. Bradley ate a plateful of it, and my other friend only a little bit of the lean meat. The latter remarked that what he ate had a slightly tallowy flavour, and would not eat any more. Mr. Bradley and myself, who ate the stew fairly, coincided in our verdict. The meat was coarse, but quite tender. It was wanting in meaty flavour, and some of it tasted tallowy. Some pieces had no tallowy flavour, and on discriminating further it was found that the less agreeable pieces were those to which portions of membrane or fat were attached. One piece that I had was so tallowy that I could scarcely swallow it. The general conclusion that I arrived at was that, putting the nutritious quality of the meat out of the question, the sample I used (which, I was assured by a director of the Company, was a fair sample of that which they supplied) was not unwholesome, and that although it may not exactly suit the fastidious appetite of such as get but little active bodily exercise, it may be very acceptable now and then as forming a cheap meal for a man who has become hungry from hard bodily labour. Probably the meat would have been more pleasant had all the membrane and fat been removed before cooking, but then fat is a very important dietetic element in meat. Of course I informed the tradesman from whose shop the sample came that I could not object to the continuance of the sale.

I have been informed by Mr. Richardson, a director of the South American Beef Company, that only one cargo has been imported, and he accounted to me for the manifestly unwholesome character of the first sample I saw by stating that some damaged dry beef had got into the market, and had been manipulated prior to being offered for sale, the salt having been removed and treacle having been used subsequently in preparing it; but that the Company had nothing to do with this. It is to be hoped that future importations will be of an altogether better quality. I have myself no doubt that, were a more careful method of preservation adopted, there is here a promising field for the employment of British capital.

I am, &c.

Edward Ballard,
Medical Officer of Health for Islington.

Islington, March 11.

"OUGHT BUBO TO BE RESOLVED?"

[To the Editor of the Medical Times and Gazette.]

Sir,—Your correspondent, Gwynne Harries, M.B., London, in your number of the 11th inst., seems very sanguine of the ultimate success of his views on the treatment of bubo when he so confidently asks "Twenty years hence shall we find a man who bedaubs an advancing bubo with iodine?"

With your permission I will make a few observations on the subject. In the second paragraph of his letter he says "It is not now necessary to determine whether there are two distinct lesions coupled under the name of chancre." Now this is a point long since determined, and on which is based the present treatment of the affection in question. He also appears to be of opinion that the presence or absence of bubo determines the nature of the sore. On this I cannot agree with him, and I would consider it very bad Surgery to wait for the appearance of the groin complication to determine one's treatment of the primary sore: in some instances you might wait for an unlimited period, for how often do we see a soft chancre heal without any bubo and followed by no secondary affections?

It is not my intention here to enter into the much vexed question of syphilisation, which has of late so much occupied the Profession at home and abroad.

The present universally received doctrine on syphilis teaches that there are two distinct varieties of local sore or chancre, *hard* and *soft*. This, if my memory serves me right, is M. Ricord's division.

The hard or Hunterian or true infecting sore is most usually single. In its treatment mercury is generally considered necessary; by some indispensable. It is followed by an indurated condition of the glands in the groin, which show no tendency to suppurate, and attended by the usual train of secondary and tertiary complications, as scaly eruption, excavated ulcer of tonsil, periostitis, nodes, etc. A person labouring under this form is not exempt from contracting the next.

The soft or non-infecting chancre is generally multiple. Although an alterative course of pil. hyd. is usually administered, mercury is not necessary in the treatment of this form, and should not on any account be given if the sore show a tendency to slough. This has greater proximate dangers than the hard—viz., plurality, tendency to slough, and consequently hæmorrhage and bubo. The dangers of the hard are remote, and it is unnecessary to specify them. I consider the soft chancre to be a local sore without a tendency to constitutional taint, the groin affections being the result of the irritation of the sore which has a tendency to multiply and spread, not being limited by a hard base as the infecting chancre is.

In cancer of the penis we have an indurated condition of the glands in the groin similar to that produced by the hard chancre; now, if the soft has a tendency to implicate the constitution, why does it not follow the same course as the hard chancre and cancer, which are, undoubtedly, constitutional affections, and like them give rise to induration instead of suppuration?

Again, granting for a moment Mr. Harries' hypothesis to be correct, would our experience in the two modes of treatment warrant us in adopting his views? I hold it would not—*e.g.*, take a case of ordinary sympathetic bubo: if we succeed in "putting it back" by the usual means the patient is all right in a short time, but if, on the contrary, our endeavours do not succeed, he is often brought to the brink of the grave and takes months to recover. I have seen strong men so reduced by a suppurating bubo as to be unable to rise from their bed without assistance. I hold the same to be the case with a bubo following a soft chancre, and I think no man in his senses should, for a moment, hesitate between the very doubtful possibility of a slight constitutional taint, and the frightful debility and disturbance produced by a sloughing bubo.

Take a case in point: a person of tubercular tendency contracts a soft chancre, and in the course of time tenderness in the groin is developed. Now, if this is treated in the usual way and "put back," the chancre has no accelerating effect on that tendency; but if it be treated on Mr. Harries' plan the chances are three to one the patient dies of rapid consumption.

I think I have now said sufficient at least to show Mr. Harries the necessity of pausing well before broaching such dangerous doctrines.

I wish it to be understood that these observations are made not for the purpose of inviting a newspaper discussion, nor yet with a wish to cram my opinions down other people's throats, but, in the spirit of good fellowship, to deprecate the publication of a theory which, if acted on by the inexperienced, might be fraught with such dangerous results. Apologising for trespassing so far on your space, I am, &c.

Dublin, February 19. A Dublin Surgeon.

THE WINCHESTER CASE.

Letter from Dr. A. Fergushill-Crawford.

[To the Editor of the Medical Times and Gazette.]

Sir,—You will see that your article of February 11th, entitled "The Good Samaritan at Winchester," has been partly the means of provoking a correspondence respecting "the case of Sarah Pearce, the navvy's wife," which has been published in the Hants county newspaper, and of which I send you a copy.

The chairman of the County Hospital, whose letter does honour to his candour and goodness of heart, admits that "there was a great and melancholy failure of the objects for which the Hospital exists when the poor dying woman was dismissed from its ward." At the same time he declares that "he had not the smallest suspicion that she was in a dangerous condition." And no one can doubt from the tone of his letter that this declaration may be implicitly relied on. Nor will any one possessed of charitable feelings refuse to listen to his appeal when he says, "I cannot acknowledge, indeed I feel sure that no one who knows me could suppose that I intentionally exercised any cruel or harsh authority in acting as—on the spur, and in the hurry of the moment—I did."

I myself, after a connection with the Hospital for nearly fifty years as Physician or governor, can bear witness that during that long period there has never been a chairman who displayed more deep felt interest in all the duties of his office; more particularly in studying to promote the comforts and welfare of the patients.

If the writer of your sarcastic article wishes to know how the rev. chairman performs his sacred functions as a pastor of the church, he must not repair to "the Cathedral of Winchester," with which he has no connection; but if he will seek out a small retired village a few miles distant, and inquire of his parishioners, he will find that he is an exemplary and faithful minister, with a benefice of £300 a-year, and that among the poor and afflicted in his parish he is really and indeed "the Good Samaritan."

I am, &c. A. Fergushill-Crawford, M.D.

Winchester, March 11.

Medical Charities.—Miss Elizabeth Hervey, late of Park-street, Grosvenor-square, has just bequeathed to St. George's and King's College Hospitals and the Cripples' Home £250 each, and moreover, directs that these legacies be paid free of duty.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, March 7.

Dr. Peacock, President.

A report was read on Mr. Mason's case of

DISEASE OF THE PROSTATE.

The reporters, Mr. Henry Thompson and Mr. Mason, believed the disease was the result of chronic inflammation, and that it was not scirrhus. From the naked eye appearances it had been at first considered to be cancer both by Mr. Mason and Dr. George Johnson.

Dr. Semple exhibited on the living subject

A RARE FORM OF SKIN DISEASE, KELOID OR MOLLUSCUM.

The patient was a child, 2½ years old, who presented over the left eyebrow, between the eyebrow and the eyelid, a hard, round tumour of the size of a large pea, of a red colour, and discharging a small quantity of sero-purulent fluid at its summit. This tumour had existed for six months. On the chest, on the left side of the sternum, near the clavicle, was a hard tumour of the size of a small pea, and of the same colour as the skin; this tumour had existed two years—indeed, since the child was six months old. On the forehead there were two or three other hard tumours, of about the size of a millet seed, not painful to the touch. These tumours appeared to correspond in many respects to the keloid or cancroid tumours described by Alibert, although his description was so vague that it was difficult to give an exact definition of what was meant by authors in writing of keloid tumours, for some represented them as projecting, globular, or oval masses, while others regarded them as resembling the scars of a burn. If the tumours were not keloid in the child now produced for inspection, they belonged to the equally rare disease, molluscum.

Dr. Hare showed a specimen of

ULCER OF THE STOMACH.

The patient, a woman 76 years of age, had had no stomach symptoms until a few weeks before her death. She then began to suffer from pain after food. She was admitted for copious hæmatemesis, which had ceased when she came in. It recurred the same day, and she died by syncope. As had been diagnosed during life, an ulcer was found at the lesser curvature of the stomach. Its base was formed by the pancreas, and the hæmorrhage was from a perforation of the splenic artery.

Dr. Hare also showed a specimen of

PERFORATION OF THE SEPTUM VENTRICULORUM.

The perforation was not complete, as the lining membrane of the right ventricle was intact. It was at the base of the heart.

The President asked whether Dr. Hare regarded the specimen as one of malformation or of disease. When in Vienna during last autumn Rokitansky had shown to him (the President) three somewhat similar specimens, and appeared to regard them as due to changes in after life.

Dr. Hare said that, as the heart was healthy in every other respect, the defect was probably a malformation, and not due to disease.

Dr. Julius Pollock showed a specimen of

RUPTURE OF THE CHORDÆ TENDINEÆ OF THE MITRAL VALVE.

The patient, a woman 42 years of age, was under the care of Dr. Johnson in King's College Hospital. She had had rheumatic fever when 16 years old, and again when 37. Eleven weeks before her death she was suddenly seized with darting pain in the chest, palpitation, and dyspnœa. When admitted she still had dyspnœa and hæmoptysis, and the latter was aggravated by coughing. It was difficult to make out whether there was a bruit or not, but Dr. Johnson diagnosed that there had been rupture of the chordæ tendineæ. One of the chordæ tendineæ was found at the autopsy floating loose, and its free end was tipped with a fibrinous mass.

Dr. Bagshawe showed the

URINARY ORGANS FROM A MAN WHO HAD SUFFERED FROM SUPPRESSION OF URINE FOR TEN DAYS.

The left kidney was found to be occupied by large cysts, the true structure was quite destroyed, and the ureter was im-

pervious. The right kidney weighed seven ounces, and was little affected by disease; the orifice of the ureter into the bladder was occupied by a blood-stained plug. The ureter was but little dilated. In the first four days there were no symptoms, and there was no desire to micturate until the eighth day. Tensive uneasiness in the right lumbar region, a cold skin, and other indications of collapse, with great restlessness, increased during the last two days of his life. There was no coma throughout.

Dr. Leared showed a

GALLSTONE.

A lady consulted him for attacks of severe excruciating pain, to which she had been subject twelve years. Dr. Leared diagnosed gallstone. Two years afterwards she passed one. Dr. Watson had remarked how very rare it was to find gallstones when looked for, and in this sense the case was a rare one.

Dr. Hillier showed a

PORTRAIT OF A PATIENT THE SUBJECT OF TRUE LEPROSY—(ELEPHANTIASIS GRÆCORUM).

The patient was a man, 58 years of age, a native of Ireland. He had been an engineer in India, and had drank freely. He had a chancre, and had been salivated for it, but had never had any secondary symptoms. Face, arms, and legs were affected; his voice was hoarse, and in parts there was considerable loss of sensation. He died of typhoid fever. The autopsy was made in Dr. Hillier's absence, and, unfortunately the nerves and spinal cord were not examined.

Mr. J. Z. Laurence referred to a case which had been shown to him by Schrœder van der Kolk. There was considerable anæsthesia, and the patient had lost several toes.

Mr. Balmanno Squire showed the

PHOTOGRAPH OF A PATIENT THE SUBJECT OF COMPLETE ALOPŒCIA.

Except on the eyelids, there were no hairs on the body. It had begun by bald patches on the head, which next extended to the whiskers, and thence over the whole body. Iodine applications had been used with no benefit. In a case somewhat similar, the iodine had arrested the progress of alopœcia.

Dr. Fuller showed a specimen of

ANEURISM OF THE BASILAR ARTERY.

The patient had had a blow on the head in the Crimea, and ever after had been subject to fits of excitement on taking stimulants. He had, however, been only actually ill for five days before his death. He first had an attack of diarrhœa, and then an attack of convulsions. He got apparently well again, but the day before his death he had a second attack of convulsions, and was unconscious, but not apparently paralysed. At the autopsy blood effused from a ruptured basilar aneurism was found at the base of the brain and also in the spinal canal.

Dr. Murchison related a case in which, after epileptic attacks for some time, death resulted from rupture of an aneurism of the middle cerebral artery.

Dr. Buchanan showed specimens illustrating

CHANGES IN MUSCLES IN TYPHOID FEVER.

It had been pointed out by Zenker that there was a peculiar kind of degeneration of muscular fibre in typhoid fever, and these changes were not found in typhus. Dr. Buchanan showed the microscopic appearances. There was fatty degeneration within the sarcolemma, and, in some specimens, a waxy degeneration.

Dr. Wilks showed a specimen of

ULCERATION OF TRACHEA, PROBABLY SYPHILITIC, OPENING INTO THE AORTA.

The patient had suffered for a long time with great difficulty of breathing, as if there was some pressure on the trachea. On examination of the chest and the larynx no disease could be discovered. The man died rather suddenly, after bringing up some blood. It was then thought that he must have had an aneurism of the aorta. The post-mortem examination showed that the whole of the trachea was much diminished in size, from a chronic ulceration, thickening, and contraction, which had involved the mucous membrane and submucous tissues. In some parts there were dense fibrous cicatrices. The appearance exactly corresponded with what is seen in syphilitic disease of the larynx, and the patient was said to have had syphilis. A small perforation had taken place just above the bifurcation direct into the aorta.

MEDICAL NEWS.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, March 9, 1865:—

Henry Maturin, Lymington, Hants; Edward Wood Forster 5, Victoria-terrace, Newcastle.

The following gentleman, also on the same day, passed his first Examination:—

Thomas Howard Brocklehurst, Manchester School of Medicine.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Brougham, J. P., M.D., has been appointed a Fellow of the University of Calcutta by the Governor-General of India in Council.

Bruce, H. A., M.D., has been appointed a Fellow of the University of Calcutta by the Governor-General of India in Council.

Davidson, Samuel, M.D. Aberd., has been appointed to the Commission of the Peace for the County of Aberdeen.

Gavin, William A., M.R.C.S. Eng., has been appointed to the Commission of the Peace for the County of Aberdeen.

Gunn, R., M.D., has been appointed House-Surgeon to Gray's Hospital, Elgin.

Kehoe, T. B., L.R.C.P. Edin., has been appointed Assistant Resident Medical Officer to the Cork Fever Hospital.

Lochhead, James L., M.D. Glasg., has been appointed Surgeon to the Greenock Gaol.

Reid, James, L.R.C.S. Edin., has been appointed to the Commission of the Peace for the County of Aberdeen.

Smith, W. F., M.B., has been elected Physician to the Public Hospital and Dispensary, Sheffield.

Wallace, Jas., M.D., has been appointed Admiralty Surgeon for Greenock.

Wilson, James, M.D. Aberd., has been appointed to the Commission of the Peace for the County of Aberdeen.

Woodman, Samuel, L.R.C.P. Lond., has been appointed Resident Medica Officer to St. Mary's Hospital.

DEATHS.

Blegborough, Hy., M.D. Edin., at Richmond, Yorkshire, on February 26.

Holland, George Calvert, M.D. Edin., at Sheffield, on March 7, aged 64.

Ladbury, John E., M.R.C.S. Eng., at Kidlington, Oxon, on March 9, aged 64, formerly of Upper Fitzroy-street, W.

Lynn, C., M.D., at Westgate, Newcastle-upon-Tyne, on March 1.

Plimmer, George, L.R.C.P. Edin., at Melksham, Wiltshire, on March 1, aged 63.

Smith, Chas., C.M. Glasg., of Newton Stewart, Wigtonshire, on February 28.

Turner, Thomas, M.D. Cantab., at 81, Curzon-street, Mayfair, W., on March 10, aged 93.

White, Richard, L.R.C.S.I., Assistant-Surgeon 23rd Regiment, at Delhi, India, on January 6.

Sir Rutherford Alcock, F.R.C.S.—This distinguished member of our Profession, who holds the appointment of Her Majesty's minister at Japan, has just returned with his family to England.

Royal College of Surgeons.—At the last meeting of the Council, Mr. F. Carpenter Skey, F.R.S., late President of the College, and Mr. Samuel Cartwright were elected members of the Dental Board, the term of office having expired of Messrs. Lawrence and Rogers. The Board now consists of Messrs. South, Arnott, Skey, Bell, Tonies, and Cartwright. The number of persons who have received the certificate of qualification in Dental Surgery from this College now amount to 280.

Apothecaries' Hall.—Dr. W. P. Brodribb has been appointed Secretary to the Court of Examiners of the Apothecaries' Society, an office vacant by the resignation of Mr. Alfred Randall.

The Margaret-street Infirmary for Consumption.—A legacy of £200, free from duty, has been bequeathed to this institution by the late Miss Brodie, of 7, York-place, Portman-square.

At a meeting of the Glasgow Medico-Chirurgical Society, held in the Faculty Hall, on Tuesday, March 14, the following gentlemen were elected office-bearers for the present year:—*President*—Dr. Ritchie. *Vice-Presidents*—Dr. S. Orr, Dr. Robert Paterson. *Council*—Dr. J. G. Wilson, Dr. Prichard Partick, Dr. Maclaren, Dr. Naismyth, Hamilton, Dr. W. T. Gairdner, Dr. Yeaman. *Secretaries*—Dr. Adams, Dr, Macleod. *Treasurer*—Dr. Coats.

The Hunterian Museum.—Some valuable additions have recently been made to the above collection, in the articulated skeletons of an adult and a young female gorilla, and an adult male and young chimpanzee. The collection of mounted skeletons of the great anthropoid apes in the College museum is now one of the richest in Europe. The new cases for the better display of the osteological series are now being fixed, and when completed will form one of the most striking features in the museum. The suggestion made by Mr. Flower (the worthy successor of Clift, Owen, and Quekett) was at once adopted by the Council, regardless of the great expense of these cases.

Poisoning by Arnica and Opium.—An inquest was held at the Swan Hotel, Alton, on Tuesday last, before Mr. J. R. Trodd, County Coroner for Hants, on the body of Mr. William Madgwick. The deceased, who it appears was suffering from a slight attack of chronic rheumatism, retired to rest about 10 o'clock on the evening of Saturday, the 11th inst., previous to which he procured an arnica liniment, composed of four drachms of arnica, two drachms of tincture of opium and compound tincture of camphor, to apply externally to the part affected by the rheumatism. This liniment he had been in the habit of using in a similar manner when suffering from rheumatism for the last six years. He also procured a pill and black draught, and on retiring he took the pill and intended to have taken the draught on the following morning. Both the draught and liniment were placed on a dressing-table in his bedroom in two small phials, which, although received from different chemists, were of the same size and shape, and the contents of both nearly of the same colour. About 6 o'clock on the following (Sunday) morning an attendant, who slept in the next room to the deceased, had her attention called to him by his knocking as if in need of assistance. She went to him, and on entering his room found him sitting, partly dressed, by the side of his bed, and he informed her that he had swallowed the liniment by mistake, instead of the black draught, and that on discovering what he had done he had afterwards taken the draught. She instantly informed the housekeeper what had happened, and Dr. Leslie was immediately sent for, who promptly attended, and found the deceased suffering from constriction of the throat, and experiencing great difficulty in breathing. The most energetic measures were immediately taken by Dr. Leslie to allay the effects of the poison; emetics were administered, the stomach pump was applied, and the whole contents of the stomach removed, but the efforts were unsuccessful, the active principles of the arnica having been rapidly absorbed, causing spasm of the glottis, and death from asphyxia. The jury returned a verdict of "Accidental death," and recommended that, for the preservation of human life, there should be a special enactment or a general rule to provide that all chemists should on issuing any poisonous liquid use a bottle of a different shape to that containing harmless drugs.

The Lochend Scandal.—The Free Church Presbytery of Inverness, at a meeting on Tuesday last, took up and disposed of the too-famous Lochend case. Four male heads of families made explanations. The substance of those statements was that in the examination of the women at Lochend nothing more indelicate took place than in the case of wet nurses when applicants for situations; that the practice was not unusual in the surrounding districts when any special or extraordinary circumstances called for it; that personally the minister had nothing to do with the examination, and never interfered with it; that the parents of the women examined sent for the Doctor without the knowledge of Mr. Macpherson; and that they considered the church and vestry as their own property, and that they could use these for the purpose required; but, if they had erred, they craved the Presbytery to attribute it to ignorance. Mr. Macpherson, the minister, "expressed his regret for having committed an error of judgment," and, in reply to a question, said he had mentioned in the pulpit that the impression was current that the mother of the child found dead had come from some other place than Lochend, because of the good character of the district, and that he understood that the parents had sent for a Doctor to examine the women of Lochend. The Presbytery declared Mr. Macpherson "liable to censure" for "having given countenance to a proceeding fitted to wound and shock every feeling of propriety;" and also expressed "the astonishment and serious regret of the Court" that, even through ignorance, the people of Lochend should have promoted and published such a transaction.—*Scotsman*.

Odontological Society.—At the monthly meeting of this Society held on the 6th inst., Thos. Rogers, Esq., President, in the chair, a letter was read from Dr. Weber, of Paris, accompanying some specimens of vulcanite and enamel, which were distributed among the members. Mr. T. Bate produced two specimens (teeth) found in a Roman cemetery during the excavations at Plymouth—the one showing, he said, that the ancients two thousand years ago were liable to suffer from toothache caused by decay; the other showing that in the development of teeth at that time the same laws seemed to hold good as were occasionally found now—namely, that the premolar was retained after the other teeth were developed. He regarded them as objects of antiquarian interest rather than physiological. Mr. Ramsay brought the patient he had introduced at the previous meeting, in order that the Society might judge of the progress of the case—one of cleft palate. He said the boy had practically worn the instrument only since the 18th inst.; but, notwithstanding his short practice, had much improved in his articulation. The boy read a few lines, and the President and others expressed their satisfaction at his progress. After a short discussion, Mr. Ramsay promised to read a paper explaining his method of treatment at the Society's meeting in May. The discussion of the papers read at the last meeting followed, in which Messrs. Cattlin, Tomes, Hulme, Vasey, Bate, Rymer, and Mummery took part. Mr. Bate mentioned a question put to him by Dr. Darwin whether any dentist had seen a third deciduous molar, and, if so, whether such a case was ever known to be hereditary. The President said he had seen three bicuspids on one side of the lower jaw; but he had no knowledge of the previous history. The thanks of the Society were accorded to the authors of the papers, and the meeting adjourned.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Inquirer.—You cannot do better than go to St. Mary's.

Dr. E. W. Sullivan.—We know of no such enactment.

C. B.—English watering places, with Hospitals or Infirmaries with beds:—Bath, Clifton, Buxton, Harrogate, Scarborough, Cheltenham, Leamington, Tunbridge Wells, Brighton, Southampton, Hastings, Dover, Bournemouth, Ryde, Isle of Wight, Torquay.

Corrigenda.—The Medical Editor of the forthcoming St. Bartholomew's Hospital Reports is Dr. G. N. Edwards, and not Dr. Andrews, as was stated in our number of March 4. In Dr. Ussher's letter on "a Midwifery Question" (*Medical Times and Gazette*, February 25), the name of Dr. Morris should be George Selwyn, not G. J.

The Norton Defence Fund.

Mr. Hugman wishes us to acknowledge the receipt of the following subscriptions:—T. H. Graham, Esq., 5s.; Oswald Foster, Esq., 10s.; Ed. Hall, Esq., 2s. 6d.; R. S. Francis, Esq., 5s.; Henry Lyell, Esq., 10s.; Dr. Gregeen, £1; J. Hargraves, Esq., 5s.; R. Elsdale, Esq., 5s.; Sine nomine, 2s. 6d.; From Lower Norwood, 5s.; James Stuart, Esq., 10s.; Dr. Ellis, 5s.; T. H. Fenn, Esq., 2s. 6d.; Messrs. Garlick and Cuff, £2 2s.; Dr. Rogers, £1 1s.; Dr. Essex Bowen, £2 2s.; J. Chapman, Esq., 10s.; Dr. Goss, 10s.; C. C. Balding, Esq., 5s.; Henry Boxall, Esq., 10s.; Dr. J. Evans, 5s.; W. Jarvis, Esq., £1 1s.; H. Fitt, Esq., £1 1s.; A. Percival, Esq., £1 1s.; — Hayward, Esq., £1 1s.; F. Gethen, Esq., £1 1s.; C. Hyde, Esq., £1 1s.; M. Rowell, Esq., 10s. 6d.; W. Wright, Esq., £1 1s.

Griffin Testimonial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following subscriptions have been further received on behalf of the above fund:—Dr. John Ewens, Blandford, 5s.; Dr. Barker, Bedford, 5s.; N. Godfrey, Esq., Turvey, per ditto, 5s.; Dr. Sprigge, Great Barford, per ditto, 5s.; J. F. Williams, Esq., Cranfield, 5s. Amount previously announced, £117 11s. Received at *Lancet* office, £7 17s. 6d.

I am, &c. Robert Fowler, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, March 15.

Application of Tincture of Iodine to the Chest in Phthisis.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In your notice of Dr. Latham's book on phthisis, I observe that this author objects to the application of tincture of iodine to the subclavian space in phthisis, on the ground that he has frequently seen it, when thus applied, produce absorption of the pectoralis muscle.

I never before saw this point noticed as an objection to the application of iodine over the muscle, and I cannot but think, with you, that the muscular waste is but an event in the progress of the disease. Nevertheless, the fact of such an effect of the iodine being even suggested as possible confirms me in a fancy that I have for applying tincture of iodine in and about the axilla of the side believed to be affected with tubercle, in preference to applying it over the thickness of the great pectoral muscle. I have thought that absorption is more rapid from the axilla, and I hold that the iodine exercises its beneficial action more by being absorbed than by acting as a counter-irritant.

I am, &c.

John C. Thorowgood, M.D., M.R.C.P. Lond.,
Assistant Physician City of London Hospital for Diseases of the Chest.

Finsbury-circus, March 11, 1865.

Government Life Insurance Fees.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Would you be kind enough to say what I should do in regard to accepting the office of Medical referee to the Government life insurance connected with the Post-office? You have most likely seen the circulars issued, proposing to pay the Medical man from 2s. 6d. to 5s., according as the amount insured is under or over £60. What is the general feeling of the Profession upon the subject? It has little lucrative advantage to recommend it: it may be a question whether we should not disregard personal considerations and assist Government in carrying out their project for the public good. I am, &c.

March 13. Village Surgeon.

There is nothing derogatory in taking a half-crown fee. Commissioners for taking affidavits do it over and over again.

Consanguineous Marriages.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Since A. R.'s letter, which appeared in your number of January 14, I see a paper has been read at the Academy of Medicine by M. Voisin (see *Medical Times and Gazette*, January 28, 1865), which confirms his opinion that these marriages are harmless. Now, it is very desirable that the popular notion (which, in spite of A. R.'s notion that cousins will marry if they have a mind to, has a considerable deterring effect) should, if false, be removed, and my apology for intruding on your space must be my desire to see the subject discussed in your columns in such a way as may quiet the scruples of those who want some authority for disregarding tradition, or show those scruples to be well founded. I am glad A. R. intends recurring to this subject. I am, &c.

March 13. X.

On the Production of an Inverted Image by a Convex Lens.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Immediately after the publication of my last letter on this subject, I received a note from Mr. J. Z. Laurence, declining to carry on the discussion any longer in your paper, on the ground that you would soon refuse to insert any more letters on the subject, but inviting me to come to his house to explain my views; to which I replied that it was very uncertain when I should be able to spare a day to come to town, and mentioning at the same time what seemed to me farther proofs of the truth of my position; since which I have not had the pleasure of hearing from him. I do not flatter myself that he has found my arguments unanswerable, as in that case he would doubtless have written to say so, so the probability is that he has thought no more about it, and I have long since regarded the matter as dead and buried; but as you have this week inserted a letter from Dr. Zehender, of Berne, reviving the subject, perhaps you will be kind enough to find space for a few words more from me, the more so as I think Dr. Zehender cannot have clearly understood my meaning, as he says that if what I assert be true, "all we know about optics is erroneous." What he means by this I cannot imagine, unless he has understood me to say that no image is formed in the air,—a thing I never said nor meant to say. That the image is formed there I know full well, and that it can be made visible by being received on smoke or dust, or any unpolished surface; but I deny that it can be seen, at least when formed by lenses of short focus, by the naked eye, because the eye can only focalise nearly parallel rays, and the rays, after crossing to form the image, are widely divergent. That it can be seen by the aid of another convex lens placed at its focal length from the image, as in Dr. Zehender's second experiment, is, of course, true enough, because by that means the rays are rendered parallel; the combination is, in fact, the simplest form of telescope, and Dr. Zehender will find the fact alluded to in my first letter. But with regard to the binocular experiment, I can assure Dr. Zehender that I have honestly tried my utmost to persuade myself that I could see the image at the focal point, and taken every means I could devise to cross my visual axes as he directs, but without the slightest success; and why he should think that I might succeed even better than himself when he can hit the place to within the twentieth of an inch, which seems to me as near perfection as possible if he was ignorant of the focal length of the lens he was using, I cannot imagine. I suppose I am not wrong in assuming that all the gentlemen who have honoured my communications with their notice admit as an established fact that the eye can only focalise nearly parallel rays, and if they do so, how do they account for its being able to focalise the very divergent beam that the rays from, say, a two-inch lens form after having crossed at the focal point? If they will explain this, and also how it is that a disk of one-eighth of an inch in diameter placed at the farther focal point of such a lens can blot out all the picture that appears on the lens, while it scarce affects the image thrown on the screen, and how it is that a strip of paper placed on the lens, or between it and the nearer focal point, can obliterate so much of the picture on the lens, but scarcely interfere with that on the screen, if they are one and the same; they will do more to convince me of my error than by any amount of instructions to teach me to see what I cannot see, and I will give up the question of the visibility of the image, and admit that it is my own stupidity which prevents my seeing it. Till they have done that I do not see that I can be reasonably expected to trust their eyes in preference to my own.

I do not admit the truth of the explanation of the disk experiment given by Mr. Laurence (the only person who has attempted to give one), viz., that it acts by stopping the central rays, because it would do that more effectually by being struck on the lens, and it is not only the central rays that are stopped, but all those which, falling on the lens, are capable of entering the eye, which is not the case if it is stuck on the lens; and, moreover, why should stopping the central rays have so much more effect on one image than the other, if they are both the same?

But how easily are all these difficulties explained if the two images are not the same. As the eye can only appreciate parallel rays, those which it receives from the lens must be parallel, and to be so after refraction through the lens, it is obvious they must emanate from the farther focal point; or, to reverse the matter, draw parallel rays from the eye to the lens, they will, after refraction, meet at the farther focus, cross there, and proceed to the points of the landscape represented on the lens; therefore a disk placed at that point will interrupt them, and an equally small aperture in a diaphragm allow them to pass.

Thus Dr. Zehender will see that I am not attempting to upset the whole theory of optics, but merely trying to show that the generally received explanation of a certain phenomenon is incompatible with a well-known fact, while a perfectly satisfactory one can be given consonant with all laws of optics.

I have endeavoured to make my meaning as distinct as possible at any sacrifice of elegance, as your correspondents do not seem to have clearly understood my former letters, and if I have now left anything indistinct, I can only say that I shall have great pleasure in forwarding them diagrams if they will favour me with a note, though I can hardly think them necessary. I am, &c.

Winchmore-hill, March 1. John Cresswell.

COMMUNICATIONS have been received from—

Mr. G. Cowley; Dr. A. F. Crawford; Mr. R. Griffin; Odontological Society; Dr. John C. Thorowgood; Dr. Gairdner; A Surgeon-Major; Dr. John Whitmore; Dr. W. J. Williams; Dr. Bence Jones; Dr. Wyber; Dr. James Arnott; Dr. M. T. Sadler, Jun.; Apothecaries' Hall; Royal Institution; Mr. F. Abbott; Dr. R. Gilborne; Mr. John Mellor; Dr. Henry J. Yeld; Dr. E. G. Wake; Dr. R. W. Latham; Mr. W. Troup; Mr. W. M. Wilkinson; X.; Inquirer; Village Surgeon; W. A. R.; Humanitas; Ethnological Society of London; Cucullus; A Surgeon of the Bengal Army; Dr. Robert Fowler; Dr. H. Osborn; Dr. Fotherby; Dr. Ussher; Mr. John Binks; Medicus; Dr. James Adams; Dr. F. Cook; Mr. Fairleigh Clarke; Dr. Sullivan; Dr. Henry Osborn.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 11, 1865.

BIRTHS.

Births of Boys, 1151; Girls, 1075; Total, 2226.
Average of 10 corresponding weeks, 1855-64, 1903·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	770	738	1508
Average of the ten years 1855-64	684·6	664·5	1349·1
Average corrected to increased population..	..	..	1454
Deaths of people above 90	..	..	11

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	..	3	5	2	8	4	2
North ..	618,210	8	3	16	3	22	15	..
Central ..	378,058	2	..	3	1	14	9	..
East ..	571,158	2	4	8	1	26	19	3
South ..	773,175	4	6	9	..	14	11	4
Total ..	2,803,989	16	16	41	7	84	58	9

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·490 in.
Mean temperature	37·3
Highest point of thermometer	46·6
Lowest point of thermometer	30·2
Mean dew-point temperature	32·1
General direction of wind	WSW,N,NW
Whole amount of rain in the week	0·45 in.

APPOINTMENTS FOR THE WEEK.

March 18. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

Royal Institution, 3 p.m. Prof. Marshall, "On the Nervous System."

20. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

Medical Society of London, 8½ p.m. R. Barwell, F.R.C.S., "On the Prevalent Mismanagement of Common Forms of Joint Disease." Dr. Brunton, "On the Treatment of Tapeworm by Male Fern and Kamala."

21. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Ethnological Society of London, 8 p.m. Clements R. Markham, Esq., "On the Arctic Highlanders." Dr. Rae, "On the Esquimaux."

Pathological Society, 8 p.m. Meeting.

Royal Institution, 3 p.m. Prof. Masson, "On Recent British Philosophy."

22. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

Hunterian Society, 8 p.m. Dr. H. Davies, "On the Treatment of Acute Rheumatism by Free Blistering."

23. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Royal Institution, 3 p.m. Prof. Masson, "On Recent British Philosophy."

24. *Friday.*

Operations. Westminster Ophthalmic, 1½ p.m.

Royal Institution, 8 p.m. Prof. Westmacott, "How Works of Art should be Looked at."

ORIGINAL LECTURES.

LECTURES ON
CHEMICAL AND MECHANICAL DISEASES AND THEIR RELATIONSHIP.

By H. BENCE JONES, A.M., M.D., F.R.S.

Lecture IV.

DISEASES OF SUBOXIDATION.—ON ACID GRAVEL.

In this and in the following lecture on gout I intend more particularly to bring before you the mechanical and mechanico-chemical consequences of the acid diathesis—that is, of excess of acidity.

The relationship that exists between chemical disease and mechanical disease cannot be more clearly set forth than in the production of gravel or stone from errors in the chemistry of life.

I have dwelt only on chemical disease in the two first lectures on diabetes and acidity, and I have given you a particular instance of chemical error and of its mechanical consequence, or secondary disease, in the last lecture on the oxalic diathesis; I intend now to occupy your attention with the mechanical consequence of acidity in general; and I shall have occasion to show you that this secondary mechanical disease may produce tertiary chemical derangements vastly greater than the original primary chemical wrong out of which the secondary mechanical disease arose.

I have already explained to you the causes of acidity. I have now more particularly to dwell upon one of the results of that acidity; in short, on the nature of the gravel that is caused by excess of acidity, the means of detecting it, the symptoms it produces, its consequences or complications, and its treatment.

On the Nature of the Gravel that is caused by Over-acidity.

Generally speaking, it may be said that all the albuminous substances of vegetable or animal food, before they are thrown out of the body, pass through the stage of uric acid. A particle of albumen absorbed into the blood from the food may become part of an organ and serve the purposes of life, and then undergoing change become resolved into uric acid, then into urea and oxalic acid, and finally into urea, carbonic acid, and water; or the particle of albumen may go through a shorter circuit, and without becoming part of any organ or texture it may be transformed into uric acid, and ultimately pass off as urea, carbonic acid, and water.

Thus uric acid, like sugar, may come from two sources—first from the food, and secondly from the textures; and as sugar is one of the results of healthy chemical action, through which, generally speaking, every particle of starch must pass, so uric acid is one of the substances through which each particle of albumen in health passes before it is thrown out of the body. When more food is taken into the blood than is wanted for the muscles, nerves, and textures generally, the excess is thrown out in a more or less perfectly oxidised form by the kidneys, skin, and lungs; it may be as uric acid, or if further changed as urea, oxalic acid, and water; or if burnt, as far as possible, as urea, carbonic acid, and water; or different portions of the albumen may be thrown out in all these different states at the same time.

The excess of uric acid in the urine of those who have just taken an excess of albuminous food, whether animal or vegetable, is very easy of proof.

The quantity of uric acid in the urine I found to vary (see *Philosophical Transactions*, Part II., 1849, p. 235)—

	Grains.	Grains.	Sp. gr.
Before food (mixed diet)	from 0·048	per 1000 of urine	1026·3
	to 0·17	,,	1023·1
After food it varied	from 0·39	,,	1021·0
	to 0·92	,,	1031·1
On vegetable food—			
Before food . . .	0·049	,,	1024·0
After food . . .	0·636	,,	1026·2
On animal food—			
Before food . . .	0·049	,,	1024·8
After food . . .	0·77	,,	1029·9
After three days of animal food only the highest amount was	1·022	,,	1027·8
After three days of vegetable food only the highest amount was	1·010	,,	1025·6

The second source of uric acid is in the muscles, nerves, and other textures of the body. Wherever albuminous substances exist—that is, in each portion of the body—integration is continually balanced by disintegration, and one of the products of this disintegration of albumen is uric acid, which, returns into the blood and, more or less oxidised, passes off by the kidneys, and is found in the urine when no albuminous food at all has been taken for many days.

Derived from either source, uric acid exists in combination with alkalies dissolved in a more or less alkaline fluid in the blood. In the cells of the kidneys and elsewhere a process of oxidation occurs; other acids are produced, and the alkaline urates are made into more acid urates, which pass out of the kidneys to the amount of six to ten grains of uric acid daily dissolved in an acid fluid which is continually varying in acidity. Hence the composition of the urates in the urine is continually differing at different times.

In a paper in the *Journal of the Chemical Society* for 1862, vol. xv., p. 201, I have shown that in health potass, soda, and ammonia are all combined with uric acid in varying quantities, and these mixed urates constitute the ordinary granular amorphous deposit which is soluble in the warm urine. In three analyses I find—

	First Analysis.	Second Analysis.	Third Analysis.
Uric acid . .	94·36	91·06	92·11
Potassium . .	3·15	3·78	5·06
Ammonium .	1·36	3·36	1·61
Sodium . .	1·11	1.87	1·20

These acid urates are sometimes combined with uric acid, forming still more acid urates, corresponding to quadoxalates, from which a portion of the uric acid is set free even by washing the amorphous sediment with water. If any acid acts on the acid urates they are decomposed, and uric acid is set free more or less quickly, according to the strength and temperature at which the acid acts. Thus, if in the cells of the kidney by oxidation mineral, vegetable, or fatty acids are produced, the urates are decomposed either in the tubes of the kidney, the pelvis of the kidney, the ureter, or in the bladder. Hence any acid whatever except the acid of extreme oxidation—carbonic acid—may give rise to uric acid gravel. Whatever the acid that may be taken in excess in the food, or whatever the acid that may be thrown on the kidney by inaction of the skin, or whatever the acid that may be produced in the stomach or in the kidney itself, if it decomposes the urates it may give rise to uric acid gravel. Acid phosphate of soda is not able to set free uric acid from the urates: free acid must be present; and hence free uric acid is the most delicate test of other free acids in the urine.

On the Means of Detecting the Acid Gravel.

In contradistinction to white or phosphatic gravel, and to black or oxalic gravel, this may be called red or uric gravel; but colour, though striking, is apt to mislead. Pure uric acid is as perfectly white as phosphate or oxalate of lime, and, though uric acid attracts to itself the colouring matter of the urine, and so becomes reddish-yellow, yet there may be next to no colour to attract, and so the gravel may remain white, and then chemical reactions or microscopical appearances can alone determine the nature of the deposit.

The chemical test for uric acid is very characteristic. The smallest portion of sand or gravel heated with nitric acid at a gentle heat is immediately oxidised. Among the products is murexan, which gives, with ammonia, the richest purple murexid, and by this reaction uric acid may be always known. Thus, however, you cannot determine whether the uric acid is free or in combination. Chemically this may be partially determined by fully oxidising the sand or gravel: if, on combustion, an ash remains, the uric acid is combined with some fixed base; but ammonia is volatile, and thus the surest method of determining whether the uric acid is combined or free is to observe the deposit as it passes in the urine with the microscope. Moreover, thus a single crystal of uric acid can be recognised; a quantity much too small to be tested chemically can be determined microscopically with certainty. Of course, errors of observation may arise, but the practised eye will learn to recognise the various forms of uric acid crystals, and possibly the peculiarity of form may lead to a knowledge either of the acid which set the uric acid free or of the composition of the fluid in which the uric acid was set free.

Having determined that free uric acid is present, it is of importance to know how soon the crystals form after the urine is secreted by the kidney—whether they form in or out of the body. For this the urine should be passed into a bottle or

glass and examined immediately, and if no crystals are then seen every few hours a fresh examination should be made; and thus the amount of acid which is acting on the urates may be estimated and counteracted.

On the Symptoms Produced by Gravel.

When the red sand only forms after the urine is passed, it causes no symptoms whatever; but the acid or acids in the urine, which after a time liberate the uric acid, these may produce irritability of the bladder or of the urethra. Over acid urine sometimes causes excessive frequency and urgency of making water. The mucous membrane may be made so irritable that inflammation and all the symptoms and appearances of violent gonorrhœa may be produced; or the muscular texture of the urethra may be irritated, and spasm ending in spasmodic stricture may occur.

These chemical irritations do not, strictly speaking, proceed from the red sand; they come from the cause of the red sand; but they are necessary accompaniments of the mechanical irritations which the gravel occasions; and these we have now to consider.

As the gravel may form in the bladder, the ureter, or the kidney, so the mechanical irritations may begin in these different positions, and the symptoms will vary according to the part that is irritated.

We will take the mechanical symptoms produced in the kidney first, although the formation of gravel in the kidney is a sign of the greatest degree of acidity, because the urine only remains a few seconds in the kidney, whilst it may remain some hours in the bladder. The acid in the kidney must be much stronger, in order to set free the uric acid, than it need be in the bladder to produce the same effect, because less power in longer time produces the same result as a greater degree of acidity in a shorter time.

As long as the gravel is small, and lies unmoved in the pelvis of the kidney, no symptoms occur. During rest no microscopical or chemical signs or general symptoms show the presence of a foreign body in the kidney; but if sufficiently rough motion is made, then the gravel moves in the kidney, and, slightly scratching the surface, blood is mixed with the urine. The injury to the pelvis of the kidney may be far short of causing pain or visible blood; there may be so little that chemical tests for albumen may give no reaction of that substance; but yet the microscope may show distinctly a very few blood globules. These may come with motion and cease with rest. With much motion, much blood will come, and be visible in quantity in the urine; and this may occur without the least pain. So that I often ask my patient with hæmaturia from this cause whether he would know that anything was wrong if he were blind, and the answer is usually positively no.

Gradually as the gravel increases in size in the kidney, slighter motion brings blood, and pain, and uneasiness in the loin. Distension of the colon, with flatulence, when it presses on the kidney, causes considerable pain.

If the gravel does not pass into the ureter, very little pain arises until the increase of size leads to pressure on the kidney and absorption of structure. I have seen cases in which I have no doubt that calculi have been in the kidney for very many years. In proof of this I may mention, from among many others, the following cases of seventeen, twenty, and probably of fifty years' duration.

A needlewoman, aged 47, was admitted into St. George's having had occasional attacks of pain in the left side with blood in the urine for seventeen years. On deep pressure in front, below the left hypochondriac region, a hard oval tumour could be distinctly felt. The urine was acid; specific gravity 1015; contained blood and pus cells, plenty of vibrios, but no crystals of uric acid nor oxalate of lime.

A clergyman, aged 41, consulted me for the appearance of blood in the urine, which he had seen for twenty years. The urine was thick from urates, acid to test paper, and contained a few blood globules. He had been obliged to give up hunting because it brought on the blood in the water. I saw him occasionally for some years, and always with the same appearances in the urine.

An officer, aged 61, told me that for twenty-four years he had been subject to attacks of pain in the left lumbar region, with blood in the urine. Warm bath and rest always gave relief to the pain and stopped the blood. He had had innumerable renal attacks, without passing any stone, but was able to travel each year on the Continent without much inconvenience.

A carpenter, aged 61, consulted me for a continual pain in the left kidney. Sometimes a dead heavy pain, at other times most acute during work or when walking. He is then obliged to throw himself down on his back and side until the pain passes off. If detained even for a few minutes after his usual meal times the pain is often most acute. Any excitement will "either increase or subdue it." I found that the urine had the slightest trace of albumen and most distinct evidence of blood globules. There was no pus, no increase of mucus, and no crystals of any kind. The urine was acid. He said that when eleven years old the pain first came on very suddenly with blood in the urine. The pain had never since entirely left him, and the blood has very frequently been in the water. Latterly the pain had become more constant and more severe. For fifty years through an active life this man had probably had a stone in the kidney.

The symptoms produced by gravel in the ureter are much more severe than those produced by gravel in the kidney. The instant the gravel or stone produces mechanical pressure violent pain comes on. The funnel form of the commencement of the ureter allows the gravel easily to escape a short distance from the kidney; and hence after some sudden jerk or even a turn in bed the pain begins suddenly and is referred to the kidney itself. Through nervous sympathy, vomiting soon follows, according to the size of the gravel or stone and the size of the ureter. The narrow passage is more or less quickly passed, and with a slight obstruction at the still less elastic entrance into the bladder the mechanical impediment is over, and the symptoms cease.

The symptoms produced by gravel or small stone in the bladder correspond with those produced in the kidney. At first there are no symptoms at all; violent exercise may produce microscopic appearance of blood, but until the gravel tries to escape, or is thrown by contraction of the muscular texture on the neck of the bladder no pain is felt. Gradually as the stone increases, or the bladder becomes irritated and wants to contract frequently, blood becomes visible, and pain on motion and on emptying the water becomes severe. This pain is referred to the extremity of the nerves at the end of the penis. The flow of urine is momentarily broken by the gravel or stone stopping the passage. If the stone is small enough or the urethra large enough the foreign body escapes into the tube, and in a longer or shorter time it is driven out.

Although gravel may stop in the urethra and gradually increase there until mechanically removed, yet it is very unlikely that it should begin to form there. If the crystallisation commenced there the passing urine would rapidly wash the crystals away before they caused any symptoms; so that the urethra does not suffer primarily from wrong chemistry. But the peripheral pain of the glans penis, and the scalding of the urethra from the acid urine, and the mechanical injury which the sharp fragments of acid stones occasionally produce in the urethra after lithotrity; these all show that even the penis does suffer from mechanical secondary disorders arising from primary chemical complaints.

(To be continued.)

ORIGINAL COMMUNICATIONS.

SIX CASES OF OVARIOTOMY IN PRIVATE PRACTICE.

By T. SPENCER WELLS, F.R.C.S.,
Surgeon to Her Majesty's Household and to the Samaritan Hospital.

Between the end of November, 1864—the date to which the cases of ovariotomy are brought up in the first volume of my work on Diseases of the Ovaries—and the end of January, 1865, I have completed this operation nine times. Three of the cases were in Hospital. One of them proved successful; two patients died. The particulars will, I understand, appear among the "Hospital Reports." The six private patients all recovered; and the cases appear to be of sufficient interest to warrant the publication of the following notes:—

Case 1.—In November, 1864, I received a note from my friend Mr. Lawrence, a naval Surgeon, asking me to see a Peruvian lady who had come from South America for the purpose of having ovariotomy performed. She was 33 years of age, married, but childless: she had had one three months' abortion. Since her arrival in England she had been under the care of Mr. Savory, of Stoke Newington, with whom I

first saw her in consultation, and found her looking older than she really was, with a sallow complexion, and thin, but not excessively so. The temperature of the surface of the body was normal, although she complained of the coldness of the climate. There was no œdema of the extremities. The general health was very good; the lungs and heart healthy; the pulse 90; the urine normal. The girth at the umbilical level was 37 inches; the distance from the umbilicus to the ensiform cartilage, 8½ inches; to the pubic symphysis, 8½ inches; to the right ilium, 9½ inches; to the left ilium, 9 inches. The abdomen was occupied with an irregular tumour, which reached up as high as the epigastrium, but did not occupy either hypochondrium. In some places the tumour felt solid; in others it evidently contained fluid. The abdominal parietes were tense; there were no lineæ albicantes nor dilated veins. There was no tenderness on pressure, except at one spot just above the umbilicus. The catamenia first appeared at the age of 16, and had always been scanty. They were next expected about the 27th of November. There was no leucorrhœa. The uterus was slightly pushed over to the left side: it was freely moveable. The cervix and os were normal; the tumour could not be felt from the vagina. On inquiring into the history, I could trace no hereditary weakness. The patient resided at Calloa, in South America (a sea coast town). She had first observed a swelling on the left side about three years before coming to Europe. At this time she had a feeling of weight and oppression. Two years later she appeared to have had an attack of peritonitis. My diagnosis was "multilocular ovarian cyst, left side, no adhesions, pelvis free." We prescribed some steel and arranged to operate soon after the next menstrual period. On the 7th of December the menstrual flow ceased; and on the 13th I performed ovariotomy with the assistance of Dr. Wilson, of Glasgow, Mr. Toulmin, of Hackney, Dr. Ritchie, and Mr. Savory. Dr. Parson gave chloroform. The incision was commenced an inch below the umbilicus, and extended downwards four or five inches. There were no parietal adhesions: the omentum adhered slightly to the upper part of the cyst. The pedicle sprang from the left side of the uterus. It was from two to three inches long, and as broad as two fingers. It was secured in a small clamp, and kept outside without traction. There was no bleeding except from the abdominal incision. A piece of omentum was cut off, three vessels tied with fine silk, and the ends of the ligatures cut off short. The right ovary was healthy. The wound was closed with four deep and one superficial silk suture. The only peculiarity in the operation was, that a large multilocular tumour, weighing upwards of twenty pounds, was removed through a small opening, by successively tapping cysts one within the other. No fluid escaped into the peritoneum, and no sponging was needed. The diagnosis was verified in every particular. The patient recovered without a bad symptom. I removed the sutures on the third day. On the nineteenth day the bowels were moved for the first time by an enema. There was no inconvenience from the nineteen days' constipation. The clamp was not removed, as it gave no inconvenience, and did not fall off till the twenty-first day. This patient called upon me lately in excellent health, and is soon to return to South America.

Case 2.—In December, 1864, Dr. Bateman, of Canonbury, sent me a patient who was the subject of ovarian tumour. She was an unmarried servant, 27 years of age, of good constitution, and born of healthy parents. Eight years previously she had observed a swelling on the left side of her abdomen, low down. It was tender to the touch, but not otherwise painful. She had always menstruated very freely; her first period came on when she was 14, and the flow usually lasted a full week. Seven weeks before I saw her the patient had strained herself, and the tumour had increased very rapidly in size since. The last menstruation had occurred three weeks before her visit to me. She was a well-nourished woman; she was troubled with cold feet, but otherwise the temperature of the skin was normal. The tongue was clean, the appetite ravenous, the bowels habitually constipated. She slept well, and had excellent spirits. Breathing was perfect, the lungs in good order, the vesicular murmur being, however, a little weak in the right lung. She slept best on the right side. The heart's tones were normal; the pulse 88. The urinary system was in good order. The girth at the umbilical level was 33 inches; the distance from the umbilicus to the ensiform cartilage, 10 inches; to the pubic symphysis, 7½ inches; to the right ilium, 7 inches; and to the left ilium, 8 inches. A fluctuating tumour filled the lower part of the abdomen, reaching three fingers' breadth above the umbilicus, and extending more to the left than to the right side. The left loin was dull; the right was clear on percussion. The abdominal parietes were only moderately thick; there was no tenderness on pressure. The uterus was virginal, central, but far back. The tumour could be felt per vaginam between the uterus and the bladder. This patient was admitted into the Samaritan Hospital, and on December 18 I wrote in the Hospital Case-book, as my diagnosis—"Unilocular ovarian cyst. No parietal adhesions. Uterus free, but tumour is felt in front of it." As there were then in the Hospital two cases of pyæmia, with pyæmic scarlatinoid eruptions, I had the patient removed to a lodging in the neighbourhood on the 22nd. Before leaving the Hospital, Dr. Greenhalgh, one of the Consulting Physicians, saw her, and approved of ovariotomy. I performed the operation on December 23, with the assistance of Dr. Nicholson, of Antigua, Dr. Ritchie, and Dr. Wright. Dr. Parson gave chloroform. A four-inch incision was made, and the cyst extracted after it had been emptied. The pedicle sprang from the left side of the uterus. It was not thicker than a single finger, but was closely connected with the meso cæcum; so that when the clamp was kept out there was a very tight pull upon this fold of peritoneum, although there was but little on the uterus. The pedicle was temporarily secured with a clamp; it was then transfixed, tied in two halves with twine, and then surrounded with a silk ligature. All the ends were cut off short, and the stump was returned. There was a little bleeding from a superficial vessel near the lower angle of the wound, which required a ligature. The left ovary was healthy. The wound was closed by five deep and three superficial sutures. It is curious that, although the tumour was first observed on the left side, and there was persistent dulness in the left loin, while the right loin remained clear, still it was the right ovary which was diseased. For the first three days after the operation, there was a troublesome cough and wheezing at the chest. On the third day the catamenia appeared. On the fourth day I removed the stitches. Some of the suture tracks had suppurated, and the edges of the skin had not united well. The pulse was 96; the catamenia persisted. On the fifth day the catamenia were scanty. On the ninth day great relief was obtained by breaking up a scybalus mass in the rectum and procuring a motion by means of an enema. After the twelfth day the patient had a very severe attack of influenza. She got quite over it, and was sent back to the Hospital, on January 16, three weeks after the operation. The edges of the skin were then still ununited, although the deeper portions of the opening were perfectly closed; but she left the Hospital on February 1, 1865, and has since called on me in excellent health.

Case 3.—In the winter of 1862, an unmarried housekeeper, 39 years of age, consulted Mr. Chavasse, of Birmingham, with reference to a tumour which she had recently discovered in her left iliac region. It was well defined, firm, and of about the size and shape of an ordinary breakfast roll; and Mr. Chavasse had little hesitation in referring it to the ovary, although it did not produce much constitutional disturbance. Iodide of potassium was tried both internally and externally, but with no satisfactory result. The tumour, on the contrary, began to increase rapidly in size. Mr. Chavasse therefore advised the patient to consult me, and I saw her in September, 1863. She was a delicate-looking brunette; she came of a healthy family, and she had lived a quiet retired life nine years as companion to an invalid lady, and three years as housekeeper. When quite a girl she had had one or two chest attacks. The girth at the umbilical level was 32½ inches; the distance from the umbilicus to the ensiform cartilage, 7½ inches; to the pubes, 8 inches; and to either ilium, 8 inches. The abdomen was occupied by a tumour, which reached upwards to the left hypochondrium, leaving the epigastrium, right hypochondrium, and right iliac regions free, but extending beyond the mesian line several inches, on a level with the umbilicus. The tumour was evidently moveable. Fluctuation was to be perceived, but seemed to be due to peritoneal rather than to cystic fluid. There was neither crepitus nor tenderness on pressure, nor bruit. The catamenia remained quite regular. From the age of 25 they had been rather excessive during ten years, but lately there had been less flow. The uterus was pushed to the left side of the pelvis. The cervix was moveable, but the body appeared to be incorporated with the tumour. The os was soft. The vagina was shortened by the tumour, which could be felt pressing behind and to the right side of the uterus. My diagnosis was—"Multilocular (semi-

solid) ovarian tumour: portion in pelvis closely surrounding uterus." I told the patient that ovariotomy was her only resource, but I left the question of time to herself. During the next twelve months the patient was troubled with pain, dysuria, and a hacking cough. I saw her for the second time in October, 1864, and tried to relieve these symptoms. She came again in December. The tumour was much larger; the patient was scarcely able to get about; she was annoyed by frequent nausea and abdominal tenderness. The catamenia were still regular; the uterus was moveable; the tumour was still to be felt in the vagina, but it now appeared to be moveable. The catamenia came on on December 28. On January 2, 1865, the umbilical girth was 38½ inches; the distance from the umbilicus to the ensiform cartilage, 10½ inches; to the pubes, 10 inches; to either ilium, 12 inches. Emaciation was now very considerable. The temperature of the skin and the extremities was normal. There were neither varicose veins nor œdema. The tongue was white, the appetite capricious, flatulence troublesome, and the bowels habitually confined. Breathing was free; there was a slight hacking cough, but no expectoration. There was a slight tendency to pigeon-breast. The right lung was compressed by the liver, which rose as high as the fifth rib, and gave rise to mucous crepitation; a friction sound was audible an inch below and to the right of the right nipple. The heart was a little displaced upwards and inwards. On the 10th of January I performed ovariotomy, with the assistance of Dr. Evans, of Hertford, Dr. Ritchie, and Dr. Wright. Chloroform was administered by Dr. Parson. The incision extended from the umbilicus seven inches downwards. There were no adhesions. The Fallopian tube and a double layer of broad ligament ran across the front of the cyst. These layers were raised and divided, care being taken not to cut any of the large veins or cork-screw arteries seen in the broad ligament. The cyst was emptied and easily withdrawn. The pedicle was as thick as two fingers, very long and very vascular. It was secured in a small clamp, and kept outside without any tension whatever. There was not an ounce of blood lost during the whole operation. The opposite (left) ovary was about twice its normal size, and cystic. I opened one cyst in it, of about the size of a filbert, and evacuated some reddish fluid. The wound was closed by six deep sutures of Scotch twine, and four superficial ones of silk. During the operation nineteen pints of fluid were evacuated; the tumour itself weighed from eight to nine pounds, and consisted of a large mass, from which hung a semi-detached tumour, which had been sunk in the pelvis. The slight enlargement of the left ovary, and the small pendulous portion from the large tumour of the right ovary explained the manner in which the uterus had been felt surrounded by the tumour. The tumour was sent to the museum of the Royal College of Surgeons. The patient vomited once, just as she was recovering from the chloroform. At four o'clock the pulse was 109, thready; the chest oppressed; the respiration moaning; pain in abdomen great. Twenty minims of laudanum were thrown into the rectum. An hour after operation the pulse was 96; there was much retching, with mucus. In the first three hours after operation fifty drops of laudanum were given. The patient was easier, the pupils slightly contracted, the skin warm, and covered with perspiration. Later in the evening cramp became very troublesome in both legs. The patient passed a tolerable night, but was much troubled with constant wheezing at the chest. At 8 o'clock in the morning of the first day the pulse was 96, the wheezing persistent. An attempt was made to alleviate it by causing carbonic acid to be inhaled at intervals of four hours. This gave a little temporary relief. In the afternoon I cut away some of the slough; there was no pull on the clamp; the patient looked well. At night the pulse was 88; the patient was pretty well, but had been sick, and was restless and wheezing.

Second Day.—At 10 a.m. the pulse was 96, and soft; but the aspect was much depressed and almost jaundiced. There was tympanites and frequent vomiting. No flatus passed downwards; the rectum was empty, very flaccid, and dilated; the vagina was cool, the uterus free; there was no fluid in Douglas's space; no pull on the clamp; and, remembering the remarkable results of M. Beau's quinine treatment of peritonitis, I determined to try quinine in large doses by the mouth and rectum. At 11, champagne and laudanum were given by the mouth. At 12, ten grains of quinine, in two pills, were given. At 2 the pulse was 102; ten grains of hydrochloride of quinine, dissolved in one ounce of water, were thrown into the rectum. The intestines were now much distended with gas. There was great pain. The tightness of the bandage was complained of. A tube was passed into the rectum, but no gas passed. At 4 o'clock there was a free escape of flatus through the rectum-tube. At 5 some more flatus escaped. Twenty-five minims of laudanum were given by the mouth; there had been no sickness all the afternoon. At 6·30 the pulse was 128, full and soft; the patient felt much better. At 8·30 5 grs. of quinine were given by the mouth, and at 10 ten grains were given by the rectum.

On the *third* morning she was very restless; the face was dark; the pulse 130. The tympanites was, however, less, and flatus continued to pass by the rectum. There was no vomiting. From 1 a.m. till 5 pain was complained of. At 5 fifteen drops of laudanum were given by the mouth. At 8 a.m. she seemed better. The pulse was 101; the urine loaded, not scanty. Ten grains of quinine were given by the rectum. There was a little blood-clot in the vagina. At 9·30 a.m. the pulse was 112 to 116, full and soft; the aspect somewhat better. A little ringing in ears and palpitation showed that the system was saturated with quinine. Tympanites was considerable; I therefore Faradized the epigastrium, and in 15 minutes a fluid stool passed. At 1·30 the pulse was 110, with two or three distinct intermissions in the minute. At 4 the pulse was 108, the abdomen much distended, the urine not scanty. The patient asked for an oyster. At 6 Faradisation was repeated. Shortly afterwards the oyster taken two hours previously was vomited unchanged. Till 11 p.m. everything taken by the mouth was vomited. At 11 p.m. the pulse was 102, intermittent. The patient's face was dark, and drawn into deep furrows; she said she felt she was dying. The abdomen was much distended and was now painful to the touch. There was no pelvic effusion, no great heat of vagina; the uterine epistaxis persisted; the urine was still secreted. A soap enema was given; much flatus and a little fæculent matter came away. The bed was changed, and 35 minims of laudanum given by the mouth in a little champagne. For an hour there was a little quiet; but the vomiting soon recommenced, and the patient had a bad night. She refused stimulants; but at 5 a.m. next morning beef tea and port wine were injected into the rectum.

On the *fourth* morning the pulse was 108. There was occasional sickness; but flatus was passed by the rectum. A mustard plaster checked the sickness. During the day the nutritive injections were continued every three hours.

During the whole of the *fifth* day the patient remained tolerably easy. There was little distension; the urine was abundant; the pulse 120. Towards evening the bowels were moved spontaneously; and as afterwards the patient was very restless, one-fifth of a grain of morphia was injected under the skin at 6 p.m., and repeated at 11. Each dose was followed by refreshing sleep, lasting some hours.

On the *sixth* day the pulse was 112. The patient felt better, and said she was quite easy. There was no distension. I removed all the stitches, and found that the wound had healed, except in one spot, where there was a little discharge between two of the stitches. The bowels were moved four or five times during the day. Fifteen drops of laudanum were added to the enemata. The patient was now out of danger; her appetite returned; her pulse fell; and she slept well at night. The clamp came away on the thirteenth day. Occasional flatulence was relieved by cajuput oil. A tonic was administered, and in three weeks from the day of operation the patient was able to return home.

I have given the progress of this case after operation at some length, because I believe the quinine and the Faradization were both of very essential service. I do not remember a case where so rapid a pulse, such persistent vomiting, such extreme tympanites, so jaundiced a skin, such scanty concentrated urine, and such general depression, ended in recovery, and the commencement of the improvement followed the use of the quinine, while the good effect of the Faradization was evident at every application.

I have had an excellent report of this patient since her return to Birmingham.

(To be continued.)

PATRIOTIC FUND.—The Royal Commissioners of the Patriotic Fund have appointed Dr. Armstrong, Deputy-Inspector-General, Royal Navy, to be a member of the executive and finance committee of the Fund.

HYDATIDS PASSED BY THE URETHRA, PROBABLY FROM THE KIDNEY.

By MICHAEL T. SADLER, Jun., B.A., M.D., Lond., etc.,
Honorary Surgeon to the Beckett Dispensary, Barnsley.

On July 17, 1864, I was called to see B. F., a warehouseman, aged 42, tall, spare, rather sallow. He complained of severe pain in the region of the left kidney, extending downwards towards the pelvis, which had prevented sleep throughout the night, and was attended with nausea and vomiting. I gave him opiates, and recommended hot fomentations, etc.; and, knowing that he had been similarly affected on previous occasions, desired him to send me anything unusual that might be passed with the urine. The pain continued with somewhat less severity, and on the 24th he felt something give way at the seat of pain and pass down into the pelvis. Then, on attempting to urinate, he found the urethra obstructed by a transparent globular bladder filled with water. Having removed this, others succeeded, and it was an hour and a-half before he got rid of all of these bodies, which numbered about twenty. The pain continued, but less severe, and on August 8 he felt the same sensation of motion in his back as before, and then passed six or eight more cysts; after which he felt much relieved. He brought me all that he had passed on both occasions. They were clearly hydatids, varying in size from that of a pea to that of a walnut, transparent globular, containing clear fluid, and many of the larger ones having smaller cysts within them. The larger ones had been for the most part ruptured in their passage; but many of the size of a marble were entire.

Under the microscope, the cyst-walls were seen to be beautifully laminated, and to be covered on their inner surface with granular matter, containing innumerable minute daughter-cysts. No distinct hooklets could be found.

The history he gives is, that twenty years ago he fell backwards from a height of four or five feet. This was followed by a severe illness, with much pain in his back, and in a few days he passed a quantity of these hydatids, and ever since has had a precisely similar attack once in every four or five years. The pain is always in the left renal region, and always relieved after passing the cysts.

He has never to his knowledge suffered from tapeworm, but admits that when young he was particularly fond of eating raw meat, and especially raw bacon.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

ST. THOMAS'S HOSPITAL.

A REPORT OF THE CASES OF PYÆMIA WHICH OCCURRED DURING THE YEAR 1864.

[Communicated by Mr. SUMMERHAYES]

During the year 1864, eight cases of pyæmia occurred in the temporary building of St. Thomas's Hospital at the Surrey Gardens. The disease was confined to the male Surgical wards, Accident and King's, in which the total number of occupied beds is generally between seventy and eighty, King's Ward having a small majority. Four cases took place in King's Ward, and an equal number in the Accident Ward; but two of the patients who died in King's Ward were, for a time, and previously to the setting in of their pyæmic symptoms, in the Accident Ward. The immunity of the female Surgical Ward—Queen's—from the disease seems referable to the extreme rarity of severe external lesions, such as compound fractures, among the women admitted, or, possibly, to the minor frequency or intensity in their constitutions of the dyscrasia which undoubtedly springs from habitual intemperance in alcoholic drinks. It is right to add that the roof of Queen's Ward is much loftier than the roofs of the Accident and King's Wards, above which Queen's Ward is situated, and the female patients have, consequently, more cubic inches of air allotted to them individually than have the males.

The three earliest cases occurred in King's Ward, the dates of their deaths being respectively February 14, April 23, and June 10; the last of the three was in the ward at the time of the commencement of symptoms of pyæmia in the second, and the second at the time of the commencement of the same symptoms in the first. The next four cases occurred in the Accident Ward, the dates of their deaths being respectively June 23, July 4, July 4, and August 15; the second of the four was in the ward with the first, and the third with the second; between the admission of the fourth and the death of the third a period of eleven days intervened. The eighth and last case of pyæmia took place in King's Ward, the date of his death being September 4; but it is to be observed with regard to this case that, for eight days after his admission, he lay in the Accident Ward, and was not removed thence until symptoms of pyæmia had plainly declared themselves in a fellow-patient.

The patients in King's Ward were, on July 12th, removed to a temporary ward erected in the grounds, and were not brought back until July 27. During the interval an attempt was made to purify their ward; the walls, ceiling, and floor were washed and re-washed with solutions of chloride of lime; the paintwork was thoroughly cleaned, and all the bedsteads, linen, and furniture were taken out and cleansed. One death from pyæmia occurred subsequently in the ward on September 4, but, as above stated, the man who died had, on his admission, lain for eight days in the Accident Ward not far from the bed of a pyæmic patient.

On July 27 the patients were removed from the Accident Ward to the temporary building, and on August 2 were brought back to their old places. In the interval the ward was cleansed in the same way that King's had been. Symptoms of pyæmia set in on August 7 in a patient who had been for twelve days in the ward while it was yet uncleansed; near him for three days after the commencement of his ill-omened symptoms lay the eighth and last case of the year, afterwards removed to King's Ward, where the disease attacked him also, after the lapse of a period of thirteen days.

August 15 for the Accident, and September 4 for King's Ward, are accordingly the dates of the latest cases of pyæmia at St. Thomas's Hospital in the year 1864, and up to this day (March 16, 1865) the disease has not re-appeared. *Cæteris paribus*, therefore, the purification of the wards in the manner and at the times above stated, would seem to be immediately concerned in this change for the better. But if the cleansing of a ward and the removal by its means of all such material relics of old cases of pyæmia as may be supposed to adhere in minute and microscopic forms to beds, walls, and flooring, be confessed to have a decided influence in checking the spread and interrupting the continuity of the disease, how, it will still be asked, does the pyæmia originate? Where must we look for the *prima materies morbi*? We may conceive the probability of the disease having its origin in the foulness of the atmosphere of a crowded ward, where the foulness is not the result merely of limited space and insufficiency of breathing-air, but is rather explained by the charging of the atmosphere with gaseous or minute solid emanations from a large number of raw suppurating surfaces.

Should pyæmia re-appear in either of the wards of St. Thomas's Hospital, it will be interesting, and indeed obligatory, to observe accurately the maladies of all the other patients in the visited ward, and more especially to note the number, size, and condition of all wounds and raw surfaces. It is a matter of regret that this investigation was not made at the dates of the first appearance of the disease in King's and Accident wards during the year 1864.

The symptoms which were recorded during life in the eight cases are given below in a form that is tabulated with reference to date, this seeming to be the most useful arrangement. Four tables are so made of the life-symptoms under the following heads:—(a) Condition at admission, (b) progress from admission to the commencement of symptoms of pyæmia, (c) commencement of the symptoms of pyæmia, (d) progress from the commencement of symptoms of pyæmia to death.

The post-mortem appearances are given in a fifth column; and lastly there is a table in which the treatment and any peculiarities of the particular case are noted down. The cases are arranged in numerical order, according to the dates of their attacks, (1) being the earliest, and (8) the latest.

The post-mortem reports speak only of morbid appearances, and such as appear to throw some light on the nature of the disease. Where the condition of certain viscera or parts of the body is undescribed, they are to be considered to have been healthy or but slightly affected or unnatural, only in a manner distinct from, and unrelated to, the usual evidences of pyæmic poisoning.

Name, Age, Occupation, Ward, Date of Admission.	Condition at the Time of Admission, Nature of Disease or Accident, etc.	Progress from the Time of Admission up to the Date of the First Symptoms of Pyæmia.	Commencement of the Symptoms of Pyæmia.	Progress from the Commencement of the Symptoms of Pyæmia to Death.	Post-mortem Appearances.	Treatment, Remarks, etc.
1. Thos. K., 49, baker; Accident Ward, Jan. 4, 1864; King's, Jan. 23.	A pistol-bullet wound. Brought to the Hospital directly after the accident. Compound fracture of right index finger: carpo-metacarpal joint of thumb extensively opened. Great laceration of the outside of hand; blackness of the torn soft parts. Amputation of thumb and forefinger at carpo-metacarpal joint; adjustment of flaps by wire sutures. The patient seems to be a very nervous man. Says his average daily drink is Oij. ale.	Jan. 5 to Feb. 8:—Jan. 5.—Restless; slightly delirious; tongue moist; pulse weak, fast. 9th.—Quiet; pulse 120; hand looks unhealthy. 13th.—Restless; hand darkish redness and swelling, extending a little way up the forearm; pulse 110. 21st.—Less swelling; bone exposed at wrist, seemingly dead; pulse 90. 23rd.—Amputation of forearm, two inches above wrist; tongue moist; pulse 100; appetite good. 27th.—Has improved since the operation; healthy discharge. 29th.—Pulse 100; feels better. Feb. 1.—Small slough at right elbow, exposing a bit of the inner condyle of humerus. 3rd.—Pulse 84; looks better; is somewhat nervous, as, indeed, he has been all through his illness. 7th.—Pulse weaker, 104; stump looking well; discharge from it much diminished.	Feb. 8.—Rigors in the night, followed by sweating; pulse 100, small; tongue moist, clean; margins of stump red & swelled.	Feb. 9 to 14:—Feb. 9.—Has a yellowish tinge of complexion: tongue dry, with white fur; pulse harder, 120; eats and drinks with good appetite; a little foul sloughing at inner corner of stump. 10th.—Shivering again, followed by sweating; tougue brown; pulse 120; stump looking pale and inactive. 12th.—Face distinctly yellow; some dyspnœa and cough; pulse weak, 120. 13th.—Restless; got out of bed in the night. 14th.—Greatly increased dyspnœa; loud rhonchi heard in chest; cannot speak: stump pale and shrivelled. Died 12.30 p.m.	Feb. 15.—Little union of stump; pus extending superficially upwards from it nearly to the elbow; arteries and veins of forearm free from disease; lungs œdematous; injection of the bronchial mucous membrane; a small abscess in the cellular tissue outside the larynx; an abscess in the right lobe of the liver as large as a hen's egg, externally firm, fibrinous — internally, soft, yellowish, fœtid, like pus.	The treatment had been stimulant from the beginning; at the end wine ℥vi., gin ℥vi., were being given daily. Morphia had been administered freely to subdue restlessness. The stump was dressed with warm water dressing.
2. David G., 55, coal-porter; Dec. 30, 1863; King's.	Readmitted after 1 month's absence Since he left no change has taken place in his diseased foot, and he has now come in to have it removed. There is now a large wound in the dorsum of left foot; through its florid granulations numerous sinuses lead down to tarsal bones, which may be felt exposed. He is in good health.	Dec. 31 to April 9, 1864:—March 30.—No change of importance up to this day. Removal of first metatarsal and internal cuneiform bones. April 1.—Extreme redness and fulness of the inside of diseased foot; health disordered.	April 9.—Severe rigors, followed by sweating; foot much inflamed; looks very ill in face.	April 10 to 23:—13th.—A large collection of pus evacuated on inside of foot. 14th.—Pulse 126; swelling at carpo metacarpal joint of left thumb; swelling towards outside of foot, tenderness reaching some way up the leg in the direction of the internal saphena vein; tongue brown, cracked, dry. 15th.—Pus evacuated at outside of foot; tenderness along the course of left femoral vein, which is felt hard and cordlike; pulse 116; tongue brown. 16th.—Pulse 128; rigors, lasting one hour, this morning; swelling at wrist opened, and pus evacuated; great prostration; respirations 44 per minute. 18th.—Delirious; breath sweet smelling; eyes vacant; no cough; no jaundice; pulse 120. 20th.—Respirations 44; chest everywhere resonant: no harsh sounds; tongue dry, brown; no action in foot. 23rd.—Died.	April 23.—Lungs unaffected; liver healthy; abscess in right iliac foss; fœtid pus; the whole of tarsal bones bathed in pus and partially necrosed; the articular cartilages of ankle-joint half destroyed, and the tibia slightly necrosed at its lower articular end; an abscess cavity reaching up behind and in connection with the ankle-joint, bathing the posterior tibial vessels in pus. These vessels seemed to be healthy: there was only a little non-adherent clot in the veins.	Treatment was stimulant. In the end ℥x. brandy were given daily. Near him in the ward were three cases of ulcers of the leg, one case of extensive caries of the sternum, one of amputation of the leg, and one of necrosis of tibia lately operated upon. No erysipelas in the ward. Case No. 1 died six weeks before any operation was performed on this man's foot. They lay at different ends of the ward, which is a very large one. The dresser has not dissected for months.
3. William H., 21, clerk; March 16; King's.	Swelling and pain at outside of left foot. A small sinus near external malleolus, conducting inwards to exposed bone. Disease commenced two years ago, when he sprained his left foot badly.	March 17 to June 8:—March 31.—Red swelling at inside of arch of left foot; incised, pus discharged freely. April 19.—Swelling redness about either ankle and adjacent part of tarsus; abundant thin discharge from wound and sinus. May 18.—Some carious portions of the external malleolus removed; probe passed freely into ankle-joint, and the surface of astragalus felt rough and uncovered. 23rd.—Abundant discharge from the last wound. 28th.—A collection of pus below internal malleolus incised. 30th.—Amputation of leg just above malleoli, there having been profuse arterial hæmorrhage from the wound at outer side, which it was difficult to control. The bleeding was discovered by himself on the night of the 28th inst. At the time of operation his face was blanched and his pulse extremely weak, 170. Very little blood was lost in the operation. On examination of the removed foot, caries of astragalus, os calcis, and lower end of tibia was discovered. There was no sequestrum. June 1.—Pulse 128: no sickness; very thin serous discharge from stump; some tension; posterior flap looks dark; the stump has neither been dressed nor washed as yet; he takes food, and sleeps well. 3rd.—A poultice is on the stump; discharge free; pulse 100. 6th.—A small slough has separated at the back; tongue clean, red glazed; pulse 104. 8th.—Headache; loss of appetite.	June 9.—Shivering this morning, followed by sweating; sickness; redness & fulness about stump; pulse 134.	June 10 to 16:—10th.—Another shivering fit last night, and a third this morning; face paler, anxious; stump looking dark; œdema of the lower part of the leg; tongue dry; skin hot; pulse 160. 11th, 10 a.m.—Pulse 120; end of fibula exposed; feeling better. 9 p.m.—Has just had rigors; pulse 160; pain in chest. 12th, 9 a.m.—Pulse 130; tongue dry, red; thirsty; is irritable; lower end of tibia exposed. 9 p.m.—Pulse 200. 13th.—Pulse 132; stump black and sloughy; tenderness in the right hypochondrium; is weaker. 14th.—Diarrhœa thro' the night; cough, expectoration tough and rusty. 15th.—Diarrhœa continues; is at times for a short while unconscious; breathing quick; pulse very feeble: skin over head of fibula has given way. 16th.—Died.	June 16.—Stump unhealthy; vessels of limb natural; a quantity of turbid serum in right pleura. In the lower lobes of both lungs, and in less number in the upper lobes also, were found many fibrinous masses, varying greatly in size — some decolorised and yellow; others dark red: the former were here and there softened in their centres, and contained pus. The bronchial tubes were congested, and contained semi-purulent mucus. A minute abscess was found in the substance of one of the small muscular bands on the inside of the right ventricle. The pericardium contained a small quantity of turbid fluid. In the right lobe of the liver were several considerable abscesses, the pus being thin, greenish-yellow. In the spleen were some partly decolorised fibrinous masses, a little softened. The intestines were healthy.	The third case of pyæmia in King's Ward during the year 1864. No. 2 died April 23. Treatment: May 29, eggs xii., brandy ℥xx. 30th, eggs vi., brandy ℥x., sherry ℥viii. June 2, brandy ℥iii., ale Oj. 14th, brandy ℥vi.

Name, Age, Occupation, Ward, Date of Admission.	Condition at the Time of Admission, Nature of Disease or Accident, etc.	Progress from the Time of Admission up to the Date of the First Symptoms of Pyæmia.	Commencement of the Symptoms of Pyæmia.	Progress from the Commencement of the Symptoms of Pyæmia to Death.	Post-mortem Appearances.	Treatment, Remarks, etc.
4. Hugh D., 25, carpenter; Accident Ward; May 3.	A superficial wound, two or three inches long, running obliquely across in front of the right patella. No evidence of wound of the knee-joint. The wound brought together with wire sutures, the limb extended on a back splint, and cold water dressing applied to the knee. Is a rather sickly-looking young man.	May 4 to June 10:—May 4.—A good deal of pain on firm pressure about the knee-joint; some swelling; loss of appetite; tongue white; thirst; pulse sharp, 84. 12th.—A slight blush reaching upwards from the wound; fulness about knee; no localised fluctuation; rigors have not occurred; thin discharge from wound; pulse soft, 120; tongue red, moist; sweats much. 21st.—Incision at inside of joint; a large quantity of brownish pus discharged. 23rd.—Discharge continues free; pulse 100. June 3.—Free and foul discharge from wounds; pus burrowing upwards among the muscles of thigh; joint much swelled. 4th.—Circular amputation of thigh at junction of its middle and lower thirds. On examination of the removed limb, the joint was found to contain much unhealthy pus, which extended some little distance upwards, both before and behind. The posterior portions of articular surfaces of tibia and femur were denuded of cartilage; anteriorly the cartilage was soft, but adherent. 6th.—Pulse 124, restless; tongue dryish, glazed, red; free purulent discharge from wound; thirst. 9th.—Very weak; no appetite; pulse 124; much discharge from stump.	June 10.—Rigors last night, followed by sweating; more rigors during the day.	June 11 to 26:—June 11.—Look very ill; more rigors, followed by sweating. 13th.—Pulse 140; face white, anxious, sunken; tongue red, glazed; appetite gone; stump looking inactive, little tenderness in it. 18th.—Tongue dry, glazed; pulse 120; sleeps well; takes food; cough; quick breathing; some rusty expectoration. 25th.—Death.	June 27.—No union of stump; femoral vein healthy; its extremity plugged with adherent clot; femoral artery containing very little clot; the lower lobes of both lungs congested and partially consolidated; three or four abscesses about the size of a cherry on the posterior part of lower lobe of the right lung, each surrounded with a small quantity of fibrin.	This was the first of a series of cases of pyæmia occurring in the Accident Ward during the summer months. Treatment had been stimulant from the beginning. In the end wine ʒxii. were given daily. The stump had been dressed from the first with lint soaked in chlorinous lotion.
5. William R., market gardener; May 15; Accident Ward.	Accident happened fifteen hours ago; was knocked down and kicked by a man. An oblique, irregular wound in the lower part of middle third of right leg, leading to an oblique fracture of the tibia. Simple fracture of fibula two or three inches higher up. No apparent bruising. Health good. Average daily drink Oij. ale. Wound brought together with wire sutures, and an ice-bag applied to it. The limb was extended on a Liston splint.	May 16 to June 28:—May 19.—Thin serous discharge from lower part of wound; sutures remain; wound united at upper part; purple discoloration reaching backwards and inwards from wound. 23rd.—Sloughing at wound; foul discharge from it; tissues around baggy; eats and drinks well; tongue slightly coated, moist; skin hot; pulse 80, full. 26th.—Broken ends of tibia exposed by removal of slough; a small intermediate piece of tibia seen detached from the two main fragments; wound 2 in. to 2¼ in. in diameter; man looks ill; pulse 96, soft; is weak and feverish. 30th.—Intermediate bit of tibia removed; little action about wound; great difficulty in maintaining correct apposition of the broken surfaces of tibia; pulse 84, weak. June 11.—Lower end of upper fragment sawn off; it was found to be partially necrosed. 13th.—Tongue clean; pulse 92; feeling better; eats well. 18th.—Continues to improve; wound widely open; suppurating freely.	June 28—30.—Several shivering fits; pulse very small and indistinct; looking much worse in face.	July 1 to 4:—July 1.—Evidently much worse; breathing quick and harsh. 4th.—Died.	July 5.—Extensive suppuration of the soft parts near the wound; external and internal saphena veins thickened, and contained in the middle of the leg firm clot, partially decolorised and tapering upwards. Below this, the clots were soft for some distance, and close to the wound pus was found filling the veins. The posterior tibial and peroneal veins were in much the same condition as the superficial veins. The anterior tibial veins appeared healthy. Pus was found in the ankle-joint, and the articular cartilages were thinned. There was necrosis of the upper and lower fragments of the tibia for some distance from the point of fracture. Microscopical examination of the medullary contents of the necrosed portions showed oil globules and granular matter only; no pus cells. The pus contained in the veins showed well-marked corpuscles, while that obtained from the soft parts displayed much granular matter, together with less distinct corpuscles. In the lower lobe of the right lung were many yellow fibrinous masses, some containing a little pus in their centres. In the substance of the prostate gland were numerous minute pyæmic deposits, some of which had suppurated. There was a small abscess in the left psoas muscle, and another in the anterior abdominal wall. The right common iliac vein was filled with dark softening clot; the right internal iliac with pale clot, partially suppurating. The right external iliac and upper part of right femoral vein were filled with decolorised clot, which was hollowed out in two or three places by pus-cavities. The lower part of the right femoral vein contained dark, healthy clot. On left side the iliac and femoral veins were healthy.	The second case of pyæmia in the Accident Ward. Stumulants wer given up to a daily allowance of brandy ʒviii.

Name, Age, Occupation, Ward, Date of Admission.	Condition at the Time of Admission, Nature of Disease or Accident, etc.	Progress from the Time of Admission up to the Date of the First Symptoms of Pyæmia.	Commencement of the Symptoms of Pyæmia.	Progress from the Commencement of the Symptoms of Pyæmia to Death.	Post-mortem Appearances.	Treatment, Remarks, etc.
6. John R., 22, bricklayer; Accident Ward; June 6.	Compound comminuted fracture of right tibia and fibula at junction of middle and lower thirds. Little apparent bruising. Average daily drink Oij. porter, with a small quantity of spirits. Has not felt well of late. Two small intermediate fragments of tibia removed, wound closed with wire sutures, good position secured, and the limb fixed on a short outside splint with an ice-bag over the wound.	June 7 to 30:—June 9.—Little appetite; has shivered a little; thirst; tongue moist, white; pulse sharp, 120; not much fulness or redness about the wound; sutures remain. 10th.—Feels very weak and low; tongue furred, moist; some diarrhœa; wound looking foul; warm-water dressing substituted for ice-bag. 21st.—Is weaker; a charcoal poultice is laid over the wound. 24th.—Pus found burrowing deeply among the soft parts near wound. 27th.—Pulse 120, feeble; tongue dry; does not sleep well; wound foul. 28th.—3 p.m.: circular amputation of the leg near the knee. 9 p.m.: Pulse 120; tongue dry; large abscess opened in right buttock. 30th.—Pulse 120, feeble; appetite bad, taking only fluid nourishment; right knee-joint swelled.	July 1.—Rigors this morning for half an hour, followed by profuse sweating; pulse 130, very feeble; tongue dry, red; face changed, anxious, & pinched; a slougby spot on the margin of stump; no primary union.	July 2 to 4:—2nd.—Incision at outside of right knee; much pus; ice-bags applied to knee. 9 p.m.—There have been two shivering fits to-day, each lasting half an hour. 3rd.—Two distinct fits of shivering; was quite delirious last night; pain in the right hypochondrium; vomiting; pulse 140, very feeble; tongue dry; skin hot. 4th.—Died.	July 5.—Bed sores over sacrum; abscess cavity in right gluteal region; raw surfaces of stump suppurating; exposed surface of medullary cavity of tibia covered with pus; abscess in right knee-joint, which had been opened; articular cartilages partially destroyed; veins of stump and femoral vein healthy—the latter containing some non-adherent, partially decolorised clot; the lungs contained a few small yellowish fibrinous masses, which had softened in their centres.	The third case of pyæmia in the Accident Ward. The treatment was stimulant; in the end brandy ℥iii. and wine ℥vi. were given daily.
7. Samuel C. H., 20, labourer; Accident Ward; July 15.	Was knocked down by, and buried under, a load of dirt. Compound fracture of left tibia in its middle third; simple fracture of fibula on the same level. The wound over the fracture of tibia was small, and had been made by the projection of the upper fragment. The wound was closed by wire sutures, an ice-bag applied to it, and the limb set on a back splint. The man is in good health. Average daily drink, Oij. ale.	July 10 to August 7:—July 18.—Health very much disordered; does not sleep well; tongue dry, whitish; skin very hot; pulse 120; blush around the wound; no appetite; thirst. 24th.—Fluctuating swelling with redness in the neighbourhood of the wound; tongue clean, moist; pulse 96; appetite fair; skin cool; has had no rigors. 28th.—The swelling has burst at outer side; a little foul discharge from it; the sore formed looks sloughy, and a small piece of very white bone (tibia) is seen at its bottom. August 1.—Swelling has not extended; tongue brown; pulse small, 120; appetite not so good. 3rd.—Sore looking healthier; tongue dry, brown; pulse 108. 5th.—Ill odour about wound; tongue brown, dry; pulse 104.	Aug. 7.—A shivering fit of five minutes' duration this morning, followed by heat and sweating; skin hot; pulse 100; tongue brown; free discharge from wound.	August 18 to 15:—8th.—A second shivering fit. 11th.—More rigors this morning; has changed much in face; cheeks pale, sunken; eyes bright; voice low and unsteady; pulse 112; skin hot; tongue dry, coated; less action about wound, which is cleaner, and has less redness and swelling about it than before; the pus is thin and greenish. 15th.—Death.	August 15.—Skin and conjunctivæ slightly jaundiced. In the lungs were found many fibrinous masses, mostly yellow; some softening in the centre, and containing pus; others firm, and only partially decolorised, varying in size, most numerous at the base of the right lung. The liver contained a few small yellowish cretaceous masses in the posterior part of the right lobe close to the surface; it was otherwise healthy. The prostate gland contained numerous small, yellow, fibrinous masses, some of which had softened, forming small abscesses. At the wound the ends of the bone (tibia) were seen bathed in fœtid pus; and a good deal of the medullary cavity was exposed from the obliquity of the fracture. On making a section the tibia was found to be necrosed for some little distance from the broken ends; beyond this necrosed portion the bone was congested for some distance. There was no necrosis of the fibula, the fracture of which was unexposed in the wound. The medullary cavity of the tibia near the fracture contained pus and oily matter. The abscess at the back of the leg communicated with a posterior tibial vein, and the cavity of the vein for two or three inches above the point of communication was filled with pus; beyond this distance the vein was plugged with adherent clot, and its walls were inflamed. Above the adherent clot, and reaching to the popliteal vein, free, firm clot existed, and the coats of the vein were natural. The pus from the lungs, prostate, and vein showed, under the microscope, ill-formed, indistinct corpuscles, and much granular matter.	The fourth case in the Accident Ward. Charcoal poultices were kept on the wound from July 24. Supporting diet. Stimulants up to the quantity of brandy ℥iv., porter Oij. daily.
8. Samuel P., 65, carman; Aug. 2, Accident; Aug. 15, King's Ward.	Wheel of dray passed over left leg. Comminuted fracture of the tibia in its middle third; a very small wound over the intermediate fragment. Fracture of the fibula on the same level, having a small wound over it. No evident bruising. Health fair. Average daily drink, Oij. ale.	August 3 to 28:—August 5.—Limb in good position; tension at seat of injury; no redness or fluctuation; face a little flushed; not much appetite; eyes bright; hands unsteady; seems excited and nervous; did not sleep well last night; pulse 66; tongue clean, moist. 8th.—More tension and pain at seat of fracture; slight blush also; tongue clean; is strange in his manner. 11th.—Pus is being discharged freely from the wound; extension of the blush and swelling; pulse 64; can be made to answer rationally, but chatters without meaning unless you press a particular question. 15th.—Decidedly better; quieter in manner; has more sleep; wound has enlarged considerably, and is discharging healthy pus freely; the intermediate fragment of the tibia is moveable at the bottom of the wound; pulse 68; tongue clean. 17th.—Removal of the intermediate fragment, which was partially necrosed. 20th.—Thin pus lying at the bottom of the wound. 22nd.—Pus bagging a little; has not a free exit; granulations of wound healthy; pulse 72. 24th.—Wound lessening in size; tongue clean; pulse stronger.	29th.—Yesterday rigors, lasting half an hour, and followed by sweating; does not look as well as he did; eyes very bright; face flushed most; not complaining of pain; respiration undisturbed; tongue dry, rather dark behind; pulse 84, soft.	August 30 to Sept. 4:—Sept. 2.—Has shivered daily since the last report for some ten minutes; wound looks singularly dry and inactive; what little discharge there is from it has not the appearance of pus; pain and fulness about the left knee; tongue dry and brown at its base; he is quiet; complains of thirst; skin hot; cheeks sunken; pulse 118. 3rd.—Slightly jaundiced; pulse 124, very irregular and intermittent; no respiratory râles; no tenderness in the right hypochondrium; does not regard things about him, and is with difficulty roused; tongue dry, dark. 4th.—Died.	Sept. 5.—Skin and conjunctivæ yellow; fractured ends of tibia dry, white, and bathed in pus; the medullary cavity of the tibia contained pus. The medullary membrane was examined microscopically, and found to be inflamed for a distance of one inch from the end of the upper fragment; above this it was natural. The left knee-joint contained pus; its articular cartilages were softened. A number of pyæmic deposits were seen in the lower lobes of both lungs: the majority of them were firm—a few only were softened. In the liver similar deposits existed; some as large as a walnut. The internal saphena vein contained no clot. The veins of the medullary membrane were examined under the microscope, and found to contain fluid blood only.	Was in Accident Ward for eight days with Case No. 7. Treatment. — Tinct. ferr. mur. ℥xv. ter. die. ex aqua from Aug. 17—31. Stimulants. —In the end and from August 11, wine ℥x. were being given daily.

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Medical Times and Gazette.

SATURDAY, MARCH 25.

THE MEDICAL COUNCIL.

The meeting of the Medical Council has been definitely fixed for Tuesday, April 4th. It will therefore take place at a somewhat earlier period this year than last. On this point we understand that some discussion has been raised; the Scotch branch council wishing for an earlier, the Irish branch council wishing for a meeting at a later period. Had the meeting been postponed as desired by our Irish friends until after Easter, all hope of accomplishing a change in the Medical Act during the present session must have been abandoned. May would have counted some of its early days before the proposed amendments could have been brought before the House of Commons, and as the duration of the present Parliament is not expected to extend to the end of June, no one could fairly look for Medical legislation in such a House at such a period. If the Medical Council be really in earnest on this subject, we can see no reason why a Bill should not be introduced and read a first time in the House of Commons before it rises for the Easter recess on April 13. If, on the other hand, the Council be not in earnest, but should unfortunately be disposed again to waste its time in talk, we can well conceive that nothing will be done in legislation this year, nor probably in any year to come. We have no desire to criticise rigidly the proceedings of this body. It is comparatively a new one—composed of very heterogeneous elements — each element imbued with special characteristics—often very antagonistic to each other, and all requiring time to settle down and amalgamate.

That time has now been given. Seven years' of apprenticeship are quite sufficient for a member of the Medical Council to acquire a knowledge of his business, and we shall expect to see some definite and useful results of this experiment. If the results be unsatisfactory, we trust that the next attempt at legislation will be a successful one, and that its object will be to do away altogether with what must then be deemed a piece of cumbrous and costly machinery. Let us have a good scheme of Medical education—a Medical register in which confidence can be placed, and a British Pharmacopœia which can be made use of, and we shall then be prepared to wish the Medical Council a lengthened career of usefulness and prosperity.

COLONIAL MEDICAL ETHICS.

We have received from the Island of Jamaica several newspapers containing portions of the evidence given at an inquest held on a man who died at the Public Hospital after an operation for the removal of a broken piece of catheter from the urethra. As far as we can gather from the imperfect information which has reached us, the following were the principal points in the case:—The deceased, Richard Bailey, age 66, was admitted a patient of the Hospital, on January 11, on account of difficulty in passing water. Mr. Fiddes, who was at that time one of the Surgeons to the institution, found that he was labouring under an impervious condition of the prepuce. This he relieved by a cutting operation on January 16. He then found that the glans penis had been destroyed by previous disease. On January 20 Mr. Fiddes retired from the office of Surgeon to the Hospital, and the Medical and Surgical management of the institution was undertaken by Dr. Bowerbank and Dr. Anderson. This last-named gentleman took charge of Bailey, and, as we suppose, in consequence of what appeared to him the occluded state of the urethra, on January 27 he introduced a No. 2 catheter, and tied it in the bladder. From an accident—stated by one of the patients to have been caused by the man getting out of bed, and hitching the instrument in the iron bedstead—it broke, and a portion six and a-half inches long was left in the urethra. The removal of the retained piece by urethral forceps does not seem to have been attempted. Drs. Bowerbank and Anderson stated that there was no such instrument in the Hospital. Dr. Field, who, we believe, is the resident Medical officer, managed, however, to introduce an instrument by the side of the broken portion into the man's bladder. The foreign body remained in the urethra for nine days. It was then extracted by dividing the posterior portion of the canal. The man sank after the operation, and at the post-mortem examination it was found that the kidneys were in an advanced state of disease—wasted, contracted, and hardened—and that the coats of the bladder were greatly thickened. The integuments of the scrotum were distended with sero-purulent effusion, and the wound in the urethra appeared sloughy and unhealthy.

We believe that had such an unfortunate case happened in any other part of the civilised world, or even in Jamaica at any other time, it would not have been made the subject of a legal inquiry. Whatever may be said about its Surgical management, it was clearly a case which presented no ordinary difficulties, and the practice pursued by the Surgeons in charge of it was, by every rule of Medical ethics, entitled to at least the fair and charitable construction of their Professional brethren. We suppose that nobody doubts that Messrs. Anderson and Bowerbank acted to the best of their judgment and skill, and if every Medical man who meets with an unlucky case were liable to be summoned before a coroner's jury on some hypothetical point of practice when no charge of criminal neglect or Professional incompetence could be sustained against him, who in his senses would practise the Profession of Medicine? But our readers may remember that the state of Medical politics in Jamaica is at present anything but tranquil. Dr. Dunn and Mr. Fiddes, the former officers of the Hospital, resigned their posts in consequence of a dispute in which Dr. Bowerbank was a party opposed to them, and they were succeeded by the latter gentleman and his partner, Dr. Anderson. The case of Richard Bailey happening immediately after this change in the Hospital staff was no doubt freely discussed and commented on. It appears that Drs. Bowerbank and Anderson, so far from shunning inquiry, courted it by requesting that an inquest might be held. They gave it as their opinion that the man's death was mainly due to the bad hygienic condition in which he was placed, to bad ventilation, a pestiferous atmosphere, a filthy state of the ward, and to diarrhœa, which prevailed in the Hospital at the time. Dr. Allen, another Medical man who gave evidence, seemed to think that death was principally to be attributed to uræmic poisoning. None of these suppositions, however, were admitted by the former Surgeons to the Hospital. They allowed their brethren no quarter in the matter. We quote a few extracts from Mr. Fiddes' evidence as specimens of the friendly concern which he evinced for the reputation of his successors. "I consider that the omission of Drs. Anderson and Bowerbank to withdraw the broken catheter immediately after the accident, and their using no means for obtaining the

necessary instrument for its extraction, was a most culpable error on their part, an error which ultimately led to the death of Richard Bailey. At the end of nine days' retention of this instrument, they proceeded to execute a measure for the removal of it; and I have no hesitation in stating that the means which they adopted for this purpose were most unjustifiable and unwarrantable." . . "I repeat that, in defiance of this principle of Surgery" (that operations should not be performed on the urethra and bladder when disease of the kidneys is present), "the patient was subjected to a Surgical operation which was unjustifiable and unnecessary." . . . "I may state, in conclusion, that I consider Richard Bailey's death is entirely attributable to the unskilful Surgical ordeal to which he was subjected in the Hospital by Drs. Anderson and Bowerbank; that the treatment of his case was conducted without science and without the exercise of ordinary judgment; that his death has been the necessary and inevitable result of such errors; and that the attempt which has been made by Drs. Bowerbank and Anderson, to attribute the fatal result to bad ventilation, filthiness of the wards, pestiferous exhalations, and other causes, is as illogical and as absurd as if a Surgeon were to say that a patient who had a carving knife driven through his liver might probably not have died had he not unfortunately neglected to wash his face and comb his hair on the day of the accident!"

The Caribbean Islands were, we believe, discovered by the countrymen of Gil Blas, and whilst reading the account of this inquest we are tempted to suppose that the code of Drs. Sangrado and Cuchillo still regulates Professional relations in those favoured climes. We hope that the Jamaica public are edified, and that they will entertain a proper respect for a Profession in which the members so readily sacrifice each other to the public good.

MODERN DERMATOLOGY.(a)—No. I.

For many years two or three Practitioners have reigned almost supreme as specialist authorities on diseases of the skin, and original English works on dermatology have been very few in number. Dictionaries, encyclopædias, and systems of Medicine contained a chapter or two on the subject, and at rare intervals there appeared an incomplete monograph, as that of Burgess; but Erasmus Wilson's book was for a very long time the only full and complete work produced by an English author. During the last year or two, however, there has been a sudden and copious outpouring of monographs on skin disease, the above list forming but a portion of the wealth so vouchsafed us. If the student ever felt inclined to complain that he had only "Hobson's choice" when he asked what was the best English work on skin diseases, he will not, we hope, be so ungrateful as to groan under the *embarras de richesses* now presented.

We should feel greatly obliged to any one who would tell us what is the real exciting cause of this violent eruption of human dermatology. It is not within our knowledge that there has been of late any great and rapid advance in our comprehension of the physiology and pathology of the skin sufficient to explain it. Had there been any remarkable increase in the frequency of skin diseases, this would fully account for an increased and wider spread anxiety on the part of the Profession to set forth the healing powers of Medicine; but though we have heard it alleged that scabies has been much more generally prevalent since the Crimean War, we have not heard of any alarm as to other affections of the skin. Is there a suspicion that one or more of the thrones of the healers of skin diseases may, or must ere long, be vacant; and hence a struggle as to who shall show himself most worthy to grasp the sceptre? Has the "ôte toi que je m'y pose" principle had any share in exciting so many pens into activity? It has been suggested to us that, perhaps, members of our Profession have themselves been suffering to an unusual extent from these maladies, for personal familiarity with a disorder has not rarely led to a close and successful study of its pathology and treatment. We hope, for the sake of the estimable authors of the works above enumerated, that this explanation has no foundation in fact; but we should, as a matter of physiological curiosity, like to know whether or not dermatologists suffer much from disease of the skin. We cannot help fearing this may be the case; for it is, we believe, an admitted fact that continued concentration of the attention on any organ of the body is capable of exciting functional, if not organic, disorder of it. We doubt whether any one can attentively read through the list of works at the head of this notice without a feeling of irritation, more or less severe, being excited in some part of his cuticle—an irritation, however, as transient, we trust, as superficial; but we confess that we do not, without considerable fear of possible consequences, undertake the duty of such close and prolonged study of all these works as is necessary to qualify us for the task of reviewing them. "Fais ce que dois, advienne que pourra" is a grand old *dévise*, and, thinking of it, we summon up courage for the work before us.

The first difficulty that meets any one who attempts the study of skin diseases is the terrible one of classification,—the despair alike of students and of teachers, of writers and of readers, but which seems to possess an irresistible fascination for dermatologists. Nearly every writer on diseases of the skin first quarrels with all existing classifications; then confesses that the time has not yet arrived for a perfect classification; and then, instead of adopting the least imperfect of those already propounded, proceeds to modify one of them, and so to make confusion worse confounded, and to add to the bewilderment of the unhappy student. Thus, Dr. Hillier gives us Willan's classification, Hardy's, Hebra's, Dr. A. Buchanan's, and one of his own. Dr. Tilbury Fox supplies "a series of comparative tables, illustrating the systems of Alibert, Willan, and Bateman, with Dr. Gull's modification, Mr. Erasmus Wilson, Startin, Cazenave, Buchanan, Hebra, Hardy, and a mixed form" of his own. Mr. Williams only treats of "skin diseases of constitutional origin," and actually does not classify them anew, but is content to use Bazin's classification for some forms, and Hardy's for others. Mr. Wilson gives us an interesting chapter on classifications and principles of classification from Plenck's days till now, and furnishes a new system of his own; but Mr. Wilson is a veteran student of dermatology, and won his spurs as an author in that field many years ago, and we look with very different feelings on a new classification from him and on one from a recruit.

All classifications may be broadly divided into (*a*) those which are based on the *visible* characters of the disease, and are *anatomical* or *pathological*, as Willan and Bateman's; and (*b*) those which are called *natural* classifications, founded on the *nature* and *cause* of the diseases. The latter are *etiological* and *therapeutical*, such as Alibert's, Hebra's, and Hardy's. It is, perhaps, generally acknowledged that the first are especially

(a) The Student's Book of Cutaneous Medicine and Diseases of the Skin. By Erasmus Wilson, F.R.S. London: John Churchill and Sons. Pp. 275. 1864.

Handbook of Skin Diseases for Students and Practitioners. By Thos. Hillier, M.D., Lond., M.R.C.P., Physician to the Skin Department of University College Hospital, Physician to the Hospital for Sick Children. London: Walton and Maberly. Pp. 367. 1865.

A Clean Skin: How to Get it, and How to Keep it. Skin Diseases of Constitutional Origin: their Etiology, Pathology, and Treatment. By John Wilkin Williams, M.R.C.S.E., of St. John's College, Oxford, late House-Surgeon to the Lock Hospital, London. London: Simpkin, Marshall, and Co. Pp. 114. 1864.

Treatment of Diseases of the Skin. By Dr. William Fraser, Lecturer on Materia Medica to the Carmichael School of Medicine. Pp. 174. Dublin: Fannin and Co. London: Hardwicke. Edinburgh: Maclachlan. 1864.

Skin Diseases: their Description, Etiology, Diagnosis, and Treatment; with a Copious Formulary. By Tilbury Fox, M.D., Lond., Senior Physician to St. John's Hospital for Skin Diseases, Physician to the Farringdon General Dispensary, Author of "Skin Diseases of Parasitic Origin," etc. Pp 314. London: Hardwicke. 1864.

Photographs (coloured from life) of the Diseases of the Skin. By Alex. Balmanno Squire, M.B., Lond., Surgeon to the West London Dispensary for Diseases of the Skin, Lecturer at St. Mary's Medical School. Nos. 1 to 5. London: J. Churchill and Sons.

The Classification of Skin Diseases; containing a Tabulated Arrangement of all the Principal Modern Classifications, and a Modified Scheme. By W. Tilbury Fox, M.D., Lond. London: Hardwicke. 1864.

adapted for aiding in diagnosis—are *educational;* but it is objected that though they enable the student to readily recognise a disease, they teach him nothing as to its cause and treatment. It will not be denied that the anatomical basis of classification obtains in general medicine,—we speak of pleuritis, pneumonia, and bronchitis, of pericarditis, carditis, and endocarditis, and so on—and that, therefore, to adopt this basis for a classification of skin diseases has nothing unusual in it; but neither will it be denied that, could we always state correctly the cause of disease, the "natural" system of classification would be the most perfect and most scientific; but for how many skin diseases are authorities agreed as to causation? Take a very common one—herpes zoster; some will say it is a blood disease, others a neurose. Even in what many term "parasitic," but Mr. Wilson "phytodermic" diseases, the greatest difference of opinion prevails as to nature and causation. Dr. Tilbury Fox ("Classification of Skin Diseases," p. 14) says:—"In Mr. Wilson's essay you will see the theory broached, that the favus matter is produced from the development of the nuclei of pus cells; that the fungus is not vegetable, or, if vegetable, that it exemplifies the conversion of an animal into a vegetable product. We are certain of our cancers, our atrophies, and hypertrophies, but of our commonest skin diseases we know little, *ex. psoriasis.* Even in lichen we are not agreed as to the seat of the papules. Wilson and Cazenave say they are seated at the orifice of the secretory follicles; Hebra, Hardy, and others, that they are new formations." We quite agree with this writer when he adds:—"It seems to me, looking the state of things fairly in the face, that we cannot, in the present state of pathology, make much advance on the old system, and that we ought to use great care and discretion in the introduction of any new arrangement and detail which, as time advances, will probably be refuted and displaced." He goes on to ask, "What, then, are we to do in the meantime?" We should be inclined to reply, "Use that existing classification which seems to you the best; granted it is imperfect, but why add another which you must allow will also be imperfect?"

We believe that for working and teaching purposes the best system is the Willanean, enlarged according to actual advances in knowledge; but we are far from objecting to a "natural classification" also; though much of it must be based on hypothesis it may be very valuable for pointing out the directions in which inquiry tends and knowledge is to be sought, for helping on researches as to causation, etc. What we do object to, though hopelessly, is, that every writer on skin disease should deem it necessary to burden us with a new classification. Did he thereby extinguish and replace all former ones—was he like—

> "The priest
> Who slew the slayer,
> And shall himself be slain,"

it would not so much matter; but unfortunately all the proposed classifications—*live,* we were going to say, but that perhaps would be too complimentary, but all—*exist,* to perplex and harass the students. None are bad; the most purely "natural" are partially "anatomical," and those which profess to follow the Willanean system, as Dr. Tilbury Fox's, are based on the "joint consideration of anatomical characters and the nature of causation (as far as this is known)."

Mr. Wilson has, as we have already said, by many years of labour in practice and teaching, fairly earned the right to propose a system of classification: he remarks that "*a natural classification* is the want of the hour; and a natural classification, if it could be obtained, would, without doubt, be an important gain to our science. Alibert invented such a classification. Hardy revived it; but we must confess that neither the classification of Alibert nor that of Hardy is such as to meet with our approval." He has himself in years past given a "physiological classification," and an "etiological classification," but finds that "neither was the thing we sought." Now he proposes a "classification that has at least the merit of being formed out of a practical material, and embraces every cutaneous disease at present known," and he calls it a "*clinical classification,*" "as arising out of the analysis of a large number (1000) of cases of disease."

"If," he writes, "we reject pathological lesions as the foundation of a classification, we may be led to ask, which is the *commonest* disease of the skin? The determination of this question naturally establishes a point of commencement and a standard of reference, while the remaining diseases may possibly fall into their proper places in a systematic arrangement, naturally, and as a matter of course. Thus, if it be shown that the commonest disease of the skin is eczema, we may take the leading characters of eczema and establish a group of *eczematous affections.* Now, as eczema is a disease which is not limited to a part, or to a single tissue of the skin, but is general in its invasion, and capable of attacking every region of the cutaneous surface, we may follow up eczema with three other groups possessing a similar generality of character, and, like the eczematous group, each represented by a substantive disease: for example—erythema, which we will take as the type of erythematous affections; pemphigus . . of bullous affections; and Furunculus . . . of furuncular affections. After these general affections, we may consider next the affections of the nerves, the vessels, and the relations subsisting between the vessels and their contained blood. These will furnish us with three groups—viz., Nervous, Vascular, and Hæmic affections. After the tissues in general, . . we may take the disorders of development, nutrition, and growth. . . We may next turn from disorders common to the skin to what may be considered as specific affections . . Zymotic affections. The peculiar disease Alphos may be taken as the type of Alphous affections; Struma will typify Strumous affections; Syphilis, Syphilitic affections; Cancer, Carcinomatous affections; and Elephantiasis, Leprous affections. Having disposed of specific affections, there remain the affections of the special apparatus of the skin—namely, the hair and hair-follicles, the sebiparous apparatus, the chromatogenous apparatus, the sudoriparous apparatus, and the nails. Lastly, we may add a group of Traumatic affections, and one of Phytodermic affections."

In all twenty-two groups. Mr. Wilson himself probably hardly hopes that dermatologists generally will accept his "clinical classification" so far as to deny themselves the pleasure of making each another new one, but it does appear to us practical, and well worthy of consideration.

THE WEEK.

PHARMACOPŒIA FOR INDIA.

We announced some months since that a scheme for the publication of a Pharmacopœia specially for India was under the consideration of the Indian authorities, and that it had been submitted to the Governor-General for his opinion. We are now happy to learn that the scheme has been sanctioned, and is forthwith to be carried into execution. The object of the proposed work is mainly to bring in an official and succinct form to the notice of Medical officers serving in India the physical and chemical characters and therapeutic application of those indigenous plants and drugs of India, which, though not officinally recognised in the British Pharmacopœia, have been proved by European experience to be possessed of valuable medicinal properties, and which may, in many instances, be advantageously substituted for more costly imported articles. The preparation of this work (subject to the control of a committee) has been entrusted to Mr. Edward John Waring, of the Indian Medical Service, the author of a "Manual of Practical Therapeutics," whose numerous contributions on the subject of Indian Materia Medica in the *Indian Annals of Medical Science* and *Madras Quarterly Journal of Medicine* for several years past prove that he is peculiarly well qualified for the undertaking. The members of the committee at present in London, comprising Sir Ranald Martin, President; Drs. Wright and Thomson, the great Indian botanical authorities; Dr. Forbes Watson, Mr. Daniel Hanbury, and Mr. Waring, had an interview with Lord Dufferin, the Under Secretary of State, on Wednesday last, previous to commencing their labours, the results of which,

if judiciously conducted, will doubtless have an important bearing on the progress of Medicine in our Eastern Empire. We wish the undertaking every success.

QUACK ADVERTISEMENTS.

We learn from a respected correspondent that the *Oxford University Herald* of March 4 contains many most objectionable advertisements of the "Manly Vigour" class. Can Mr. Vincent, the publisher, be aware of the moral poison he is thus disseminating? It is curious to notice the turn which many of these advertisements have taken. They now harp upon that string which we hope our respected Wine Commissioner has put a great deal out of tune—the phosphorus myth. Now that this has fallen into the hands of the quackish fraternity, we shall have the satisfaction of seeing it abandoned by respectable wine merchants and by writers of Medico-chemical puffs of wines. Here are specimens:—

"*The Phosphorised Nervine Tonic.*—The new Chemical Combination of Phosphatic Salts, Quinine, Iron, etc., containing all the Essential Constituents of the Blood, Brain, and Nerve Substance. Great philosophical and chemical research has led to the discovery of this invaluable remedy in its present perfect state, agreeable to the palate, and innocent in its action, still preserving its wonderful properties, affording immediate relief, and permanently curing all who suffer from wasting and withering of the nervous and muscular tissues, total and partial prostration; and every other exhaustive derangement of the system. It regenerates all the important elements of the human frame. 'As phosphorus in a state of nature illumines the darkness, so the exhausted frame revives when impregnated with its electrical properties.'

"Prices—11s. per bottle, or four 11s. bottles in one, 33s.; and in cases containing three 33s. bottles, £5, which saves £1 12s., packed securely and sent to all parts of the world."

"*The Invigorative Nervine Essence.*—The most scientifically prepared and most powerful nutritive cordial ever introduced; restores to their normal condition all the secretions, on the integrity of which perfect health depends. It is a specific for debility of all kinds, and from its containing among other ingredients pepsine and phosphate of soda will prove highly beneficial to the nervous and dyspeptic. Price 8s. per bottle, or four quantities in one for 22s."

We only hope that pepsine will not fall into bad hands.

THE PROPOSED PALACE OF JUSTICE.

It is now almost certain that the law courts are to be brought together under one roof, and that we are at last to have a "Palace of Justice" worthy of the metropolis. Several sites have been proposed, but that which seems to meet with most approval is the ground bounded on two sides by Carey-street and the Strand, and on the other two by Bell-yard and Clement's-inn. Here, a space of more than seven acres may be obtained at a comparatively moderate price; and, by a wholesale clearance, it may be fitted to receive the new edifice. At present, the ground is covered with houses, and densely populated. A Fellow of the College of Physicians, formerly connected with the Carey-street Dispensary, writes to the *Times*, and says that the neighbourhood is overcrowded, that some of the houses are hotbeds of disease, and that it will be a very good thing to pull them down and to disperse the inhabitants. It is estimated that 384 houses will have to be sacrificed, containing a population of about 4000 individuals, and those chiefly of the poorer class. It is all very well to break up a *rookery* and to build handsome and commodious law courts, but what is to become of the people who are thus turned out of house and home? Some may be inclined to reply,—"Let them avail themselves of the workmen's trains, which have lately been started on two or three of the railways; let them live in the outskirts of the town, where they will find better accommodation at a lower price and in a purer air." We are glad that the system has been begun; we are happy to hear that a large number of mechanics now live in the suburbs and travel backwards and forwards to their work. But, even after the system has reached its full development, there must remain a large balance of poor whose occupations compel them to live in town. Many of those who inhabit the alleys and courts between Carey-street and the Strand are engaged at Covent-garden-market or at Clare-market, and have to be at their posts late at night and early in the morning. It would be impossible for them to live at a distance. Where are they to go? What is to become of them? We were glad to observe that in the debate which took place in Parliament on the subject of the new courts of justice, the interests of the poor were not forgotten, and there is reason to believe that the Government may do something by building, or encouraging others to build, houses for the poor in the neighbourhood of the proposed site. If this is judiciously done, the concentration of the law courts may be something more than a boon to lawyers and their clients. It may be a great sanitary improvement, by breaking up an overcrowded district, by leading some of the humbler class to remove into the suburbs, and by providing better accommodation for those who are obliged to remain in town.

PARLIAMENTARY.

In the House of Commons on Thursday, March 16, in his speech on the Army Estimates, the Marquis of Hartington stated that the diminution shown this year in the Medical vote arose simply from the reduction of the force engaged in active operations in New Zealand, and the total cessation of the operations carried on last year on the Gold Coast.

On Friday, on the motion for the second reading of the Union Officers (Ireland) Superannuation Bill, Colonel Dickson said that he approved the Bill, but wished it so altered as to include Medical officers and the clerks of Unions, who certainly were entitled to superannuation after long and faithful services.

The Bill was read a second time.

Sir F. Kelly obtained leave to bring in a Bill to regulate the qualifications of chemists and druggists.

The Bill was then brought in and read a first time.

On Monday, in Committee upon the Army Estimates, £246,544 were voted for the Medical establishment, services, and supplies.

On Tuesday, in Committee of the whole House, Sir J. Shelley moved for leave to bring in a Bill for regulating the qualifications of chemists and druggists in England and Wales. As the hon. and learned gentleman opposite (Sir F. Kelly) had already a Bill before the House upon this subject, he proposed, if the motion were agreed to, to fix any future stages of his Bill for the same days as those on which the Bill of the hon. and learned gentleman was set down, so that, if necessary, they might both be referred to a Select Committee.

Sir F. Kelly said that as soon as he was acquainted with the provisions of the Bill about to be introduced he should be happy to communicate with the hon. baronet, and between them a measure might be agreed upon calculated to work satisfactorily. If, however, as he had some reason to believe, the measure of the hon. baronet went beyond his own in many particulars, he should be sorry to risk the loss of some one Bill of a practical nature this Session by striving after objects which might prove to be unattainable.

The motion was then agreed to, and leave was given to introduce the Bill.

FROM ABROAD.—ELECTRICAL ANÆSTHESIA—THE SEINE MEDICAL BENEVOLENT SOCIETY—TAXING OF MEDICAL CERTIFICATES—FUNCTIONS OF THE PANCREAS—QUEER ADVERTISEMENTS IN THE GERMAN MEDICAL JOURNALS.

In a short article in the Lombardy *Gazetta Medica*, March 13, an account is given of a demonstration made by Dr. Rodolfi, at the Brescia Hospital, in the presence of a large number of Medical Practitioners, of the power of the electrical current to induce local anæsthesia. This is complete enough to admit of the execution of painless Surgical operations, although it does not appear that any such have as yet been performed; and it is remarkable in its extreme duration, three days being spoken of as a common period. It seems that women (especially when nervous or hysterical) are more susceptible of its action than men, and it fails to produce any

anæsthetic action in about 6 per cent. of the individuals submitted to it. In the case of a woman acted upon before the witnesses, anæsthesia of the hands began to be induced ten minutes after the application of a continuous current from a Bunsen's pile with six elements; and another woman was exhibited in whom complete anæsthesia had affected the whole surface above the diaphragm for three days. An hysterical subject manifested general anæsthesia, with paresis of movement of the limbs, and submitted to have her tongue traversed with a needle. In her case the anæsthesia continued from ten to fifteen days, gradually diminishing. The intellectual faculties continue in these cases quite undisturbed. In one of the cases experimented upon anæsthesia could not be induced, which Dr. Rodolfi attributes to the aversion the patient felt to the presence of so large a number of spectators.

In the matter of Medical benevolent societies, the French Practitioners seem well provided, for besides the Medical Association, which is comparatively a new institution, some six years old only, there are a great number of local societies of greater age. The parent society of all these, that of the Department of the Seine, has just made its report for 1864, from which it appears that its receipts for that year amounted to 31,970 francs, and its disbursements to 30,697 francs, 13,295 of these being, however, invested in the funds. Seven members received among them 4050 francs, and 19 widows 10,080 francs. Still, it is a matter of much surprise in France, as with ourselves, that so small a proportion of the Medical Profession join these societies, although we believe that this proportion is larger in France than here; and the practice of insurance of lives being much more general among ourselves, may account somewhat for the difference. However, it seems that while in the Department of the Seine there are about 2000 Medical Practitioners, only 987 of the number belong to one or other of the provident associations. The Seine Association makes a vigorous appeal for further co-operation from the Profession, showing that not only has it disbursed 200,000 francs among its members, and 37,000 to needy persons not members, and is in the possession of a capital of 300,000 francs, but that it has often used its influence in the support of the public rights and privileges of the Profession, and in the detection of imposture.

The Medical Practitioner in France comes in contact with the tax-gatherer oftener than we do here, for besides the imposts he has to discharge in common with the rest of the community, he has to pay a considerable sum annually, like solicitors do among ourselves, for the right to practise. The revenue officers have recently hunted out an old impost, which had been allowed to fall into disuetude, and insist upon its payment—viz., the signing of every kind of Medical certificate on stamped paper, under a penalty of 60 francs. It is true that the stamped blank form only costs sixpence, and the Practitioner may insist upon its being brought to him by those who desire his signature. In practice, however, and in poor localities, this, it seems, will give rise to great difficulty; for in a country so bound up in red tape as France, certificates are in constant demand, and that very frequently by the indigent classes. In fact, one of the Practitioners recently threatened by the revenue officers had merely given a certificate to an indigent person, stating that it was impossible for him to go to the Hôtel de Ville of the town he lived in. The matter has been brought before the Council of the French Medical Association (which it will be seen is far from being merely a benevolent society, but one actively interfering in all matters important to the Profession), and this body has consulted its standing counsel as to how far the demand is legal or may be resisted. His opinion is in favour of the legality of the demand made by the Administration, and he considers the person who is liable to the fine is not he who uses, but he who signs the unstamped certificate. The Council of the Association have next to deliberate as to the possibility of getting the law altered.

MM. Corvisart and Schiff having been engaged during 1859 in a series of experiments upon the functions of the pancreas and the influence of division of the pneumogastric nerves on these, deposited an account of the results in a sealed envelope at the Academy of Sciences—as is the habit with some of the second order of French *savans*, though with what useful object it would be difficult to say. M. Schiff having subsequently dissolved partnership in the property of the vital secret by publishing an account of these experiments in Germany, M. Corvisart requests a publication of the paper on the part of the Academy, which he would otherwise have regarded as premature.

The conclusions are as follows:—1. In the absence of gastric digestion, although the stomach may be full of solid or liquid aliments capable of inducing by their contact with the stomach a sympathetic or reflex action on the pancreas, this latter does not act, the formation of the ferment essential to the digestion of azotised aliments not taking place. 2. In spite of the absorption by the stomach of a considerable quantity of aliments, in the condition of aliment—that is, not having undergone the digestive transformation—the pancreas remains inactive, and gives rise to no secretory elaboration. 3. That which is required to produce active secretion on the part of the pancreas, and for its efficacious ferment to become elaborated in abundance, is the absorption of digested aliments or peptones. These peptones may be the result of either the peptic digestion of the individual or of a pepsine foreign to the individual or even to his species. 4. Dextrine exerts an analogous effect. 5. The pneumogastric nerves exert no direct effect upon the elaboration of the pancreatic ferment, for, notwithstanding their division, providing that peptones or dextrine be absorbed by the stomach, the pancreas may secrete its ferment in abundance. The influence of the pneumogastric is indirect, operating through the gastric digestion. 6. It is by the stomach and not the intestine that the absorption must take place. 7. In one word, the effectual pancreatic secretion in question is dependent upon the arrival in the blood of determinate and special materials—the gastric peptones and dextrine.

We have often been surprised at the character of some of the advertisements which appear in the German Medical journals. We copy the following from a leading Vienna journal—the *Allgeneine Medizinische Zeitung*:—1. "Remedy for Tape-worm.—On receiving, postage free, the sum of five florins, I will communicate to any Medical man a remedy which will certainly expel, without any danger, tape-worm in two hours. Dr. Stoj, Vienna General Hospital." 2. "Dr. Pattison's Gout-wadding, a preservative and curative agent in gout and rheumatism of every description, as also for pains of the face, chest, joints, etc., etc., etc. Packets at a florin each with directions and testimonials gratis." 3. "Dr. Pearce's patented Stomach Essence, a distinguished remedy in all affections of the stomach, indigestion, acidity, gastralgia, etc. Price one florin per bottle. The valuable character of this essence is shown by the testimonials of many thousand credible persons of all nations." It would seem that some of the English quack medicines are being patronised in even Medical circles in Germany.

THE LEVÉE.—At the levée held Wednesday, March 22, by H.R.H. the Prince of Wales, by command of Her Majesty, the following members of our Profession were presented:—Surgeon Daniel John Doherty, 13th Prince Albert's Light Infantry, by Colonel Lord Mark Kerr, C.B. Assistant-Surgeon J. R. A. Douglas, 4th Royal South Middlesex Militia, by Lieutenant-Colonel J. Scriven. Assistant-Surgeon John Elliot, M.D., Bengal Army, on his return from India, by the Secretary of State for India. Sir Ranald Martin, by Sir Charles Wood. Assistant-Surgeon J. J. M'Dermott, Bengal Medical Staff, by the Secretary of State for India. The following attended the levée:—Drs. Armstrong, R.N.; George Moore, R.N.; and Thomas Watson Lavies; and Mr. Fergusson.

REPORT ON CHEAP WINE.—NO. XIV.

(By our Special Empirical Commissioner.)

A few more words on port wine and sherry—How port wine is made—Effects of alcohol on wine—How to make old dry port—Past and present prices—The wine disease—Exportation of British spirits to Portugal—Oxford port—Hospital port substitutes—Sherry and its counterfeits—Good Marsala.

THERE are some facts about the stronger wines in common use, and especially about port and sherry, that really deserve serious consideration on the part of the Practitioners who prescribe and the public that drink them, whether as an ordinary article of diet or for the relief of weakness or disease.

With regard to port wine, there is no secret as to the method employed in manufacturing it; for the very best is a manufacture rather than a natural product, and is the result of natural processes checked and modified, and as I think perverted, to suit an unwholesome taste.

I have said over and over again that the natural proportion of alcohol in wine and other fermented liquors is about 20. often lower, as in the light Bordeaux and German wines, somewhat higher in the south of France, Greek, and Spanish. It may possibly rise to 26 or 27, and by the evaporation of the watery parts of wine from casks may rise to 30. Still, practically speaking, all wine above 26 per cent. is artificially fortified, and more especially if it range, as sherries do, from 32 to 40, in port from 34 to 42.

Now the following statement may be relied on as an account of the composition of port wine of the first quality. It was given to me by one who has a better right to know than most men:—

COMPOSITION OF PORT WINE OF FIRST QUALITY.

To the pipe of half-fermented must is added, to check fermentation—

	25 Galls.	of brandy	=	37·5 proof galls.
Say	5 ,,	elderberry juice to colour		
	6 ,,	more of brandy	=	9· ,,
	2 ,,	,, after racking	=	3· ,,
	1 ,,	,, on shipment	=	1·5 ,,
	39 liquid galls.			51· ,,
	76 of wine.			
	115 galls of port wine.			

Taking the probable strength when half fermented at 14° (the highest natural strength known being 28°), the strength would thus be about 42°, or a little above it.

In considering this statement, let me ask my readers to ponder on the quantity of alcohol; the quality thereof; the effects of alcohol upon wine, as wine; and the result as a beverage for civilised beings.

The *quantity* is such that a glass of port wine equals in strength more than two-fifths of a glass of brandy. As to *quality*, it is not brandy, but English rectified spirit. The effect of alcohol upon the wine is, first, to check fermentation and preserve a certain lusciousness; but then the wine, imperfectly fermented, tends to ferment again, unless held in check by further doses of alcohol; secondly, the addition of brandy really robs us of so much wine—we lose the virtues of the grape juice; thirdly, the effect of brandy upon wine is to kill it as wine; to precipitate colouring and extractive; to make it prematurely old and tawney, without the precious perfume which really old wine has. Perfectly fermented wine will keep, however weak it be, in alcohol. Wine imperfectly fermented, whether that imperfection result from the constitution of the grape, as is alleged to be the case in the South of France, or from defects in manufacture, or from *malice prepense*, as in Portugal, can be preserved from decomposition by the addition of strong alcohol. This addition, which the French call *vinage*, and which they regularly apply to the wines of four Southern departments, the Bouches de Rhône, le Gard, l'Herault, and les Pyrénées Orientales, does to the wine what it does to all vegetable juices; for example, to the juice of dandelion, when the *succus taraxaci* is prepared. It makes the wine turbid; precipitates albuminous matter, which ought to have been got rid of by fermentation; and when they have settled, and the wine is racked off, it is much better able to bear carriage. We can now understand how *fruity* port can be rapidly transformed into the *prime port, old in the wood, tawney, and very dry*, which is sometimes offered to the ignorant at low prices. A good dose of spirits and a little wine will make a tawney liquid, thin to the palate, but fiery to the throat, with scarce a smell of wine in it, and with little, if any, crust on the bottle or cork, which there must have been if the wine had grown old, and deposited its extracts in bottle. The phrase *old in the wood* applied to cheap port really means this:—Here is a liquid with little extractive matter. A man of common sense, who knows that port wine ought to have a good deal of extractive, will naturally look to the cork and the bottle to see if it has been deposited there as a crust by lapse of time; and if so, he will naturally expect good flavour, softness, and no prominent alcoholic taste. But this cheap dry port has no crust and no flavour, and a *very* prominent alcoholic taste. The wine merchant vows that it dropped its extractive through age in wood. *Credat Judæus!* Any one who knows the virtues of spirit, and who tastes it raw in the dry port, knows better. Yet, alas! so little is a common-sense knowledge of wine prevalent, that I have actually had new, tawney, almost wineless, alcoholised port, of choking strength, offered to myself as a *bonne bouche!!*

Then as to the effects of port wine upon civilised man, if there be one fact better proved than another, it is that it cannot be drunk habitually in small quantity, nor yet be resorted to as an occasional luxury in larger quantity with safety, by large numbers of our population. Ask any four men of forty and over, and three will say, "I can't drink port; I am afraid of the gout." It is curious, on looking through the evidence given before the Committee of the House of Commons on the Wine Duties, in 1852, to see even then how the veteran wine merchants and an old grower, who were examined, spoke of the taste for port wine as "vicious," and as "declining." Mr. H. Lancaster speaks of the consumption then as declining year by year, in proportion to the population. Mr. T. G. Shaw, whose valuable work on "Wine, the Vine, and the Cellar" I have more than once quoted, described the taste for port unmistakeably going down in 1852, and so did Mr. Cyrus Redding, author of the well-known treatise on Wine. At and before that day, abundance of evidence was laid before the English public of the misdoings of the Portuguese Government, and the manipulations of the wine-growers, and how the last were compelled to make and send a wine unnaturally sweet, strong, and black.(a)

Still there is no denying the fact, and it would be very ungrateful to deny it, that the old port wine was an admirable medicine when we wanted to pull a poor wretch up out of a fever or other state of intense debility. Good port wine of the right sort, which answers to the description given it by Forrester—"lively and clean on the palate, dry flavoured, with an enticing bouquet; colour varying from pale rose to bright purple; perfectly transparent and mellowing with age, the rose becoming tawny, and the purple ruby, both of which colours are durable"(b)—such port wine, I say, though good as an alcoholic medicine, yet if of higher alcoholic strength than 30 was not fit for the ordinary drink of healthy persons. It would give, and did give, the gout. It was serviceable as a tonic in cases of great debility; but then, as now, a light, unbrandied wine was demanded by all who had taken the trouble to investigate the subject, as necessary for the habitual beverage of healthy persons, and they demanded it on the score of morals no less than of health.

Whilst, then, I grant all that need be said in praise of port wine, I must add that there is one fact which puts us in an entirely different position with regard to it, from that of ten years ago; and that is *price*. There was cheap port wine then—there is none now. Prices have risen 30 to 100 per cent. Fifteen years ago I bought some of the best port in the world, of 1844, of one of the first wine merchants in London, at 48s. What do we get at 48s. now? (c) A liquid intensely strong, and with little or no port wine in it; red Tarragona, or some other cheap wine, and a little port, fortified up to 42°. I affirm that when benefit is derived from such port wine, it is from the alcohol, and that it would be better either to buy a cheap red wine that has no

(a) See "Report of Minutes of Evidence on Import Duties on Wine." Ordered by House of Commons to be printed, June 18, 1852.

(b) "A Word or Two on Port Wine." Edinburgh: Menzies. 1844.

(c) This very day I asked a man, who had been accustomed to dine at a City tavern for the last thirty years with a Masonic lodge, "What do you drink?" "I drink claret; I can't touch port." "Is the port good?" "Yes, but very dear. Common port used to be 5s., now it is 8s., a rise of 60 per cent."

price added for the name "Port," or else to give an equivalent of brandy.

In order to make it clear that to get port wine equal to that of ten or fifteen years ago, we must pay almost double the price; or, if we pay equal price, that we don't get half the wine, let me quote from the admirable "Reports of H.M. Secretaries of Embassies and Legations on the Effects of the Vine Disease. Presented to both Houses of Parliament, and printed 1859."

The production of port wine was 94,122 pipes in 1851. It fell to 14,673 in 1856; it was 17,353 in 1859. Wines of this last vintage, says Mr. Barron, the Secretary of Legation, require a more than average proportion of alcohol. This used to be supplied by the native brandy, which alone could be legally used, but by a decree of September, 1858, foreign spirits might be admitted. The value of port wine has doubled since 1848; in the former year crude wine was valued at 84 milreis per pipe, in the latter at 171. So much for the effect of the vine disease in decreasing quality and increasing price. Now for a few official words on port wine generally.

No port wine can be shipped from Oporto to England, unless "approved," and unless it receive a "bilbete," or ticket of approbation, from persons authorised by Government. "To be 'approved,' port wine must possess certain qualities which the grape juice alone cannot impart. It must possess body, sweetness, and colour enough to qualify it for 'benefiting' other wines, or in the words of the law,—*para si, e para dur*. This disposition is founded on the notion that port is required by us principally for blending with other wines. This has led to the production of that artificial, thick, strong, and sweet compound in such great demand for tavern use in England. *A simple unloaded wine cannot lawfully receive a 'bilbete,'* but must be shipped under a purchased one."

Pure port wine, unknown in this country, unbrandied and unsweetened with Jeropiga—(for so the compound of elderberries, grape juice, and brandy is called which is used to colour and thicken the wine) is a wine of Burgundy character, and quite unlike the stuff commonly known as port.

To conclude this part of my subject, I will give a short quotation from Ridley's Monthly Circular for March, 1865. Speaking of the exports of British spirits during 1864, it says:—"Our best customers are the Portuguese wine growers, who have taken upwards of 1,500,000 gallons to fortify their unfermented juice.

"In 1864 we took from the Portuguese 3,342,820 gals. port wine.
,, They took from England . 1,500,000 ,, of spirit."

He must be dull indeed who does not see that in paying high prices for port wine we are really buying back the British spirits that were engendered on the banks of the Thames.

(To be continued.)

REVIEWS.

Nouveau Dictionaire de Médécine et de Chirurgie Pratiques. Tome Deuxième: Ame—Aor. Paris: Baillière and Son. 1865. Pp. 797.

The subjects treated of in this volume are in continuation of the letter A, and amount altogether to forty-three. Some of them—as the articles on "Amputation," "Anæsthetics," "Anus" (which includes its diseases), "Anæmia," "Aorta" (including its diseases), "Aneurism," and "Antimony,"—are lengthy and exhaustive, and are excellent summaries of the present state of our knowledge and of ancient and modern practice. The illustrations are also well selected and well executed. Some of the articles, as those upon certain drugs, are judiciously short, but the intention to omit nothing that might by any possibility be sought for in a Dictionary of Practical Medicine is amusingly evidenced by the introduction of a curious little article upon "Anthropophagy." The writer collects into this a number of tales showing the connexion of anthropophagy with the varieties of insanity. We are somewhat astonished to learn from M. Barallier, who writes the article on "Anti-scorbutics," that, notwithstanding the prolonged experiences of the British navy, now reaching over more than a century, the official use of lime-juice in the French marine only dates from the period of the Crimean war. He tells us that the honour of having brought about this happy innovation is due to Professor Gallerand, of Brest, who observed the good effects of its use in the English ships while cruising in the *Cleopatra* in 1855, apparently in their company. Well, the "Dictionaire" is inaugurating a new epoch. It is to be hoped that never again will British experience take a hundred years to cross twenty miles of salt water.

We shall on this occasion content ourselves with a single extract from the volume, and shall select for the purpose M. Lorain's account of the operation of iron in the treatment of anæmia. Experience having decided on the value of iron as a remedy, M. Lorain says:—

"Two theories have been advanced, one of which has regarded the iron as entering into and combining with the blood; the other has seen in the iron merely a stimulant to the digestive mucous membrane. The partisans of the former theory have aimed at finding out the most readily absorbable preparations, such as are most capable of being modified by the blood and of entering into combination with it. These efforts have resulted in an extraordinary multiplication of pharmaceutical preparations and in an excessive employment of the iron. This infatuation is even now far from being at an end, notwithstanding that bitters have again been received into favour, and that the physical excitants (hydrotherapeia) have made some progress in Professional opinion. So far as the physiologists are concerned (C. L. Bernard), it is a matter of demonstration that the salts of iron exercise a special action upon the gastric mucous membrane. All parts of the mucous membrane which they come into contact with assume a more active circulation. The iron is thus a direct excitant of the digestive organs, and this property suffices to explain the success met with in so many cases in which chlorosis or anæmia are maintained by dyspepsia. Is there any need to say that anæmia will be treated according to the malady which keeps it up? One patient has one sort of anæmia, another patient another sort. The leading treatment is that which takes up for its motto '*Sublata causa tollitur effectus.*' In Medicine, the most difficult thing is not to treat a disease, but to recognise it, and it is often merely satisfying oneself with words to designate a malady by a symptom, and to say such and such a symptom requires such and such a remedy. Do we not know that the organism shows itself in that condition which we call a morbid symptom under the influence of a host of different causes? It is necessary, therefore, to rise to the source of the anæmia, and not to confound under the same name and the same therapeutical *régime* a patient with cancer, one suffering from phthisis, and a chlorotic girl. To administer iron to every anæmic patient as a panacea would be to be guilty of a serious mistake."—P. 214.

Again, we advise British Practitioners to possess themselves of the volumes of this work as they come out. No important contribution to Medical or Surgical science is overlooked up to the very date of publication.

The Use of the Laryngoscope in Diseases of the Throat; with an Appendix on Rhinoscopy. By Morell Mackenzie, M.D. Lond., M.R.C.P., Physician to the Dispensary for Diseases of the Throat, etc. London: Hardwicke. 1865. Pp. 154.

This book is well calculated to popularise the method of investigation which passes under the name of laryngoscopy. It is throughout amply illustrated by well executed and very clear wood cuts, showing the form and mechanism of all the instruments employed in the practice of it, and also the method in which they are severally used. It is one of the best books for a beginner that we have seen. Although the book is in octavo there is not much upon a page, since the publisher has taken advantage of the comparative cheapness of paper to give the reader the benefit of a large type with good spaces between the lines. This is one method, and to our mind one of the best of methods, of utilising the boon of the Chancellor of the Exchequer, for to those who read extensively the character and size of the type is of no small moment.

The first chapter is devoted to the history of laryngoscopy. It occupies 33 pages, a large space considering the size of the entire book; but as the author probably thinks this matter of more importance than we do, and also necessary to ensure completeness, we shall not quarrel with him on this account. The second chapter describes the laryngoscope and the method of illumination. The third the principles, practice, and special difficulties of the art of laryngoscopy. The fourth describes the healthy larynx as seen by the aid of the instrument. The fifth the accessories of laryngoscopy, such as magnifying instruments, the self-holder, head rest, and the arrangements for making evident to others that which the

operator is himself viewing. The sixth chapter enters upon the application of remedies to the larynx, such as powders of various kinds, solutions, galvanism, etc. The seventh describes the operations upon the larynx. And the eighth contains some very brief remarks upon the manipulation of laryngeal instruments. So that it will appear that the subject is fully although concisely discussed.

It is not at all necessary for us to follow Dr. Mackenzie through the whole of his chapters. We shall just quote in conclusion the author's remarks upon the "special difficulties" of the practice of the art, with a view to give our readers an idea of his style of writing, for we have no doubt ourselves that the book will meet with a rapid and extensive sale.

"The difficulties solely dependent on the Practitioner's want of dexterity have been already considered; but a few words must be devoted to those in part due to the patient. The obstacle may be either undue irritability of the fauces, a peculiar action of the tongue, or a pendent condition of the epiglottis. As regards faucial irritability, it is to be observed that, though this condition sometimes exists of itself, it is far more often caused by the clumsiness or inexperience of the Practitioner. Most patients can be examined with facility at the first sitting, and only a small proportion require any training. With timid patients—especially women—on first using the laryngoscope, it is well to place the mirror for a second on the back part of the palate, without being too particular about seeing anything. By introducing the mirror once or twice in this way, the patient's confidence is secured, and a more fruitful examination may afterwards be made. For reducing an unusually irritable condition of the fauces, the internal administration of the bromides of potassium and ammonium has been recommended; but my experience has proved the total inutility of their employment. Some advise that the patient should be directed to inhale a few whiffs of chloroform; but in those rare cases which present much difficulty I have found the best effects result from sucking ice for about two minutes before the mirror is to be introduced. The most irritable fauces cannot resist this plan. The conformation of parts sometimes causes some difficulty. Thus when the tongue is drawn out, it sometimes forms an arched prominence behind, which causes trouble in introducing the mirror, and difficulty in seeing it when *in situ*. It is due to reflex action, and will be best avoided by pulling the tongue less out than usual, keeping it level with the mouth (that is to say, not holding it down towards the chin), and by cautioning the patient not to strain. Enlarged tonsils sometimes embarrass the operator. In this condition a small oval mirror should be used. An unusually large or pendent epiglottis causes a more serious impediment to laryngoscopy. When the valve is very large, it sometimes shuts out the view of the larynx; but the same result is more often caused by unusual length or relaxation of the glosso-epiglottidean ligaments. In the production of high (falsetto) notes, the epiglottis is generally raised, and this also happens when a person laughs; the observer will therefore do well to take advantage of these physiological facts. In a certain number of cases, however, the epiglottis remains obstinately pendent. For elevating the valve in these cases, various instruments have been invented (by Voltolini, Bruns, Fournié, Lewin, and others), and I have myself had one contrived which has proved useful in some cases. Most of the instruments hitherto invented, however, cause so much irritation that they cannot often be employed with advantage. When the epiglottis covers the larynx in the manner described, the laryngeal mirror should be introduced lower in the fauces, and more perpendicularly than is usually suitable. In almost all cases the arytænoid cartilages surmounted by the capitula Santorini can be seen, and from them we can judge with tolerable certainty as to the mobility of the vocal cords; the state of the mucous membrane of the larynx in other parts cannot, however, be safely inferred from the condition of that which covers the arytænoid cartilages."—P. 60.

The above extract occupies in the original just three pages.

The Science and Practice of Medicine. By Dr. Aitken. Third Edition. Griffin and Company.

Upon the publication of the second edition of this work we gave it the warm welcome of a hearty and strong approbation. It is a gratification to the reviewer of a really good book—second only to that felt by the author himself—when he finds that his judgment has been ratified by the thorough success of its publication. In little more than six months Dr. Aitken, tells us, the second edition was exhausted, and a new one demanded. In the execution of the present one the author has performed his task most conscientiously and thoroughly. It bears the marks of a careful revision, and much new matter has been added. The third edition forms the latest and most scientific work on Medicine with which we are acquainted.

FOREIGN CORRESPONDENCE.

GERMANY.

Berlin, February 8.

During the late Schleswig-Holstein campaign, Professor Von Langenbeck, (a) who acted as Surgeon-General to the Prussian army, made, amongst many other similar operations, five times the resection of the ankle-joint in cases where the bones were crushed to such an extent that many Surgeons would have decided upon amputation of the leg. Von Langenbeck is of opinion that amputation may in many cases be dispensed with not only where the ankle-joint has been opened by a gunshot wound, but also where the bones constituting the tibio-tarsal articulation have been considerably injured. Where projectiles have passed transversely through the malleoli and the talus, a complete recovery may ensue without anything being done but incising the joint for the purpose of providing an exit to the pus, and extracting bone splinters which may be present and are accessible to the Surgeon.

It is a curious fact that the resection of the ankle-joint has many times been performed, since the end of the last century, for complicated fractures and dislocations, and for caries; amongst others by Messrs. Gooch, Moreau, Cooper, Jäger, and Textor; but that in none of the numerous wars which have been waged since that time has the same operation been made in gunshot injuries of the ankle-joint. M. Velpeau, it is true, states in his treatise on operative medicine that a Mr. Read had, in a case of gunshot wound of that joint, sawn off the lower ends of the tibia and fibula, and that a useful foot had been the result. Most authors quote this case, after Velpeau, as one of resection; but on close analysis it appears that the operation, which was performed after the battle of Fontenoi, in 1745, consisted merely of the extraction of fragments of bone from the crushed ankle-joint, and not of resection, which latter was not known before 1768. Nevertheless, the case in question, which is fully mentioned in Faure's prize essay on amputation (1759), is one of great interest, and shows how much may be done by conservative Surgery.

Neither in the Crimean nor in the last Italian war has the resection of the ankle-joint been performed. Recent authors on Military Surgery, such as Demme and Legouest, reject the operation altogether as unsuitable. Now, Professor Von Langenbeck had, since 1850, four times performed it in private practice. In all these cases there had been long-continued suppuration after injuries. In two of them there had been complicated dislocation of the foot; in the third, dislocation of the foot, with fracture of both malleoli; in the fourth, that of an old Russian officer, the ankle-joint had been crushed in the battle at the Alma by a Minié ball. In the first two cases a piece of the tibia, three inches long, was resected; in the third, both malleoli and the surface of the talus; in the fourth, a piece of the tibia, four inches long, and the largest portion of the talus. In all these cases the periosteum was completely preserved, and the cure resulted without shortening, abundant osseous tissue being formed. In the second and fourth cases there was anchylosis; but in the first and third a moveable ankle-joint resulted. These two latter patients are now frequently seen by the Professor, and they are able to walk to any distance without inconvenience.

In consequence of the good results thus obtained, the Professor determined on setting out for the Schleswig-Holstein campaign to perform the operation whenever suitable cases might offer. He did it five times between May and August, 1864. All were late operations. One patient died of Hospital gangrene; all the others recovered. Two were Prussian soldiers; three Danish prisoners captured in the island of Alsen. In the first case a rifle bullet went into the malleolus internus and came out of the malleolus externus of the left foot. Both malleoli and the upper surface of the talus were resected, the piece taken out being two and a-half inches long.

(a) This gentleman has had titles of nobility conferred upon him for his eminent services during the late Danish war.

The joint is now anchylosed; but the patient is able to walk for a quarter of an hour at a time without inconvenience. There is no shortening, and the formation of new osseous tissue has been so abundant that the circumference of the leg operated upon is much larger than that of the other. In the second case the malleoli were splintered into seventeen pieces to the length of three inches. The re-section was done, but the patient died ten days afterwards of nosocomial gangrene. In the third case the lower end of the left tibia and fibula were fractured by a bullet, which went into the crista tibiæ, and came out at the back close to the tendo Achilles. The foot was considerably dislocated. A piece of the tibia, four inches long and broken into fourteen fragments, was removed, and the cure was quite satisfactory. In the fourth case the bullet went into the joint just below the malleolus externus, and went out by the middle of the internal malleolus. A piece three and a-half inches long, being the lower end of the tibia and the upper surface of the talus, was removed. The cure was complete about two months afterwards. In the fifth case there was total crushing of the ankle-joint, with considerable dislocation of the foot. Both malleoli and the whole of the talus were removed, and the cure was complete in about two months afterwards. The last three patients, however, when last heard of, had not yet commenced walking.

All these operations were done altogether sub-periostally; the periosteum, which was very much thickened, being torn off the bone in connexion with the fibrous envelope of the malleoli and the ligaments. The interosseous membrane was always most carefully spared, and this is a circumstance upon which much stress should be laid, because this membrane, being closely allied to the periosteum in texture, according to Von Langenbeck's observations, probably always becomes ossified, is completely amalgamated with the newly-formed bone, and serves to increase the bulk of osseous tissue. The Professor has, in his operation, never laid bare nor injured any tendons, vessels, or nerves. He has sawn through the bones with his stitch-saw by comparatively small incisions. If only one bone was crushed, this one only was removed, and the other bones left undisturbed, even if they were transverely fractured. The cutaneous incision was always made on the inner surface of the tibia or the outer surface of the fibula, but never before or behind these bones. If both malleoli had to be removed, a perpendicular incision was made on the middle of each bone. The operation was, as a rule, not connected with much difficulty, only in the fifth case it proved troublesome, as the whole of the talus had to be removed. The wound was always united by sutures, only a small opening being left for the escape of pus; after that the plaster-of-Paris splint was put on, and the wounded part rendered accessible by cutting a hole into the bandage. A day or two afterwards the splint was soaked with a solution of resin in ether, whereby it was rendered waterproof, and then local baths were employed. In most cases the first splint was left on unchanged for three or four weeks.

Real "Molluscum contagiosum" is such a rare disease that a few remarks on a curious case of this affection which was lately observed in Professor Ebert's clinique may be of interest. The patient was a little girl, aged 4, of scrofulous habits, who had two years ago suffered from caries of the os cuboideum; soon afterwards small tumours of a size varying from that of a pea to a walnut appeared on the eyelids, the nose, the forehead, temples, lips, chin, and cheeks. They secreted a putrid and most offensive semi-fluid mass. When she was brought into the Hospital she had altogether 107 such tumours, of which there were 15 on the left, and 16 on the right eyelid, entirely closing up the opening of both eyes. In the centre of these tumours there was a small dark point, which was deeper than the circumference, being evidently the opening of a follicle. When the tumours were compressed by a pair of pincers, or by a thread laid round their base, a fatty white core was pressed out through the points mentioned. On being examined by the microscope, it appeared that they did not consist of fat or sebum, but of epidermis-cells, covered by a layer of large cells devoid of nuclei, such as are found in cancroid tumours. Ligatures were passed round the base of the largest of these tumours, after which they became black, dry, and fell off. Putrid pus formed on the surface, and an application of chlorine water was then made. There was some erysipelas of the left side of the face, which, however, soon subsided. In those tumours which had not been operated upon, considerable suppuration now took place, after which they became much smaller and drier, and within a short time disappeared altogether under the influence of good food, cleanliness, baths, and cod-liver oil. Two months after admission there were only very few small white tumours in the neighbourhood of the eyes left, and the great disfigurement of the face had quite disappeared. A month afterwards, however, fresh tumours were formed, and a violent blennorrhœa of the conjunctiva supervened. These fresh tumours were not nearly so large as the previous ones, and gradually disappeared after having reached a certain size. At present the child is almost entirely cured, there being only a few traces left of the affection.

In order to settle the question as to the contagiosity of these tumours, Professor Virchow, at a time when the affection was at its acme, inoculated a dog with the contents of these tumours, which were also rubbed into the skin of the animal. These experiments, however, failed. Professor Ebert then inoculated himself with the same, first on the arm, and afterwards on the forearm, but equally without success. An idiot child was afterwards experimented upon, but in this case also there was no result. It was therefore believed that molluscum contagiosum was not a really contagious malady, when it was remarked one day that a child, whose bed was nearest to that of the patient in question, had three of the same tumours on the left eyelid, and in the course of time she got no less than nine of them. The children had been frequently playing together, and it was therefore quite probable that some of the secretion might have got into the follicles of the second child, and there gave rise to the same disease.

Professor Virchow considers the contagiosity of these tumours as established by the case related above. He says that these cases are exceedingly rare, and that the expression "Molluscum contagiosum" is by many, and chiefly by English authors, indiscriminately used for all sorts of little tumours, more especially for small encysted atheromata with excessive formation of connective tissue. He has examined several of these tumours, and could at first not satisfy himself as to whether the openings, which could be distinguished at the surface, were pre-existing apertures of follicles, or if they were caused by ulceration, and pressure of the mass from below upwards. The microscope showed that the several nodes were exceedingly similar to that form of tumour which is generally designated as epithelial cancer or cancroid. The apertures communicated with a number of long canals, which were filled with a mass consisting of an exterior layer of epidermoid cells, and an inner portion which looked like fat. In the same way we notice in cancroid tumour of the lower lip, after ulceration has commenced, deep fissures and holes which lead into canals and tunnels. But there appeared this difference between the two, that the molluscum nodes proceeded directly from the follicles, and there was only production from the surface, but the parenchyma was nowhere affected; while, on the other hand, cancroid tumour is a parenchymatous formation which can only secondarily proceed outwards, after the skin has been broken, and ulceration commenced. The mass which filled the centres of these molluscum canals, consisted chiefly of round, small, shining, corpuscles, which lay closely together and looked like heaps of cells filled with fat. But when they were more carefully examined, it appeared that they did not consist of fat, but of albumen. These corpuscles are formations which also occur in cancroid tumour, and are most probably formed endogenuously in cells, after which they become free. They are no doubt the vehicles of contagion; being the only thing which is foreign to the system, and being also found in cancroid tumour, which is notoriously infecting. By reason of their very small size they are peculiarly suited to penetrate into the smallest openings of the skin, and to be smeared, as it were, into the hair-follicles, where these are somewhat open. Professor Virchow has, therefore, endeavoured to find out whether phenomena of motion may be observed in them. They have the habitus of cells, which in other places are found to be contractile. But he has never as yet observed anything else but imbibition of liquids, and consequent change of shape in the former, but no spontaneous motion.

It would, therefore, appear that there are three different species of "molluscum." The originally so-called tumour, which belongs to the connective tissue class, Virchow proposes to call *Fibroma molluscum*; the one that has just been described might be called *Epithelioma molluscum*. Between these two principal forms stands that which is described by English authors as *Molluscum contagiosum*, but which is in reality a perfectly closed node, consisting of epidermis cells surrounded by loose connective tissue. The author who has

most offended in this way is Mr. Toynbee, who has described "*Mollusca contagiosa*" of the external and middle ear, which are perfectly closed sacs without an opening, and cannot, on this account, be contagious, as it has been proved a long time since that there must be an open orifice, if tumours are to be transmitted.

GENERAL CORRESPONDENCE.

CONSANGUINEOUS MARRIAGES.

[To the Editor of the Medical Times and Gazette.]

Sir,—Thirty years ago my attention was directed to this subject by the gentleman with whom I "served" my time as apprentice, and from that time to the present it has engaged my attention. My inquiries have embraced the lower animals, as well as man and individuals in every class of life. They received a special stimulus when I was applied to for an opinion on the subject, first by a cousin who has married my own sister; secondly, by other cousins who would not take such a step without Medical sanction, and who have abstained from uniting.

The opinions I was educated in were,—1. That a marriage between cousins was more frequently a barren one than were unions "out of the blood." 2. That deaf-mutism was a frequent result of such marriages. 3. That struma, insanity, and idiocy were such common consequences that it was a wonder if the offspring of cousins escaped them. 4. That breeding "in and in" spoilt the value of "stock."

The conclusion which experience has induced me to come to is that there is some truth in all these propositions. 1. I know two cousins, members of very prolific families, who are the only barren couple; yet, on the other hand, I know cousin couples quite as prolific as other people. 2. My information about deaf-mutism is second-hand, and by no means conclusive. 3. I do not know a single cousin couple who have a healthy set of children. I do know many who have struma in one or other form, or idiocy as the rule, rather than the exception, in every one of their families. 4. My information is second-hand—from a breeder and from papers he has sent me from time to time—and tends in both ways.

Unfortunately, I have never yet met with a cousin couple whose Medical pedigree was faultless. Such good pedigrees may and do exist in man; they frequently do in the bovine, ovine, and canine species.

The breeder's experience is that a union between faultless parents, even though they may be as closely related as father and daughter, brother and sister, etc., produces a faultless offspring; but that if there be a Medical flaw in the family history of either parent, that the flaw appears in the offspring in an exaggerated form.

Considering how few amongst ourselves are untainted by some hereditary disease, we can readily imagine how the doctrine has become prevalent that the marriages of consanguinity are bad. A consumptive father stamps a better mark on his children if he selects a thoroughly healthy country-bred wife than if he had paired with another consumptive. Few children will escape insanity, gout, syphilis, or other hereditary disease if both their parents have one or other in their "blood." Nor will their constitution be good if a father bring one disease and the mother another when they form their union. In few words, bad bloods mixed together make worse; bad blood mixed with good is better than a union of bads; good bloods, *cæteris paribus*, reproduce their like.

Now, in mixed marriages one party may be unblemished; in cousin couples if one have a taint the other often shares it, for cousins are the offspring of two brothers or two sisters. But it may happen that one cousin in a couple has a faultless family history, while the other is tainted by some hereditary flaw. In this case the offspring are better than they would have been if both had been tainted, but not so good as are offspring of strangers in blood under the same circumstances. This fact is one difficult to establish in the human race, from the limited opportunities we have of observation, but it has been established by breeders of cattle, etc. If a couple, then, have both the same taint the chance of its becoming intensified in their offspring is indubitable. If there is no flaw in the family history, there is no greater probability of disease appearing in the offspring than would occur in any other couple. This conclusion is borne out by appeals to stock breeding; it is further borne out by an appeal to the vegetable world. Most plants bear both the male and female element in the same flower—some on different flowers, and some on different growths, it may be many miles apart. Yet the seeds respectively arising from brother and sister (so to speak), from cousins, and from strangers, are all equally good. Yet, when the gardener wishes for a hybrid he always selects the most perfect specimen he possesses, that the seedlings may have the best virtues, and as few of the vices, of their ancestors as is possible.

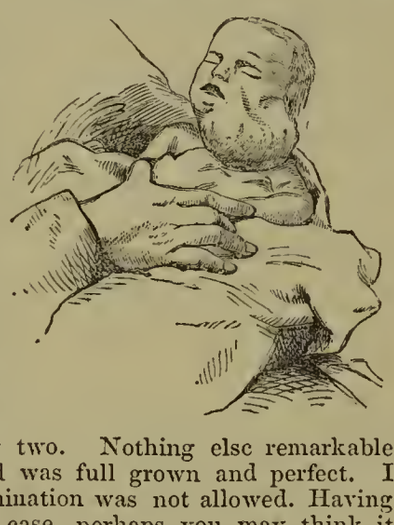
The moral is simple,—cousins of thoroughly good stock may marry fearlessly; cousins with a family taint ought to shun a closer relationship. I am, &c. T. I.

CASE OF CONGENITAL CERVICAL TUMOUR.

Letter from Mr. James Ferrier Clarke.

[To the Editor of the Medical Times and Gazette.]

Sir,—The child, of which the enclosed is a photograph, was born September 20 of apparently healthy parents, who had previously produced healthy children. The child gradually sank, and died October 8. The photograph was taken a week before death. The tumour, which had not altered in any way since birth, was covered by healthy skin, was soft and movable, feeling like a number of enlarged glands contained in a bag of fluid, and unattached to the sternum or ribs. The sublingual glands were much enlarged. It was necessary to divide the frænum linguæ, from which an ill-conditioned sore resulted. Shortly after birth a purulent discharge was observed from the left ear, which ceased in a day or two. Nothing else remarkable presented itself; the child was full grown and perfect. I regret a post-mortem examination was not allowed. Having never met with a similar case, perhaps you may think it worth inserting. I am, &c.,



James Ferrier Clarke, L.R.C.S.I., L.C.P.I.

Farnworth, near Bolton, October 10.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 14.

Dr. Alderson, President.

The President, in taking the chair for the first time, tendered many and grateful thanks to the Society for the honour they had conferred upon him. Such honours, he said, pointed to advanced life; but when he looked around him at the memorials of those who had previously occupied the presidential chair, he felt that increasing years had fairly won their consolation. His predecessors had achieved varying amounts of Professional reputation and worldly success, and on that score he would not compare himself with them, but he would yield to none in will to develope the interests of the Society. He thus dared to hope that in his hands the Society would suffer no diminution in its influence and importance. He was fully aware of the responsibilities of his position, and relied on the Society for liberal support in cases of difficulty.

Mr. George Southam related a case of

ANEURISM BY ANASTOMOSIS OF THE SCALP TREATED SUCCESSFULLY BY SETONS AND LIGATURE OF THE COMMON CAROTID.

The patient, a married female, aged 28 years, had been suffering from the disease for upwards of eight years. She became an in-patient of the Manchester Royal Infirmary in May, 1864. The temporal artery and its branches, with the exception of those distributed around the eye and forehead (which, though visibly distended, were not pulsatile), were much enlarged, some of them almost to the size of the little finger, and communicating to the hand a distinct arterial thrill.

The occipital artery and its branches were also similarly affected, though in a less degree. Pulsation was only slightly checked by pressure on the trunks of these vessels, but was completely suspended by compression of the common carotid. An ulcer had formed over the parietal protuberance, which had bled rather freely on several occasions. An attempt was made to remove the lint from the ulcerated surface; but arterial hæmorrhage supervened to so great an extent that the bandages were immediately replaced. On the following day, having taken the precaution to have the requisite appliances for the arrest of hæmorrhage at hand, the compress was removed in the presence of several members of the Hospital staff. Profuse hæmorrhage followed from the ulcerated surface, which occupied a space of about an inch and a half in diameter. Pressure with the fingers failed to stop the effusion of blood, escaping as it did from countless sponge-like orifices. Lint steeped in a solution of perchloride of iron was also applied, and the carotid compressed; but the blood continuing to flow, with the consent of his colleagues, Mr. Southam proceeded to place a ligature on the trunk of the common carotid, which had the desired effect. Seven days after the operation the vessels of the scalp were soft, flaccid, and apparently bloodless; but very feeble pulsation could be felt in the course of the temporal artery. Four setons of worsted, about four inches in length, were now passed through the vessels, one across the temporal fossa, the others through the parts of the scalp where the vessels were most distinct. The week following, some of the vessels near the original sore were found distended, and slightly pulsatile. Three setons were inserted through them, and another about a fortnight afterwards at the posterior part of the occiput, where a vessel about an inch and a-half in length could be distinctly traced pulsating slightly. From this period the case proceeded satisfactorily, and on the 12th of August she left the Hospital quite well, with the exception of a small ulcer at the back of the ear, which was the remains of a slough that had taken place in that part. At the end of December there were no signs of any return of the disease. The author remarked that the success of the plan of treatment adopted in the above case afforded a prospect of bringing this hitherto unmanageable complaint more effectually under the control of the Surgeon. At the time of the patient's admission into the Hospital, the disease had arrived at a stage when prompt measures were absolutely necessary for the preservation of life. According, on the supervention of hæmorrhage, ligature of the carotid was immediately resorted to. But the unfavourable results which have frequently followed deligation of the carotid for aneurism by anastomosis of the scalp induced the author not to rely solely on that method of treatment; and the further progress of the case showed that if other means in addition had not been employed, no permanent benefit would have resulted from the operation. This need excite no surprise, for the operation to be successful must either permanently cut off the circulation through the diseased vessels, or lead to their obliteration—conditions which, however probable when the disease is confined to a single vessel, and assumes the ordinary form of aneurism, are not likely to follow when several are affected, as in the present case, involving the entire temporal system, with its arteries, veins, and capillaries. For the blood in the vessels after deligation does not coagulate, but readily finds its way into the general circulation, and the vessels remaining unchanged become again distended as soon as the circulation through the anastomosing branches is re-established. But, despite these drawbacks, deligation, even when not required for the suppression of hæmorrhage, has its advantages; for the temporary interruption which it causes to the circulation through the diseased structures affords a favourable opportunity for the application of other remedies. Setons were therefore resorted to as soon as there were indications that the scalp was supplied with blood sufficient for reparative purposes. They were applied at intervals wherever any return of pulsation showed itself. It is unnecessary to dwell on the futility of trusting to setons only in the treatment of these cases. They have so repeatedly failed that their success in the present instance must be attributed to the quiescent state of the circulation produced by the ligature of the carotid. In confirmation of this view, the author referred to the case of a young lady who was under his care several years ago, whose index finger and thumb had become, through enlargement of the vessels, twice the natural size. Some of the vessels were in circumference as large as goose-quills, and gave a livid-bluish appearance to the fingers. Not the least pulsation or arterial thrill could, however, be discovered; and the vessels could be partially emptied of their blood by pressure. Three fine worsted setons were passed from the hand to the apex of the finger. Others were inserted at intervals. At the end of six months all evidence of the disease had disappeared. Deligation of the arteries, therefore, prior to the insertion of setons, does not appear necessary in all cases of aneurism by anastomosis. The disease is an affection of arteries, veins, and capillaries, varying in its characters according to the extent to which each of these structures is implicated. Deligation, therefore, seems to be required where the arterial tissue is principally involved, or where the enlargement of the capillaries has taken place to such a degree as to enable the force of the heart's action to communicate its impulse through the capillaries to the blood circulating in the veins. Similar considerations will also determine the extent of deligation, which, except where severe hæmorrhage occurs, need, in the majority of cases, only be applied to the smaller arteries. Though setons were employed in the case now related, yet galvanism, the injection of perchloride of iron, and other similar agents, may, in some instances, perhaps, be advantageously substituted; and even the risks attending ligature of the arteries may, by instrumental or digital compression, be occasionally obviated.

The President said that ligature of the carotid seemed a large operation for so limited a disease. However, it had been successful, and there was, he added, nothing so successful as success. He thought that photographs showing the conditions of parts both before and after cure would have been valuable.

Dr. Sibson said that he had communicated the paper for Mr. Southam, and unfortunately Mr. Southam was unable to attend on account of illness. He (Dr. Sibson) had no remarks to make on the general subject, but would draw attention to the fact that the carotid had been tied to arrest hæmorrhage, and not as a means of cure. Yet this having been done, the further treatment by setons was much advanced, and altogether the case was a good piece of Surgery.

Mr. C. H. Moore said the ligature of the carotid was not for the cure of the disease, but for the arrest of excessive arterial hæmorrhage. It was quite a different question whether such aneurisms required ligature of the vessel for their cure. In some it would not be necessary; in others, the predominance of large arteries might, perhaps, be so great as to demand the operation. He had seen a case in which the tumour was as large as that described by the Author in which (under Mr. De Morgan's care) cure had been effected by setons repeatedly passed, by needles, over which were placed caoutchouc rings, and by threads carrying perchloride of iron. By these means the tumour became so much less that the patient could leave the Hospital. Five years later he came under the care of Mr. Nunn. He then had an overlap or fold of skin in the position of the tumour, but no trace of the former disease. There was an abscess, of the size of two eggs, which occupied the site of the tumour. Mr. Moore then referred to vascular tumours of the scalp in children, which sometimes attained a formidable size, and then occasionally attempts to cure them were followed by inflammation and death. He had had no experience of tying the carotid in such cases, but when a large vessel was open and it was impossible to tie it or the vessels entering the tumour one after another, it would be necessary to tie the main trunk.

Mr. Savory said the case was interesting in another point of view. There was no rule in Surgery more insisted on than that we ought to tie an open vessel at the seat of injury. Often, however, it was impossible to do so, and Mr. Southam's patient's case was an instance of local and profuse hæmorrhage, controlled by ligature of a vessel at a distance. This case would encourage Surgeons to tie at a distance when the point injured could not be reached.

The President stated that Mr. Harry Lobb wished to show to the Society

A NEW METHOD OF APPLYING ELECTRICITY TO THE BODY FOR THE TREATMENT OF SOME FORMS OF DISEASE, WITH A DESCRIPTION OF THE APPARATUS.

Mr. Lobb said: The present methods of applying electricity to the body are, I consider, in many respects faulty. It has therefore struck me that a better plan might be contrived. It is a desideratum to be able to apply a voltaic current of known intensity persistently and continuously to any part of the body for any desired time. To effect this I have had woven a material of silver wire and cotton in such a manner that

either the wire or the cotton can be made to come to the surface. This material can be applied next the skin, and can be made to fit any part of the body, either covering a part or the whole of a limb, or to cover an organ or a small surface. It can be either applied with the metallic surface to the skin or the cotton can be moistened, as it is constructed so as to absorb moisture, and applied to the integument. To the end of the silver wire a covered conducting wire is soldered to the material. The method of application is as follows:—The organ, part, or limb is completely covered with the material; the nervous centre supplying the organ, part, or limb with nerves is covered with another portion of the material, each having a separate conducting wire leading from it. These wires are led to a small portable voltaic battery supplying sufficient electricity to penetrate the part, and can be modified according to the amount of surface to be acted upon, according to the nature of the disease, etc. The battery can be arranged for quantity by increasing the amount of surface of the elements, or intensity by increasing the number of the elements. To test the intensity of the battery, a galvanometer may be introduced into the circuit, and when this indicates that the current is passing, the number of elements of the battery should be noted; or a voltameter may be introduced into the circuit, and when the water is decomposed it shows that there is a current from several more elements in the battery used than is necessary to penetrate the part. The advantages claimed for this arrangement are, that a persistent and continuous current of voltaic electricity, of known quantity and intensity, can be made to pass through any portion of the body for any specified time; that this current can be applied generally over any large surface, through a limb, or can be localised in any part, organ, surface, etc., however circumscribed; also an interrupted current from an electro-magnetic or magneto-electric battery can be applied by means of this conducting material with the same ease by the Surgeon. Thus the current may be applied by the patient at any time during the day or during the night; or without removing the clothes the Surgeon may apply any required current to the patient; or a persistent measured current may be caused to pass day and night or for a specified time, the patient carrying about his person a portable battery. The apparatus, woven material, etc., were exhibited and explained.

After remarks by the President, Dr. Harley, and Dr. Fuller,

Dr. Thomas Hillier related a case of

CONGENITAL HYDRONEPHROSIS, IN A BOY FOUR YEARS OLD, REPEATEDLY TAPPED—RECOVERY.

The patient was born with great enlargement of the abdomen, simulating ascites, for which it was mistaken, till he was nearly 4 years old. It was then ascertained to be an enormous cyst springing from the right lumbar region. From its great size it caused difficulty of breathing and prevented his walking. The cyst was tapped in front, and 102 fluid ounces of clear non-albuminous fluid was drawn off, having all the characters of dilute urine. The fluid rapidly re-collected, and on a second tapping was found to be albuminous and purulent, but still to contain a considerable quantity of urea. Attempts were made to establish a permanent fistula anteriorly, and then posteriorly; but on each occasion the fluid after a time ceased to flow. Much irritation and depression followed the several tappings, so that the patient's life seemed to be endangered. After one of the operations a quantity of fluid was passed from the bladder exactly similar to that from the cyst, and quite unlike what was usually passed from the urethra; a temporary communication thus obviously being established between the cyst and the bladder. The patient has now been left without operation for some months, and has regained his strength; but the cyst remains, varying from time to time in size, and his urine is often purulent and fetid. It is presumed that there is some congenital malformation of the right ureter which renders it liable to occlusion, but admits, under some circumstances, of the passage of fluid. Cases of congenital hydronephrosis due to obliteration of the ureter were quoted, proving fatal in infancy; one, a case of an enormous cyst, apparently a dilated kidney, from obliterated ureter, in a woman who lived to the age of 23 years; and one of double hydronephrosis in a youth who lived to the age of 17 years. In the latter case the ureter on one side was much constricted, and on the other entered the pelvis of the kidney obliquely, and was guarded by a valvular obstruction. Expectant treatment, the author observed, seems to be the only measure indicated. Extirpation of the cyst is inadmissible from the dangers of the operation, owing to proximity to the sympathetic ganglia, and to the liability to hæmorrhage and peritonitis. Tapping was recommended in case of distension so great as to endanger life. It would seem that when the distension reaches a certain point, the ureter allows of fluid to pass down it.

The Author said he would have brought the patient, but not knowing the time at which the paper would be read he was unable to do so.

Dr. Webster protested against the use of French words in the paper; for instance, gramme and metre. It was far better to adhere to English words. He felt strongly on the subject, and he added the Society would think it strange if in any communication he were to introduce a Spanish or a Russian word.

The Author said it was impossible to adopt the volumetric system of analysis without French weights and measures.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, February 1.

Dr. Barnes, President, in the Chair.

Drs. Cassells and Trend were elected ordinary Fellows.

Dr. Bathurst Woodman exhibited specimens of

CHANCRE AND FIBROUS TUMOURS OF THE UTERUS.

Dr. Greenhalgh exhibited a

POLYPUS,

weighing upwards of a pound and three-quarters, which he had removed from the uterus of a woman 40 years of age by means of a pair of curved scissors. The author insisted on the necessity for cutting away these growths, and the desirability of removing them *in situ*, rather than making forcible traction on the uterus for the purpose of bringing them within easy reach of the operator.

Mr. I. B. Brown read a paper

ON A NEW METHOD OF SECURING THE PEDICLE IN OVARIOTOMY.

The author observed that hitherto there had been three distinct methods of securing the pedicle: first, by ligature, allowing the ends to hang out, as practised by Dr. Clay, of Manchester (the pioneer of ovariotomy in this country, who had steadily led us on to our present successful results), and by Lane (the first Surgeon in London who performed this operation) consecutively; secondly, by clamp, as first suggested by Hutchinson, and followed by many others; thirdly, by cutting off the ligature short and closing the wound, as first successfully practised by Rogers, of New York, in 1829, by Dr. Bellinger, in America, in 1835, by Dr. Siebold, of Darmstadt, in 1846, and recently by Dr. Tyler Smith. The first three gentlemen's cases were all successful, and the last-named gentleman has also had great success. Mr. Brown said that his objections to the first method had been the length of time required for the ligature to come away, which varied from nine days in his own practice to a month in that of others; to the second, the frequent severe pain caused by the dragging of the pedicle, or the pressure of the clamp itself; to the third, the unsuccessful results in his hands following its use. Having repeatedly used the actual cautery of late, employing Dr. Clay's instruments, in burning adhesions off the omentum and elsewhere, he had been gradually led to the conclusion that the actual cautery might be employed in treating the pedicle itself. Consequently, on December 28, 1864, he tried it upon a patient of Dr. Burchell, of the Kingsland-road, a lady, 47 years of age, who had had three children, the youngest twenty-one years since. The disease was first discovered by Dr. Burchell in August last, and so rapidly increased as to lead Dr. Barnes and Dr. Tanner to recommend extirpation some short time before he (Mr. Brown) saw her. As the abdomen then was very large, the skin shiny, and the general health rapidly suffering, he performed the operation by Clay's large incision. There were many adhesions laterally and posteriorly, the bleeding from which was checked by the actual cautery; and finally the pedicle, being secured by a clamp, whilst a very large multilocular mass of cysts was removed, was thoroughly seared by actual cautery and allowed to drop. The wound was then closed in the usual way, and it healed in a week, the patient being convalescent in a fortnight. Mr. Brown thought that if this plan was found by repetition to be successful, it would very materially lessen the

dangers of the operation, and consequently ensure a greater number of recoveries.

Dr. Routh stated that Mr. Brown's previous and successful experiments in the removal of the omentum by a red-hot iron would prove the best reply to Dr. Tyler Smith, as to the probable conduct of the peritoneum where a pedicle was removed in the same manner.

Mr. Brown, in reply to several speakers, said that the objection urged by Dr. Tyler Smith, of the slough being injurious to the peritoneum, had been answered by the questions put by Dr. Routh and replied to by Dr. Greenhalgh: that he (Mr. Brown) had, for four years past, repeatedly used the actual cautery in burning adhesions and arresting hæmorrhage, and in no one of the cases so treated had he had a death; and he thought that the objection ought not to deter others. He did not allude to the écraseur, because he thought there was not sufficient time in ovariotomy to use it safely; and he did not think it probable that it would ever come into use on that account. In answer to an objection that white heat might be detrimental, Mr. Brown said he did not go quite so far as to use white heat, but he stopped just short of it. To the objection of Dr. Parsons, that there was fear of hæmorrhage in case of sickness after the use of the cautery, Mr. Brown re-replied that whilst it was well known that many patients had died from hæmorrhage where the ligature was used, he did not think, judging from his past experience and the results of Veterinary Surgeons in spaying the sow, that there was any probability of hæmorrhage where the cautery was steadily and thoroughly applied.

PRESIDENT'S ADDRESS.

The President rose to acknowledge the honour conferred upon him by the Society. In this election he said the Society had followed the principle under which it had attained its present position of unexampled prosperity—namely, that of recognising work. He adverted to the success the Society had thus achieved in linking itself to fellow-workmen in all parts of the world, and trusted that the Society would be the means of challenging for English midwifery that place in the Republic of Medicine which it eminently deserved. English midwifery presented the singular characteristic that it was based upon home or domiciliary practice; whilst elsewhere it was mainly dependent upon lying-in Hospitals. The Society had, therefore, the charge of vindicating home midwifery, of showing that it afforded ample means for observation and for advancing obstetric knowledge. The main argument urged by the advocates of the Hospital system was that Hospitals were necessary for instruction. But home practice in England still asserted a practical superiority in its eminent success. He cited Harvey; the Chamberlens, the reputed authors of the forceps; Edmund Chapman, who first taught the use of that instrument; Sir Fielding Ould, who laid the foundation of our knowledge of the mechanism of labour; Giffard; Smellie; William Hunter; Denman; Macaulay, the first to practise the induction of labour; Perfect; and the first Rigby, who, as a country Practitioner, made those observations and drew those classical descriptions of uterine hæmorrhage which are still reverenced for their truthfulness and sagacity. The President then expressed his belief that Physicians and statesmen abroad would be impelled to re-examine the great question of the expediency of taking parturient women away from their homes. The provisions for the study of uterine pathology in our English schools were then discussed. Recently a new department had been instituted in our educational Hospitals for this purpose. But the position and duties of the "Obstetric Physician" remained still undefined. The President submitted the following proposition:—"The work of the obstetric Physician embraces the treatment of the diseases of the female generative organs, including the disorders and lesions, general and local, which result from pregnancy and parturition." Of course, in founding a new special department something must be taken both from the Physician and the Surgeon. If the Obstetric Physician were to enjoy any status at all, it could only be on this condition. The difficulty in adjusting relations arose chiefly on the Surgical side, probably because it seemed an anomaly for a man bearing the title of a Physician to be meddling with Surgery. But in point of fact, the Obstetric Practitioner was necessarily a compound of the Physician and the Surgeon; his Surgical character was implied in the word "obstetric." Custom, which imposed upon him the general title of Physician, could not alter the nature of his functions. Just as the study and treatment of the diseases and lesions of the generative organs had been neglected until taken up by Obstetric Practitioners, so they would be again if abandoned by us. It was to obviate this neglect, to encourage the study, that the new appointment was made. To make the office and to cut off the very material for study was inconsistent. As an illustration, there was the modern appointment of an Ophthalmic Surgeon to our Hospitals. It was given to Surgeons; but they treated all diseases of the eye, even including those of constitutional nature, which Physicians had always treated. If the Surgeon said, "The Obstetric Physician must give up all operations," the Physician might as reasonably say, "The Obstetric Physician must give us all that requires Medical treatment." For example, puerperal fever, which is not more a consequence of labour than is a slough of the vagina or vesico-vaginal fistula. This reasoning would simply lead to the annihilation of the Obstetric Practitioner, and is a manifest *reductio ad absurdum*. The President then called upon the Fellows to imitate the example of the Royal College of Physicians and the Royal Medical and Chirurgical Society, by opening a corporate album for the preservation of photographs of their Fellows.

(To be continued.)

MEDICAL NEWS.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, March 16, 1865:—

John Henry Caffry Constable, St. George's-road, Southwark; Danie Hendry, Great Howard-street, Liverpool; John Craigie, Fairlight-villas Hackney; William Vicary Snow, Vicarage-lawn, Barnstaple.

As an Assistant:—

William Brown, Blackstone-street, Liverpool.

The following gentlemen, also on the same day, passed their first Examination:—

Roger Portington Goodworth, London Hospital; Robert Walter Ceely, London Hospital; John Henry Gray, London Hospital; Mowbray Jackson, St. Bartholomew's Hospital; John Henry Croft, Guy's Hospital; William Binorton, St. George's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Aspray, Charles O., M.D. St. And., has been appointed House-Surgeon to St. Peter's Hospital, Berners-street.

Foster, Balthazar W., M.D., has been elected Physician to the Queen's Hospital, Birmingham.

Girdwood, J. M. E., M.D., has been appointed Surgeon to the Prison, Falkirk, N.B.

Knowles, Mr. R. H., has been elected Dispenser to the Leeds Dispensary.

Metcalfe, Fenwick, M.R.C.S. Eng., has been appointed House-Surgeon to the Torbay Infirmary and Dispensary, Torquay.

Moore, Charles F., M.D., L.R.C.S.I., has been elected Medical attendant to the South City Dispensary (No. 3), Peter-street, Dublin. He has also been elected Assistant-Physician to the Cork-street Fever Hospital.

DEATHS.

McCollah, John R., M.R.C.S. Eng., at Reeth, Yorkshire, on March 8, aged 54.

Jollye, Edward W., M.R.C.S. Eng., at Norwich, on February 20, late of Loddon.

Eckford, Robert, late President of the Medical Board of Bombay, at Jersey, on February 27, aged 90.

Hillmann, William, Surgeon, at 1, Argyll-street, Regent-street, W., on March 11, aged 81.

O'Hara, Malachi C., L.R.C.P. Edin., at Kilkelly, Co. Mayo, on March 1, aged 37.

Oliver, T. H., late Surgeon in the West Norfolk Militia, on March 4, at Southdown, aged 92.

Rule, John, M.R.C.S. Eng., at Maidstone, Australia, on December 18, aged 86.

The President of the Medical Council has issued cards of invitation to a conversazione on April 5.

The College Lectures.—Professor Huxley will bring his course of twenty-four lectures "On the Structure and Classification of the Mammalia" to a close on Friday next, the 31st inst., and after the ensuing examinations Professor Fergusson, F.R.S., will deliver six lectures "On the Progress of Surgery during the present Century," in continuation of his course of last year.

Sir Rutherford Alcock will succeed Sir F. Bruce as Envoy Extraordinary at the Court of Pekin.

The late Dr. Falconer.—It has been decided that the memorial in honour of the above lamented gentleman shall consist of a bust, to be placed in a London scientific society, and a scholarship to be founded in connexion with the University of Edinburgh. An influential committee has been formed, and upwards of a thousand pounds has been subscribed towards the accomplishment of these objects.

Royal College of Surgeons of England.—It may be interesting to those members of the Profession desirous of prolonging their studies in the Museum of this institution to know that the Council has extended the time for closing it until 5 o'clock from March until August, instead of 4 o'clock, as heretofore. The Library is open also to the former hour. The Histological Collection is now open to the inspection of members of the College, and visitors introduced by them every Wednesday between the hours of 11 and 5 o'clock.

The Royal Society.—There are no less than fifty-three candidates for election into this Society, and as usual the Medical element is large, as represented by the following names, viz. :—A. L. Adams, M.B., A. Armstrong, M.D., W. Baird, M.D., J. C. Bucknill, M.D., Professor Robert Grant, W. A. Guy, M.B., G. Harley, M.D., B. Hobson, M.B., E. C. Johnson, M.D., Henry Letheby, M.B., W. A. Lewis, M.B., R. McDonnell, M.D., Charles Murchison, M.D., Sir J. P. Olliffe, M.D., C. B. Radcliffe, M.D., J. R. Reynolds, M.D., E. H. Sieveking, M.D., and A. T. H. Waters, M.D. From this it will be seen that the Council of the Society have an ample number from which to select the fifteen out of the fifty-three, including the above, to be recommended for election. The selection will be made known in May, one month before the day of election.

Downing College, Cambridge.—On May 22 there will be an examination for four scholarships of the value of £40 each. The examination will be in classics and mathematics, with a paper on the Natural Sciences in connection with Medicine (namely, chemistry, mineralogy, botany, comparative anatomy, and physiology), proficiency in which will have much weight in the awarding of one at least of these scholarships. The examination is open to students who have not yet entered at the University. Those who are elected will be expected to reside at the College. For further information apply to J. Perkins, Esq., Downing College.

Chemist and Druggists.—Sir Fitzroy Kelly has laid before the House of Commons a Bill for the protection of the public against unqualified chemists and druggists compounding prescriptions. The Bill requires that all persons commencing business after this year shall either be pharmaceutical chemists, or be examined and passed by the examiners under the Pharmacy Act, and registered as chemists and druggists under this Bill. But chemists and druggists in business before the end of this year, and their assistants, if of age, are to be entitled to be registered without examination. The register is to be printed for sale annually. The fees for examination and registration are to be fixed by a bye-law to be made in accordance with the Pharmacy Act.

Medical Charities.—The great interest taken in the Medical Institutions of this metropolis by our gracious Queen, as evidenced in her frequent visits to them, appears to have had its influence on other ladies, two of whom have, in addition to large sums to other charities not strictly Medical, left nearly £3000 to the following, viz. :—The Royal Westminster Ophthalmic Hospital, £200; the Infirmary for Consumption, Margaret-street, Cavendish-square, £200; the Hospital for Consumption, Brompton, £100; the Cripples' Home, £300; Idiots' Asylum, Redhill, £200; Samaritan Hospital for Women and Children, Edward-street, Portman-square, £200; the Cancer Hospital, Brompton, £100; Establishment for Invalid Gentlewomen, £200; Orthopædic Hospital, Oxford-street, £50; St. George's Hospital, £100; the Middlesex Hospital, £100; University College Hospital, £100; and Guy's Hospital, £100. The above munificent sums have been bequeathed by Miss Julia Olivia Brodie, of York-place, Portman-square, to which may be added the following, left by Miss Rachel Semage, of Oxford-terrace and Stoke Newington :—£100 to each of the following Hospitals,—viz., The German, the Royal Free, the North London, the London Fever, the Middlesex, St. Thomas's, the Margate Sea-bathing Infirmary, and the Hospital for Incurables. To the Charing-cross Hospital and Stoke Newington Dispensary, £50 each.

The Victoria Cross to Medical Officers.—This much-coveted honour has just been conferred on two Assistant-Surgeons — viz., Dr. Manley, R.N., for distinguished acts of bravery at Tauranga in endeavouring to save the life of the late Captain Hay; and to Dr. Temple, R.A., for distinguished bravery in bringing in the wounded at Rangariri. The *Sydney Morning Herald* for last March gives a full account of the investiture of these gentlemen with the order of valour by Lieut.-General Sir Duncan Cameron, K.C.B., by command of Her Majesty. In his observations before all the staff and men formed in square, the gallant General said how "much it redounded to the credit of the Medical Department that so many of its officers had distinguished themselves by acts of individual gallantry and bravery. Out of the small numbers of officers composing the department in New Zealand, no fewer than four had been decorated with the order of the Victoria Cross, including the head of the department, Inspector-General Mouatt, who had earned himself that coveted distinction by noble services rendered in the Crimea; and another officer, Staff-Surgeon Home, who had distinguished himself in India. During the war in New Zealand all present could bear testimony to the skill, untiring zeal, watchful care, and attention with which all the Medical officers had performed their arduous, onerous, and responsible duties. Their duty required that they should follow the troops under a hostile fire, and amid the deadly assaults of the enemy; and how nobly and devotedly they had behaved." General Sir Duncan Cameron then advanced, and attached the cross to the left breast of each of the gallant recipients, amidst great cheers.

Plain English.—At the York Assizes on March 22, a Medical witness stated that he found the patient suffering from a bad black eye, whereon the judge, Mr. Justice Willes, courteously thanked him for speaking plain English, instead of telling the jury that the plaintiff was suffering from ecchymosis of the oculus.

Charge against a Medical Man in Glasgow.—The case in connexion with which Dr. E. W. Pritchard has been taken into custody is undergoing investigation at the hands of the authorities. As usual, however, in such cases, everything is done in private, and it is impossible as yet to obtain any definite information as to the circumstances which have given rise to suspicion. It appears that Mrs. Pritchard some four weeks ago was seized with illness, her complaint being described by her husband as gastric fever. Mrs. Taylor, her mother-in-law, came from Edinburgh to wait upon her, and of course resided in Dr. Pritchard's house. About three weeks since Mrs. Taylor was suddenly seized with severe illness, and despite the efforts of a Medical gentleman whose aid was called in, died within a few hours. Her body was removed to Edinburgh, and there interred. As for Mrs. Pritchard, she appeared for some time to be in a fair way of recovery. At the end of last week, however, she had a relapse, when she was attended by the same Doctor whose services had been engaged for her mother. But in this case also Medical skill proved of no avail, and death supervened somewhat suddenly on Saturday last. Dr. Pritchard conveyed his wife's remains to Edinburgh on Monday, although the interment was not intended to take place till Thursday. Meanwhile the attention of the authorities had been somehow or other called to the case as one which called for investigation, and the result was that the Doctor, on his return from Edinburgh on Monday evening, was apprehended by the police at the railway station. On Tuesday morning, although he was not taken before the magistrates, it was intimated publicly in court that he was detained for examination as to the sudden death of his wife, and the case was forthwith remitted to the Sheriff. The post-mortem examination of Mrs. Pritchard's body, which was made in Edinburgh on Tuesday afternoon, resulted, it is understood, in the decision of Drs. Maclagan and Littlejohn that there were no natural appearances to account for death. The stomach and its contents were accordingly handed over to Dr. Maclagan for chemical analysis.

The following statistics of the diminished mortality in Paris are published in the report of a Medical board to the Prefect of the Seine. The report extends over a period of twenty-four years. In 1841 the population of twelve parishes (which, however, is not the exact translation of *arrondissement*), amounted to 935,000 persons, and 1 death in 36 is proved. In 1864 the number of deaths was 1 in 40 inhabitants. This is clearly the result of the increased volume of air which circulates in parts of the metropolis where wide

streets and open boulevards have replaced the narrow passages and crowded courts of old Paris. Another evident cause of this diminution of mortality is the immense increase in the quantity of water supplied to the inhabitants. In 1840 but 65,000 cube metres were distributed in twenty-four hours, whereas in 1863 133,258 cube metres were supplied to the populace during the same space of time, and we are promised in a short time that we shall have 300,000 cube metres of that element at our disposal daily. The drainage of Paris has increased in proportion. In 1840 there were 36,000 metres of sewers, whereas in 1863 the sewers of Paris attained the surprising length of 350,000 metres—that is, 90 leagues. Another cause of the increased salubrity of Paris is the immense number of squares and open gardens which have been created for the use of the people. It must be remembered that in Paris the aristocratic custom of keeping the squares of the city carefully locked for the use of the upper ten thousand is utterly unknown. Even the Empress's reserved garden in the Tuileries is alike enjoyed by the children of the artisan, as well as by the heirs of coronets, during the summer and autumn months, when, in fact, it is in all its beauty. In Paris and its environs people's parks are unknown, because every spot of ground not the property of a private individual is laid out for the enjoyment of the people; and every improvement in Paris has increased the number of their gardens. In 1853, 216 hectares of Paris were laid out in squares, boulevards, &c., which were ornamented by 69,125 trees. On the 31st December, 1863, the space thus laid out had been extended to 328 hectares, and the number of trees to 89,335.—From the *Morning Star*, 18th March, 1865.

A St. Petersburg letter says:—"The contagious malady which has been for some time raging in the Russian capital is acquiring fearful proportions. Several hundreds are being carried off daily. The hygienic measures prescribed by the Committee of Public Health have been thus far of little avail. The same epidemic fever has appeared at Moscow, and there are fears that, from the prompt communication which at the present moment exists between St. Petersburg and Warsaw, the malady may reach the latter city, and thence spread over the rest of Europe."

Poisoning by Opium.—A woman named Bibby has been convicted of the manslaughter of her child at the Manchester Assizes, and sentenced to fifteen months' imprisonment. The dead body of the child was found secreted in a corded box at the Euston-station. It was supposed that the child's death was caused by an over-dose of laudanum carelessly administered by the prisoner, who was in the habit of giving it six, eight, or ten drops at a time under the name of "quietness." The post-mortem examination showed congestion of the lungs and fluid blood in the right cavities of the heart. No opium was discovered in the stomach.

Successful Medical Defence.—A female servant at Trowbridge lately brought a charge against her master's butler of "feloniously administering to her a quantity of some noxious thing, unknown, for the purpose of producing miscarriage." The girl said that when she informed the defendant of her pregnancy "he said he would get her some medicine to take to destroy the child; he afterwards gave her something in half a wine glass full of water. She took it four times a-day, but without any effect; it had a bitter taste." The defence was a Medical one, although no Medical witness appears to have been called. Mr. Slack, a lawyer, who defended the prisoner, quoted Dr. Taylor to the effect that medicines which are given to produce abortion would produce poisonous effects, causing violent irritation of the intestines, and such results being wanting in this case it was not to be supposed that any drug of the kind had been administered. The magistrates, without requiring any further evidence, dismissed the case.

Acupressure and Chloroform at Nazareth.—The following is an extract from a letter dated January 9 from a Turkish Surgeon, P. K. Vartan, L.R.C.S.E., practising at Nazareth, in Syria, to Dr. Handyside, of Edinburgh:—"A married woman, aged 25, mother of four children, was brought to me from a village distant about ten hours' ride from Nazareth, suffering from disease of the ankle-joint, involving both tibula and fibula in the mischief. I found it necessary, therefore, to amputate through the middle of the leg. I used, of course, acupressure, which I find both easy and less prejudicial. I did not succeed in obtaining union by the first intention; but this I imputed in great measure to the unsound state of the bones, which nine days after the operation suppurated freely. On the twenty-sixth day the wound was quite healed, and the patient could walk with her crutches. I need scarcely mention how much the natives' wonder is excited at witnessing the effect of chloroform. Certainly my patient was doubly grateful: for amputating her limb and for saving her the pain of the operation. She is a Moslem by faith; and as she, her husband, and other Moslem friends departed from Nazareth, they poured out their hearts in thanksgiving for the benefits they had received."

The Endoscope.—On Wednesday, the 15th instant, at at a meeting of the Medical Society of the King and Queen's College of Physicians, Dublin, held in the New College Hall, Kildare-street, Dr. Francis Richard Cruise, of the Mater Misericordiæ Hospital, exhibited an endoscope which he has been using for some time past, and read a short paper explaining its practical utility in the diagnosis and treatment of many obscure forms of disease, especially those of the rectum and urino-genital organs. Dr. Cruise's endoscope is a modification of Desormeaux's, and possesses the great advantage over it of an illuminating apparatus so brilliant, and easily admitting of such perfect adjustment, that little or no previous training is required to enable the Practitioners to obtain a satisfactory view of deep cavities which heretofore have been generally looked upon as quite inaccessible to sight. Amongst these we may specially mention the bladder and urethra, the rectum beyond the reach of the finger and speculum, the cavity of the cervix, and even of the body of the uterus, the nasal fossæ, pharynx, cavities of ovarian cysts, abscesses, wounds containing foreign bodies, and so forth. Dr. Cruise's paper was enriched by the details of a number of obscure cases in which he had used the endoscope, to the entire satisfaction of numerous Medical men in Dublin, amongst whom we may mention Professor Robert William Smith and Dr. Fleming, of the Richmond Hospital; Dr. Hayden, of the Mater Misericordiæ Hospital; Dr. Robert McDonnell, of Jervis-street Hospital, and others. This instrument, which has been thought of and talked about for the last thirty years, has from time to time attracted passing attention and then sunk back into oblivion. M. Segalas would appear to have originated the idea of endoscopy, which he soon abandoned as impracticable, and the late Mr. Avery, of London, paid much attention to it. Sir Philip Crampton, also, is said to have taken up the matter at one time, but no result followed. It would appear that of late years M. Desormeaux, of Paris, has been the only worker in this unexplored field, and to his perseverance unbounded credit must be given. This negligence would appear to be mainly due to the difficulty of obtaining a satisfactory and manageable illumination. Dr. Cruise has undoubtedly removed this difficulty, and now, for the first time in this country, the endoscope has been proved an unquestionable success, and likely before long to modify and correct our opinions respecting certain obscure ailments, and to serve materially in their treatment. It is unnecessary to enter into details of the means by which Dr. Cruise obtains the admirable illumination and adjustment in his instrument, as we understand he is about very shortly to publish in one of the Medical periodicals an account of it, as also a *resumè* of the work hitherto accomplished by its use. We think it only justice, however, to notice his labours and improvements, and the very favourable reception his communication met with on Wednesday, and to give him the credit of priority in following up in this country the study of the long-neglected endoscope, and demonstrating, for the first time in Dublin, its unquestionable value as an aid in diagnosis and treatment.

The Samoan women, like most women in savage life, make no preparation for the birth of their children, and very speedily recover; of which the following instance was narrated by Mr. Pritchard:—"Puaaolo was the wife of Tamaalii, who lived at Fasitootai, in the island of Upolu, Samoa. There was nothing remarkable about her person or habits to distinguish her from her countrywomen. Like them, during pregnancy, she attended to the usual duties of Samoan women without interruption, and without preparation for the 'coming event.' Amongst other things, she continued to make *tapa*, or native cloth, the manufacture of which necessitates sitting up to the middle in water two or three hours for several successive days (in the first operation of scraping the bark of the paper mulberry, *Brussonatia papyrifera*, of which it is made). On one occasion, while thus busily engaged, and merrily singing her native songs, with other women, all in the water, she complained of pains in her back, and went off to the bush on the banks of the river. In

about a quarter of an hour she returned with a fine baby-boy in her arms, whom she had delivered without any assistance. She washed and suckled him, and soon he was fast asleep. He was then laid in several folds of *tapa* on the banks, where he slept soundly while she finished her work, and when the party separated she took her boy home. He is now living with his mother at Fasitootai, and is named Matauli (dog-face), and is a fine healthy lad, about ten years old. The woman and her husband were both in my service at the time. This is an exceptional case, though the Samoan women think but lightly of the pains of childbirth. They suckle their children until about two years old. I have seen women who threw their breasts over their shoulders to have them out of the way; and I have seen children standing at their backs suckling from behind, when the breasts have been thrown over the shoulders to allow the mother the free use of her arms."—*Mr. Pritchard at a Meeting of the Anthropological Society of London.*

LOCAL PREVALENCE OF CALCULOUS AFFECTIONS.—Professor Heyfelder remarks that there are regions in which even fully employed Surgeons never have an opportunity of operating for stone, seeing that it is never met with within the range of their practice. This is the case, for example, with the region of the Moselle from its source to its junction with the Rhine. On the other hand, in other regions, so frequently is the affection met with that it may be truly described as endemic, as in Upper Swabia, the chalk formation of the Jura Alps, some portions of the Austrian Empire, Dauphiny, and the Governments of Kowno and Moscow, in Russia.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Trichina Spiralis.—Sets of specimens may be had of Messrs. Churchill, post free, for 6s. 6d.

The Metropolitan Farina Company, Walmer-road, Notting-hill, W.—We notice with pleasure the honourable mode of conducting business by this Company. So soon as our esteemed Commissioner has brought his Reports on Wine to a close, we must set him to work on the Malt Flour.

Jerked Beef.—We have met with a perfectly good specimen at the shop of Russell and Co., 171, Brompton-road, S.W. After maceration and boiling, it is quite sweet, not too salt, and tastes very much like an overdone bit of English boiled beef. It would make a capital stew with vegetables, and, if grated or powdered up, would do well as a thickening to a soup made of peas, carrots, onions, etc.

A Competitor.—The awards for the prizes in question will be made in the ensuing month. H.M. Minister at Japan, Sir R. Alcock, won two Jacksonian prizes, viz., 1839, "On the Nature, Symptoms, and Treatment of Concussion of the Brain," etc.; and in 1841, "On Injuries of the Thorax, and Operations on its Parieties." He is an Honorary Fellow of the College.

Errata.—In our report of the annual meeting of the Medical and Chirurgical Society (p. 238) Dr. Webster is made to say (p. 241) that "£73 had been laid out on one volume." Dr. Webster said that the £73 had been laid out in purchasing Mr. Squibb's collection of portraits. In the same report Dr. Markham is said to have seconded Mr. Hawkins' resolution. The seconder of the resolution was Dr. Stewart.——We beg to correct a verbal error in our impression of last week. In the Medical History of Bath Mr. Mitchell is stated to be the Surgeon to the Bath Dispensary for Diseases of the Skin and Urinary Organs. The report should read Mr. D. Michael, *not* Mr. Mitchell.

WINE DUTIES.

(From *The Times.*)

SIR,—The following tabular statement shows the result of four years' experience of the reduced duty on wine, compared with the four years previous to the alteration. 1860 is excluded, as there was an intermediate rate.

It is seen that the consumption in 1864 exceeds that of the average of 1856 to 1859 by 4,364,669 gallons, and that the revenue is less by £642,866.

It is further seen that the annual additional quantity is a little more than half a bottle for each person.

	Average of years.	Gallons.	Rates of duty.	Revenue.	Bottles for each person.	Population.
1856 to 1859	4	7092046	Cape, 2s. 11d. Others, 5s. 9d.	1962133	1 5-10th	28300100
1860	—	7358192	On all, 3s.	1144794	1 5-10th	—
			s. d. s. d. s. d. s. d.			
1861	1	10787091	1 0 1 9 2 5 2 11	1219533	2 2-10th	28980575
1862	1	9803028	1s. 2s. 6d.	1123603	2	—
1863	1	10478401	—	1214762	2 1-10th	—
1864	1	11456715	—	1319267	2 2-10th	29570500

Such, then, is the result of what is sometimes miscalled the great measure of the reduction of the wine duty; and it will never be much better while the absurdity continues of charging 5s. per dozen on every description that is brought over in bottle, and 2s. 6d. per gallon on all that is of the kind that the people of this country have been compelled during nearly two centuries to drink. The risk of loss of revenue was at first assigned as the reason; but, although many desire the continuance for the same object that they opposed any reduction, none now attempt to defend the cause of the enactment.

Let there be a uniform rate of 1s. per gallon on every wine, weak or strong, imported in glass or in wood, and, before two years are over, wine will be as much used here as it is in the northern States of Europe,—even where beer is good and plentiful. In Paris the duty, etc., is about 1s. per gallon, and the estimated annual consumption of each inhabitant is 185 bottles. Instead of 185, let us estimate 12 bottles in this country; and even with that small quantity the revenue would be three millions, instead of the present miserable £1,319,267.

The various rates of duties, of degrees of strength, of difference if in cask or in bottle, etc., make the subject so intricate, difficult, and troublesome that it seems impossible to get any member to take up the question.

A few nights ago, upon the discussion about malt, strange assertions were made about wine; but what can be expected after seeing the uncontradicted statement of even the President of the Board of Trade, that "wine from France pays a duty of 22 per cent., from Portugal of 30 per cent., from Spain of 29 per cent. ?"

I may add that the average consumption (or, more correctly, the wines on which duty was paid) was:—

	From Portugal.	Spain.	France.	Cape and Australia.	All other countries.
On the average from					
1856 to 1859 ..	2201307	2810831	625932	582041	871935
In 1864	2832217	4974112	2304242	76983	1269161

London, March 13. THOMAS GEORGE SHAW.

POOR-LAW MEDICAL REFORM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I shall feel obliged by you affording me space for the annexed letter from the Poor-law Board, it being the reply to the one dated March 6, and inserted in your journal of March 11. It has been said that "language was given to enable us to conceal our thoughts;" which is verified by the wording of the letter from the Board. I believe our appointments and contracts are two different things; and even where the former are permanent the latter can at any time be altered; therefore, perhaps it may be intended to enter into new contracts with the Medical officers, and readjust on equitable principles all the salaries. I trust it may be so.

Allow me here to explain that the M.P. to whom I referred in my last letter as not having replied to my communications since January 31 has forwarded to me a letter, dated March 6, in which he explains that domestic affliction and absence from England were the causes of the long delay. He also says:—"I quite agree with you that some such measure as that drawn by you should become the law of the land, as the present state of the law is not only unsatisfactory, but unjust to the Profession and the poor. When you first addressed me on the subject of my introducing a bill this Session, I thought I should have been able to do so with effect; but I regret that circumstances will prevent me taking an active part during the present Session. —— is greatly opposed to an alteration of the law, and county members will not hear of any alteration. There must be something very wrong in the Profession when it is unable to make itself felt in a political sense throughout the country. Attorneys have their organisation, and when any question relating to them comes before the House it is not only heard but duly considered."

From the above quotation I greatly fear that nothing can be done by the Poor-law Medical officers this Session. If, however, the Poor-law Board still continue obdurate, we must, like the lawyers, become politicians, and at the next election refuse to give a vote without a promise that each member will aid in obtaining from Parliament an equitable adjustment of the claims of the Poor-law Medical officers, which is all that we ask, and which no honourable man ought to refuse. I trust the Medical men of Wolverhampton will insist upon Mr. Villiers giving this pledge, as I cannot but feel he is our great opponent.

I am, &c. RICHARD GRIFFIN.

12, Royal-terrace, Weymouth, March 20, 1865.

"Poor-law Board, Whitehall, 18th March, 1865.

"Sir,—I am directed by the Poor-law Board to acknowledge the receipt of your letter of the 7th inst., on the subject of the supply of expensive medicines when required in the Medical treatment of sick paupers.

"The Board direct me to inform you that they have given much consideration to the subject referred to in your communication, and have caused various inquiries to be made as to the best course of proceeding, to carry into effect the recommendation of the Committee on Poor Relief on this point.

"In the cases of new contracts which are entered into by boards of guardians with their Medical officers, the Board are endeavouring to secure, in the most practicable manner, the objects suggested by the Committee; and they will not lose sight of the subject, if any further proceedings for the purpose should appear to them to be practicable.

"I am, Sir, your obedient servant,

"ENFIELD, Secretary."

CREAKING OF THE KNEE-JOINTS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Can you or any of your readers advise me what to do in the following case?—A gentleman, of active habits, has complained some time of a disagreeable creaking noise whenever he bends his knee-joints, and,

after moderate exercise, a feeling of weakness in the joints. He says himself that he fancies the "lubricating matter" must be deficient. Is he far wrong? Can anything be done for it? I am, &c.

M.D.

[*** The treatment appropriate for chronic rheumatism.—ED.]

Unqualified Medical Assistants.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Should you think fit, I beg to forward the subjoined for insertion in your esteemed journal. Referring to a letter from Mr. Willet, Northwich, Cheshire, which appeared in your columns, I do not think that gentleman has any just cause of complaint. When the Medical Act becomes more generally understood by the public, I do not doubt but what one result will be to improve the *status* of qualified assistants. Surely it is no less a misinterpretation of the Act for a qualified Practitioner to be entitled to recover for Professional services of an unqualified assistant than it is for the quack or illegal Surgeon to claim for the services of his registered partner. The public have now a right (and which is slowly making itself asserted) to demand that all Professional services, charged as such, should be tendered by registered Medical assistants; and it is clearly illegal to act otherwise. The qualified assistant would then take a better position, and not be, as he too often is now, a generally useful factotum. I am, &c.

March 15. MEDICUS.

"Ought a Bubo to be Resolved?"

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The difficulty raised by Dr. Harrics seems to me to be only a theoretical one. A bubo that has a tendency to suppurate will, I apprehend, be very difficult to disperse by any means which we possess, and certainly will not be "put back" by the mere application of iodine locally; at least, suppuration often occurs under such treatment. Should, however, a bubo disappear while iodine was being applied, the result must not be necessarily attributed to the remedy, but rather to some change having taken place in the constitutional condition of the patient. On the other hand, it would be a hazardous presumption to say that we have the power, by local or other remedies, of determining a suppurative action in an indurated bubo; and it remains with those who propose such a plan of treatment to prove that they have the means of carrying it out. I am taking for granted that Dr. Harries would not attack the enlarged and indurated lymphatic glands by escharotics or the knife; but if such be the method he proposes, he must be aware that most Surgeons look upon the non-suppurating bubo as one of the signs that the system is already infected, and that such a plan of treatment would be very like "shutting the stable door when the steed is stolen," though less harmless in its results. I am, &c.

W. SPENCER WATSON.

27, Montague-street, Russell-square, March 21.

The Temperature of the Wine Cellar.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Your Special Empirical Commissioner, in last week's *Medical Times and Gazette*, speaking of clarets, says:—"Let me say that *cold*, in any shape, does not agree with these wines. They taste best at 58°—60° Fahrenheit." Messrs. W. and A. Gilbey, on the contrary, say, "Clarets and all wines that have undergone perfect fermentation are less affected by cold, and are better in a temperature of no more than 45° Fahrenheit." (See annual circular for 1864.) This shows us how much even men of great experience differ on common things. One would have thought that the temperature of the wine cellar for the different classes of wines would have been a settled point long ago. The stronger wines, the wines of Portugal and Spain, according to the Messrs. Gilbey, are kept in greatest perfection in a temperature of "36° Fahrenheit." If these statements of the Messrs. Gilbey are correct, they show us that the same cellar will not keep all classes of wine equally well, and that if we want to keep our wines in perfection it will necessitate a division in our wine cellar, the one compartment being kept at a higher temperature than the other. This might easily be effected by leading hot water pipes through it, by keeping the gas burning in it night and day, or by keeping a fire on in an open grate, or by any other contrivance that will generate heat. Good wine is a desideratum for the community at large, and more especially for that portion of the community with which the Medical man is more intimately connected—namely, the sick; and therefore it is of no slight importance to know the temperature in which the different classes of wines can be kept in greatest perfection. This could very easily be ascertained experimentally, in a cellar constructed as I have specified, by keeping a portion of claret bottled from the same cask in the different compartments. A single winter's experience would be sufficient to determine whether claret kept best at a temperature of "58° or 45° Fahrenheit." I am, &c. AN OBSERVER.

December 14, 1864.

Note.—I dined with a gentleman last winter who said "he could not understand his port wine; for during the summer it was perfection, but it had now become so dull and turbid-looking that he was ashamed to present it to any one." The flavour of the wine was still good; but it certainly had anything but an inviting appearance. It was kept in a very cold cellar—far too cold for this class of wines, or perhaps for any class. He has made an alteration in his cellar since; I hope for the better.

The Blister Treatment of Acute Rheumatism.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—You would much oblige me by inserting in the *Medical Times and Gazette* the accompanying letter, which I found amongst the papers of my brother, the late Dr. Nicholas Williams, of Crookstown, Co. Cork.

I am, &c. JOHN WILLIAMS, L.K. and Q.C.P.I.

16, Charlotte-quay, Cork, March 16, 1865.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your number for January 7 a case of acute rheumatism is recorded, in which the treatment adopted was that of blistering; and this method, as if a novel one, is ascribed to Dr. Davies, of the London Hospital.

While a student at the Whitworth and Hardwicke Hospitals, Dublin, now seven years ago, I saw dozens of such cases treated in this manner by the talented Medical staff of those institutions, "an opiate at night," when necessary, being the only additional treatment. I had, likewise, many opportunities afforded of noticing the morbidly fibrinous vesicles produced by the blisters. Although it may be correct to ascribe to Dr. Davies the theory which asserts that "the poison locates itself in the inflamed joints," still, in justice to Ireland, I must say I have seen the treatment of acute rheumatism by blistering practised extensively.

I am, &c. NICHOLAS WILLIAMS, M.D.

Bride Cottage, Crookstown, Co. Cork, January 11, 1865.

Advice Gratis to Young Men.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—If you do not think the enclosed instructions to young men, as to the necessity for washing the glands and prepuce, will interest some of your readers who have not forgotten their Latin grammar, it may at least amuse them. I am, &c. CHREMES.

Ad Adolescentes.

Quâ morbus ille, tot malorum auctor malus,
Valdè timendus, arte sit vitabilis,
Sermone juvenem in hôc brevi senex docet.

Loquuntur: PAMPHILUS juvenis et CHREMES senex.

P.—Salvere Chremêtem plurimum jubeo.

C.—Salve Pamphili: quid tu? rectin atque ut vis vales? cœnastin? age; poculum exple: ecce Falernum præstantissimum: sume: me ipse quidem sentio jam vino benevolentiâque abundantem. Quid vis amicissime? die quomodo benè de te mereri possim.

P.—Gratias ago: de valetudine meâ magnoperè cupio tecum confabulari.

C.—Ædepol! Tu florentis ætatis juvenis, tanquam heri modo togate, virtute et viribus prædite; de valetudine tuâ mecum consulere!

P.—Imo amice. Ita Dii te ament, ut mihi exponas quâ ratione ille morbus, quo tot amicorum affectos video (quod ad nos viros pertineat) evitandus sit.

C.—Hem! rogas? Sum animi dubius: nescio an arcanum tanti pretii liceat mihi enunciatum facere.

P.—Cur hôc? an lucri causâ vulgatum non-vis? Verere ne æra perdas? nonne ita est? Vah!

C.—Certissimè: satis video te, licet adhuc adolescens sis, et Thermas et Forum frequentare. Ita Dii me adjuvent, si is modus quem equidem mihi cognitum habeo, omnibus divulgatus fiat, morbus ipse perpaucos afficiat.

P.—Amice, amicissime, validissimam rationem *mihi* protulisti, quare id, quod ad salutem publicam tantoperè pertineat, universè cognitum esse debeat, nec tantum medicis sed etiam omnibus: nonne officii tui est hoc vulgare?

C.—Certè quidem officii est, sed meâ interest potius celatum habere. De œre suprà dixisti: mehucule, si mali origo abscindatur, lucri fons abundans exsiccus erit.

P.—Abscinde, abscinde. Video te nobis tam ex animo factum velle, ut hodie nihil mihi recusaturus sis.

C.—Hem! sentio me vino plenum: ain' tu "abscinde" an circumscinde. Hem! jam caput meum vertigine agitatur; cor palpitat. Ægrotatne *Passerculus* tuus?

P.—Bene habet, ut fit; vereor tamen ne, nidum petens, morbo afficiatur. Pater, si me amas, mihi aperi rationes, si quæ sint, per quas malum tantoperè timendum evitare possim. Oro, obsecro, ut hoc mihi pandas, optime hominum.

C.—Hei mihi! vitam longam egi, et plurima vidi quæ referre frigeat, vel etiam animadvertere; quæ mala, quo pauciora in hoc avo fiant; et propter amicitiam quam erga patrem tuum et teipsum, et amicos nostros habeo; et liberorum etiam qui futuri sint, causâ, id quod tu prudenter rogavisti, prædicabo. Tu te dictis præbeas volo; atque imprimis te præmoneo perfacile esse plerisque illum morbum evitare.

P.—Ab ore tuo totus pendeo: dic tandem.

C.—Inter Judæos et omnes alios, quibus abscisum præputium, hoc malum rarissimè invenies: nempe illis, cutis adeo indurata, ut abrasio non facile fiat qua propter morbus rarè concipitur; ergo illis ætas integra permanet: contra, cutis tenua Christianis multorum malorum causæ est.

P.—Hei mihi! vis omnes "Curtos Judæos"(a) imitemur?

C.—Forsitan paucos, verum non omnes circumcisionem pati debere puto. Altera est et multò facilior ratio, quæ pene parem immunitatem præbet. Vin' tibi explicem?

P.—Perge, perge, quæso.

C.—Et simplex et secura est: quotidie matutius tempore quum e lecto surrexeris, præputium retrahere, ac glandem nudare: itaque indurata cutis morbum rejiciet. Hoc munditiê perindè ac valetudinis causâ facere oportet. Permagni refert Pupillos, Milites, denique omnes adolescentes hoc scire et continuò exsequi; neque amplius eclari rem tante utilitatis. Abi fac certos omnes familiares tuos, ut tibi pro tanto beneficio gratias habeant.

P.—Tu, quantus, quantus, nihil nisi sapientia es. Dii me perdant ni tibi ex imo corde gratias habeo ob tantum meritum: et ipse utar, et amicos uti admonebo; quæ res bene vertat nobis!—*Vale!*

Exit PAMPHILUS exultans: dormit CHREMES.

The Action of Digitalis.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I fear that "Doctors disagree" on many subjects besides railway accidents. At all events, I am quite sure that I should disagree with Dr. Murray, of Newcastle-on-Tyne, if we were asked to give evidence in a court of justice upon a case of poisoning by digitalis. I have not had the good fortune to read Dr. Austie's work on "Stimulants and Narcotics," and am therefore unable to say how his arguments might affect me. In my present state of ignorance I am bound to confess that I regard digitalis as a contra-stimulant, sedative, depressant, and diuretic.

In the case of the lady adduced by Dr. Murray as a proof that digitalis "has given power to the heart when exceedingly weak and increased the rapidity of its action," I cannot help thinking that the favourable results arose from the secondary or indirect action of the digitalis as a diuretic, and that probably there might be dropsy of the pericardium as well as "a dropsy of the legs and belly," that "was making fast progress."

Again, Dr. Murray says, "I have alternated the use of digitalis with the strongest of our stimulants in some of these cases, and have been astonished at the superiority it possesses as a stimulant." This sentence I should alter thus:—I have alternated the use of digitalis with the strongest stimulants, and have been astonished at the superiority it possesses as a sedative and diuretic over any stimulant whatever in some of these cases.

(a) *Vide* Horatium, Sat., Lib. I., ix., 70.

In my opinion the physiological action of digitalis is that of a contra stimulant or sedative, lowering the nervous power and diminishing the heart's action and the respiration, and, if continued, producing dilatation of the pupil, vertigo, low delirium, vomiting and purging (often of blood), syncope, and death.

To my shame I confess that, not having been in the habit of keeping a record of cases, I am compelled to quote from memory.

When a student at Edinburgh, one of the Physicians to the Royal Infirmary prescribed digitalis for almost every patient that had any symptoms of heart disease, and in too many instances the results were unfavourable, which I attributed then, and still do, to the lowering effects of the digitalis upon the vital organism when incurable organic disease was present.

Afterwards, at University College, London, I well remember a fellow-student falling down in the dissecting-room in what was called a "fit." He was bled and digitalis was administered, with the very worst possible results short of death. It subsequently appeared that on the previous night he had indulged too freely in libations to Bacchus. Who can doubt that a glass of brandy and water would have restored him at once to a normal condition? In fact, he required "a hair of the dog that bit him."

A few years ago I was asked to see a youth at school, who had been afflicted with typhus fever for three or four weeks. Suffice it to say that he was in the last stage of debility, had low muttering delirium, very rapid and feeble pulse, extreme emaciation, and all the worst symptoms of this formidable disease. His Medical attendants were keeping him on low diet and giving digitalis. I at once discontinued the use of this drug, and ordered animal food and wine, the latter in considerable quantities. The delirium gradually subsided, the pulse fell and gained in strength, and from the very brink of the grave this young man was restored to health.

On another occasion digitalis was given to a gentleman in the prime of life affected with rheumatic fever. This eased the pain, lowered the pulse, and quieted the restlessness, which had previously been extreme, but, being continued, brought on vertigo, wandering of the ideas, dilated pupil, vomiting of blood, syncope, and death.

Yet one more case. A little boy, about eight years of age, had received a violent blow on the forehead, which in three or four days was followed by symptoms of inflammation of the brain. Ice was applied to the head, and leeches to the temples. To this treatment the symptoms yielded, but were not wholly removed. Another Surgeon was called in, who prescribed digitalis in repeated doses. This aggravated all the symptoms, inducing furious delirium, screaming and convulsions, which were only arrested by omitting the digitalis, and substituting ammonia, hyoscyamus, and camphor.

It is generally admitted by philosophers to be unwise to alter the meaning of a word that has been long in use and well understood, more especially if a directly opposite meaning to the customary one be substituted. If digitalis be a stimulant, so is prussic acid, and aconite. Then what are we to call alcohol, ammonia, and strychnine? I conceive that a classification of drugs should be founded upon their general results, and not upon their therapeutical effects in a few instances.

Sedatives or contra-stimulants directly depress the energy of the nervous system, and under this head I place digitalis, and must continue so to do in the present state of my physiological, pathological, and therapeutic knowledge, though I am quite willing to listen to any arguments in favour of its being a stimulant, excitant, or exalter of the nervous system.

Upper Clapton, March 20. I am, &c. J. Jones, M.R.C.P.

The Last Indian Medical Warrant.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Knowing the interest you have constantly taken in the Indian Medical Service, and, as a member of that Service, acknowledging gratefully that for many of the benefits conferred by Sir Charles Wood's recent despatch we are indebted to your advocacy of our cause, I venture to send you by the present mail a copy of a statement I have prepared, which will, I think, convince you that, although the recent order has done much to improve our position, it cannot justly be looked upon as a final settlement of all our grievances. In the sketch I have attempted to give of the service as it was and as it is, I have done my utmost to avoid all exaggeration. I have purposely understated rather than overstated our claims for further consideration; and, as a check upon any unconscious overstatement, I have appended to the document copies of the various Government orders which have authorised the different changes in the Department that have been introduced since the period of the mutiny. I have touched but slightly upon the general effects of Sir Charles Wood's last despatch, and I have purposely refrained from doing so because many of the orders which will affect the service as a whole have yet to be carried out, and much will necessarily depend upon the exact interpretation put upon them; there can be little doubt, however, that their tendency must be to lower the *prestige* and weaken the influence of the Indian Army Medical Department. The despatch expressly orders that all European charges are to be taken away from Indian Medical officers; that non-military appointments are, as far as possible, to be conferred for the future upon Professional men not in the regular Government employ; and that the number of officers in the administrative staff, the Inspectors-General and the Deputy-Inspectors-General, is to undergo material diminution. All these changes have a tendency to lower the status of the service, and to diminish each individual officer's chance of earning distinction; and the last especially will practically nullify the good effects of that portion of the despatch which confers upon Inspectors-General and Deputy-Inspectors-General an increased pension upon retirement, as the number of such appointments will be too small to render their attainment possible except to a very small minority.

You will readily understand that Sir Charles Wood's last despatch has accorded to regimental Medical officers an increase, though not in all cases an adequate increase, to their monthly emoluments; the salaries of non-regimental appointments, however, remain in *statu quo*. It is true that such salaries are ordered to be revised without delay, and to be fixed at a consolidated sum, but no provision is made for conferring retrospectively such increased remuneration as may be decided upon; and the consequence will be that the hardest worked members of the Service will continue for a year at least to draw their old rates of pay, whilst their more fortunate brethren in regimental employ are already enjoying the advantages of the recent order.

I trust the remarks I have made will induce you to concur with me in the opinions I have expressed. Should such be the case, I feel confident you will do your utmost to advocate our cause, and that we shall have as much reason to thank you in the future as we have to be grateful to you for the past. I am, &c.

Calcutta, February 8. A Surgeon of the Bengal Army.

COMMUNICATIONS have been received from—

Royal Medical and Chirurgical Society; Dr. Armstrong, R.N.; Spectator; M.D.; Mr. G. Cowley; Mr. T. W. W. Watson; A Constant Subscriber and Reader; Dr. J. Jones; Mr. R. Griffin; Dr. H. Bence Jones; M.D.; Dr. H. Buss; H. D.

BOOKS RECEIVED.

Varicose Veins: their Nature, Consequences, and Treatment. By H. T. Chapman. Second Edition. London: John Churchill and Sons.

*** Mr. Chapman, in this book, continues to advocate the treatment by means of wet linen or calico straps, applied in the same manner as Mr. Scott applied adhesive plaster.

On the Temperature of the Body as a Means of Diagnosis in Phthisis and Tuberculosis. By Sydney Ringer, M.D. London: Walton and Maberly.

A Dictionary of Chemistry. By H. Watts, Esq., F.C.S. Parts 23 and 24. London: Longman and Co.

The Anthropological Treatises of Johann Fredrich Blumenbach. Translated and Edited by Thomas Bendyshe. London: Longman and Co.

Lectures on Man: His Place in Creation and in the History of the Earth. By Dr. Carl Vogt. London: Longman and Co.

Half-yearly Abstract of the Medical Sciences, Vol. 40—July to December, 1864. London: John Churchill and Sons.

The Practical and Descriptive Anatomy of the Human Body. Second Edition, revised and enlarged. By E. Ledwich. Dublin: Fannin and Co. 1864.

Homes without Hands. By the Rev. J. G. Wood, M.A. Parts 13 and 14. London: Longman and Co.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 18, 1865.

BIRTHS.

Births of Boys, 1185; Girls, 1125; Total, 2310.
Average of 10 corresponding weeks, 1855-64, 1923·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	794	744	1538
Average of the ten years 1855-64	695·2	667·3	1362·5
Average corrected to increased population..	..	..	1499
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	7	5	3	13	14	2
North ..	618,210	8	5	3	1	17	20	1
Central ..	378,058	1	1	2	1	25	13	2
East ..	571,158	2	1	8	..	15	21	2
South ..	773,175	2	6	9	..	18	17	5
Total ..	2,803,989	14	20	27	5	88	85	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·808 in.
Mean temperature	36·3
Highest point of thermometer	44·8
Lowest point of thermometer	29·5
Mean dew-point temperature	30·5
General direction of wind	NNE & ESE.
Whole amount of rain in the week	0·00 in.

APPOINTMENTS FOR THE WEEK.

March 25. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

Royal Institution, 3 p.m. Prof. Marshall, "On the Nervous System."

27. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

28. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Roberts (of Manchester), "On the Solvent Treatment of Urinary Calculi." Dr. H. Weber, "On Delirium during the Decline of Acute Diseases."

29. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

30. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

31. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

LECTURES ON CHEMICAL AND MECHANICAL DISEASES AND THEIR RELATIONSHIP.

By H. BENCE JONES, A.M., M.D., F.R.S.

Lecture IV.

DISEASES OF SUBOXIDATION.—ON ACID GRAVEL.

(Continued from page 302.)

On the Consequences Produced by Gravel.

The tertiary diseases which arise from gravel or stone are chemical or mechanical. We will for clearness divide them according to their birthplaces.

1st. The kidney often becomes inflamed from the mechanical irritation of the pelvis. Pyelitis is set up; pus forms and escapes continually for years without pain, or if it have not a free exit it is passed intermittently, with more or less violent pain, sometimes almost causing as much suffering as a renal calculus makes when passing. In these cases the pressure on the pelvis of the kidney being the same as on the obstruction, the pyramids are changed into calices, and ultimately the whole kidney is absorbed, and becomes lost in the abscess.

J. C., aged 32, was admitted into St. George's Hospital in October, 1843, for acute double pleurisy, with effusion. He died comatose on February 11, 1844. The right kidney was healthy; the pelvis, infundibula, and calices of the left kidney were very much dilated, and filled with a thick fluid mixed with gravel and sand. The dilatation depended upon a stricture of the ureter, which existed two inches from the pelvis of the kidney. The ureter was still pervious, but a pig's bristle was the only thing that could be passed through the stricture, which was not more than two lines in length. The other portion of the ureter presented nothing remarkable beyond a slight discoloration. The parts in the neighbourhood of the stricture of the ureter were not thickened.

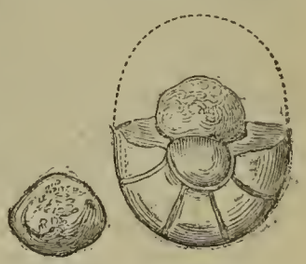
2nd. The stone or gravel lodges in the ureter, and there produces mechanical and then chemical symptoms.

A gentleman, aged 55, was seized with pain in the loin and vomiting on March 23, 1850. The urine was very scanty until the morning of the 26th, when he ceased to make any. The catheter was passed on the 27th, and no urine was found in the bladder. On the 28th he had some delirium, and much increased vomiting. On April 3 there was great drowsiness, with delirium hiccup; at 11 p.m. still no urine was in the bladder. On the 4th, at 4 a.m., after very great pain, he passed two pints of clear urine and a very small stone; it consisted of oxalate of lime, and did not weigh half one grain. For nine whole days no water whatever was passed, and for three days previously only a very small quantity of urine was made. On April 12 the patient was in his usual good health.

On November 23, 1844, I saw a gentleman, aged 54, with a renal attack of three weeks' duration. There was much pain in pressing over the region of the left kidney either before or behind, and there was more fulness in passing the hand over the left lumbar region than over the right. The urine was alkaline, and contained blood. In December the attack gradually went off, and on the 20th he passed a calculus consisting of phosphates and urates; it was the size of a small bean. In three days he appeared quite well. On the 24th he had some pain in the region of the left kidney. On the 27th, pulse 110, jerking; face flushed; skin cold; unable to sleep; tongue brown; urine thick from pus-globules and alkaline. 28th, pulse feeble, intermitting; tongue dry, brown; hiccup; distension of abdomen; very little urine secreted. He sank the following morning. There was general peritonitis, and a large abscess in the cellular tissue around the left kidney extended up to the diaphragm. On trying to remove the kidney with the ureter, it parted an inch and a half below the pelvis, though very little force was used. The ureter to this point was dilated so as to admit the little finger. The lower end of the ureter was not dilated. The pelvis and calices of the left kidney were much dilated, and contained gravel.

3rd. The stone may stop in the bladder, and there also produce mechanical and chemical symptoms. Slight rupture of vessels and hæmorrhage on motion, and pain in the glans when the stone is pressed on the neck of the bladder: these are the two chief signs of cystic calculus.

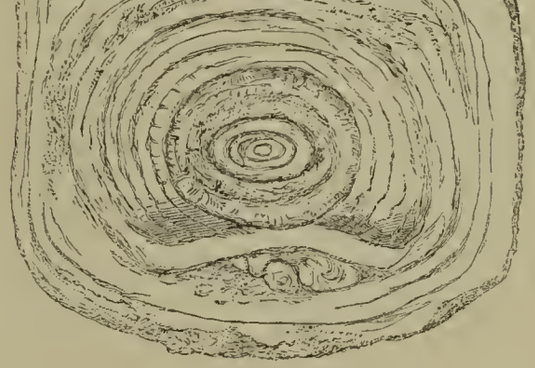
Sometimes the hæmorrhage is enormous. On December 29, 1850, I saw a gentleman, aged 68, who had passed large fragments of uric acid calculus from his bladder. Eight of these fragments, and a large piece the size of a pea, he had collected and put together, forming a stone nearly as large as the first joint of an ordinary thumb. Two or three fragments only were wanting to make the stone perfect. He began to pass a little blood without pain on the 28th; at 8 a.m. on the morning of the 29th he passed very bloody water. I saw him about twelve hours afterwards. The bladder was distended, forming a perceptible tumor in the abdomen. On the 30th there was a very little bloody discharge, but the tumor in the abdomen was less distinct. There were no urgent symptoms, and as he had on a previous occasion suffered in the same way, and no instrument was passed, I let him alone. On June 31, clots and urine came away, and the following day he made clear urine.



Nucleus. Whole Stone.

The following extreme case of mechanico-chemical disease occurred to Mr. Hewett:—

R. R., 17 years of age, was admitted into St. George's Hospital for gravel and irritation in the bladder, from which he had suffered as long as he could remember. The urine was alkaline and purulent; on examination by the rectum a large rough stone was felt pressing backwards, and on pushing it upwards it was felt in the abdomen. The stone was so large that it was proposed to dissolve off the phosphates by hydrochloric acid injections previous to any mechanical operation, but before anything was done, the patient after a week of fever died. Three externally phosphatic stones were found in the bladder: one weighed 120 grains, another 115 grains, and the third 5 ounces 120 grains. The drawing represents the size and appearance of the large stone.



The history of the case, as it was recorded on this stone, was very unusual. At first acidity caused a small stone to form in the kidney, where it remained increasing by different degress of acidity for some time, after which it was passed into the bladder. There the acidity continued very uniformly, for as long a time as the stone had been in the kidney. Then it set up inflammation of the bladder, and the stone by nearly one-fifth of its surface became adherent to the bladder, the urine became alkaline, and the phosphates were deposited wherever the stone was detached. This lasted for a considerable time, the phosphates being mixed with urates in variable quantities. Then the adherent part separated, and an irregular stone one-fifth depressed and four-fifths oval was free in the bladder. After this a more phosphatic state was produced, and when this had lasted for a short time two other small stones probably passed from the kidney, and lodged themselves in the depressed part of the large stone, and these were soon united by fresh phosphatic deposit, which went on increasing the calculus until the death of the patient, when the depression was entirely obliterated.

This stone by mechanical pressure had caused ulceration of the bladder, and a circumscribed abscess had been formed in the peritoneum the size of a cricket ball, which opened into the bladder; another ulcerated opening led into the cavity of the peritoneum, which was inflamed throughout, the intestines being glued together by purulent fluid. The bladder itself

was thickened, and the mucous membrane coated with phosphates.

4th. The urethra is the rarest birth-place for mechanical or chemical tertiary calculous disease. Occasionally a piece of gravel obstructs the passage, or inflammation of the bladder spreads to the urethra, and the angular fragments after lithotrity excite much inflammation, and have even been known mechanically to cut through the tube, and blocking up the natural passage, to cause extravasation of urine and death. But these are rare accidents, and belong more to the Surgeon than to the Physician; still, if time permitted, such cases would furnish me with the very best illustrations of the relationship that exists between mechanical and chemical diseases, showing how, out of the motion of masses of matter, molecular motions arise in consequence of that correlation of force in the body which constitutes the subject of these lectures.

On the Treatment of Acid Gravel.

In the treatment of every kind of gravel the first question is regarding its solvency. The solution of uric acid gravel in any alkaline fluid that can be borne in contact with the mucous membrane of the urinary organs is scarcely possible. It can hardly be doubted that uric acid in a fine state of division as powder could be dissolved, but the problem is to dissolve uric acid in a more or less massive state. The mechanical force of cohesion of the crystalline particles as well as the chemical insolubility of each crystal has to be overcome. And notwithstanding the appearance on the surface of some uric acid calculi, and notwithstanding the supposed disappearance of calculi that have been considered to be in the urinary organs, and notwithstanding I have made numberless experiments, in the body and out of the body, to find a solvent for the stone in the kidneys or in the bladder, yet at present the state of aggregation of masses of uric acid cannot be overcome chemically. Acid gravel has not been dissolved in the kidneys or bladder, though my friend Dr. Roberts, of Manchester, tells me he expects to do both.

Until the gravel comes away or is removed two chief indications for practice exist. Firstly, to prevent it from hurting the mucous membrane, and secondly to stop its enlargement.

Pain and blood are the evidences of hurt to the mucous membrane. Hence, any amount of exercise or of motion may be taken, provided it does not cause pain or blood. The amount of pain may be taken as the measure of the risk of inflammation, and the amount of blood may also be taken as the measure of the mechanical hurt to the kidney, and of the loss of strength which results from hæmorrhage. Both pain and blood may be prevented or temporarily removed by rest; but long-continued perfect rest would in most people soon injure the general health. So that the mean must be found by trials, the problem being to keep up the general health by exercise, but to avoid by rest inflammation or hæmorrhage—that is, chemical or mechanical injury.

The second indication is to stop the growth of the stone. In other words, to prevent fresh acidity; for thus the gravel is kept so small as to admit of perfect cure by the escape of the mechanical mass through the urinary organs. The means of preventing acidity have been already brought before you. Here I shall say only a few words on the good of dilution, which not only delays the precipitation of the uric acid, but helps to wash out the gravel or stone. The best diluent is some alkaline mineral water, as Vichy, or Fachingen, or Seltzer water, taken not only with the food, but two hours before each meal. When there is no acidity, soft spring water night and morning is the best diluent.

This brings me now to the treatment of the passage of gravel or stone from the kidneys or bladder. The chief objects to be obtained are, first, to relieve pain; and secondly, to promote the passage of the calculus.

The pain is most rapidly removed by chloroform or ether inhalation. This, with care, may be continued for hours. The slightest unconsciousness is all that is necessary; but this must be kept up, for on the return of consciousness the pain is again felt.

The second remedy is the hot-bath at the temperature of 100° F. continued for hours, unless it causes faintness. Four hours' bath and then two hours' warm blankets; then three and a-half hours' bath and three hours' warm blankets; continue in this manner, gradually prolonging the rest and shortening the bath. Nothing weakens like pain. Or any hot applications may be used when the bath cannot be taken.

The third remedy for pain is opium externally or internally. Externally, it may be used as a fomentation in any quantity; as laudanum or solution of morphia poured on a poultice, or with one-eighth to one-sixteenth of chloroform on spongio piline. Internally, half a grain of acetate of morphia in solution may be injected into the loin; within a few minutes it will act potently on the pain; or opium, or any of its preparations, may be given by mouth freely, and the severity of the pain renders the system tolerant of large doses; but the ill effects of the sedative in causing inaction of the liver and constipation are very evident when the pain ceases. Half a grain or even two-thirds of a grain of morphia may be given by the mouth, and repeated in four or six hours, if the pain lasts; or thirty drops of laudanum may be taken, and repeated in two or three hours. For the relief of the suffering it is best that no aperient should be taken at the same time as the opiates, the action of the aperient counterbalancing the action of the narcotic on the bowels. Calomel in full aperient doses, as it stops sickness, may be given with the opium if there is great constipation, or if there is great intolerance of narcotics.

Secondly, the passage of the calculus is probably made easier by all the means that relieve pain. When the spasm is relaxed by chloroform and opium, or by the warm bath, or fomentations, the escape of the calculus is made more easy. Still, the pressure of the urine behind the obstruction is the great motive power in the passage of the gravel or stone. This force comes into action only when the obstruction is more or less complete, and then the pressure of the fluid is the same on the structure of the kidney as on the obstruction; and thus the secretion of urine is lessened, and the pressure more and more slowly reaches its maximum. Diluents may early in the attack be of use in increasing the pressure; but after the symptoms of suppression of urine occur, they are of less use in this respect, and when urinous poisoning comes on vomiting and purging give relief by removing some of the poison. Usually, without emetics or aperients, sufficient, sometimes excessive, evacuation takes place; and if this tertiary chemical poisoning does not bring the heart to rest, the obstruction of the ureter may be removed by the continued pressure, and then, the circulation through the kidney being free, the blood is rapidly purified, and a chemical disease far more dangerous than the original chemical complaint (acidity) rapidly passes away.

When the obstruction cannot be removed, not only does the pressure of the secreted urine stop the purification of the blood by stopping secretion, but the urine that has been poured out must, by diffusion, pass back into the blood. When the blood is urinous, diffusion must carry the poison to every part of the textures, even into those parts where no vessels exist—the cornea, the crystalline lens, the cartilages, and, perhaps, even into the nails and the hair. The uric acid, oxalic acid, and urea poison the nerves, and muscles, and blood-vessels, and other textures, and render them incapable of carrying on the actions of nutrition and oxidation.

When the gravel passes into the bladder, usually little or no treatment is requisite. After a longer or shorter delay the stone is forced into the urethra, and ultimately is driven out; but whilst it remains the same objects are still to be kept in view—first, to promote the escape of the stone; secondly, to prevent its growth; and, thirdly, to keep the bladder from harm.

Free dilution and alkaline remedies best fulfil the first two objects; whilst the last is chiefly to be gained by rest. Inasmuch as the bladder is nearer the external orifice than the kidney, two or three other remedies are possible.

First. There is great Surgical authority for occasionally passing a catheter when a small stone is suspected to be in the bladder. If there be no stricture, it is not easy to see how this should help the passage of the stone more than passing a probang before food would make swallowing easier.

A gentleman came to me one morning, and from the microscopic blood in the urine and the pain in making it, whilst his general health was robust, I considered a stone had formed in the bladder. I went with him to a Surgeon, who sounded him, and said "There may be a stone, but I cannot find it." The following morning the patient brought me the stone, which he had voided in the night. To him, and to his Surgeon, it was beyond all doubt that the passing the sound made the stone come away.

Secondly. The Astley Cooper forceps, by which a small stone may be removed whole through the urethra; and the lithotrite, by which a stone may be removed in pieces; and, still more, lithotomy, by which the foreign body is removed whole through an artificial opening, are mechanical proceedings belonging to the Surgeon and not to the Physician.

Thirdly. There is yet another method of cure, so far beyond all other methods in its philosophy, its safety, and its freedom from suffering, that success, though still postponed, must ultimately be attained. This is the dissolving the gravel in the bladder. There is no difficulty whatever, excepting want of patience and chemical knowledge, that hinders the solution of phosphates in dilute acid. A stream of diluted lactic or hydrochloric acid, made so weak as not to irritate the bladder, and passed at the temperature of 100° F., must dissolve any phosphatic gravel or stone or outer layer of stone, provided only that the current is continued long enough.

A warm stream of very diluted lithia or soda should dissolve any urates and attack uric acid. But gravel and stone vary very much in density, that is, in compactness of aggregation, and some uric acid gravel is so hard that it is vain to expect that any stream of water or of alkaline water will have any effect in any reasonable time.

Hence it becomes necessary for the solution of some uric acid stones, and for all oxalate of lime stones, to discover some way of exposing the gravel or calculi to the action of stronger agents than dilute lithia or soda.

In the *Philosophical Transactions* for 1852, p. 201, I have shown what can be done out of the body by disengaging nitric acid and potassa in contact with uric acid by the help of the voltaic battery. Although this is easy in glass vessels, it is very difficult to make a catheter that can cause this action to take place within the bladder, and after months spent in producing an instrument fulfilling all the electrical conditions for success, the equally essential Surgical conditions are by no means perfect. There is a want of firmness and fixedness of the blades which make the introduction of the litholitic instrument difficult. Still, when Surgeons skilled in electrical science, and possessed of sufficient time and patience, arrive, I have little doubt but that uric acid calculi will be dissolved in the bladder. Some more energetic substances may be liberated in contact with the stone, or some way may be found of rendering the stone more soluble. At present progress is stopped more by the mechanical than by the chemical difficulties of the problem.

Oxalate of lime gravel or calculi are so hard and so insoluble that as yet there is no prospect of obtaining any good results by any process of solution. But oxalate is so closely related to carbonate of lime, and this last is so rapidly soluble in any dilute acid, that hopes must be held firm that some day a process of oxidation may carried on in the bladder to compensate for the want of that oxidising action in the blood and organs which leads to the formation of this kind of stone.

ORIGINAL COMMUNICATIONS.

ON NUTRITION.

By LIONEL S. BEALE, M.B., F.R.S.,

Fellow of the Royal College of Physicians; Physician to King's College Hospital; Professor of Physiology and of Morbid Anatomy in King's College.

(Continued from page 277.)

DOES TISSUE EXHIBIT VITAL PROPERTIES?

In this paper I propose to adduce in a form as concise as possible some of the principal arguments which have led me to conclude that the *formed material* which results from the death of the germinal or living matter is destitute of VITAL properties or endowments.

All formed material is permeated by special fluids during life; but I do not think that these fluids *nourish* the formed material. They doubtless cause it to retain its physical properties. *Nutrition*, however, cannot take place unless, as has been already shown, germinal or living matter is present. Even if a fluid deposits certain of its constituents in the formed material, this process is not *nutrition*, for this simple reason—that the substance deposited existed in solution in the fluid. Nutrition involves much more than deposition of matter from a solution. There must be conversion—a complete separation from one another of the elements combined in the constituents of the pabulum and their re-arrangement.

The fluids which permeate the formed material cause it to retain its peculiar characters and properties perhaps somewhat in the same manner as certain preservative fluids prevent physical and chemical changes from taking place after death. It is true that the formed material of many tissues manifests certain peculiar properties, which it loses if immersed in any artificial fluid; but is it unreasonable to infer that if we could cause a fluid having the *same composition and properties* as that which traverses it during the life of the organism to which it belongs, to permeate it after death, it would still continue to exhibit the same phenomena? It seems to me that the formed material of many simple cells—as, for example, the epithelial cells of skin and mucous membranes, and those of hair, cuticle, and nails, or the formed material of which white and yellow fibrous tissue consists, or that of cartilage, bone, and teeth—is lifeless; but that its characteristics are preserved by the continual passage through it of fresh portions of fluid introduced by currents determined by the position of the masses of germinal matter which are so arranged as to ensure every portion of tissue being subjected to the influence of the currents produced.

Indeed, I think few will be disposed to maintain that the particular tissues above referred to manifest *vital properties* during the life of the organism. Their action seems passive, and as far as we know there is no difference between the properties and endowments of a piece of white or yellow fibrous tissue or a portion of the matrix of cartilage, or of cell wall generally, while it remains a part of the organism, and those manifested after it has been removed from the body. The supposed metabolic power or catalytic influence of such structures need not be considered, as it has been already shown that evidence of such power is wanting, while those who have assumed its existence have not attempted to adduce any fact in favour of the view. In truth, such a notion never had any foundation, and was probably only resorted to for want of some more plausible hypothesis.

Since, then, such textures as cell wall and intercellular substance generally exhibit no evidence of *vitality*, it is well to inquire if some of the substances deposited within cells—that is, in the substance of germinal matter—possess vital properties.(a)

Adipose tissue is continually altering in proportion during life, sometimes being deposited, sometimes being removed; but can the fat of adipose tissue be regarded as living? Surely all will admit that the fatty formed material is lifeless, is *dead?* The starch of the starch-cell is likewise *dead.* But it might be said starch and fat are secondary deposits, formed in the substance of germinal matter, and they cannot therefore be included in the same category as the formed material of which the cell wall, intercellular substance, etc., is composed. Both secondary deposits and cell wall, etc., are formed material, but the difference in composition seems to be dependent mainly upon the different conditions under which the death of the particles of germinal matter which took part in their production occurred. The production of cell wall, intercellular substance, etc., is a process very analogous, probably in its essential nature, to the production of secondary deposits within cells, for, as I have shown, the matrix of cartilage may be formed in the substance of the germinal matter of the cartilage cell and this matrix be perfectly continuous with that which surrounds it ("on the structure of the tissues"). In certain cells in the common potato which are devoid of starch granules, a considerable deposit of matter, closely allied to starch, has been deposited upon the interior of the so-called cell wall. These facts show how very closely the production of peculiar matter in the substance of germinal matter is allied to the production of formed material upon its surface. The latter as well as the former are formed material, and there seems no good reason for regarding one as dead and the other as living.

Thus I am compelled to accept the conclusion that all formed material is dead or that all formed material is living. Now, the latter view cannot, I think, be sustained for a moment. If so, the extremity of the hairs and nails, the oldest part of the dental tissues, the outermost part of the bark of trees which may have been formed centuries ago; the hard, dry tissues of which the stones of fruit are composed, etc., must be examples of *living formed material;* and as no essential change can be observed in many of these tissues after they have been preserved in our museums for centuries, we are, I think, logically compelled to consider them as still living, or to maintain that the difference between *dead* matter and *living* matter depends not upon any difference in the phenomena occurring in the matter itself, but simply upon the circumstance of its remaining still in connection with a living organism. In short, that a dried up leaf, in

(a) The question concerning the vitality of muscle and nerve will considered in the next paper.

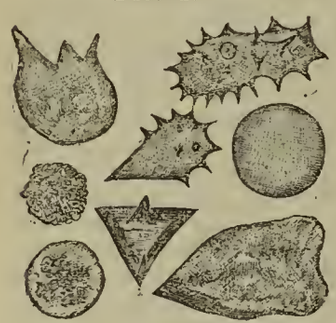
which every vital change has long since ceased, is *living* so long as it remains upon the living branch, but is *dead* the instant it falls from it. That is, a very slight change in the position of the matter alone determines its *living* or *dead* state. For these reasons, then, I am compelled to consider all formed material as matter in which life has entirely ceased; and I think that the *living state* is quite distinct from the *formed state*, that matter which manifests *life* does not exhibit *form*, and that *life* and *form* cannot co-exist in the same particles of matter at the same time. (b) *Life* prevents matter from assuming form for the time being, but so disposes the elements of matter as to compel them to assume a definite arrangement when the matter ceases to live.

But it may be asked, "Is the red matter of the red blood corpuseles—which is undoubtedly formed material, as the changes occurring in the frog's blood corpusele abundantly testify—lifeless?"

It has often been said that the red blood corpuscles are living cells which *distribute life* and nutrition to all the tissues of the body, and it is now generally supposed that the red blood corpuscles exhibit *vital phenomena*. Yet when we come to inquire into the history of the formation of the red blood corpuseles and study the changes which occur in the fully formed corpusele under certain conditions, we seem forced to a very different conclusion, and the red blood corpuscle, instead of being a living cell possessing wonderful vital powers, would rather seem to be a small mass of soft, lifeless matter, the very form of which (circular or oval) is probably due in great measure to the size of the tube through which it is forced, the rate at which it is made to pass through it, and the influence of fluids of different density to which it becomes exposed in different parts of its course.

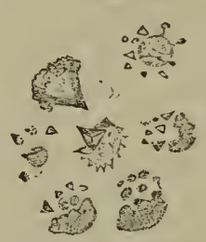
Wonderful powers have been attributed to the cell-wall of the red blood corpuscle, and it has been supposed that it may burst and thus the contents become set free. Careful observation of the changes occurring in the red blood corpuscles of the guinea-pig soon after its removal from the body, prove conclusively, I think—1, That there is no cell-wall distinct from the contents; and 2, that the whole corpuscle consists of viscid matter, which very readily becomes crystalline. (c)

Fig. 1.



Changes in form of red blood corpuseles of guinea-pig after removal from the body, × 1800.

Fig. 2.

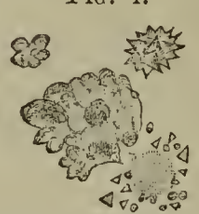


Disintegration of red blood corpuscles of guinea-pig's blood, each corpuscle breaking up to form many minute tetrahedral crystals.

Fig. 3.

Perfect tetrahedral crystals formed from guinea-pig's blood. In many cases one corpuscle became one crystal.

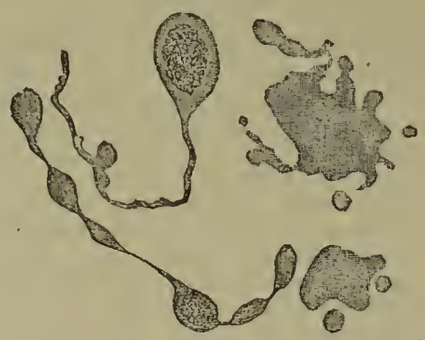
Fig. 4.



Disintegration of the red blood corpuseles of the guinea-pig resulting from heat. Some have separated into several small particles, each of which has assumed the crystalline form, × 700.

Portions of the viscid matter may be detached from the general mass, as shown in Fig. 5. These facts are surely strongly opposed to, if not incompatible with, the view generally entertained with reference to the nature of the red blood-corpuscle.

Fig. 5.



Curious spontaneous changes in form of red corpuscles of the frog, × 700.

The mode of formation of the red coloured matter (lifeless formed material) of the red blood-corpuscle can be studied in the large corpuscles of the frog, and will be readily understood by the following figures, which explain themselves (d):—

Red Blood-Corpuscles—Frog.

Fig. 6.

Young corpuscle, frog, not yet coloured, × 1800.

Fig. 7.

Young red corpuscle, frog. Formation of coloured portion × 1800.

Fig. 8.

Young red corpuscle, frog. A part of coloured portion fully formed, × 1800.

Fig. 9.

Young red corpuscle, frog. Coloured portion and nucleus, × 700.

Figs. 10 and 11 represent old blood-corpuscles the germinal matter of which has been almost entirely converted into formed material:—

Fig. 10.

Fig. 11.

Old red corpuscles. Nearly the whole of the colourless germinal matter has been converted into coloured formed material, × 700.

The coloured matter of the red blood-corpuscle is, therefore, composed of lifeless matter, and, so far from exhibiting vital properties, in some instances assumes the crystalline form almost as soon as it ceases to be urged in rapid motion through the blood-vessels.

In discussing the complex phenomena of living beings, and more especially the changes occurring in disease, it is most important that we should determine what matters of the body are *dead*, and what *living*,—what *have been formed*, what are to be formed,—what matters are the seat of vital, and what the seat of physical and chemical changes only.

Next, I must consider if the contractile tissue of muscle and the axis cylinder of a nerve fibre are to be regarded as *living*, or if these, like the other kinds of formed material alluded to in this paper, *have ceased to live*.

(To be continued.)

(b) Perhaps I should rather say "except the spherical form," for particles of *every kind* of living matter assume the spherical form. Living matter never exhibits any other *form*.

(c) I hope the Figures 1 to 11 and the explanations under them will enable the reader to see the force of the main points in the argument without trouble or loss of time. Those who desire a more detailed statement of the facts are referred to a paper published in the *Transactions* of the Microscopical Society for 1864, from which these drawings have been selected.

(d) In the figures, the coloured matter or formed material which is external is represented by the smooth tint—the germinal matter by the dark granular shading.

CASE OF

ANEURISM OF THE FIRST PORTION OF THE FEMORAL ARTERY TREATED BY COMPRESSION—DEATH AND AUTOPSY.

By R. COOPER TODD,
Surgeon 60th Rifles.

Private James M'Namara, aged 25, was admitted May 9, 1864, with a tumour in the left groin.

A fortnight previous to admission he had been jumping, and he felt "something give way" in his left groin. About

six or seven days afterwards a small tumour appeared in the seat of the injury, and as it seemed daily to increase he reported himself sick.

The tumour lay close beneath Poupart's ligament. The pulsation was very forcible and expansive in its character; pressure on the artery with the thumb against the pubis in a direction downwards and slightly forwards commanded the pulsation.

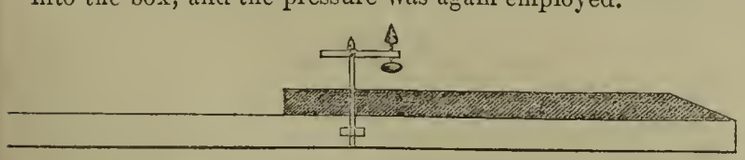
The nature of the tumour was clearly aneurismal; but, while the apparently healthy constitution of the patient, his youth, and the recent date of the injury gave promise of a cure by compression, the trifling cause of the complaint in one so young, free from syphilitic or rheumatic taint, and, as far as was known, steady in habits, pointed to general arterial deterioration and an unfavourable prognosis under any line of treatment.

An aneurismal compressor suitable to the case could not be found in the whole command. An ordinary tourniquet was, therefore, contrived to suit the purpose; but it could not be so fixed as to act steadily. The patient himself, also, rather opposed than aided the measures adopted. He believed the disease to be a trifle curable by a liniment, and that we were putting him and ourselves to very unnecessary trouble. The exact nature of the disease was explained to him fully, and the danger to his life pointed out, but without enlightening him in the least degree. To the very end he exhibited the same dogged indifference and scepticism.

Through the kindness of the Surgeon of the Civil Hospital, I was fortunate enough the next day to borrow Carte's instrument. It was so applied as to check the pulsation, while the slightest pressure of the finger on the instrument perfectly commanded it. The complete cessation of the pulsation was not deemed desirable, but merely its reduction to the minimum power practicable, and the patient was put under the influence of tartarised antimony and opium.

This line of treatment was continued for some days, but without any apparent benefit. The patient was instructed how to use the instrument, but his interest could not be enlisted in his own case. Everything seemed favourable. He had no pain from the pressure; the integument remained firm and healthy, and he could adjust the instrument, and even command the pulsation at will, without any inconvenience. He got morphine draughts occasionally, tinct. ferri. sesquichlor., tinct. digitalis, potass. iod. in large doses, yet without benefit, for the moment he got a chance he did everything in his power to thwart our endeavours.

On the 3rd of the following month my coadjutor, Dr. Oliver, got a box made, to the outside of which the compressor of Carte's instrument was attached. This apparatus contained the whole leg. It had a footboard moveable on a pivot. Its outer side was long and extended to the armpit, to prevent the patient slipping down in the bed. Its inner side was short, and reached the middle third of the thigh, while the posterior side expanded out behind the sacrum, so as to render it more comfortable to lie upon. The whole was then well padded. The limb was carefully bandaged and bound into the box, and the pressure was again employed.



A steady and uniform pressure was now carefully kept up for some days. A more generous diet was allowed, and even porter was given. Great attention was paid to the case, and certainly, if pressure could have cured, it must now have succeeded. No sign of consolidation, however followed, and, as the last resource, ligature of the external iliac was proposed, but the patient positively refused to submit.

On June 13 the tumour had greatly enlarged, but its contents were still fluid. There was, however, a very distinct purr felt not only in the tumour but in the radial artery, and then for the first time was detected a bruit with the first sound of the heart. "It was most distinctly heard over the region of the aortic valves (so runs the morning report), and for an inch above their usual situation."

On the following day this bruit had a double character, but its situation was unchanged. Now to this bruit I would call attention, because in the first place it had not been audible at the outset, and in the second place its source proved after death to be remarkable. It is true that the presence of atheromatous deposits was suspected, but the true nature of the aortic disease had not been diagnosed nor suspected during life. The bruit itself was peculiar. It was sometimes single and sometimes double. It was sometimes absent, at least not audible by the stethoscope. It was palpably organic, yet sometimes it presented characters which led one to hope that it was functional.

It would be useless to follow this long case through all its stages and symptoms. Suffice it to say that the tumour enlarged, became diffused, and threatened to eat its way through the integument; that the patient suffered from hectic fever, differing in its intensity from time to time; and at last died from exhaustion, seven months after the receipt of the injury.

Autopsy Eighteen Hours after Death.—This was carefully made by Dr. Oliver, from whose notes I have compiled the following:—The body was greatly emaciated. The left foot and ankle were swollen and œdematous, the thigh and leg semiflexed on the abdomen and everted. Their wasted condition formed a very marked contrast with the gigantic size of the tumour, occupying as it did the anterior and upper half of the femoral, and extending into the iliac, until lost in the umbilical regions. The tumour was solid to the feel, and in the upper part of the thigh measured thirty inches, and was capped with a circular granular ulcer, which measured one and a-half inches in diameter. The head was not examined. The lungs were sound. The heart was enlarged, and its left cavities hypertrophied. Atheromatous deposits were found on the aorta in the sinus corresponding with the right anterior semilunar valve. In this part also the vessel was thin and dilated, forming a projection to the right of the infundibulum of the pulmonary artery, and plainly visible as it bulged out behind this vessel. The cavity of this aneurismal dilatation contained a small clot about the size of a walnut, which was probably post-mortem. No abnormality was detected in the rest of the vessels of this region. That this aortic lesion was the cause of the bruit heard during life cannot be doubted, but I must leave it to your readers to account for the various changes in the character of that sound. The atheromatous deposits probably produced the sound, and the changes in the condition of such a dilatation so close to the aortic valves would certainly affect their action and vary the character of the bruit. The tumour was exposed by opening the abdomen and dissecting off the integuments from the anterior surface of the thigh. It measured *in situ* one and a-half feet from above downwards, and one foot transversely. In the pelvis it presented an immense elastic swelling, which filled the whole iliac fossa. The fascia of the region prevented its growth superiorly and externally, and limited its encroachment on the true pelvis. Poupart's ligament was torn away from its bony attachment, and lay flattened across the centre of the tumour. Internally, was the spermatic cord, uninjured; and superiorly the cribriform fascia and fascia lata of the thigh bound it in its place. The colon was much contracted, and loaded with scybala. It adhered closely to the tumour superiorly, and internally for about three inches, forming an agglutinated mass, with the left ureter and corresponding kidney. At its point of contact with the aneurism it was highly inflamed, and contracted in calibre, although permeable. The ureter and kidney participated in the inflamed condition of the intestine. The external iliac artery and veins were also discoloured, but in other respects seemingly healthy. The aorta and common iliacs presented nothing abnormal, but the internal iliac was enlarged. The psoas and iliac muscles, flattened and expanded over the mass, were seen through the fascia enclosing the anterior crural nerve. The external iliac, accompanied by its vein and some branches of the genito-crural nerve, passed internally. The vein was pervious, and continuous with the internal saphena vein, but the artery was greatly diminished in size, and its branches were quite obliterated. In the femoral region the vessel became amalgamated with, and lost in, the tumour, and about two inches below Poupart's ligament had been torn in two, the ruptured ends lying about two inches apart. In tracing the vessels upwards from the opening in the great adductor, the vein soon became impervious, and the artery presented the torn appearance already mentioned. It was impossible to demonstrate accurately the channels which supplied the circulation of the limb. Even if the whole body had been artistically injected, which army Medical officers have no means of doing, I doubt if much information could have been gained; but the increased size of the internal iliac showed that it must have been highly instrumental to this end. When the tumour was laid open no trace of the profunda could be seen. The tumour seemed composed of a

mass of fibrine, containing in folds or sinuses about two pints of recently coagulated blood. The evidence of sacculation was by no means distinct. There was, however, one part of the mass which looked like the original sac of the aneurism; it lay above in the iliac fossa, far removed from the seat of rupture in the femoral. It probably had been detached and pushed out of its place by renewed depositions. The whole of this fibrinous mass could be easily peeled, lamina after lamina, and was so firm as to be readily removed and replaced. The tumour had exercised a very destructive influence over the neighbouring bones. The anterior spinous processes of the ilium were absent. Two-thirds of that portion which goes to form the iliac fossa were corroded nearly half-way through. The pubis was nearly eaten through into the foramen. The capsular ligament and anterior third of the acetabulum were destroyed, and the joint opened. The neck, lesser trochanter, and upper anterior third of the femur were likewise injured. The trochanter suffered most. All the muscles of the region participated in the injury caused by the tumour. The weight was six pounds. The ulcer which occupied the apex of the tumour had eaten through the fibres of the sartorius, which lay across the tumour flattened and detached.

A case of aneurism, similar in every respect excepting in its issue, came under my care in the General Hospital, Dublin, in 1863. The patient was a soldier in the 36th Regiment. The aneurism was caused by his lifting a heavy box; it was in the same leg and same position as in the present case. Compression was used, and the aneurism cured. I have heard that the man was subsequently discharged the service for atrophy of the muscles of the leg.

ACTION OF WATER, CONTAINING NITRITES AND NITRATES, ON IRON, LEAD, AND ZINC.

CARE TO BE TAKEN IN ADOPTING IRON WATER-PIPES WITHOUT BEING ENAMELLED.—NITROUS ACID IN WATER, AND SUSPECTED COMBINATION WITH AN ORGANIC BASE.

By HENRY OSBORN, M.R.C.P. Lond.,
Consulting Physician to the Southampton Dispensary.

In my early investigations of the "action of water on lead" so many cases of poisoning by that metal occurred that it was absolutely necessary to find a substitute for leaden pipes for raising and transmitting water from wells in dwelling-houses. Iron, being considered the safest of all metals, began to be very generally adopted for that purpose; but the ferruginous corrosion was so great in many places that the water could not be used for domestic purposes. A gentleman having gone to a great expense by removing the leaden pipes and substituting those of iron, and finding that the water could not be used owing to its being so strongly impregnated with that metal, resolved to dig a new well, to which a tube of gutta percha was attached.

A gentleman being paralysed by lead water was advised to substitute tubes of tinned copper for lead; but they failed to answer the purpose. I proved the presence of lead in this water, and the rapidity with which it was taken up in solution; but I did not examine it for copper, though I have frequently detected that metal in solution, resulting from the contact of water with a brass or copper pump, taps, etc. I am, however, not prepared to say whether the existence of copper may not be due to galvanic action or to the oil or grease which is used to lubricate the piston-rod, etc.

Water, containing nitrates and chlorides, was put into five test-glasses, with a rod of iron, lead, zinc, copper, and tin in each; the three first were rapidly corroded, but the two latter were not acted upon, even after a period of forty-eight hours. An experiment, however, on a small scale and in open vessels must not be trusted.

The presence of copper in water may be detected by adding a few drops of a solution of ferro-cyanide of potassium to a large test-glass of the suspected water, when a reddish tint may be discerned, and on standing a precipitate of a red colour will collect at the bottom of the vessel;

By way of further showing that iron cannot be depended on for the purposes under consideration, I may mention that another gentleman took a house, some years since, about four miles from Southampton, and, knowing that cases of lead poisoning had occurred in the neighbourhood, requested me to examine the water in the house which he had just taken. Finding so much lead existing in the water, I advised him to take up all the leaden pipes, extending even to the stable-yard pump, and to replace them by iron; but so great was the corrosion of the latter metal that the water could not be used even for washing purposes, and the horses refused to drink it. This water contained nitrates.

In order to prevent the oxidation of iron, zinced iron pipes (galvanised iron) were introduced, and zinc in solution was the result, thus getting rid of one evil by substituting another.

Water pipes of grain and block tin were also introduced about the same time as the zinced iron, and the first place in which I heard of their being used was at Osborne House, in the Isle of Wight. Tin has been adopted by many persons in this locality, and no injurious corrosion of that metal by water appears to take place, but further investigations are required in various localities. I have been informed that there is a cheaper sort of tin pipe now sold, but owing to its being a mixed metal it is rapidly acted upon by water, and some of those who incurred the expense of laying down the so-called tin pipes were compelled to take them up again.

Immediately after the ceremony of laying the foundation-stone of the Military Hospital at Netley, Dr. Andrew Smith (Sir A. Smith) called on me to make inquiry respecting the action of water on lead in the suburbs of Southampton, when I pointed out to him the risk that would be incurred by using either lead or iron for conducting the water, and suggested that tin would be preferable for that purpose. Dr. Richardson's communication in the *Medical Times and Gazette*, October 29, 1864, informs us that the cost of the tin pipes in the Netley Hospital amounted to £9000. I may add that the money has been judiciously expended provided good block tin was selected and some precautions taken hereafter to be mentioned.

The well at the Netley Hospital being of considerable depth, the water in it would be less liable to attack either lead or iron than ordinary well water in the neighbourhood. Still, however, the risk would have been too great for such an establishment. Iron pipes enamelled are, perhaps, next to tin in point of durability, and, being far more economical, would meet all classes of the community. I speak, of course, of those localities where lead cannot be used without the risk of saturnine impregnation.

Notwithstanding the presence of nitrites and nitrates of lime and magnesia in water, constituting the most powerful oxidising agents of iron, lead, and zinc, I have met with nitrous acid, which is a still more powerful oxidising agent of these metals. Prior to my proving that the oxygen salts were the most active agents in producing the continuous formation of oxide of iron in water, I entertained the opinion that atmospheric oxygen was the chief oxidising constituent; but having found on one occasion the presence of nitrogen without a trace of oxygen, and the interior of the leaden pipe, when removed from the well, being thickly covered with flocculent carbonate of lead, I looked to another source for oxygen. I must not omit to state that chlorides play an active part in the action of water on metals; but when chlorides without nitrates are present, the corrosion is generally arrested after a few months or a year.

I have made but few examinations of the gaseous constituents of water, but I believe free nitrogen is seldom met with, and in most cases it is associated with oxygen, while carbonic acid exists in a free state, or contains but a small quantity of carbonate of lime; hence it is that the oxide of lead is rendered soluble until the water is exposed to the air, when the carbonate of oxide of lead is precipitated or suspended by the water. In like manner oxide of iron is rendered soluble by carbonic acid, but there is a considerable excess of the peroxide and protoxide of iron.

I have stated above that some precautions are necessary to be taken in the preservation of tin pipes, and the information which I have received from a plumber in this town (Mr. Brumfield) I think of sufficient importance to mention. He stated that he had never found either grain or block tin pipes corroded by water, but that they are liable to be acted upon by the soil in which they are imbedded, and the kind of soil which corrodes the most is that of clay-earth rather than chalk. Mr. Brumfield produced a piece of block tin pipe, the external part of which had been corroded into holes, and the interior was oxidised by water; but I had no opportunity of proving whether the oxide was soluble in that fluid prior to its becoming dry. I need scarcely state that it is requisite, by way of economy, to protect all tin pipes by drain-tiles or some other material in order to prevent contact with the earth.

In conclusion, I would revert to a communication of mine in the *Medical Times and Gazette*, May 28, 1864, on the Existence of Free Hydrochloric Acid in Spring-water, contained in a well, situate within three miles of Netley Hospital. The acid, as stated, was obtained by simply reducing the water by evaporation and distilling over the latter portion in a water bath; but the quantity of acid obtained being very small, I did not determine the presence of nitrous acid, which I also suspected to exist in a free state. On procuring a fresh supply of the water,(a) and reducing two gallons by evaporation, I obtained by distillation a sufficient quantity to prove the existence of free nitrous acid in addition to the hydrochloric. The last drachm of the distillate contained the acids in a dilute state, but care was taken not to allow the whole of the acids to come over in order that no decomposition of the nitrate, nitrite, and chloride of lime and magnesia might take place.

When a solution of chloride of magnesium or nitrate of magnesia is evaporated, there is a liability of decomposition taking place, the acid escaping while magnesia is deposited, but no such decomposition took place in the water under consideration. It may be said that although hydrochloric acid is present in water after evaporation, it does not necessarily follow that it exists in an uncombined state prior to evaporation if another mineral acid is present. There is just this possibility, however, that nitrous acid may pass into nitric and displace chlorine from calcium,(b) and by taking hydrogen from water forms hydrochloric acid.

When I first discovered hydrochloric acid in water I made a quantitative analysis, after evaporation, by estimating the amount of combined and uncombined acid, but I have never ventured upon a quantitative analysis previous to evaporation, as the acid exists in so small a quantity, and cannot be detected without introducing a strip of blue litmus paper for a short time in a glass of the water. With this reagent a little precaution is necessary; the litmus must not wash out of the paper, and the water should be exposed in an open vessel in a warm room for about twenty-four hours to allow the carbonic acid to escape; it is also requisite to procure water from some other source and test it in the same manner, by way of comparison.

I endeavoured to prove the presence of free hydrochloric acid, without distillation, by treating the reduced water with nitric acid and gold leaf; but although a small portion of the gold was dissolved, there was no proof of the acid existing in a free state, because nitric acid displaces chlorine from calcium, and thus prevents a satisfactory result. Water containing nitrates and chlorides dissolves gold leaf when the residue which is left, after evaporating the water nearly to dryness, is treated with sulphuric acid; but the quantity of gold dissolved by the nitro-hydrochloric, which is set free, may be so small as not to be observable to the eye; in that case, the solution must be filtered and tested for gold with protochloride of tin. Nitrates in water may be readily detected by the ordinary test—sulphuric acid and protosulphate of iron—but it is sometimes requisite to reduce the water by evaporation before applying the test.

The argument against the existence of an uncombined acid in water being so great, I have endeavoured to account for its presence by displacement, as already described; but free nitrous acid may be also doubled, especially as nitric acid is its solvent, and when mixed with water it passes into nitric acid. But when we bear in mind that hyponitric acid has a feeble affinity for inorganic bases, and does not combine with them directly, but that it has a strong affinity for organic bases, with which it readily unites, such a compound may, perhaps, exist in water naturally as well as artificially. Gun cotton (pyroxyline) is a compound of nitrous acid, insoluble in water, but there is another compound of the same acid, and organic base (c) soluble in water; hence it is possible that the latter may exist as a natural product. If this hypothesis be correct, the nitrous acid having an organic base cannot be said to exist in a free state previous to evaporation; but it may be an unstable compound formed by the acid in its nascent state from nitrogenous matter, and lastly passing into inorganic nitrites and nitrates. It may be as well to state that vegetable matter having a gelatinous appearance was found in the water after being kept for a few weeks in a stone bottle, and when placed on a glass slide and permitted to dry, it presented under the microscope the appearance of oscillatoriæ and nostoes; but whether such vegetable matter is capable of playing the part of a base I am not prepared to state; the subject, however, is of great interest, and requires further investigation. Lastly, I may add that the properties of such water, in a Medical point of view, is unknown to us, but the idea suggests itself that its continuous use might prove beneficial in certain cases of renal or vesical calculi.

Southampton.

(a) The first supply of water was procured in dry weather, and the second after a heavy fall of rain. I had an opportunity of proving, on one occasion, that water containing the hydrochloric acid came from a spring or springs twenty-five to thirty feet below the surface.

(b) The first water in which I found the acid (in a well in the New Forest) possessed a slight bleaching property before evaporation.

(c) See Brande and Taylor's "Chemistry," p. 186.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

THE BLISTER TREATMENT OF RHEUMATIC FEVER.

(Cases under the care of Dr. JEAFFRESON.)

The following abstract of five cases of acute rheumatism, treated by Dr. Jeaffreson on the plan recommended by Dr. Herbert Davies, of the London Hospital, has been made, by the kind permission of Dr. Warter, from his Clinical Case-book. The cases were of marked severity, the relief afforded was speedy and permanent, the temperature of the body fell rapidly, and in those cases which came into the Hospital free from heart complication no cardiac mischief was developed. The safety of the heart is undoubtedly the main point at which every treatment must be directed; and in this particular more especially does the Blister Treatment exhibit its peculiar value. In a communication read Wednesday, March 22, by Dr. Davies at the Hunterian Society, he stated that of 50 cases which had been admitted under his care at the London Hospital 27 had hearts already damaged by recent or old inflammatory mischief, and 23 were free from cardiac complication. The results of the blister treatment in these fifty cases showed that as many as twenty-five, when discharged from the Hospital, were totally free from any endo- or peri-cardiac disease; or, in other words, that while every heart was saved which came in sound, two recent cases of endocarditis were apparently cured by the alteration effected, as he believed, in the alkalinity of the blood by the free discharge of serum from the neighbourhood of the inflamed joints. Dr. Davies also states that those cases answer best to the treatment in which a great number of joints are simultaneously affected, and when, by setting up a large amount of discharging surface in the proximity of the inflamed parts, a large proportion of the *materies morbi* may be evacuated at one *coup*. Cases where the poison would appear to crop up to the surface by instalments, attacking the various joints at intervals of days, do not afford such striking examples of the efficacy of the treatment. The first case, where an unexampled amount of blister was applied in an extremely acute case, and where the patient was discharged cured in thirteen days, will well illustrate Dr. Davies' position. That this treatment is not simply local in its action was also shown in the alteration produced in the urine in the majority of the cases cited; for in 11 the urine remained acid, but generally diminished in acidity during the whole period of the case; in 22 it became neutral shortly after the serum was discharged; in 10 it exhibited an absolute alkaline reaction; while in 7 no notes were taken.

Case 1.—William S., aged 32, a working silversmith, and exposed to great variations of temperature, was admitted into the Hospital on December 2, the seventh day of his illness, and was discharged cured on December 15, thirteen days after he came under treatment. Eleven blisters, amounting to 482 square inches, were applied simultaneously, and with almost immediate relief. As the patient said, "the rheumatic pains left me as soon as the blisters drew;" and on the third day from admission all pain had disappeared. The pulse fell from 105 to 95 per minute; the temperature from 101·4 to 99·6 and 98·8; no cardiac mischief was developed. The urine, scanty and acid on admission, was rendered slightly albuminous from the presence in it of a small quantity of blood. The slight strangury and albumen, however, disappeared in forty-eight hours. He had slept very badly from the commencement of his illness, but as soon as the poultices were applied to the blistered surfaces sleep returned,

and was "good" every night during the time he remained in the Hospital. His appetite, bad on admission, was good on the third day; and his thirst, which was slight when he came under treatment, was not increased by the blisters, is reported to be absent on the fourth day. The heart was sound when he came under treatment, and free from disease when he left the Hospital.

Case 2.—Wm. P., aged 22, bootmaker, was attacked, for the first time, with rheumatic fever on November 29. He was admitted into the Hospital on December 6, the seventh day of his illness, and was discharged on January 2, 1865. Seven blisters, equal to 133⅜ square inches, were applied on December 9, and the pain, which was severe previous to their application, had disappeared as soon as the surfaces had been dressed. The following day the clinical report states:—"There is no pain anywhere, and, with the exception of a little uneasiness on the right shoulder on December 17, he was quite easy and comfortable until the day of his discharge." The pulse fell from 110 on admission to 90 per minute on the third day. The temperature from 101·4 to 98·6. The heart presented a systolic murmur, distinct at admission over base and apex, and was unchanged at the time of the patient's leaving the Hospital. His sleep, which was stated to be bad before the blister application, was improved on the second, good on the third night, and remained satisfactory until he was discharged. The urine presented a slight trace of albumen as the result of the treatment, but was normal and free from that substance forty-eight hours after the blisters had been applied. The appetite, which was indifferent on admission, is reported to have been "good" on the fourth day, while the thirst was absent at first, and continued so, unaffected by the local irritation set up by the blisters.

Case 3.—John B., aged 19, was admitted on December 8, 1864, the seventh day of his disease, and discharged January 30, 1865. He had, however, been up and dressed from January 11, 1865. Eight blisters were applied on December 9, three on the 12th, one on the 13th, one on the 14th, one on the 21st, making in all 603½ square inches of empl. lyttæ. The day succeeding the application of the eight blisters the report states that all pain had disappeared. On the fourth day from that date, the patient has "now a little pain in the right shoulder, and says he wants another blister for it," which is applied and followed by great relief. The clinical account says:—"December 14.—The patient has no pain anywhere. December 18.—The same. December 19.—Had pain in the left knee yesterday, I think he caught cold from going to the closet yesterday. And December 20.—The left ankle and knee were swollen. The application of the blister removed all pain and swelling, and never returned during the time he continued under treatment. The pulse fell from 108 to 86, and varied from time to time, with the appearance of the affection in different joints. The temperature fell from 100·8 to 99·4, and also varied with the pulse. The heart presented before the application a systolic murmur at the apex, which remained unaltered at the time of his leaving the ward. His sleep, which has been bad since December 2, was pretty good on the night after the blisters had been dressed; moderate on the fourth; good on the fifth; disturbed considerably by a blister on the 6th; good on the following and every succeeding night. The urine.—Its reaction before the blister application was not noted, but the treatment induced some strangury and traces of albumen, and its condition varied from time to time with the variable condition of the joints. Appetite is stated to have been bad on admission; a little better on the second day from the application of the blisters; improving and gradually becoming good from the fifth day of the treatment. The thirst was slight when the patient entered the Hospital. It appears, however, to have been considerably increased after the application of the blisters, but the symptoms vanished in a few days.

Case 4.—Charles P., aged 20, butcher, already previously the subject of acute rheumatism, was admitted on December 8, 1864, the fourteenth day of his illness, and discharged on January 18, 1865. Four blisters, equal to 118⅜ square inches, were applied simultaneously, and with such relief that on the day succeeding the application all pain had disappeared, and his sleep, which for fourteen days had been wretched and without benefit to him, is reported as being good, and continuing satisfactory for the remainder of the time he was under observation. The pulse, which was 80 and 66 respectively on the two days before blistering, became 72, 68, 63, and ultimately 60. The temperature, 100·4° and 98·8° before blistering, became 98·8°, 99·2°, 98°, and ultimately, on cure, 98·4°. The heart was free from disease on admission, and continued the same during the entire period. The urine presented after the blistering a very slight trace of albumen. The appetite, which had been bad since November 25, was very much improved on the day after the blisters had been applied. The report says, "he eats everything before him;" and it continued excellent from that date. The thirst was great on admission, only slight after the blisters were applied, and stated to be *nil* on the following day.

Case 5.—Susan J., aged 22, needlewoman, of fair complexion and sanguine temperament, and who had had three previous attacks, was admitted with acute rheumatism on December 12, the fourth day of her illness, and discharged on February 2, 1865. Six blisters were applied: four on December 12, and two on December 14, equal to 328 square inches. On the day succeeding the first application the report states:—"There is no pain now in the hands and ankles, but pain came on in the night in both shoulders, and she has had a very slight pain in passing urine." After the second application the report continues:—"Feels much better; no pain anywhere; got out of bed this morning; wrist still swollen and red, but soft, moveable, and not tender to pressure." On the following day report states:—"She cannot even invent a pain anywhere; looks well, and is only weak. The pulse fell in this case from 114 to 100, 90, and 70, and was 84 at the time she left the Hospital. The temperature fell from 101·7° to 99·7°, or two degrees. The heart was diseased on admission, and the systolic murmur at base and apex remained unchanged. The urine, at first acid, and containing a slight trace of albumen from the blisters, became alkaline on the second day from the time of the local application, and normal speedily after this date. Her sleep, which had been almost absent from December 8, is stated to have somewhat returned after the blisters were removed, to be much better on the fourth, and very good on the fifth night, and to have continued satisfactory until the time she was discharged. Her appetite, none on admission, was improved immediately after the application of the second set of blisters, and pronounced good on the fifth day after the last-named application. The thirst was very great on admission, unaltered the day after the blistering process, much less in amount on the following day, and none on the succeeding days.

THE LONDON HOSPITAL.

CASE OF RHEUMATIC FEVER QUICKLY CURED BY BLISTERS.

(Under the care of Dr. DAVIES.)

A CASE at present under the care of Dr. Davies affords an excellent example of the safe and rapid results of the treatment. The patient was brought into The London Hospital on Friday night completely crippled from acute rheumatism, and presenting the usual symptoms of that disease. He described his agony as very intense. Ten blisters were at once applied, and a grain of morphia was administered internally.

On the Saturday evening he was free from all pain.

On the Sunday he declared himself to be comfortable, and his joints to be moveable.

On Monday morning he sat up and washed himself, and in the evening was able to walk down the ward to the closet.

On Tuesday he was perfectly easy, with appetite returned, and thirst absent; and was ordered to have a chop and a pint of Bass's ale, as he had been accustomed to live rather freely. The urine in this case was found to be strongly alkaline on reaction, and perfectly free from any trace of albumen as tested by heat and nitric acid. He had had no strangury. On being questioned as to the pain induced by the blisters, he said that he would gladly have them repeated were he unfortunate enough to have another attack of rheumatism. No cardiac mischief was developed. No medicine beyond the morphia already mentioned had been administered.

UNIVERSITY COLLEGE HOSPITAL.

A CASE OF TRUE LEPROSY (ELEPHANTIASIS GRÆCORUM)—ERYSIPELAS—DEATH.

(Under the care of Dr. HILLIER.)

J. F., aged 58 years, a native of Limerick, in Ireland. His father and grandfather were very strong men, and lived to a good old age. He knew nothing of the rest of his family.

He spent seventeen years in India as an engineer; he came home two years ago. Whilst in India he lived usually at Bombay, in very damp quarters. He always had enough to eat; at one period of his life drank freely. His general health had been very good till lately. About eighteen years ago he had venereal disease, for which he was treated with pills which made his mouth sore. There is still a depressed scar on the glans penis, not indurated; he says this has been there eighteen years. After his return from India an eruption appeared on his skin. He first observed on his arms, legs, and thighs pimples of the size of pins' heads, nearly of the normal skin colour. There was no itching or unusual sensation in them. Since then they had increased in number and size. He stated that he had lately felt very low-spirited and unusually weak. Had lost all sexual desire for twelve months.

When admitted to University College Hospital, in May, the following notes were taken of his condition:—A very strongly-built man, much disfigured by an eruption on his face and elsewhere. His eyes are suffused; his voice hoarse. Pulse between 80 and 90, weak. His face is studded with numerous round, hard elevations, varying in size from pins' heads to large peas, either of the skin colour or paler. They are to be seen on the forehead, cheeks, chin, nose, and ears. A few of the tubercular swellings are soft and fluctuating, and on section a purulent fluid escapes. The harder ones have a solid, opaque, white section. The eyelids are thickened and knotty; there is no hair on the outer half of either eyebrow. (Attention has been specially called to this as a characteristic symptom of leprosy, as seen in Madagascar by Dr. Davidson.) There are also on the face several crusts of a darkish grey or brown colour, something like rupial scabs; beneath the crust a sharply-cut circular ulcer is found. The sclerotics have a muddy aspect, and the conjunctivæ are injected. There is but little hair on his head, and the scalp has a peculiar olive-brown discoloration in patches, which are elevated, and present in some cases a little desquamation. The external ears are hypertrophied and knobby, with a little scabbing. On the thorax are twenty or thirty tubercles similar to those on the face, but less prominent, as well as one or two crusts. The skin of the abdomen is mottled, of a brownish colour. On the thighs are also tubercles and numerous crusts, which leave round, unhealthy-looking ulcers when removed. On the arms there are patches of brown discoloration, and the skin feels generally thickened and studded with tubercles, mostly of the colour of the skin, but some of a livid purple tint. The backs of the hands are like the arms, but more livid, and have many crusts. A few of the tubercles have softened, and contain unhealthy sanious pus. The palms of the hands are very dry, but not peeling or tubercular. At the nape are clusters of tubercles which are almost confluent; and on the back are also some tubercles, and much brown discoloration.

It was thought that possibly it might be a syphilide modified by long residence in a tropical climate. He was accordingly treated by mercurial vapour-baths twice a-week, and five grains of blue pill every night. He very soon became salivated under this treatment. He stated, however, that he felt much stronger and in better spirits than he had done for months. Some of the tubercles were absorbed, and most of the scabs separated, and the ulcers healed, leaving in many cases an irregular warty surface, of a darkish colour. The discoloration of the skin of the scalp, as well as of the trunk, rather increased than diminished. There was no albumen in his urine. He suffered usually from a cough, with copious expectoration; and on examination of the chest the lungs were found to be emphysematous.

The patient stated that he had, since childhood, had a feeling of numbness in the little finger of his right hand, which had increased lately. On pinching the little finger he felt a darting pain in the course of the ulnar nerve up to the elbow. There was also some numbness on the inner side of the right foot; sensation was decidedly less than on the corresponding part of the left foot, where it appeared to be exaggerated. Examined with the compasses, there was a decided loss of sensibility both in the feet and hands. On the dorsum of the foot he could not distinguish the two points of a pair of compasses until they were four inches apart, instead of at a distance of less than half-an-inch, as in two ordinary patients tested at the time; and on the dorsum of the hand a distance of two and a-half inches was reached before he recognised the two points. In one or two spots on the thighs, near tubercular elevations, there was decided hyperæsthesia. It could not be determined that there was either more or less sensation in the tubercles on the discoloured patches than in other parts.

He constantly affirmed from time to time that he felt better; he certainly had more energy, and was in better spirits. His voice continued husky, his cough troublesome, and the discoloration of the skin was on the increase. No fresh tubercles appeared. There were noticed, soon after he came into the Hospital, several ulcers on the soft palate, with raised, thickened edges.

He continued in this condition until September 1, when he was attacked with rigors and general pyrexia.

On the 3rd an erysipelatous rash appeared. Typhoid symptoms rapidly supervened and signs of pulmonary mischief. He refused nourishment, and on the 11th he died.

On post-mortem examination there was found to be pneumonia of both lungs. The larynx was finely injected, as well as the trachea. There were large ulcers in the pharynx and the anterior pillars of the fauces; the ulcers were surrounded by raised borders, and sharply cut; the kidneys were congested, but appeared healthy; a portion of skin from the arm exhibited no change in the cuticle, but the cutis was thickened and here and there raised into tubercular elevations, some of which were suppurating. On section the skin was harder and more opaque than usual. Under the microscope were seen numerous granules, and round and oval nuclei infiltrating the fibrous stroma. Owing to my absence from town at the time of his death, the examination of his skin was incomplete, whilst the nerves and spinal cord were, unfortunately, not examined.

Remarks by Dr. Hillier.—The case was seen during life by Dr. Webster and Dr. G. Milroy, both of whom have paid considerable attention to leprosy; they expressed their full conviction that it was a case of true leprosy. The disease is not often seen in this country in a well-marked form. Some cases, quoted by Mr. Hutchinson and others, make it probable that the disease, in a modified form, sometimes occurs and is not recognised. This case may be regarded as an example of the variety called by Danielssen and Boeck *Lepra tuberculosa*, although it exhibited some of that loss of sensation which is the most striking feature in the variety called *Lepra anæsthetica*. The two varieties no doubt frequently run into each other.

GUY'S HOSPITAL.

HERPES ZOSTER AFFECTING BOTH SIDES OF THE BODY.

(Under the care of Mr. THOMAS BRYANT.)

The most striking peculiarity of herpes zoster is that it affects but one side of the body. Except the following case (Case 2) we have never seen it on both sides. A few years ago we heard Dr. Jenner say that he had once seen the eruption pass quite round the body. Now, we sometimes hear of cases of this kind, but we are fortunate to be able to state that they do occur on the authority of such good observers as Dr. Jenner and Mr. Bryant. We must still keep in mind that neither of them have seen more than an exceptional case. Mr. Hutchinson, who collected a great many cases for a paper read two years ago before the Hunterian Society, stated that he had never met with such a case.

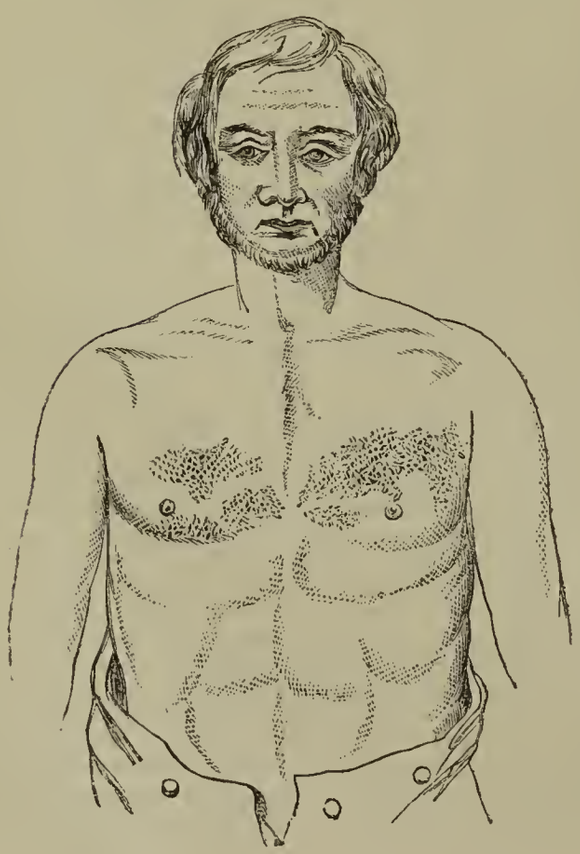
Very careful coloured drawings have been made by Mr. Hurst of the eruption in Mr. Bryant's case, and from them the following diagrams have been taken. The original can be seen at Guy's Hospital.

Case 1 is rare, in that the eruption passed the middle for six inches. Not unfrequently it oversteps the middle line for an inch or so, but six inches is decidedly exceptional. Case 3 is unusual in the position of the eruption. As a rule, the vesicles are found in the course of a dorsal intercostal nerve; but in case 3 nearly every branch of the cervical plexus has been marked out by the eruption. In a case we saw a few years ago, under the care of Mr. Startin, every one of the cutaneous branches of the plexus was marked out; the limited region of the face supplied by the auriculares magnus, the back of the head supplied by occipital, and the front of the chest and back of the shoulders by clavicular and anæmial branches. We have seen it affecting the frontal branch of the fifth; and the New Sydenham Society has published a plate in which the eruption followed the course of the frontal and trochlear branches only. This latter case occurred in the practice of Mr. Hutchinson. In Fig. 3 the eruption is represented as going as low as the wrist. Had it stopped at the

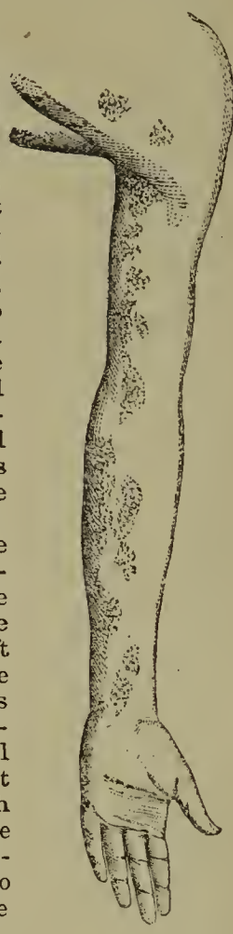
elbow, as it generally does, we should say that it was still limited to branches of a dorsal nerve, as the second intercostal sends branches to the arm as low as the elbow. In a discussion on herpes zostes at the Hunterian Society, Mr. Durham said he had, by careful dissection, traced the humeral branch as low as the wrist.

Herpes zoster is one of the most interesting diseases, in showing most prominently the nervous link in nutrition; but this part of the subject requires to be discussed from a far wider basis than the following cases (which are interesting chiefly from their position) can supply.

Case 1.—Eliza T., aged 27, a single woman, came under Mr. Bryant's care at Guy's Hospital on September 11, 1861, with an attack of herpes zoster, which circled the left side of the body from the spine to the sternum, passing beneath the mamma. The eruption extended posteriorly across the median line for two inches, and anteriorly for six.



Case 2.—Daniel F., aged 49, a labourer, applied to Mr. Bryant at Guy's on March 19, 1863, with herpes zoster occupying both sides of the body and one arm. On the *right* side it began opposite the spinous processes of the 4th, 5th, 6th, 7th, and 8th dorsal vertebræ, and passed across the breast to the sternum, where it joined the eruption of the left side of the body. On the *left* side the eruption commenced opposite the spinous processes of the 4th or 5th dorsal vertebra, circling the chest beneath the axilla to the sternum, and joining the right ring. From the axilla it passed down the anterior and inner surface of the arm and forearm as far as the wrist; and posteriorly it followed the line of the deltoid muscle. The unusual course of this eruption is accurately displayed in the accompanying woodcuts.



Case 3.—Martha S., aged 17, came under Mr. Bryant's care at Guy's Hospital on November 7, 1864, with a severe attack of herpes zoster, occupying the nape of the neck. It began on the left side of the spinous processes of the cervical vertebræ, and passed forwards beneath the ear to the left cheek, following an imaginary line passing level with the meatus of the nostril. It covered the cheek below this line, with the lower jaw and anterior portion of the neck as low as the clavicle, and posteriorly it passed over the shoulder to just below the level of the spine of the scapula.

MIDDLESEX HOSPITAL.

CASES OF ARRESTED TRANSIT OF THE TESTIS—CLINICAL REMARKS.

(Under the care of Mr. HULKE.)

It is a generally accepted fact that testes which have not completed their transit from the loins to the scrotum are very liable to disease, more so when they are arrested in the groin than when they remain within the belly. Their greater liability in the groin evidently proceeds from their greater exposure to injury, which their fixity in this situation does not allow them to evade; but the occurrence of cancer and inflammation in testes lying inside the belly, out of reach of external violence, points to the existence of predisposing causes, one of which may probably be the imperfect development of the organ, which post-mortem examination has verified with scarcely an exception. In the following cases the patients were not aware of the faulty position of the testis till it became inflamed and the gland had been mistaken for a rupture, a mistake which a very moderate amount of care would have made impossible.

Case 1.—A well-grown lad, aged 15, had a swelling in the left groin, which did not occasion any trouble till one day it enlarged and became very painful after unusually hard work. A Surgeon pronounced him ruptured, and ordered him a truss, the use of which increased the pain and produced still more swelling. After a fortnight of great suffering he came to the Hospital for further advice. The left side of his scrotum was empty, and there was a swelling the size of a hen's egg in the left groin. It consisted of a solid oval body overlaid by a stratum of fluid. Its size was not influenced by posture, and it did not receive any impulse when he coughed. It was manifestly the undescended testis.

Case 2.—An apprentice, aged 15, was brought to the Hospital for advice about a truss, which caused so much pain that he was unable to work while wearing it. He had a swelling in his right groin which had not given any trouble during childhood, but had lately, on several occasions, been painful and temporarily enlarged. This led his father to take him to a Surgeon, who pronounced him ruptured, and ordered him to wear a truss. On stripping him, the emptiness of the left side of the scrotum was at once evident, and on taking off his truss a solid body of the figure and size of a small testis

was found protruding from the inguinal canal at the external abdominal ring, through which, however, it could not be pushed. It was clearly the testis, and there were no signs of hernia.

Case 3.—A porter, aged 25, slipped while carrying a heavy load, and immediately felt a severe pain in his groin. He supposed he had sprained himself, but two days afterwards a very tender swelling appeared in the groin, which prevented complete extension of the thigh, and he went to a Physician, who thought it a rupture. Mr. Hulke found the right side of the scrotum empty, and the testis blocking up the external abdominal ring. The right testis exceeded the average size.

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Medical Times and Gazette.

SATURDAY, APRIL 1.

MR. SOLLY AND THE GOVERNORS OF ST. THOMAS'S HOSPITAL.

"Summum jus, summa injuria," says the old maxim—strict interpretation of law is often fraught with the grossest injustice. A good illustration of this text is now likely to occur at St. Thomas's Hospital. It will be within the recollection of some readers, that in the year 1858 the Grand Committee of that institution reported at a General Court, held on May 25,

"That a rule should be made, limiting the period of service of each Physician and Surgeon to the age of 60, or to a service of twenty years (not including the period during which he shall have been Assistant-Physician or Assistant-Surgeon), whichever event may first happen, but this rule should not come into operation with the present staff before July 1, 1863."

After some discussion it was resolved—

"That the Report of the Grand Committee now read be received and adopted (with this addition to the rule for limiting service as it respects the present staff—viz., that it shall not come into operation until the officer be 60 years of age), and that it be referred back to the same Committee to carry their recommendations into effect at such times and in such manner as the said Committee may deem best, having regard to the best interests of the Hospital, and to report from time to time to this Court."

In pursuance of this Rule, we understand it is now proposed to insist on the retirement of Mr. Samuel Solly, Senior Surgeon to the Hospital, who attains the age of 60 in the month of May next.

It is not our present object to enter into the general question of enforced resignation at definite ages; much has to be said on both sides of the question. In the present instance, however, Mr. Solly appeals against the proceeding, and, as we think, with justice. He points out that his position as full Surgeon to the Hospital has fallen considerably short of twenty years' duration, while it was preceded by twenty years of almost gratuitous service in the minor offices of Demonstrator, Lecturer on Practical Anatomy, and Assistant-Surgeon, appointments which now have salaries attached to them. He refers to the license already allowed to his seniors in office—Mr. South and Mr. Mackmurdo; to the fact that in every other Hospital but one where a limit to service has been made, the age fixed is 65, and not 60; and also that the rule has in no instance been made retrospective, or applicable to the existing staff.

It may be well, at the outset, to state categorically what must be obvious to many, that this is no question of inefficiency. The treasurer and governors themselves would be as ready as any to disclaim such a supposition. They would, beyond a doubt, join willingly in the testimony of many former pupils, now attached friends of Mr. Solly, in acknowledging that he has faithfully and usefully served the Hospital for many years, and that he is now as equal, in every respect, to his duties as he has ever been: they might add that his energy and activity are borne witness to by that "*ultima ratio medicorum*" a large and successful private practice. The authorities appear to be acting entirely on general principles, and on grounds of economy; indeed, they have on other occasions intimated their wish to reduce the number of the staff to what they consider a fitter proportion with the present diminished size of the Hospital. It is to be hoped the latter argument is one of only temporary cogency, even at the very leisurely rate with which the proceedings relative to reconstruction seem to move. Giving the governors, however, every credit for good intentions, there can be little doubt that they are committing an error and an injustice; it is an error, because the attempt to remove a senior Surgeon still active and vigorous, whose name is known to the public as a good Practitioner, and to scientific men by his writings, would, if successful, deprive the institution of far more *prestige* and reputation than could be made up by the paltry economy so secured. Surgeons of high standing are not like hands in a mill or clerks in an office, to be taken on and dismissed according to the supply of raw material, but scarce and precious functionaries, who confer on their Hospital and school at least as much credit as they derive from it. In the early years of Professional life, indeed, an old foundation, to a great extent, stands guarantee for its junior officers; but at the other extreme of the scale the case is reversed, and the senior members of the staff give tone and character to the institution. To cast off, then, a tried servant at a period when he is most experienced and in popular repute is, even in a mercantile point of view, inexpedient.

It is also an injustice, for it is the virtual violation of a contract implied, if not actually expressed, at the very beginning of the connexion. There may even be some doubt whether a Surgeon appointed to his post without limit of time can legally be removed, except for distinct neglect of duty or misconduct; but, however this may be, the governors must be prepared to show good and sufficient cause for altering the terms on which all their officers have hitherto stood, and those who were elected before the rule passed in 1858 were clearly not parties to any stipulation of retirement at a stated age. We entertain no doubt they will see the matter in this light, and bring it to an amicable settlement by a concession which the opinion of the public at large, as well as that of our Profession, will fully understand and justify.

MODERN DERMATOLOGY.—No. II.

Mr. Wilson observes, "The aims of classification are twofold,—namely, in the first place to lay down a plan by which a knowledge of diagnosis may be most easily acquired; and, secondly, to arrange a number of diseases according to a method that will facilitate the comprehension of their nature and phenomena, and conduce to their treatment with successful results. The first of these objects is amply fulfilled by the classification of Willan . . . . ; while the second has been attempted by a number of authors, with varied success, under the name of practical or natural classications; the most recent of these essays being the 'Clinical Classification.'" This classification is, in truth, one of a

mixed character, some of the groups being based on the pathological appearances, as the eczematous affections, the erythematous, the bullous, and so on; and some on causation, as the strumous affections, the zymotic, the syphilitic, and the like. It appears to us to possess the great merit of simplicity, and to be, as we have already observed, practical; but some of its weak points and faults are, we think, very patent. For instants, scabies is classed as an eczema; now it may be very true that the eruption, *par excellence*, caused by the acarus scabiei is eczema, but we must take leave to doubt whether classifying it with eczematous affections will "facilitate the comprehension of its nature and phenomena, and conduce to its treatment with successful results," for the special local cause to which it owes its existence requires a treatment different from that which will cure any other of the eczematous affections; it can be cured by only local treatment, and it cannot be cured without local treatment; arising from a specific local cause, it requires a specific local treatment. Were the classification a purely anatomical one, we could very well understand why scabies should be classed according to the eruption the acarus gives rise to; but as some of the skin diseases are grouped according to their causes, why should not scabies have been classed as a parasitic affection? Mr. Wilson does not dispute its parasitic nature, as he does that of the eruptions generally attributed to vegetable parasites. The majority of English dermatologists will also, we suspect, take exception to psoriaris and pityriasis being classed as not merely "eczematous affections," but as varieties of eczema. Mr. Wilson considers them to be forms of "eczema squamosum or chronic eczema;" pityriasis, he says, is squamous eczema of the scalp, psoriasis in its varieties, squamous eczema of the rest of the body; pityriasis nigra he considers to be an "eczema erythematosum of children born in India and brought to this country;" pityriasis versicolor he classes under the name of chloasma, among the "discolorations of the skin." Lichen and impetigo he also includes among the "eczematous affections." This is, to a great extent, following Hardy, who places all these diseases of the skin in the class of "dartrous affections," and they are certainly so closely allied, pathologically and therapeutically, that we are strongly disposed to accept Mr. Wilson's classification of them. One other point we must notice as very questionable, namely, that erysipelas is placed among the "erythematous affections." In speaking of this disease, Mr. Wilson observes that it "generally runs a course of ten days to a fortnight or three weeks; the local inflammation commonly makes its appearance on the second or third day of the constitutional disturbance;" . . . "the constitutional symptoms are those of invasion, course, and decline," and that in some cases it "seems to be referable to malaria, and sometimes to infection and contagion, and it is apt to prevail epidemically." Surely these characters show that it is much more nearly allied to the "zymotic affections," which, Mr. Wilson says, "are the diseases or fevers originating in a poisonous ferment, and attended with exanthema of the skin," than with erythema?

These appear to us to be some of the weak points in the "Clinical Classification," but it cannot be fully considered or fairly judged at present, for Part I. of Mr. Wilson's new work, all that is as yet published, includes only the first eleven of the groups under which he classes skin diseases. But whether the "Clinical Classification" be generally accepted or not, we are certain that the "Student's Book of Cutaneous Medicine" will be regarded as a valuable boon. It is written with an ease and simplicity, a fulness of detail, and at the same time a clearness and precision, that show the master, and it will be accepted as a standard guide not by the student only, but by the Profession at large. We shall have to refer to it frequently when speaking of the causation and the treatment of skin diseases, and we will add that we trust the remainder of the work will speedily appear.

Dr. Tilbury Fox calls his work "A collective account" of "the present knowledge in regard to skin diseases." His "own peculiar views have been obtruded as little as possible; general principles of treatment rather than empirical data have been indicated; while the views of others, especially those of the leading French and German authorities, have been fairly stated." He has carried out these objects well and ably, and produced a clear and good *resumé* of what is at present known and taught on the pathology and treatment of diseases of the skin; but his work is, we think, more suited for a book of reference for the Practitioner than for the student. The "mixed classification" of diseases of the skin given by Dr. Fox is "suggested by the joint consideration of anatomical characters, and the nature of the causation (as far as this is known). The kind and extent of the structures involved should first be clearly defined, then the prevailing character of the outward evidences (eruption), and subdivisions made in detail, according to the general nature of the disease." He begins by making "two grand divisions"—parasitic and non-parasitic,—then these latter are arranged in "two primary groups anatomically"—diseases of the epidermis and of the derma; and then "the details are dissected out by a process of exclusion," so as to "define the *limits* of disease precisely, and the exact *extent* and *character* of the structure involved." "Thus," he says, "you see in a glance the nature, extent, and cause of any given disease, as far as science has taught us. Take an example, *acne:* the Tabular View tells us that it is an *inflammatory condition* with *retention* of secretion of a *sebiparous* gland (one of the *special* structures of the *derma*). Rubeola rash is an eruption of an *acute specific blood* disease, *erythematous* in nature, and in *which the structures generally of the derma* are affected," etc. This "classification" is ingenious, but it appears to us to attempt too much, and though we fully agree with its author when he says that it "is at first sight rather puzzling," we are not able to go along with him in his belief that "a little careful scrutiny will show that its simplicity and truthfulness are its greatest recommendations, and that in the present state of science it is, perhaps, the most useful."

Dr. Hillier's "Classification of Skin Diseases" is simple enough; he makes four main divisions—Acute specific infectious diseases, Parasitic diseases, Syphilides, and *Other* diseases; and the "syphilides" and "other diseases" he "distributes mainly on Willan's principles," adding a few new orders, as the "pustulo-crustaceous," the "ulcerating," and the "vegetating" (including mucous tubercles and condylamata), among the "syphilides," and "hæmorrhagiæ," "diseases of the sebaceous glands," and two or three others among the "other diseases." Both he and Dr. Fox place erysipelas among the acute specific diseases, and scabies, of course, among the parasitic. In one respect his book forms a curious and rather amusing contrast to Dr. Fox's. The latter Physician's work contains comparatively little of his own opinions or practice, and he dedicates it to Mr. Wilson in graceful acknowledgment of that gentleman's labours. "For a life time," he writes, addressing Mr. Wilson, "you have fought almost singlehanded the battle of British cutaneous medicine, and I am proud to confess how much I owe to your writings and researches." Dr. Hillier's Hand-book is almost pure and unadulterated Dr. Hillier; the labours of foreign, and especially of the French, dermatologists are indeed acknowledged and made use of in the work itself, and in the preface he says, "I have availed myself largely of the works of Professor Hardy, of Paris, whose descriptions of disease are generally very vivid and truthful, and I have also to acknowledge my obligation to Professor Hebra, of Vienna, from whose writings I have derived many valuable hints;" but one could hardly gather from him that such a thing as "British Cutaneous Medicine" exists. He has "obtained information from Dr. Jenner's lectures, and from Dr. Thompson's treatise edited by Dr. Parkes," and Mr. Wilson is referred to some four or five times in all, not in a very complimentary manner; he could find no English book on skin diseases to recommend to students—"the existing books were

either out of date, diffuse, inaccurate, or incomplete"! So he "determined to try and write a book such as he could recommend to the student." We hope for the sake of both that the student will think as well of Dr. Hillier's attempt as its author, no doubt, does; and, indeed, we can conscientiously "recommend it to the student;" the style is clear and pleasant to read, the matter is good, and the descriptions of disease, with the modes of treatment recommended, are frequently illustrated by well-recorded cases.

Mr. Wilkins Williams, in his work on "Skin Diseases of Constitutional Origin," recognises the dartrous diathesis of M. Hardy, and, adopting partly M. Bazin's sub-classes, arranges the diseases of which he treats under the four heads of Dartrous, Arthritic, Syphilitic, and Scrofulous Eruptions; for his sub-orders, groups, or varieties, he, like all other dermatologists, is obliged to have recourse to Willan's system and nomenclature. His "Dartrous" sub-class contains "three main groups—viz., eczema, pityriasis, psoriasis." "Other skin diseases exist," he says, "(lichen and impetigo, for instance) which, although of the dartrous type, are not of sufficiently distinctive importance to entitle them to a separate division, inasmuch as they are merely modifications of the largest and most important division—eczema." It will be observed that the Dartrous class thus very closely corresponds to Mr. Wilson's group of "Eczematous Affections;" but the terms "dartrous" or "herpetic," and "eczematous" must not be supposed to be interchangeable, for we do not understand Mr. Wilson to affirm that there is an "eczematous diathesis," which is the real cause of all the diseases which he groups together as eczematous. They are allied by their anatomical elements and pathological appearances rather than etiologically. While the "Dartres" are allied etiologically, they originate in a special constitutional defect, called the "Dartrous diathesis." The existence of this diathesis is not generally recognised by English dermatologists; and, indeed, Mr. Williams admits that the existence of both the dartrous and the arthritic diathesis "is a questionable hypothesis rather than an undisputed fact." He accepts them, with other speculations of the French dermatologists, "not as arrows shot home to the mark, but simply as arrows aimed in the right direction." His work is well worth a perusal; it is much better than could have been expected from the *ad captandum* first title of it—"A Clean Skin: How to Get it and How to Keep it." We strongly recommend Mr. Williams to discard this title in future, and to retain only his second title—"Skin Diseases of Constitutional Origin: their Etiology, Pathology, and Treatment." By that change, and a little closer attention to soberness and exactness of expression here and there, he will do much more justice to the amount of information and good work that his treatise really contains.

THE WEEK.

THE COMING DISTRIBUTION OF STATE HONOURS—CREATION OF NEW PEERAGES.

A STATEMENT has been going the round of the papers lately to the effect that several new peers are to be created before the dissolution of Parliament; and rumour even goes so far as to name some of the individuals who are likely to receive this mark of distinction. If new peerages are to be created, it is not improbable that some baronetcies may be conferred at the same time. If such is the case, we trust that the claims of the Medical Profession will not be overlooked. It is now eight years since any member of our Profession was raised to the rank of a baronet; and in the mean time our scientific and practical knowledge has been making great and rapid progress. There are men, both among our Surgeons and Physicians, who well deserve a baronetcy, and who could worthily uphold the dignity. If the Premier wishes to do a graceful act, and at the same time make himself popular with the Medical Profession, he could not do better than recommend one of our leading Surgeons and one of our leading Physicians to the special favour of the Sovereign.

THE REWARD OF MERIT.

THE late Director-General of the Army Medical Department, after a life devoted to the army, distinguished services in the field, and a constancy to the cause and honour of the Profession to which he belonged, died as plain Mr. Alexander. His successor is more fortunate. The high Professional attainments, administrative talents, and, above all, the important services he has rendered to his Profession and his Department in doing everything that he could to preserve the dignity and elevate the position of the army Medical officer, have not been without their effect upon the powers that be. Dr. Gibson is about to be made a K.C.B. We feel quite certain that the great popularity of the present head of the Medical Department with all his subordinates is such that he will be overwhelmed with congratulations. Our prophecy has been fulfilled. We said long ago that Dr. Gibson was anxiously waiting for the letter K to be added to his C.B.

THE NEW BILL OF THE PHARMACEUTICAL SOCIETY.

WE expressed our opinion on this Bill last year, and see no reason to alter it. It is, no doubt, a very laudable thing to encourage young men who propose to carry on the business of chemists to educate themselves well, both generally in literature and specially in the sciences of chemistry and pharmacology. But there is no reason why this should not be voluntary, nor why the Pharmaceutical Society should claim exclusive privileges. In the first place, there is no adequate cause shown. They say the public require protection. From whom? Where are the cases of mischief arising from mere ignorance? But if the masters are to be registered compulsorily, will the assistants and apprentices be debarred from making up a black draught till they are registered also? Will they tell us whether more mistakes do not arise from negligence or from thinking of two things at one time than from ignorance, and whether any registration is a safeguard against absence of mind? It seems to us highly probable that the new Bill, if its provisions be stringent, may create a new class of offence and set up monopolies, which, as Lord Elcho pointed out, might be very inconvenient to the public. As for its being an "anomaly" that England should be the only country where the dispensing of medicines is carried on by any but experts, we must remind Dr. Brady that England is the most "anomalous" country in the world, and we hope will long remain so, in its freedom from police restrictions. We quote the following passage from the *Pall-Mall Gazette*, with every word of which we agree; and meanwhile say only, that if we criticise the Bill it is in the interests of the younger and "less fortunate" members of our Profession, whose incomes are diminished through the counter practice of chemists, to which counter practice this Bill will confer something of the sanction of law:—

"Although we desire to give our support to the Pharmaceutical Society, which has now for a quarter of a century been fighting a good fight in the cause of education, we cannot say that we entirely approve of all the details of the measure they bring forward. These, no doubt, will be altered in committee. It is too much to expect, for example, that after the passing of their Act, no one in the kingdom but a member or an associate of the Pharmaceutical Society shall be allowed to make up prescriptions and to compound medicines. That is an interference with free trade which in this country will never be tolerated. It is something like what the doctors tried to get passed some years ago in the Medical Act. They got it passed that no one should call himself a Physician, a Surgeon, or a doctor, unless he were duly qualified and registered; but they also tried to bring it about that nobody should consult the so-called quacks. Why should we not consult quacks if we like? and why should not quacks give us advice if they make no claim to the possession of false titles? And so of pharmaceutical chemists, of chemists and druggists. We cannot ask more than that the public should have a complete understanding as to the meaning of their titles. But if, knowing that those with certain

titles are alone duly qualified, we yet choose to get a prescription prepared by one who obviously is not on the register, what harm do we commit except against ourselves? The Government undertakes that by the title of the chemist's shop we shall know whether it is a good one or not—at least whether the chemist has passed his examination or not: but what can the Government do more? If we choose to patronise a bad shop, who is to prevent us? and why should we be prevented? This provision is a blot on the measure of the Pharmaceutical Society; but their general principle is sound."

SLEEPLESS BABES.

The experience of all Physicians has pointed out the extreme suseeptibility of young children to opium in every form, and the fatal results of very small doses. Nevertheless, an anonymous philosopher writes thus in the *Household Monthly Magazine*, and is quoted without eondemnation in *Public Opinion* for March 25, 1865:—

"New Notes on Nursing.—In the first place I would observe that people have, of late years, been making a very pedantie and absurd outcry about the use of laudanum in the bringing-up of babies. No doubt, much harm is done by the indiscreet use of cordials and sleeping mixtures; but I stoutly maintain that *it is, in the majority of cases, all but impossible to bring up a baby without having occasional recourse to sedatives*. A sedative is, of course, an evil; but it is sometimes the less of *two* evils. That is the case with grown people; and it is the case with babies, too. There are times when the restlessness of an infant is so extreme as to be capable of wearing out the strength of three grown people. 'Then,' say the wiseacres, 'the child is ill; and you ought to have a Doctor in to it.' But, I answer, the child is *not* ill. It is only too well—provokingly well. It does not cry; but it wants sleep—or, again, perhaps, it *does* cry. Then if a little present harm is done to the child by a sedative, it may be a gain to the household. For it may be ten times worse for the child to have a worn-out mother who has not got a refreshed brain and body at its service during the day, than to have a little torpor put into it at night for onee and away. If the mother is so very tired as it is in the power of a quite healthy baby to make her, she is not in a fit state to take care of it between morning and evening. When is it that a baby catches the dangerous cold, or gets the bad fall, or the bad scald, or falls into some other trouble? I answer, it is when the poor mother is over fatigued—when she is not alert, energetic, up to the mark, and capable of that intense and all-seeing watchfulness which the child requires for its protection. To talk of sending for the Doctor is nonsense. You cannot be always having the Doctor. Neither can you be always giving syrup of rhubarb, on the hypothesis that the child wants medicine of that kind every time it is restless. In truth, it does not. Like an adult, an infant becomes overexcited now and then, and is benefited, not injured, by a mild sedative judiciously given. At such times—which must be made as seldom as possible—I do boldly assert, in the face of all the Doctors in the world, that from five to ten drops of laudanum, in peppermint water diluted and sweetened, is a proper and necessary thing for a baby. What is more, no intelligent and conscientious Doctor will contradict me—if he be a father."

The force of bold assertion cannot go much further than this, in the face of the fact that thirteen minims of laudanum, or 26 drops, are equal to one grain of opium; and that one-tenth of a grain of opium = 2·6 drops has killed a child four months old. We would humbly suggest that if good food, air, light, exercise, and baths do not produce healthy sleep, the "father" had better send for the Doctor before giving 5 to 10 drops of laudanum to a baby. We can assure him that the cry for "sleeping stuff" is too often, not always, the fruit of sour pap, chafed skins, and want of a warm bath; and that we should feel very ashamed of our own management if babies could not be brought up without occasional recourse to "sedatives."

FROM ABROAD.—LECTURES ON MEDICAL HISTORY AT THE PARIS FACULTY—HOMŒOPATHY AT MADRID—THE HYDROSTATIC MATTRESS.

At the present time there is a *furore* prevailing in Paris and other large French towns for the delivery of public scientific lectures, termed sometimes "conferences,"—why, it would be difficult to say, seeing that no conference takes place. Some of the most gifted men have taken part in these, and the appetite for them, judging by the rush for tickets, is still on the increase: so that the Friday evening lectures at our Royal Institution, which first gave the idea of these, are now much surpassed in point of number, variety, and general accessibility. Some of the more interesting have been fully reported in a new journal, which we can cordially recommend to the notice of our readers, the *Revue des Cours Scientifiques*, instituted in order to furnish accurate reports of the various scientific lectures delivered in Paris, several of which, as those of M. Claude Bernard, at the College de France, are intimately connected with our own pursuits. The Faculty of Medicine has just determined to have its "conferences" also, and at the suggestion of M. Verneuil, M. Tardieu, the Dean, has appointed thirteen of the *agregés* of the Faculty to deliver in succession weekly lectures on the biographical history of Medicine. M. Verneuil himself opened the course, with a crowded audience, composed of both pupils and Practitioners, and will be followed by MM. Follin, Broca, Trélat, Lefort, and other of the well-known names among the rising French Medical *savants*. M. Verneuil, in his lectures on "Erudite Surgeons," laid open with a bold hand the shortcomings of the present race of Medical students with respect to their knowledge of the history of their Profession, and of the great men who have adorned it, the very dates of the most important steps in the progress which has been achieved being unknown to most of them. He dwelt upon the vast importance of science and erudition for the due comprehension and satisfactory practice of the art of Surgery; and maintained that the history of Surgery showed that where they were not held in due consideration its practical value declined in excellence in a corresponding degree. In pursuance of this theme, he gave a rapid sketch of the history of Surgery from the time of Hippocrates to that of the French Academy of Surgery, with Anthony Louis for its Secretary. This he regards as the culminating point of French scientific and erudite Surgery.

"What, in fact," he exclaims, "is erudition? In my opinion it consists in a compilation, having some object in view, or some doctrine to elucidate. I do not call the mere collators of texts erudite. For erudition, scientific knowledge, critical acumen, and practical experience, are alike requisite. Louis possessed all these, and this is why he has so much contributed, together with Quesnay and other eminent members of the Academy of Surgery, to the glory and renown of French Surgery in the eighteenth century. Since that epoch things have undergone great changes; political troubles, the great wars of the Republic and the Empire, dried up the sources of French erudition, the level of science and art sinking in the same degree, has never yet regained its elevation. With some rare exceptions, which are, so to speak, but accidents in the history of contemporary Surgery, France has produced no great Surgeon. She has allowed herself to be surpassed abroad, and will only regain her place in the first rank when a numerous pleiad of Surgeons and Physicians shall have become constituted who, following the traces of Littré, Daremberg, and Malgaigne, resolutely enter upon the course so brilliantly pursued by the great erudite Practitioners of the eighteenth century, and open a new era to French Medicine and Surgery."

We confess that we think M. Verneuil has somewhat exaggerated the circumstances of the case, and that, while bearing unfairly upon modern French Surgery in his estimate of the position it has attained, he anticipates from critical erudition an impulse which it is powerless to impart. MM. Malgaigne, Littré, and Daremburg are, indeed, consummate scholars and masters in erudition, but we doubt the propriety of setting them up as models of imitation for students to the derogation of the practical teachings of Dupuytren, Velpeau, Nélaton, and many others of whom the French Surgical school may well be proud.

However pleased the Paris students may feel at the Dean of the Faculty having instituted this course of lectures, we

doubt if they will admire the issue of another of his projects. Some time since he suggested that the students should form among themselves a kind of benevolent society for the succour of those in distress. This was warmly responded to, and it was resolved to form a "Fraternal Society of Paris Students," and a committee of their number was appointed to draw up the rules for its management. As this body, however, contemplated embracing other matters within its scope than merely relieving the necessitous, the Dean became alarmed at his own creation, and refused his sanction to the project, declaring that hereafter he would draw up such regulations as he deemed suitable. On application being made to the Préfet of Police for permission to hold a public meeting of the students to which the rules proposed by the committee should be submitted, this was peremptorily refused, and thus at present the matter ends.

Exploded in almost every other part of Europe, Homœopathy seems to be in high favour at the Spanish Court, under the immediate patronage of the Queen. Some time since a "Homœopathic Academy" was founded, and its president received letters of nobility; and now we learn that the Government has ventured upon the establishment of a professorship and clinic, under the specious pretence of examining into, under suitable inspection, the practical value of the Homœopathic doctrines. Believing this to have been effectually tested, the Faculties of Medicine of Madrid and other cities, as well as the body of the Medical Profession at large, have entered so vigorous and universal a protest against further tampering with truth and with the lives of patients that great hopes may be entertained that the obnoxious decree will be withdrawn.

M. Cosmao-Dumenez, in a recent communication to the *Gazette Médicale*, gives an account of the great advantages derived by M. Demarquay from the employment of the hydrostatic mattress during the last five years. It is made of vulcanised caoutchouc by Galante, of Paris, and measures 80 centimetres in length by 70 broad, and when suitably distended with from 26 to 29 litres of water, it is about 1 decimetre in thickness. Its weight does not exceed from 28 to 30 kilogrammes. This is a far more convenient, effectual, and economical apparatus than Arnott's bed, which by reason of the rigidity of its parietes prevents any lateral displacement of the water, and the patient becomes buried in a hole, formed by the elevation of the water on each side of him. In the mattress, all its walls are elastic, and the water displaced by the weight of the body, instead of being only directed towards the upper part of the apparatus, is uniformly dispersed in every direction. The bed, too, is large, cumbersome, and expensive, requiring a great quantity of water, and only moved with difficulty. The mattress has been employed with eminent success in the treatment of bed sores, and in fractures of the cervix femoris and pelvis, and it would form an admirable means for the transport of the wounded, either in a railway or ordinary carriage. The water, too, with which it is filled may become a convenient means of applying either caloric or cold, as the case requires. Thus in the aged or debilitated, and in children of weakly powers, warmth may be thus readily applied and long retained, while in inflammatory affections the temperature may be easily lowered. A few minutes suffices to discharge and replace the water.

PARLIAMENTARY.—FLOGGING IN ENGLAND AND WALES—CASE OF ALLEGED WRONGFUL CONFINEMENT IN A LUNATIC ASYLUM — VOTE FOR THE PREVENTION OF CONTAGIOUS DISEASES AT NAVAL AND MILITARY STATIONS—EXCLUSION OF MEDICAL OFFICERS FROM THE BENEFITS OF THE UNION OFFICERS' (IRELAND) SUPERANNUATION BILL—THE UNION CHARGEABILITY BILL, MR. CEELY, OF AYLESBURY, ON ONE OF THE EFFECTS OF PAROCHIAL RATING—LEGISLATION FOR CHEMISTS AND DRUGGISTS: SIR FITZROY KELLY'S AND SIR J. SHELLEY'S BILLS.

On Thursday, March 23, in the House of Commons, Mr. Scully called the attention of the Home Secretary to the returns lately presented to the House showing that more than 1100 persons, exclusive of soldiers and sailors, had lately been flogged in England and Wales, many of them by the order of only one magistrate, some of them young children and persons advanced in life, and a large number for very trivial offences. He particularly called Sir G. Grey's attention to three cases, requesting an explanation of them:—

1. The case of a person, aged 63 years, who received twelve cuts of a cat for "refusing to work" in the House of Correction at Falkingham. 2. The case of a child, aged 6 years, who received twelve lashes at Knutsford on June 6, 1864, besides seven days' hard labour, for "stealing one pocket-knife." 3. The case of a child, aged 12 years, sentenced on November 3, 1863, by the Rev. Algernon Peyton and Mr. Thomas Richardson, for "stealing three gingerbread cakes," to fourteen days' hard labour, and to receive twelve strokes with a birch-rod, which were inflicted on November 11, 1863, in the House of Correction at Wisbeach up to the eighth stroke, when the punishment was stopped by the Surgeon in attendance.

Sir G. Grey stated that he could give no explanation of these cases. He specified the various enactments under which the punishment of flogging was inflicted. By an Act introduced by the hon. member for Sheffield it was provided that the sentence must in every case specify the number of lashes to be inflicted, and the instrument with which it was inflicted, and in the case of boys under 14 the number of stripes was limited to twelve, and they were only to be administered with a birch-rod. By far the greater part of these cases were dealt with by the magistrates under that Act. There was also a general provision that a sentence by one police magistrate should have the force of a sentence by two other magistrates. He promised that the second case specified by Mr. Scully should be made the subject of inquiry.

On Friday, in the House of Lords,

Lord Malmesbury moved for a return of the correspondence relating to the illegal detention of a Mr. Docknall in a lunatic asylum at Sedgefield. In giving a narrative of the case, his lordship stated that Mr. Docknall was a bookseller, at Chester-le-street, in the county of Durham, who, in October, 1863, was confined in the lunatic asylum at Sedgefield for five days, on an order from Colonel Johnson, a magistrate of the county. This order Colonel Johnson signed on the evidence of one Medical man only, whereas the law requires the testimony of two. The magistrate also declared by the order that he had himself seen the patient, when he had not done so. Mr. Docknall was advised by his friends to bring an action against Colonel Johnson for false imprisonment. This action was to have been tried last summer at the Durham Assizes, but in consequence of a press of business it could not be brought on. All the attempts made by Mr. Docknall to obtain redress from the Home Office had also failed, and these anxieties so affected Mr. Docknall that in October last the unfortunate man committed suicide. He read various letters and affidavits connected with the case, and contended that the facts disclosed imperatively demanded an inquiry.

Lord Granville was not prepared to defend the conduct of Colonel Johnson, but on his behalf it might be stated that Mr. Docknall had twice before been confined in a lunatic asylum. Under all the circumstances of the case the Home Office could not interfere in the matter.

Lord Shaftesbury thought if misconduct like that of Colonel Johnson's were overlooked it was of very little use for the Government to appoint Commissioners in Lunacy or visitors of asylums to protect the patients. In this case the law had been completely evaded, and some opinion ought to be expressed on it.

After a short discussion, the motion was agreed to.

In the House of Commons, in Committee of Supply on the Army Estimates, on the vote of £107,700 for miscellaneous services,

Mr. Ayrton called attention to an item of £5000 for expenses attending the carrying out of the Act of the 27th and 28th of Victoria, cap. 85, for the prevention of contagious diseases at naval and military stations. He characterised the vote as one which would have the effect of ministering to the vices of the soldier. He wished to know how the money was to be appropriated.

Mr. Locke, as a member of the committee who sat upon the bill which had now become law, and on which this vote was based, protested against the extraordinary description

which the hon. member for the Tower Hamlets had given of the measure. It was wholly incorrect to talk of that £5000 as being intended for the purpose of catering to the vices of the soldiers. It was simply intended for their protection; and if a similar measure could be carried out throughout the whole country it would be a very great advantage. The object of the Act was that where a woman was proved to be a common prostitute—a term well known to the law of England—she should be taken care of, and not allowed to be the source of mischief to other people.

The Marquis of Hartington: With regard to the item of £5000 it was proposed to extend it in the hire of certain lock wards in different places, and, although it was not quite decided, yet it was contemplated to commence a Hospital in one or two places where no such wards could be procured. The proportion of the grant to Aldershott would be expended either there or in London, to which those persons would be removed.

Dr. Brady remarked that there was no city of Europe in which public Hospitals were not open to this class of patients.

The vote was agreed to.

The House went into committee on the Union Officers' (Ireland) Superannuation Bill.

Mr. Hennessy moved an amendment, including the Medical officers and the clerks of the Unions in the list of those to whom the benefits of the bill should be extended.

Sir R. Peel said that he could not conscientiously proceed with the bill if the amendment of the hon. member for King's County were carried, because he never would be a party to the imposition upon the rate payers of Ireland of the taxation which it would render necessary.

After a short conversation, the Committee divided, when the numbers were:—

Ayes	11
Noes	42
Majority against the amendment .	—31

We cannot conceive on what principle of justice the tax payers of Ireland are to be made to pay superannuation pensions to one class of union officers but not to another. If it would not be right to impose taxation for the support of the worn-out Doctor of the Union, it must be equally wrong to do so in the case of the worn-out Master. The result of the division on Mr. Hennessy's amendment is only another proof of the indifference of the Government to the requirements and interests of the Medical Profession, and of the necessity which exists for a Medical organisation that shall make itself felt in the House of Commons.

On Monday, in the House of Commons, the Union Chargeability Bill, after a full debate, was read a second time.

The evils which this Bill, by substituting union for parochial rating, is intended to remove are the gradual removal or expulsion of the poor by the landlords from some parishes, and the resulting over-crowded condition of others, together with the consequent inequality of rating. Mr. Villiers, the mover of the Bill, gave the following sketch of the working of the present system:—

"The object of the parishes after the new poor-law was established was to keep down their poor, in order that they might have to pay as little as possible. Although the guardians administered the relief, yet the parishes paid for it, and were anxious to keep the charge as low as they could. The great source of settlement and charge in parishes is the residence of the poor. The poor obtain a settlement by residence, and their families derive their settlement from them. Therefore, the great object, in order to keep down the poor, is to prevent them residing in parishes; and for that purpose their dwellings are pulled down, and no new cottages are built. This is one way of what is called managing the parishes. But where poor residents have got into a parish, the next best thing is to get them out, and thus shift the burden to a neighbouring parish. That used to be the practice under the former law, and it was also the mistake of retaining the parochial liability under the new system that the officers of the parish still had the opportunity of exercising their zeal and discretion in keeping down the poor as they had always done before. That accounts for many of the complaints heard of the working of the new poor-law, many people observing that the labouring poor still live in wretched dwellings, and sometimes far from the place at which they work, and that a struggle still goes on in different parishes, varying with the peculiar circumstances of each. Parishes, it is well known, vary almost in the same proportion as their number, and according to their size or the character of those who reside in them. A parish with one, two, or three proprietors may seek to get rid of its poor in the way I have described, and an adjacent parish may be in such a position that it cannot help receiving the outcasts from the proprietary parish. Hence the great complaints raised during the last twenty-five years as to the manner in which the poor have been dealt with, and the vicious and unjust distribution of the burden of their maintenance, some parishes being compelled to pay far more than they ought, while others are pretty nearly exempt."

In the course of the debate Mr. T. Bernard quoted the following extract of a letter from Mr. Ceely, of Aylesbury, on the effect which residence in another parish at a distance from his work has on the health of the labourer:—

"In the course of more than forty years' Professional observation I have very often had to deplore the effects of the additional toil imposed upon agricultural labourers who have to travel two, three, and four miles night and morning to and from the seat of their employment. I have witnessed many cases of severe and protracted illness, premature infirmity, and even death induced by this cause. There can be no doubt but that a labourer's services are more valuable and his health better preserved when he resides within the precincts of his labour. I should advocate union rating on this very ground."

On Wednesday, Sir F. Kelly, in moving the second reading of the Chemists and Druggists Bill, said that as the law now stood the trade of chemists and druggists, and consequently the making up of Medical prescriptions, might be carried on by persons altogether ignorant and incompetent. It could scarcely be disputed that some protection was required by the public in that respect; and the defective state of the law had been pressed on the attention of the Secretary of State for the Home Department, who was urged to bring in a Bill on the subject. It was not for him to arraign the Government; he had no doubt they had very good reasons for not introducing a measure. At all events, nothing had been done; and he was therefore induced to submit to the consideration of the House the present Bill. There was no qualification required; no licence need be taken by those who carried on the trade of chemists and druggists; they might be totally ignorant and incompetent, and the remedy proposed was that a proper examination should take place, certificates being given to those found duly qualified, who would thereupon be registered as chemists and druggists under the Act. The only question was what the examination should be, and by whom it should be conducted. There existed all the means necessary for the purpose in the machinery of the Pharmacy Act. Examiners were appointed who conducted an examination in botany, in chemistry, Materia Medica, and in the Latin language, and those who passed that examination were qualified to become associates of the Pharmaceutical Society. The whole substance of this Bill was comprised in a single sentence. Persons seeking to carry on the business of chemists and druggists, and make up Medical prescriptions, should submit themselves to examination by that Board, and if found qualified they would receive a certificate of fitness from the examiners, and be registered on payment of a small fee to the Pharmaceutical Society. He was quite content to leave the question of fees and any other detail to the approval of one of the Secretaries of State. The main object of the Bill was the examination, and that, he thought, would give all the security that was required for the public. It was impossible to speak too confidently as to the results of examination by this Board. It had existed for twenty years; it had been confirmed by Act of Parliament; and, above all, it had received the sanction of the Government. The Medical Board charged with the well-being of the army had stamped their approval on the examination and whole proceedings of the Society by a resolution which had been in force for many years; and no one could be an army dispenser without producing their certificate. An exception was made by the Bill in favour of those who had carried on this business for a certain period, and there were some thousands who might have carried it on for a great length of time; but it would be necessary for them to produce the certificate of a Medical Practitioner that they had actually and *bona fide* carried on the business of a chemist and druggist before this Bill came into operation, and on that certificate

they would be entitled, without further qualification, to be registered and to carry on the business hereafter. The Bill of the hon. Baronet the Member for Westminster had two objects—the first identical with the present measure, and the other prescribing the terms and conditions on which the sale of drugs and chemicals should be carried on. This latter branch of the subject was far too complicated, delicate, and difficult to be undertaken by any private member. It required all the knowledge and experience of the Government. Both Bills admitted the necessity of affording some protection against incompetent persons carrying on the business of chemists and druggists; they agreed in requiring some examination, and the only question as between the Bill was who should conduct it—whether a body that now existed, recognised and sanctioned by law, approved by the trade, by the general public, and especially by an important Government board, or a new corporate body of a speculative character, and of whose qualifications they must be in utter ignorance. He begged to move the second reading of the Bill.

Sir J. Shelley pointed out the distinctions between the two measures, and urged the greater advantage of placing the examination under the United Chemists' Society, instead of the Pharmaceutical Society, as regarded the interests of the trade, as well as those of the public. He suggested that both Bills should be read the second time, and referred to the same Select Committee.

Dr. Brady supported the present Bill, panegyrising the Pharmaceutical Society, and placing its pretensions in very favourable contrast with those of the Chemists' Society.

Mr. Kinglake remarked that the Pharmaceutical Society had already a machinery for conducting examinations, whereas the Chemists' Society had none, and must create one.

Mr. Roebuck observed that the question was one of great public importance, and wished to hear the opinion of the Government.

Sir G. Grey observed that both Bills contained provisions entitled to the consideration of the House, and recommended that both be read the second time and referred to a Select Committee.

Lord Elcho said he had some objections to the Bill proposed by the hon. and learned member (Sir F. Kelly). When the representatives of the Pharmaceutical Society came to him with this Bill, he told them they went a little too far in one respect, and an injustice would be inflicted. He contended that it was necessary to allow certain persons in country villages to dispense medicines, and even to make up prescriptions, although it could not be expected that those people should undergo examinations. Having met with an accident during the present year he had had occasion himself to get a prescription made up in one of these country villages. He had to go for this purpose to the post-office of the village, which he found to be a store for the sale of almost every article, from fiddles to hobnails. His prescription, however, was made up, and did him great benefit. He should support the Bill brought in by his hon. and learned friend in preference to the one introduced by the hon. baronet, because, of the two, he believed it to be the more liberal. He regretted, however, that the Government had not taken charge of the Bill, instead of recommending its submission to the Select Committee.

Ultimately the Bill was read a second time, and ordered to be referred to a Select Committee.

Sir J. Shelley then moved the second reading of his Bill, a motion which was agreed to, and the Bill was ordered to be referred to the same Committee.

In another column we have expressed our opinion on the subject of one of these Bills. We are opposed to any scheme by which chemists and druggists will be constituted a privileged class to be the rivals of the General Practitioner of Medicine; and we feel convinced that no corresponding benefit can be secured to the public by such a measure. To enact that a qualification should be required from every dispenser of medicine, whilst there is no law to prevent any one who may choose prescribing, is such a palpable absurdity that we really wonder it did not strike any speaker in Wednesday's debate. As the matter has been referred to a Select Committee, however, we may hope that the measures in question will be thoroughly canvassed and discussed before Parliament is called on to assent to them.

REPORT ON CHEAP WINE.—NO. XV.

(By our Special Empirical Commissioner.)

Sherry—Rise of Price and Deterioration of Quality—Increased Consumption—No Pure Sherry Imported—"Amontillado:" how Produced—Old Sherry and New—University Wine and Drinking Customs—Rites of Hospitality: Wine for One's-self and Wine for One's Friends—Hambro' Sherry—Substitutes for Port and Sherry: Marsala.

The account given at present of sherry by all wine merchants is the same as that of port—largely increased price and deteriorated quality. My own experience is, that the pure light wine which we got ten or twelve years ago at from 30s. to 40s. per dozen is now not to be had at all. Cheap sherry now tastes as if intensely fortified with coarse brandy, whilst the price of an old, soft wine has risen to 60s. at the least. Wine merchant A tells me, "I really often think of giving up the trade in sherry; it is so difficult to supply people with creditable wine at reasonable price." Wine merchant B says that "within the last ten years many common and low priced, but pure and most useful, varieties of wine have disappeared from the market; customers must pay at least 30 per cent. more than they did, and even then will get a wine not only 10 per cent. worse, but of different quality." Mr. T. G. Shaw tells us (a) that a more agreeable wine could be met with at £20 before the vine disease broke out in 1852 than can now be easily met with at £40. The price, too, is rising still, though the grape disease has passed off and produce is increasing, for more wine is made and the last vintage was a good one.

The cause of this state of things is, first, the vine disease, which checked production and tempted the shippers to part with much of their old stock, and to send young, immature, brandied wine at the high prices ruling; but secondly and chiefly, the enormously increased consumption.

In 1850, according to the tables in Mr. Shaw's book, sherry ranged from £28 to £70 per butt at Cadiz, and the quantity shipped to Great Britain was 35,433 butts, which at 108 gallons per butt, equal 3,826,764 gallons. In 1864 7,081,033 gallons were imported into England, of which 4,551,949(b) were retained for home consumption; and that consumption has been increasing steadily at the rate of about 12 per cent. per annum.

Respecting the real nature of sherry, there is no doubt whatever that after the young wine has undergone a certain amount of fermentation it receives an addition of spirit, said to be six gallons per butt, and another four on being shipped. Moreover, we never get sherry in a pure, unmixed state. Flavour, softness, colour, richness, and piquancy are the product of various ingredients. For the true sherry flavour and softness old wine must be used. For richness and dark colour, a stuff called the "Doctor," composed of wine made from juice concentrated by boiling. For piquancy, an admixture either of the thin, dry, light, pure wines, known as Montilla and Manzanilla, or of sherry which has undergone a certain change which converts it into "Amontillado."—See Shaw, *Op. cit.*

The best account of sherry is that given before the Committee of the House of Commons on the Import Duties on Wines in 1852, by Dr. Gorman, Physician to the late British factory at Cadiz, a long resident in Spain. He says that no natural sherry comes to this country. It is all mixed and brandied. The quantity of proof spirit which good pure sherry contains by nature is 24 per cent., possibly 30. The less mature and less perfectly fermented the wine, the more brandy is there added to it to preserve it. "*It is not necessary to infuse brandy into any well-made sherry wine; if the fermentation is perfect, it produces alcohol sufficient to preserve the wine for a century in any country.*"(c)

Dr. Gorman was the first who introduced Manzanilla into this country; a pale wine of peculiarly thin, bitter flavour, not brandied, and used of late years for gouty, dyspeptic, and rheumatic patients. Montilla is a wine of similar character, thin, and very dry. "Amontillado" is the name of certain sherry which has undergone a peculiar transformation in cask. There is no doubt, says Mr. Shaw, but that out of a given

(a) "Wine, the Vine, and the Cellar." P. 154.
(b) Ridley's "Monthly Wine Circular," March, 1865.
(c) Minutes of Evidence, part 2, question 5776.

number of casks some become an entirely different wine; this is stated to be the case with the well-known "Amontillado," which name signifies *à la Montilla*, like the mountain wine grown on the hills about Montilla, near Cordova. These wines, as Mr. Shaw says, are "invaluable for giving character to sherries that require some of their heaviness knocked off."

One or two practical questions arise here. First, the extraordinary development of that peculiar flavour which is known as "amontillado" in some casks of wine. As to the nature of it, it is doubtless an ether, and it has such a resemblance to sweet spirits of nitre, or nitrous ether, that more than one friend and œnological fellow-student of mine, during a practical exercitation, has declared that the wine has been artificially flavoured with that ether. The flavour is the same in the manzanilla, the montilla, and the amontillado, and in all I have known some persons detect it immediately, and denounce it as odiously physicky; one great œnologue declares it is a disease in sherry. The curious thing is, that I have known this same flavour developed in a stray half-bottle of white Mount Hymettus that had been standing about forgotten and half-corked for some months. The power of amontillado to brighten up and give character to common wine is quite marvellous.

Sherry as it used to be was a most valuable wine. I am no fanatic, who desire to run down one thing and unduly exalt another, and though an apostle of light wine, declare that the stronger alcoholic liquors have marvellous uses for stimulating the heart and brain, and for making a feeble stomach agree with a refractory mass of aliment. Sherry was such an alcoholic drink, tempered by a certain dry vinosity; an excellent medicine and substitute for spirits in nineteen cases out of twenty. Ten years ago Physicians prescribed sherry with confidence to the dyspeptic and to those troubled with acid diseases, as gout and rheumatism. But the sherry of to-day is quite a different thing, even if all considerations of price be set aside. It is newer, less mature, never soft, more brandied, and instead of being a preservative against acidity is a promoter thereof.

We are, therefore, driven from sherry, in very many cases, as a wine for invalids, and made to seek some substitute; which substitute I find, in nine cases out of ten, in the pure and well-fermented wines of France. But as for persons in good health, why should they drink a brandied wine? If the stomach be old, or feeble, or diseased that is one thing; but what possible excuse can there be for a child, or for a young man in health and strength, or for a blooming girl to take a glass of brandied sherry whilst all the light and innocent wines of Hungary, Greece, Germany, and France are to be had so easily?

The greatest patrons of heavy brandied wines are, I am sorry to say, the ladies and the clergy. Their reason is most meritorious, for they have never been taught the difference in nature, flavour, and effects between wine and spirits; highly sensitive and gifted as women are with perceptivity of odours, they have never been taught to look for the juice of the grape and its admirable bouquet; they know only the effects of alcohol, and as it would be considered a scandal to drink many glasses of alcoholised wine, and as some houses have only the miserable little wine-glasses adapted for those wines, and as such a glassful of "claret" would be cold and flat, so they prefer something stronger. When Monsieur Assolant visited England at the time of the International Exhibition, 1862, he caused wondrous offence by describing the English "Miss" as fond of brandy. The fact is, that our sherry would be called brandy by a Frenchman. The clergy, again, have never been taught the advantages of real wine. Desirous of knowing what sort of wine the future clergy get at the Universities, I procured specimens from one of the two great English Universities, and some information withal as to the drinking customs of the place. I am glad to learn that a wholesomer taste is beginning to prevail. "Claret," says my informant, "is much drunk when friends meet after dinner; more so now than port or sherry. An average price I should say is 2s. the bottle. It is rough, but pure and wholesome." My friend tells me that very little positively bad wine is bought, except by young men who are in debt with the local wine merchant; most of the wine, however, is described as indifferent. There is one occasion, however, when bad wine is much in request. "It is very common," says my informant, "when a student gives a large miscellaneous wine party (as, for instance, his terminal 'college wine'), to buy for the occasion a cheaper quality of wine than he keeps for his ordinary daily use. At my old college I remember it was only at these sort of parties that one met with any stuff which was undrinkably bad." Marvellous are the varieties of what are called the rites of hospitality! In some countries the stranger is clubbed and devoured; in some, the house, wives, meat, drink, and whole property of his entertainer, are put at his disposition. To drug a guest with cheap bad wine argues no very great advance in the scale of civilisation; and I would not give much for a friendship cemented by such liquor. If one were tied to port and sherry, such conduct would be excusable; but not now.

My notes of four specimens of wine, sent me from one of the great Universities (I asked for such wine as undergraduates would be likely to buy), are these:—

1. *Port.* Messrs. A. Price 40s. Alcoholic strength, 33. No smell of port wine. Tastes and smells of spirits, and some sweet matter.

2. *Port.* Messrs. B. Price 48s. Alcoholic strength, 35. Very pale; no crust, nor tinge of cork; sweetish; smells a little of port.

3. *Sherry.* Messrs. A. 36s. Alcoholic strength, 36. Pale; some taste of wine; very hot.

4. *Sherry.* Messrs. C. 40s. Alcoholic strength, 35. Pale; some taste of wine; not quite clean; hot and spirituous.

These are about the same kind of wine, and not much above the same price, as would be procured at most retail places in London. They are examples of the low-priced port and sherry of the day.

There are many liquids which do duty as sherry which are much worse than these. There is British sherry at 1s. 6d. per bottle, and other imported liquids of low price. A wine merchant told me that he remonstrated with a customer who asked him for sherry at 20s. per dozen, and told him it was not good to drink. "Oh! it is not for myself," said the considerate purchaser; "but we like to have some in the house for our *friends*."

Amongst these, I am bound to notice the Hambro' sherries, which I denounced in an earlier number of these papers; for Mr. Chaplin, whose firm is engaged in the manufacture, was obliging and frank enough to send me two sample bottles, on which I feel it my duty to offer a fair criticism.

One specimen of this sherry, labelled "E C," and which costs £11 per butt, free in the Thames, is of alcoholic strength about 32. The other, labelled "M M," is at £14 per butt in the river, and 18s. per dozen retail; alcoholic strength about 35. The predominant taste of each is alcohol; and the predominant effect on me is, that heat of throat which spirit causes, and which natural wine does not cause. There seems a little wine taste in each, but no wine flavour, and a sweetness which makes them not clean on the tongue. I gave a glass of one to a wine merchant, telling him it was fine sherry; but he gave it its right name in a moment. A second person to whom I gave some said, "This is nice; but it is not sherry." A third said, "One glass of this would give me heartburn all day." A fourth, butler to a nobleman, said, "I would not give this to my lord; it is hot and sickly sweet." He also said, "We give 80s. per dozen to Tod Heatly for our ordinary sherry this year; last year it was 72s." These were persons simply invited to taste. Mixed with hot water, it gives more of the nice smell of negus; but I confess "M M" so treated has more of wine *taste* than I expected.

They show so forcibly the great chemical and manipulative skill employed in their fabrication as to make one wish that such talents were devoted to some worthier product. I beg meanwhile to add that I am informed on good authority that there is *some* wine in them, else they would not be admitted by the Customs at all; and that the liquids which are stopped and charged as sweetened spirits 14s. per gallon have no wine in them. Moreover, the fact that wine may come direct from Spain is no proof that it is any better than Hambro' wine; for lo! Hambro' wine has been shipped from London to Cadiz and back—an operation which, as we are told, costs 30s. per butt, but enhances the nominal value of the wine 100 per cent.

It appears from "Ridley's Circular" that 2416 butts of Hambro' wine were taken for home consumption in 1864, against 2594 in 1863.

Of *port for Hospital use*, I may say that the Physician should consider what he wants; is it the powerful stimulation of alcohol or the nutritive virtues of wine? If the former, he may just as well give Rickards' British brandy, at 18s. per gallon; that is, three shillings a bottle, and each bottle will make, when mixed with two of water, a liquid equal in alcoholic strength to most sherry. If *wine* be really needed,

then there are the various sorts which I have enumerated before, of which I find that the Red Hymettus, Santorin, Ofner, Carlowitz, and Voeslauer are readily taken by uneducated people. If there should still be a prejudice in favour of "port"—*i.e.*, a liquid hot, strong, and sweet—and if the Hospital Committee object to give 42s. per dozen for some of Thompson and Croft's or Sandeman's new wine, then there is a choice of red South African; of Tarragona, and other kinds of Spanish red; of Como, Roussillon, Château Neuf du Cape; and last, not least, Masdeu. The South African may be not unpleasant to taste, but hot and flavourless; the Tarragona intensely strong, coarse, grapy, sweet, and very astringent; the Como of natural strength, very grapy, requires development; the South of France wines usually spoiled by coarse fabrication and added alcohol. The nicest of the lot is Masdeu. I have tasted some that had been some years in bottle, delicious, from Durand, Selby, and Co. It will be a good move when Hospital Committees inquire into these things systematically. The average price of Masdeu, Tarragona, etc., is £1 1s. a dozen.

Of substitutes for sherry I have no doubt that some will be found amongst the more perfect and dry Hungarian vines, as the Szamarodny, and amongst the Greek. I have had a sample of old St. Elie, which was pronounced fine sherry. *Bucellas* was a most useful wine, of high vinous character, ten years ago; now I never meet with any worth drinking. The best substitute for cheap sherry is Marsala, which is what it pretends to be, and nothing else. New Marsala is intensely strong and brandied; when old, although it preserves a coarse, earthy *taste*, it acquires *bottle flavour* so much as to astonish persons who taste some forgotten bottle of it that may have been laying for years in the cellar. I have to acknowledge the receipt, through the *Medical Times and Gazette* office, of a very satisfactory specimen of Marsala from Messrs. Watson, of 73, Great Russell-street; clean, with a smack of flavour, and cheap at 21s. per dozen. If a man will drink strong wine, or if he desires to have a serviceable wine of the sort in his house, let him lay down Marsala instead of cheap sherry.

(To be concluded in our next.)

REVIEWS.

The Successful Treatment of Internal Aneurism, illustrated by Cases in Hospital and Private Practice. By Jolliffe Tufnell, F.R.C.S.I., M.R.I.A. London: Churchill and Sons. Dublin: Fannin and Co. 1864. Pp. 34.

We are inclined to think that this unpretending pamphlet will prove a more valuable addition to Medical literature than one-half, at least, of the portly octavos which the current of the past year stranded on our book-shelves. Our readers are aware that various proposals for the treatment of aortic aneurism have been of late years brought before the Profession, and that more than one successful and several encouraging cases have been recorded. Thus, Dr. Blakiston's treatment by the application of cold, a measure which had previously formed part of Guerin and Pelletin's plan, has been found productive of marked benefit in, at least, one case. Dr. Murray, of Newcastle, again, has treated a case successfully by pressure. Then, also, the plan of filling the cavity of the aneurism with a coil of fine wire, and that of endeavouring to produce coagulation by the galvanic current, have each found supporters. Yet we know of no mode of treatment which has been supported by such a weight of evidence as that advanced by Mr. Tufnell. The author gives the details of six cases, four of abdominal and two of thoracic aneurism. Five of these cases were ostensibly cured, the patients resuming their usual occupations, and suffering no further inconvenience; the sixth was greatly relieved by the treatment, but subsequently discontinued it, and, although warned of the danger, returned to a life of hunting and other athletic exercise, and ultimately died from the bursting of the aneurism. We do not give the details of these cases, as we hope that our readers will study carefully Mr. Tufnell's pamphlet for themselves; neither do we reproduce his very valuable practical remarks on the diagnosis of internal aneurism; we confine ourselves to an account of the treatment which has been in his hands so successful. It was originally excogitated by Dr. Bellingham and himself, and was being tested by the former in conjunction with the author at the time of Dr. Bellingham's death. Since that event Mr. Tufnell has continued the experiments alone. The ends which all treatment of internal aneurism must have in view are two: first, to contend successfully against "the distensile action of the heart, the forcible flow of the blood from which has the effect of thinning and destroying the sac;" the other is to promote fibrinisation. For the latter purpose it is necessary that the health of the patient should be preserved, and his blood kept in a highly-fibrinised state. Valsalva's treatment failed most conspicuously in fulfilling the latter object. His frequent bleedings rendered the blood watery, and deficient in the very element which is most needed for the cure of the disease. The main point in Mr. Tufnell's plan is the enforcement of the recumbent position for a considerable time—from two to three months. The powerful effect of this measure in lowering the rapidity of the heart's action is best exemplified by one of his own cases. The patient when first seen had a full jerking pulse of 104. After a few days it fell to 96, but when standing or taking ordinary exercise it never sank below this. By placing the patient horizontally, however, for forty minutes, the pulse fell to 66. The full amount of retardation thus gained he shows by the following calculation:—

The pulse when standing and in ordinary exercise . . .	96 per minute.
The pulse after lying horizontally for a while	66 „
Difference of pulse caused by position	30 beats per minute.
Multiplying 30 beats by 60 minutes	60
	30
Gives	1,800 beats per hour.
And multiplying 1800 beats by 24 .	24
	7,200
	3,600
Gives no less than . .	43,200 beats per diem.

In a word, when in the recumbent position, the aneurismal sac was distended 43,200 pulsations less frequently per diem than when the patient was erect. Mr. Tufnell may well ask "What remedial agent in the Pharmacopœia will, without prejudice to the constitution of the patient, produce this result? and his answer—"There is none"—is one which assuredly none will gainsay. As the measures by which he has been enabled to keep his patients lying for so long a time are, though very simple, of the highest practical importance, we transcribe the passage in which he describes them:—

"Recumbence is the secret of cure, but this recumbence must be regularly and steadily maintained. I have mentioned 'a considerable length of time.' I mean by this expression two months, or ten weeks at least, and this period to be passed without the patient, if possible, sitting even once erect. In carrying out the treatment we require, therefore, a light, cheerful, and airy room, where by day the patient shall have an opportunity of seeing what is going on; and especial care must be taken that it has a southern aspect, for nothing is more depressing to the spirits of a patient than being immured in a chamber upon which the sun never shines. The next point to be attended to is the bed. It must be of camp form, so that the bowels, when acting, can be easily relieved by an assistant with the pan, or (if not acting) by the administration of an enema without disturbing the patient. Yet it must not be too narrow, as the sufferer would otherwise feel cramped and confined, and not sufficiently at ease. Upon the bedstead must be placed two hair mattresses, one upon the other, both full and elastic. Upon these (in proper site to receive the sacrum and hips) a large water cushion properly, but not over, filled. Upon this a double blanket, sewn at the corners and sides to the lower mattress, and upon the blanket a fine linen sheet similarly attached—this being done to prevent all wrinkling in the bed and disturbance of the sheet on which the patient's legs and body lie—another linen sheet (folded as after a lithotomy operation) being laid transversely to receive the buttocks, and to be drawn from beneath from time to time. Three or four good feather pillows to prop the shoulders and receive the head, together with the over clothes, complete the bed, on which, when once comfortably settled, the individual must be content to lie without changing his position further than to turn from side to side, or occasionally round upon his face, should such movement give relief to the dorsal pain, as it sometimes will. A urinal and bed-pan must be at hand, and an attendant always ready to offer such aid as the patient may require: to read to, converse with, or amuse him."—Pp. 29, 30.

Next in importance to the recumbent position is a restricted diet and the allowance of a minimum amount of fluid. The following is Mr. Tufnell's diet scale:—For breakfast, two ounces of white bread and butter, with two ounces of cocoa or milk. For dinner, three ounces of broiled or boiled meat, with three ounces of potatoes or bread, and four ounces of water or light claret. For supper, two ounces of bread and butter, and two ounces of milk or tea, making in the aggregate ten ounces of solid and eight ounces of fluid food in the twenty-four hours, *and no more.*" Thirst if urgent is to be relieved by sucking a pebble or an occasional bit of ice. If the restriction in diet render the patient restless and intolerant, it may be raised sufficiently to insure tranquillity, but no higher. With regard to medicines—the third point in Mr. Tufnell's plan—he recommends sedatives, especially lactucarium, henbane, and where necessary black drop to relieve pain and procure sleep, and aperients such as compound jalap powder, compound colocynth, and compound rhubarb pill, the first especially on account of its action in withdrawing fluid from the blood, but he especially warns against unnecessary and irritating purgation. Other remedies, such as iron, quinine, and iodide of potassium, are mentioned incidentally, but they do not form a special feature in the treatment.

It is clear that it is only in cases where pressure on vital organs or irreparable injury to important structures have not yet taken place that this or any other plan of treatment can be expected to succeed. Even in the best selected cases cure must depend no less upon the fortitude and confidence of the patient than on the strong will and sagacity of the Physician. We shall expect, therefore, to hear of many failures. But if anything like the amount of success which he has met with attend in other hands Mr. Tufnell's treatment of this well-nigh hopeless disease, he will have established no small claim on the gratitude and remembrance of the present and all future generations.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

March 25, 1865.

In the first place, I will allude to the report of the health of our town during the year 1864, drawn up by the Medical Officer, Dr. Trench, and which, I need hardly say, contains much interesting matter. I find that during the year 1864 the deaths in the borough amounted to 16,836, or to 1626 above the corrected average of the preceding ten years, making the death-rate equal to 36 in every 1000 of the inhabitants—that of the parish being 39·4, and of the out townships 30·9, in the 1000. Many diseases combined to cause this high mortality, but the most important were zymotic and pulmonary complaints. The zymotics account for 4870, or 28·9 per cent., of the deaths from all causes—the most fatal form being typhus, which began to spread towards the end of 1861, and has steadily increased until it has now assumed the form of a destructive epidemic. We find, on looking at the report, that 390 deaths occurred from typhus during the year 1860, whilst in 1864 the number reached 1774. Dr. Trench then treats of the various conditions that are generally regarded as conducive to the spread of typhus—viz., contagion, poverty, overcrowding, and filth. Under each of these heads we find much valuable information. On the question as to the cause of epidemic diseases Dr. Trench offers the following remarks:—"It is not possible to arrive, by the deduction of uncertain and speculative science, at absolute demonstrable and exact truth on a question so recondite as that of the causation of epidemic disease; but the following corollaries follow from the premises which have been detailed, and lead, with every appearance of high probability, to the conclusion that destitution was the cause of the epidemic:—

"1stly. Great distress in the labourer's class, accompanied by an enormous increase of parochial pauperism, existed previously to the winter of 1861 and spring of 1862, when the typhus began to be in permanent excess.

"2ndly. The distress and prevailing fever were both so simultaneously increased during 1862 as to indicate the parallelism of cause and effect.

3rdly. The number of recipients of workhouse relief in 1863, though reduced by 186 out of 16,003 in 1862, showed that, in spite of a partial revival of trade, the want was exceptionally great as compared with the ten years before 1861.

4thly. The transactions of the Central Relief Society, and the condition of the fever patients of the Workhouse Hospital in 1864, demonstrate that whatever might be the bettered circumstances in trade or commerce, the distress was not alleviated among the persons immediately above the rank of habitual pauperism.

5thly. It was of necessity and by reason—*firstly*, of want of employment; and *secondly*, especially in 1864, by the losses sustained by sickness in their homes, that so many individuals of the working classes ceased to contribute their deposits in the District Provident Society.

And 6thly. The pressure which prevented the better-off from exercising a prudent saving, threw the more necessitous into abject want."

Dr. Trench goes on to say: "It may surprise many to have it even hinted at that want and destitution prevailed so widely among the people as to be the chief cause of this, as of every preceeding epidemic of typhus known to Medical history; for during the years of which I write our fashionable streets bore evidence, by the great increase of splendid equipages and the accumulation of treasures of art and luxury, that much prosperity was not only co-existent with the want which I have described, but also co-dependent on the same causes. Fortunes of large amount are said to have been realised by speculators on the very cotton famine which threw thousands of labourers out of work; while shipowners, to whom the American internecine war had given almost a monopoly of the carrying trade, obtained such advantageous freights as to more than counterbalance the losses sustained by the reduction of cotton imports."

Small-pox I find almost absent from the death registry during the years 1860, 61, and 62, but in 1863 I find 100 deaths placed to its account, whilst in 1864 482 deaths occurred, being 369 above the corrected average of the preceding ten years. 182 deaths occurred in persons over five years of age. If this large mortality is in any way owing to the public not attaching of late sufficient importance to vaccination, we ought to be free at all events for the next few years, a vaccination mania at present pervading all grades of society, both young and old, and lymph in the form of points, tubes, etc., is eagerly sought after. As I am anxious to touch upon one or two other topics, I will postpone further allusion and quotation from Dr. Trench's interesting report to another occasion.

At the Royal Infirmary, Mr. Bickersteth has lately successfully removed with the whip-cord écraseur a polypoid growth, about the size of a walnut, growing from the anterior wall of the bladder. The patient, a young woman, had suffered most distressing symptoms of vesical disease for some time past. Twelve months previously a fibrous polypus, the size of a hen's egg, had spontaneously been expelled from the bladder into the urethra, where it was visible, being attached by a pedicle to the wall of the bladder from whence it was removed, I believe, by Dr. Grimsdale. She remained well for some weeks after its removal, and it was only recently that symptoms of the formation of another growth manifested themselves. She quickly again recovered from the effects of the operation. An interesting abnormal arrangement of the peritoneum was observed the other day in the post-mortem room at the Infirmary: the small intestines, with the exception of the duodenum, were all found lying in a cyst formed by reflections of the peritoneum, the large intestines being alone visible, and occupying their natural position. A full description will, I believe, shortly appear.

In the Northern Hospital at the present time there is a case of embolism of the brachial artery under the care of Dr. Waters. It occurred suddenly a few days ago in a patient under treatment for phthisis. No pulsation can be detected either in the radial or ulnar arteries; he complains of numbness and loss of sensation in his hand and wrist, and the difference of temperature in the two hands is very obvious. There is no evidence of cardiac disease.

At the last meeting of the Medical Society, Dr. Grimsdale concluded the narrative of his ovariotomy cases. He has performed the operation ten times, and seven with perfect success. A full account will, doubtless, appear amongst the proceedings of the Society.

There is a step in the right direction in the manner of conducting the anatomical examinations for prizes and honorary distinctions, introduced for the first time at our Medical school. Each candidate has to undergo a practical examination on the dead subject, in addition to the usual written questions; this will give the practical student a better chance

of distinguishing himself than his "grinding" opponent, and consequently tends to encourage practical work amongst the junior members of our Profession.

GENERAL CORRESPONDENCE.

THE THEORY OF MOLECULES IN RELATION TO THE MEDICINAL VALUE OF WINE.

Letter from Dr. Macvicar.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the hope that you may be disposed to follow up the interesting information of your Empirical Commissioner on wines and their medicinal worth or worthlessness by a scientific treatment of the subject, I beg to forward to you the physiological bearings of the question in so far as alcohol and water are concerned in the light of the most advanced theory of molecules—I mean that which maintains that the phenomena equally of nature and the laboratory may be fully explained if we assume that the molecules of bodies in general, whether liquid or solid, are constructed like the regular polyhedra of geometry; but so that almost all those that have as yet been discovered in our planet are either dodecahedral or icosahedral, or both—that is, consist of either 12, or 20, or 32 (aeriform) elements, and all occupy equal volumes, or volumes in simple ratio like aeriforms. (See *Trans.* Roy. Soc. Edin. for 1864, p. 581.)

That we may be able to deduce specific gravities *à priori*, it is only necessary to premise that the liquid particle of water in this theory is a dodecatom, each of the 12 elements of which consists of 3HO or 3aq, as commonly written, but which, in this theory, is an unity consisting of an atom of HO in each pole of an atom of aq, and which, when written symmetrically on both sides of the centre, gives OHaqHO. The particle or molecule of water, therefore, which gives unity for specific gravities is in this theory

$$(OHaqHO)^{12} = 36aq = AQ = 36 \times 9 = 324.$$

Using the old English atomic weights of C and H and O, we similarly obtain for alcohol—

$$(C_4H_6O_2)^{12} = 12(C_2H_6O_2) = \text{Alcohol} = 12 \times 46 = 552.$$

It is well known that molecules, in order to be fit to take their place in the course of life, must be very highly hydrated. It appears, according to the theory of which I have stated the principles, that each element of the chemical anhydrous molecule receives a particle of AQ on its peripheral summit, so that the dodecatomic molecule of the substance is encased in 12 particles of water. To this there is added one more on each pole when the water is still abundant. This I may illustrate in reference to the plastic molecule of which tissue is ultimately composed. When reduced to its lowest terms, as has been done by C. Schmidt, this molecule has for its element $C_8H_6NO_3$. Of this the atomic weight is 92, that of the dodecatom, of course, twelve times as much. And this $(C_8H_6NO_3)^{12}$ we may call Plastic $= 12 \times 92 = 1104$.

Now, applying to each of the 12 elements of plastic matter an AQ, we obtain plastic matter : water : : 92 : 324, or $12 \times 92 : : 12 \times 324 = 22{\cdot}8 : 77{\cdot}2$ water per cent. Now, the last number is just the percentage of water proper to flesh, etc. We thus obtain as the form of the plastic molecule when constituting tissue

$$\begin{matrix} AQ^6 \\ \text{Plastic} \\ AQ_6 \end{matrix}$$

But when water abounds, as when the plastic matter is still in the state of blood, it has been stated that 2AQ additional may be expected, one aq on each pole. Supposing the axis of the molecule horizontal, we thus obtain

$$\begin{matrix} AQ^6 \\ AQ, \text{Plastic}, AQ \\ AQ_6 \end{matrix}$$

And in this the percentage of water must obviously be $\frac{2}{12}$ths more than in the solid. Now, 77·2 increased by $\frac{2}{12}$ths gives 80, and this is just the percentage of water, in so far as integers are concerned, that is found in good healthy blood.

It may be shown that hydrous molecules of the same structure tend to form in inorganic nature. Thus, taking $ClNa^2Cl = 2NaCl$ as the smallest element of table salt that is symmetrical and soluble or capable of isolation; and supplying it now with AQ^{12}, and now with $AQAQ^{12}AQ$, we obtain as percentages of salt 2·56 and 2·99. Now, these limits define those of chloride of sodium in the waters of the ocean. Looked at in relation to the same theory, much light may be thrown on the normal structure of urine, also on such hydrates as may be alternately liquid and colloidal. (See Mr. Graham's Researches.)

But to come to wine, that which we are to look for as the normal hydrous molecule of alcohol, which nature will tend to develope when an adequate amount of saccharine matter and a ferment are supplied, and which will be most suitable for entering into the circle of life, will be one or other of the two aqueous dodecatoms defined above. And we may expect that the percentage of alcohol in the best wines will be defined by the proportion of alcohol that they give. Now, of a single element of alcohol the atomic weight is 46, and that of AQ 324, we have $324 : 46 = 87{\cdot}57 : 12{\cdot}43$, the last number being the absolute alcohol per cent. And diminishing it to correspond to an increase of $\frac{2}{12}$ths in the water, by the construction of the more aqueous molecule we obtain 10·85 per cent. of alcohol. Now, doubling these percentages of alcohol to reduce them to proof spirit, we obtain in a true wine—that is, a liquid in which there is neither any free water nor any free alcohol—from 21·7 to 24·8 per cent. of proof spirit. No result could accord better with the best analyses of the best sorts of wine than this.

But this is not the only verification of the theory which I illustrate, nor the main one. That arises from the power which it gives the chemist to calculate specific gravities all independently of the intricate and questionable doctrine of atomic volumes, and simply by the application of the ordinary method to molecular weights. Thus, allowing to the molecule of alcohol, which is larger and heavier than the molecule of water, two normal or aqueous volumes, the specific gravity of alcohol as developed in a natural hydrate, *i.e.*, in wine ought to be :—

$$AQ^6$$

Warm wine—Alcohol, sp. gr. = ·9788, = spirit 24·8 per cent.

$$AQ_6$$

$$AQ^6$$

Cool wine—Alcohol, sp. gr. = ·9815 = spirit 21·7 per cent.

$$AQ_6$$

Unhappily the hydrous alcohol of wine cannot be obtained till after its molecular structure has been destroyed by distillation. And that the re-construction, when water is added to alcohol to reduce it, is incomplete, fully appears from the loss of volume that ensues. To this happily, however, there is a limit—viz., as is well known when 6 aq have been added to one atom of alcohol. Now, here we at once see the axis of our wine molecule laid. For multiplying both by 12 we obtain 72 aq = 2 AQ and $(C_4H_6O_2)^{12}$, which, written symmetrically, give—

AQ. Alcohol. AQ

And here we may expect the theoretical specific gravity to be responded to by the hydrometer. Now, allowing (as has been said, 2 volumes to the molecule of alcohol) that is, 4 volumes to the hydrous alcohol molecule, we obtain—

$$G = \frac{324 + (12 \times 46) + 324}{4 \times 324} = ·926.$$ Experiment at 60° F. ·927!

By adding water until the mixture is reduced to our wine strength, instead of ·9815 which is the theoretical specific gravity of the cool wine, we obtain from the tables (they all differ) about ·9826, not very different, and identical at a certain temperature. And for the warm wine instead of ·9788 we obtain about ·9805.

The theory of the phenomenon which takes place during the addition of water to alcohol appears to be this. In absolute alcohol, which is a wholly unnatural and impatient substance, the molecules are alternately dodecatoms and icosatoms, differentiating each other, and thus securing a greater degree of stability or electrical neutrality than could exist if they were all of one kind. When water is added, the dodecatoms, which are the most stable of the two, gain upon the icosatoms: three of the latter resolve themselves into five of the former.

Supposing absolute alcohol to consist, as I have said, of these two kinds of molecules in equal numbers. And as the icosatom is nearly double the mass of the dodecatom, allowing to the former a double volume, we obtain for the specific gravity of absolute alcohol :—

$$\text{Alcohol } G = \begin{cases} \frac{(C_4H_6O_2)^{12}}{2AQ} = \frac{12 \times 46}{2 \times 324} = ·882 \\ \frac{(C_4H_6O_2)^{20}}{4AQ} = \frac{20 \times 46}{4 \times 324} = ·741 \end{cases}$$

Mean, 796; experiment, 795!

This spontaneous differentiation of liquids in order to a more stable condition is, in the theory on which these remarks proceed, a very frequent phenomenon wherever H or S occurs in the formula of the substance along with C or O or N.

The ideal of distillation as a rectification in which there would be no waste would be when the mixture submitted to treatment gave

$$\text{In the still}—\text{AQ.}\ \text{ALCOHOL.}\ \text{AQ.}^{6} = \text{Wine, Toddy, Punch.}$$

$$\text{In the receiver}—\text{AQ}\ \frac{\text{ALCOHOL}^{6}}{\text{ALCOHOL}_{6}}\ \text{AQ}_{5} = \text{Spirit as strong as can be distilled.}$$

In ultimate distillation every aëriform element seems to consist of a couple of alcoholic elements united by an atom of aq., which insists on going over along with the alcohol. This gives 8·8 per cent. of water. And when constructed into a molecule (which it probably never is in point of fact), gives the last molecule represented above. It is the inverse of the wine molecule, its body being alcohol instead of water.

I am, &c. JOHN G. MACVICAR.

JERKED BEEF.

LETTER FROM DR. H. BUSS.

[To the Editor of the Medical Times and Gazette.]

SIR,—It being in every way desirable that the Profession should encourage the importation of cheap meat, provided such meat be wholesome, my experience of the above may at this time be acceptable.

A week ago I purchased 7 lbs. of charqui or jerked beef from Mr. Madden, 3, Leadenhall-street. It was in appearance and smell exactly as has been described in your columns by Dr. Ballard and others.

My wife was certainly not prejudiced in its favour. It was soaked in cold water all night. It was now placed for three or four minutes in boiling water, and then beaten with a rolling pin. This water was rejected. This stage is very important, because it removes the sickly and offensive taint of such decomposition as had been going on. Now it is put into fresh water for soup, or hashes, or stews, seasoning and vegetables having been added according to taste. When it came to table as strong soup there was nothing objectionable in its flavour. I believe that all my family had they not known previously that it had been made from charqui would have given their verdict in its favour.

I am, &c. H. BUSS, M.D.

56, High-street, Shoreditch, March 23.

COMPULSORY REGISTRATION.

LETTER FROM MR. EDWIN LEE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Perceiving that it is a question to make registration compulsory on all Practitioners of Medicine and Surgery, I presume that any amendment of the Medical Act to that effect would not have a retrospective action affecting many who, like myself, objected on principle to the payment of an unnecessarily large fee for merely enrolling their names in a list of Practitioners, who are thereby enabled to sue at law for compensation for Professional services refused or contested, and to compete for appointments to charitable or public institutions, without its conferring any other advantage; for as to its affording any protection to the Profession against illegal Practitioners, registration (as it has been conducted) is confessedly a failure.

Soon after the passing of the Medical Act, I publicly expressed my opinion that a chief object of its framers was to obtain from the Profession a large sum of money, of which no satisfactory account would be rendered. I did not, therefore, register, and the statement of the receipts and expenditure have, I think, fully confirmed my opinion, for it is pretty generally admitted that very little serviceable to the Profession has hitherto been effected in return for the large sum that has been derived from the registration fees.

To take, as a sample, the last year's account, we see that the receipts have been £5281, and that the expenditure for fees, salaries, and expenses of meeting has exceeded that amount, viz., £5657, upwards of £2000 of this sum having been paid for councillors' fees and expenses. Had there been any guarantee that the money obtained under the plea of registration was to be applied to Professional purposes, no one would have objected to register, nor would there have been so many complaints from those who have registered as to the uselessness of registration to them. I am, &c.

Cannes, March 22. EDWIN LEE.

EXAMINATION AT THE

CLOSE OF THE NINTH SESSION OF THE ARMY MEDICAL SCHOOL, ROYAL VICTORIA HOSPITAL, NETLEY,

BETWEEN JANUARY 30 AND FEBRUARY 4, 1865.

A.—WRITTEN QUESTIONS.

I. Military Hygiene (Professor E. A. Parkes, M.D., F.R.S.).

1. If you were called upon to give your opinion as to the desirability of a certain water supply which it is proposed to use for a garrison of 5000 men, what points would lead you to an opinion—firstly, as to the sufficiency of the supply; secondly, as to the purity of the water?

2. If an outbreak of diarrhœa affected suddenly a number of persons in a limited area, what would be the most probable causes, and how would you ascertain the existence of those causes?

3. What are the principal causes which produce movement of air in rooms, and at what rate does movement become perceptible? What are the regulations as regards cubic space per head at home and abroad, and what are the recommendations of the Barrack Commissioners in respect of the quantity of air which should be given per head per hour in barracks?

4. What are the chief diseases which at present cause mortality in the West Indies and the Mauritius, and what are the chief rules of prevention?

II. Military Medicine (Professor W. C. Maclean, M.D., Deputy-Inspector-General).

1. Give as complete an account as you can of the causes which produce—(*a*) typhus, (*b*) dysentery, and (*c*) phthisis in armies.

2. Describe the general and special indications of the treatment in the typhus of armies.

3. Give the causes, symptoms, diagnosis, consequences, and treatment of enlarged spleen.

III. Military Surgery (Professor T. Longmore, Deputy-Inspector-General).

1. Describe the treatment you would adopt on being called to a recent case of gun-shot wound of the abdomen under each of the following six conditions:—(1.) One opening, without direct evidence whether the projectile has or has not penetrated the cavity of the abdomen; (2.) One opening, the cavity being evidently opened, but no complication being visible; (3.) Wound penetrating the cavity, complicated with hæmorrhage externally; (4.) Wound with protrusion of the intestine, the intestine itself being unopened; (5.) The same, but with intestine opened; and (6.) Two penetrating wounds without visible complications.

2. Explain the way in which the eye is enabled to see objects at different distances, and the method by which the range between the nearest and the most distant points of distinct vision may be determined and expressed. Show also how, when presbyopia exists, its degree and the means of correcting it can be ascertained.

3. Give an outline of the Surgical duties and of the general arrangements for the care of the sick and wounded under the ordinary circumstances of troops on the march in time of war.

IV. Pathology (Professor W. Aitken, M.D.).

1. Define what is understood by syphilis. Describe the characters, probable periods of incubation, duration, and consequences of the various primary venereal sores, and state what kinds of eruptions or sores on the organs of generation may be confounded with venereal sores.

2. Define what is understood by pyæmia and Hospital gangrene. Describe the circumstances which tend to induce and propagate the morbid states which these terms comprehend.

3. Describe and interpret the prominent lesions seen in the post-mortem examination of ———, who died, aged 23, of chronic dysentery, and was dissected on January 6, 1865. The points to be attended to in your accounts are as follows:—(1.) What were the anatomical signs in the small intestine which pointed to the nature of the common continued fever which he was said to have had in Hong Kong? State the name of the common continued fever it is probable he had.

(2.) What were the conditions of the colon and rectum; (3.) Of the liver; and (4.) Of the lungs?

B.—Practical Examination.

I. and II. Examination, historical account, statement of diagnosis, prognosis, effects of proposed treatment, etc., of one Surgical and one Medical case.

III. Hygiene.

Examination of various specimens of water for chlor. sod., for organic matter, and for total hardness.

Examination and analysis of specimens of milk and of beer.

Microscopic examination of samples of coffee and flour.

IV. Pathology.

Demonstration of the urinary tubuli and cortical portion of a microscopic preparation of a kidney.

Descriptions of various preparations of Morbid Anatomy.

Examination of secretions.

MEDICAL NEWS.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, March 23, 1865:—

James Vince Worthington, Ulverstone, Lancashire; Thomas Griffiths Merthyr Tydfil; Griffith Griffith, Edeyrn, Pwllheli, N. Wales; George Hunt Orton, Narborough Hall, Leicestershire.

The following gentlemen, also on the same day, passed their first Examination:—

William Henry Ellis, John Quick, and William Barnett Burn, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Armstrong, Alexander, M.D., R.N., Deputy-Inspector-General of Hospitals, has been appointed to Haslar Hospital.

Blasson, William, M.R.C.S. Eng., has been appointed Medical Officer for the Redhill Workhouse of the Hendon Union.

Duckworth, Dyce, M.D., Edin., has been elected Assistant-Physician to the Royal General Dispensary, Bartholomew-close.

Ensor, A., M.R.C.S. Eng., has been elected House-Surgeon and Secretary to the Dorset County Hospital, Dorchester.

Forbes, D. M., M.D., has been appointed House-Surgeon to the Leith Hospital and Dispensary.

Jones, Robert, M.R.C.S. Eng., has been appointed Surgeon-in-Ordinary to the Chorlton-upon-Medlock Dispensary, Manchester.

Lyle, Thomas, L.R.C.P. Lond., has been appointed Medical Superintendent of St. Thomas's Hospital, Exeter.

Mahon, George A. D., M.R.C.S. Eng., has been appointed Resident Registrar to St. Mary's Hospital.

Muscroft, Henry, L.R.C.P. Lond., has been appointed Medical Officer for the Union Workhouse, Pontefract, Yorkshire.

DEATHS.

Brown, Robert, M.D. St. And., at Strood, near Rochester, Kent, on March 25, aged 84. He was a Staff-Surgeon in the Army, and Medical Superintendent of Quarantine at Standgate Creek. His full-pay service extended over sixty-two years.

Bullen, Robert, Surgeon, at Bampton, Oxfordshire, on March 12, aged 84.

Foster, Joseph, Surgeon, in London, on March 23, aged 63, late of Heywood, Lancashire.

James, William Withall, F.R.C.S. Eng., at Exmouth, on March 17, aged 41, Surgeon to the Devon and Exeter Hospital.

Jencken, Dr. Ferdinand I., at 11, Royal-terrace, Kingstown, Dublin, on March 22, aged 79.

Kennedy, George A., M.D., Dub., at Mountjoy-place, Dublin, on March 24, aged 73.

Lockhead, James L., M.D. Glasg., at Regent-street, Greenock, on March 17.

Lord, James, M.R.C.S. Eng., at Fleetwood, Lancashire, on March 16, aged 45.

Maxwell, Robert G., L.F.P.S. Glasg., at Killbourne-place, Millport, Islo of Cumbræ, on March 19.

Morrison, Charles H., M.R.C.S. Eng., at Rockcastle Mills, Dunmanway, Co. Cork, on March 14.

Murphy, Dr. John, at Holles-street, Dublin, on March 13.

Ribton, G., M.D., at Tivoli-place, Kingstown, Dublin, on March 17.

Simpson, T., M.D., at Old Calabar, Western Africa, on January 4, formerly of Kilbirnie, Ayrshire.

Willey, Thomas, M.R.C.S. Eng., at Littlethorpe, Leicestershire, on March 10, aged 44.

Chemists and Druggists.—Sir John Shelley's Bill, now before Parliament, proposes to commit the examination and registration of this class of persons to a council of chemists and druggists, elected from the general body, with power to appoint local examiners.

Medical Knighthoods.— The *Gazette* of Tuesday announces that the Director-General of the Army Medical Department, Dr. Gibson, C.B., and Inspector-General of Hospitals, Dr. Lenton, C.B., have been appointed Ordinary Members of the Military Division of the Second Class, or Knights Commanders of the Most Honourable Order of the Bath.

Medical Benevolent Fund.—At a meeting of the committee, held in New Burlington-street, on Tuesday, the 28th inst., the Treasurer, Mr. Toynbee, made the gratifying announcement that he had received from the executors of the late Mr. Hine, of Budleigh Salterton, the munificent sum of £2635, being the amount realised from the testator's residuary estate, in addition to £3000 previously paid to the Society. The committee decided at once to elect five additional annuitants.

The Alleged Cases of Poisoning in Glasgow.—The Glasgow authorities have received communications from Professor Maclagan, of Edinburgh, giving the result of the chemical analysis. Antimony has been abundantly found in the liver, spleen, intestines, and blood of the late Mrs. Pritchard. The quantitative analysis is not yet completed. A warrant has been issued for the examination of the body of the late Mrs. Taylor. That lady, it may be remembered, died suddenly in the house of Dr. Pritchard about three weeks before the death of her daughter, Mrs. Pritchard. She had, it is alleged, been in the habit of using a preparation of opium; but there are some suspicious circumstances connected with her death. The Medical man who was called in, and who only saw her *in articulo mortis*, declined, when applied to by the district registrar, to give a certificate, and at the same time intimated his opinion that the death was mysterious. Under these circumstances Dr. Pritchard himself certified the death as having taken place after twelve hours of paralysis and one hour of apoplexy, whereas it is alleged that the lady died after only four hours' illness. With regard to the death of Mrs. Pritchard, it is stated that the servants of the house were made sick and ill by eating the remains of certain articles of food which had been administered to her. There was, however, no intelligible motive for foul play on Dr. Pritchard's part.

Never too Late to Mend.—At a late meeting the Board of the Carlisle Workhouse increased the salary of Mr. C. S. Hall, the non-resident Medical officer, from £49 to £100 per annum. The former sum was made up of £40 salary and midwifery fees, which during the past year had amounted to £9. For this Mr. Hall had seen, prescribed, and supplied medicines for from sixty to eighty patients a day, and there was abundant evidence that he had done it with the most praiseworthy and conscientious attention. That such a state of things could exist for a whole twelvemonth in Carlisle is sufficient disgrace to the parochial authorities; but we are glad to add that the Board showed themselves fully alive to their position and anxious to escape from it—which they did by voting Mr. Hall the increased salary above stated.

The Treasurer of Guy's Hospital held a *conversazione* on the evening of the 28th instant, at which a large number of persons eminent in the literary and scientific world were present. Among the distinguished visitors were the President of the Hospital, Sir Lawrence Peel, the Earl of Harrowby, Lord Sandon, Lord Kirkaldie, Sir William Page Wood, Archdeacon Hale, and many of the Governors and Medical officers of the Hospital. Several of the large rooms in the new wing were thrown open and filled with numerous and well-selected objects of interest. The magnesium light was shown at intervals at different parts of the room; and a photograph of the Assembly was taken by its assistance in the course of the evening. A large collection of microscopes and scientific instruments were exhibited by Messrs. Smith and Beck, Casella, Highly, How, Browning, Marratt and Short, Novra, Baker, Horne and Thornwaite, Powell and Lealand. Some magnificent jewellery, and the well-known original piping bullfinch, now 200 years old, were sent by Mr. Emanuel, and some splendid electroplate by Elkington. One room was filled with the celebrated anatomical models made for the Hospital by Mr. Towne. A large number of most brilliant electrical experiments were shown by Mr. Atkinson, and also by Mr. Browning. The photomicrographs of Dr. Maddox were exhibited on a screen by Mr. How, and the process of photomicrography by the magnesium light was practically illustrated. On the walls were some splendid horns, antlers, and stuffed animals, exhibited by Mr. Leadbeater and Mr.

Sowerby, and many pictures and some beautiful photographs by Mr. Francis Bedford. About 1500 persons were present, including many ladies and most of the students, altogether the *soirée* was a most interesting one, and went off with the greatest *éclat*.

A MYSTERIOUS affair, which recalls to mind both the execution of Dr. La Pommeraye and the trial of Trumpy-Demme at Berne, at present occupies the attention of all the inhabitants of a small town in Normandy. A Physician is said to have committed a triple murder. The Doctor is accused of having murdered the husband of a young woman of whom he was passionately fond. He is said further to have insured the life of his own wife for a large sum and then poisoned her. An unfortunate young woman is said to be the third victim, likewise poisoned in consequence of having several times drunk potions intended for her master. It appears that the grave had scarcely closed on the three victims when the Doctor and his accomplice caused their banns to be published, and suspicions having been roused by their marriage, the judicial authorities caused an inquiry to be instituted, which it is believed will bring the accused to trial. —*Times' Paris Correspondent, March* 27.

PROSECUTION UNDER THE HEALTH OF TOWNS ACT.—On March 24, at the Thames Police-office, Mr. Charles Owen, a junior partner in the firm of Owen and Mertens, of the chemical manufactory on the west side of the West Ferry-road, Millwall, appeared before Mr. Partridge, to answer the complaint of Mr. E. Fulcher, sanitary inspector of the Poplar Board of Works, who charged them with a nuisance in the manufacture of sulphate of ammonia. Mr. S. K. Ellison, Medical officer of health for the south district, Poplar, made an inspection of Owen and Mertens' works on the 11th of February last. During the process of manufacturing sulphate of ammonia large volumes of sulphuretted hydrogen gas were given off from the evaporating tanks and were diffused into the surrounding atmosphere, causing a nuisance injurious to the health of the inhabitants of the neighbourhood. The best practicable means to prevent the escape of sulphuretted hydrogen were not adopted. Mr. Ellison then produced test papers of a dirty brown hue, and which were originally quite white, and said the discoloration was caused by the sulphuretted hydrogen. He applied the papers to the outside of the covered tanks containing the noxious liquors. The discoloration of the papers was instantaneous. The effect on the constitutions of the people in the locality was very prejudicial. The neighbourhood would be affected by the nuisance to the extent of 200 or 300 yards. On the 1st of the present month he made another survey of the premises. Sulphuretted hydrogen was escaping from the tanks in a similar way while he was walking round the building. The test papers were again applied, and discoloured as before. The paper was discoloured twelve or fourteen yards from the saturating boxes. A joint report by Dr. Letheby and Mr. Ellison was read, which detailed the process of manufacturing sulphate of ammonia, and described the mode in which offensive gases were produced. Evidence was given that the sulphuretted hydrogen evolved had injured property in the neighbourhood, and had produced an injurious effect on the health of individuals. Mr. Partridge convicted the defendant, and inflicted the full penalty of £5, with £2 4s. for costs.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Pavy's Lecture is in type, and will appear in our next number.

M.R.C.S., Eng.—He certainly has no heraldic right to use them.

Old Kilpatrick.—We cannot decide on the relative merits of Operating Surgeons. Any Loudon Hospital Surgeon is competent to perform such an operation.

Nothing New under the Sun.—The admiuistration of lead in aneurism is a very old remedy, and many cases are on record of its efficacy.

E.B.—Parents must be firm, and must insist on at least two meals of meat daily, and should offer to pay for it. There really ought to be an association for distributing Mr. Erasmus Wilson's admirable pamphlet ou Food amongst schoolmistresses aud mothers of families.

M. D.—1. We do not know whether M. D., in his question as to the Erlangen degree, means 1846 or 1864, as he first writes the former, aud then the latter year. What we know is, that in 1864, and for several years back, that degree has not been given without examination. 2. We do not think that the Apothecaries' Company could legally interfere with one of its Licentiates so practising.

The Dirty Quacks.—We know that the proceedings of these persons are under the consideration of eminent legal M.P.s; but the difficulty of checking them is in proportion to the audacity of their present movements. We have heard that a copy of an obscene pamphlet was lately sent to every house in Erith. But this is a matter which affects all society, not the Medical Profession only. If "A Lawyer" is aggrieved, will he tell us whether the existing law affords a remedy?

Dr. Messenger Monsey.—In the memoirs of this eccentric Physician, it is stated that he often, and strenuously, recommended the opening the bodies of patients who had died of remarkable complaints —a conduct for which he had been grossly abused by the ignorant. He had, therefore, always determined to convince his enemies that what he had so frequently advised for his patients he was very willing to have performed on himself. In verification of this, a letter is preserved in the library of the Royal College of Surgeons, of which the following is a copy, as well as the bad writing and mutilated condition of the letter will allow, viz. :—"Ch(elsea) College, May 12, 87. —Dear Sir,—Mr. Foster, a Surgeon in Union-court, ———, has been so good as to promise to open my carcass and see what is the matter with my Heart, Arteries, etc., and Kidnies, etc. He is gone to Norwich, and may not return before ———. Will you be so good as to let me send it to you, or if he comes will you like to be present at the Dissection? Nichols told me seven years ago there was no mischief in the Breast, Aorta, etc., besides I make and have made blody (*sic*) uryne. Would you be so good as to let me see you to-morrow between 11 and 1, or 2, or any day. I am now very ill, and hardly see to scrawl this and feel as if I should live two days, the sooner the better.—I am tho' unknown to you, your respectful humble Servant, MESSR. MONSEY."

Fossil Remains of the Elephant of Malta.—The explorations of Dr. Adams among the cave deposits and alluvial soil of these islands have been lately crowned with such signal success that we think the public would be glad to be made acquainted with the leading facts. It will be remembered that Captain Spratt, the indefatigable and learned hydrographer of the Mediterranean, was the first to bring to light the remains of the remarkable fossil elephant of Malta (*elephas melitensis*) by his explorations in the Zebbug Cave, in 1859. Since that time Dr. Adams has been unremitting in his exertions to discover more traces of this extinct species, and has been fortunate enough to find them in many new localities in Malta. He has just met with its teeth in great quantities in a cavern near Crendi. In another gap, evidently at one time the bed of a torrent, he has found the teeth and bones of thirty more individuals. These skeletons of old and young elephants are met with jammed between large blocks of stone in a way that clearly shows that the carcases must have been hurled into their present situation by violent floods or freshes. He has now brought together almost the complete skeleton of this wonderful little representative of an order of quadrupeds, to which we had, until the fossil Maltese elephant appeared, applied the word gigantic. There can be no doubt, however, that it scarcely exceeded a small pony in height. We hope that Dr. Adams will give a detailed account of his highly interesting discoveries to the scientific world.—*Malta Times*, March 16.

Erratum.—In the list of Medical men at Her Majesty's levée given in our last number, p. 313, *for* and Thomas Watson Lavies, *read* Thomas Watson and Lavies.

GRIFFIN TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscriptions have been further received on behalf of the above fund:—C. Spurgin, Esq., Stratford St. Mary, 10s. R. Sleman, Esq., Tavistock, 5s.; H. T. Wood, Esq., do., 5s.; J. Pearse, Esq., do., 5s.; W. C. Northey, Esq., do., 5s.; R. Willis, Esq., do., 5s.; J. G. Doidge, Esq., do., 5s.; J. H. Willis, Esq., do., 5s., per R. Sleman, Esq., Tavistock. From Lower Norwood, 5s. Amount previously announced, £118 16s. Received at "Lancet" Office, £7 17s. 6d. I am, &c.,

ROBERT FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, March 29, 1865.

WINE QUERIES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Permit me to reply to one correspondent, that if the Voeslauer wines made the circuit of the globe in the *Novara* frigate, their stability could have no better test. I have tasted samples of 1862 and 1863 wine, and both appeared to me firm and likely to keep.

I have no knowledge of any unnatural colouration of the face produced by Bordeaux wine. Red noses may be tinted by acidity, but I suppose that is quite a different thing. Neither have I any knowledge that such wine is adulterated by iron. I should be glad to learn any facts from your correspondents. I am, &c.

THE AUTHOR OF THE REPORTS ON WINE.

SOUTH AMERICAN BEEF.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Amidst the somewhat angry discussion now being carried on concerning the merits or demerits of the South American beef, I am pleased to see you have taken up the subject on its real merits. If it be a meat fit for food, and acceptable generally, it will be sure to have a large sale here; if, on the other hand, it be found unpalatable or injurious to health, all the pushing and puffing of interested parties will not avail. While you, sir, ask for the testimony of Medical men all over the country as to its acceptability with the labouring classes, would it not be as well to inquire if any results have come under their notice touching upon its effect on the health of the recipients; for example, the fat in most specimens I have seen has certainly undergone some change towards the formation of those fatty acids which are known to be prejudicial. Have any of your readers seen cases of diarrhœa, vomiting, fever, clearly adducible to, and caused by, the ingestion of the charqui food?

I am, &c. SPECTATOR.

Consanguinous Marriages.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I am sure "X.," like myself, was pleased to see the letter of "T. J." in your journal of to-day. Like him, my interest was excited on this subject by the disturbance caused in the family by my sister marrying her first cousin; and as the union entirely took place through my backing her through "thick and thin," I resolved to try and work out this problem, and ascertain if the popular prejudices are well or ill founded.

"T. J." brings to bear on his inquiries what I cannot—viz, the experience of a number of years and observations on the lower animals; these latter are of course impossible to those living in a city. I drew my rough conclusions that these marriages were not hurtful or injurious—

1st. Because all the evils attendant on these unions are just as liable to be attendant on mixed marriages; of which I have seen ample proofs.

2nd. I know of no instance where the children of cousins show any taint differing in degree or intensity from the offspring of mixed parents.

3rd. A mixture of bad bloods between strangers is as productive of as much evil as if the parties were related.

4th. That the prejudice against these unions has resulted more from theory than actual facts, or facts viewed from one side only.

5th. That in these inquiries, if you find anything to put into one scale, you are sure to find something to put into the other.

"T. J." says there is some truth in all the propositions he was educated in; but cannot these apply to ill-assorted unions of any kind? He says, also, that he never saw a single cousin couple who have a healthy set of children. I can point to such a couple, who have produced nine healthy children, all grown up except one, who died of fever about the age of 18. They are a remarkably handsome family; their mother was one of a family of six healthy children, also the offspring of first cousins. This may be an exceptional case; but I have no doubt there are plenty more like it.

Lastly, in conclusion, "T. J." puts his moral in few and simple words, quite to the point. It is what I have always felt myself, and which I feel every one must who has thought on the subject; or I may go a little further, and quote the words of Dr. Child, from his paper read before the British Association in 1862:—"If there be vigour and health, and no taint of blood, the offspring of parents however nearly allied need not be degenerate." But the above moral would be good advice for all proposed unions; therefore I think I may repeat my former words, that "these marriages are not hurtful or injurious."

I am, &c.

A. R.

March 25, 1865.

On Catarrh.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Both patient and Physician seem to have an understanding that little or nothing should be done for the relief of this complaint; for whilst the former dismisses it with the remark, "It is only a cold," the latter seldom attempts to interfere with its progress. Such indifference is, perhaps, owing to the difficulty of cutting it short even more than to its usually happy prognosis. But as catarrh often leads to bronchitis, and not unfrequently hastens the symptoms of phthisis in cases otherwise hopeful, surely it deserves more attention than has hitherto been given to it. There are, moreover, many persons who suffer much from an uncomplicated attack of the disorder. I refer to those who, with well-developed frontal sinuses, have an unusually large surface of mucous membrane for its location. In such patients, especially if they be of the sanguine temperament, the febrile symptoms are often severe; the excessive headache, and the discharge from so great an extent of membrane, produce a wretchedness which no one can understand who has not suffered from the complaint in this exaggerated form. Such has been my misfortune very frequently, and I attribute the severity of the attacks to my having a well-developed frontal region. By the way, I may remark how much freer I am from them during those winters which follow a sojourn at the sea-side.

My own experience has taught me that the treatment of our text-books is of no value whatever: but more than once Nature has effected a speedy cure for me by a kindly bleeding from the nose. Believing the hint to be a good one, I have, on two occasions since then, applied a leech within the nares, and each time with perfect success; but in the last attack I found it necessary to employ two leeches. When the dryness of the first stage, and the flow of mucus of the second, are confined to one nostril, the symptoms are less severe than when both nasal passages are affected. My plan has therefore been to leech only one or both nostrils, according to the extent of the disorder. The wounds generally bleed very freely; it is, therefore, well not to allow the leeches to travel too high up the nostrils, and by means of a glass they are perfectly under control. On one occasion I was called from home soon after the leech had dropped off, and, in spite of all the means I could think of, one of the bites bled for five hours; this arose, however, from the effort of walking, and from the leech having bitten too high within the nares. When the leeches first take hold, they cause a great disposition to sneeze,—an effort which would at once dislodge them unless they were properly supported during its occurrence. If they be applied during the first stage of the complaint, they seem to stop it at once and completely; but when the second stage has become well established the relief is neither so signal nor so prompt; still, however, the discharge is reduced to a minimum, and it takes the bland form of thickened mucus or muco-pus. In both cases the constitutional symptoms scarcely survive the flow of blood.

Whilst recommending a remedy which I consider almost specific and of great value, I must not omit to mention the difficulty which will arise in many cases from the patient's dislike to its adoption. I have, however, met with some who thankfully employ it. Two cases I remember at this moment:—A woman had suffered from chronic nasal catarrh for some time, which yielded at once to a single leech and a few doses of quinine. Another one had long-continued headache following coryza, though the discharge had left; and nothing relieved her until a leech was placed within the nostril.

But of all persons none have so much reason to dread an attack of catarrh as tuberculised patients; and if the peril attending its continuance were properly explained, perhaps none of them would object to the remedy. Still, I must own that to discover a less objectionable and equally good place for the application of the leech would be much better; and I think it very probable that the old-fashioned plan of local bleeding just within the lower lip may possess both recommendations.

I am, &c.

Collingham, March 14. Alpha.

COMMUNICATIONS have been received from—

Mr. W. Fairlie Clark; M.D.; Messrs. Maxwell and Co.; Western Medical and Surgical Society of London; Dr. J. E. Morgan; Mr. W. Dunnett Spanton; A. R.; Dr. Pavy; Harveian Society of London; Apothecaries' Society; Dr. James Arnott; Dr. Thomas B. Henderson; Dr. Edwin Lee; B. A.; Mr. John Birchwell; Obstetrical Society of London; Dr. Madden; M.R.C.S., Eng.; Dr. D. Duckworth; Dr. Fotherby; Mr. J. Stocker; Mr. J. Speirs; Mr. M. Jennett; Mr. J. C. Gell; Mr. W. H. Shillibeer; Mr. G. W. Powell; Dr. Robert Fowler; Mr. Brickwell; Mr. Howard Marsh; Dr. Hillier.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 25, 1865.

BIRTHS.

Births of Boys, 1091; Girls, 1010; Total, 2101.
Average of 10 corresponding weeks, 1855-64, 1884·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	805	829	1634
Average of the ten years 1855-64	685·1	651·9	1337·0
Average corrected to increased population..	..	..	1471
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	..	5	2	1	16	6	1
North ..	618,210	7	4	7	5	16	13	..
Central ..	378,058	..	1	4	2	20	7	..
East ..	571,158	..	1	7	1	21	17	1
South ..	773,175	3	5	14	3	20	10	5
Total ..	2,803,989	10	16	34	12	93	53	7

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·702 in.
Mean temperature	34·0
Highest point of thermometer	45·8
Lowest point of thermometer	23·7
Mean dew-point temperature	26·5
General direction of wind	E. & N.
Whole amount of rain in the week	0·17 in.

APPOINTMENTS FOR THE WEEK.

April 1. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m. Royal Free Hospital, 1½ p.m.

3. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

Medical Society of London, 8½ p.m. Mr. Walter J. Coulson, "On Lithotrity." Dr. E. Day, "On Menstruation during Pregnancy."

4. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Anthropological Society of London, 8 p.m. Meeting.

Pathological Society, 8 p.m. Meeting.

5. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

Hunterian Society (Council, 7½ p.m.), 8 p.m. Mr. Hutchinson, "The Medical Aspects of Constitutional Syphilis."

Obstetrical Society of London (Council, 7 p.m.), 8 p.m. Dr. Meadows, "Case of Monstrosity." Mr. Freeman, "Extra-uterine Fœtation." And other Papers.

6. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Harveian Society of London, 8 p.m. Dr. Camps, "In what Class of Cases and under what Circumstances may we reasonably hope for Cure in Epilepsy?"

7. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

Western Medical and Surgical Society, 8 p.m. Practical Evening, for the Narration of Cases and the Exhibition of Specimens.

ORIGINAL LECTURES.

ON THE ASSIMILATION OF SUGAR BY THE LIVER.

FROM

THE LECTURES ON PHYSIOLOGY,

DELIVERED AT

Guy's Hospital.

By F. W. PAVY, M.D., F.R.S.,
Assistant-Physician to the Hospital.

I PROPOSE to-day, gentlemen, to direct your attention to an investigation of the bearings of sugar in connection with animal life. As you are doubtless aware, this is a matter to which I have devoted a considerable amount of attention. For many years I have been closely studying the subject, and my experimental results have forced me to entertain conclusions adverse to those which prevailed when I originally started out. I must begin at the commencement, and first of all make you acquainted with the tenets of the doctrine of animal glycogenesis. I will then place before you my own views; show you the experimental results upon which they are based; and afterwards criticise the objections that have been raised to them.

In 1848 Bernard, of Paris, came down in an unexpected manner upon the discovery that sugar could be produced by the animal system, for he had recognised it in the blood, although it had been excluded from the food. In the course of a series of experiments to ascertain what became of sugar when ingested with the food, Bernard traced it from the alimentary canal into the portal system, and through the liver to the right side of the heart, but no further. It therefore seemed that the sugar consumed with the food underwent destruction in the lungs. It was necessary, however, Bernard thought, to make a counterproof experiment, and see that no sugar was contained in the blood of the right side of the heart when it had been excluded from the food. For this he operated on a dog that had been restricted for some time to animal food, and to his surprise still found sugar in the contents of the right heart. Thus was laid the foundation of the doctrine of animal glycogenesis. Previously the production of sugar had been regarded as a phenomenon, occurring only in the vegetable world; but now it became evident that such a limitation could no longer be upheld.

Continuing his experiments, Bernard came to the conclusion that the sugar he had met with in the blood, when sugar had been excluded from the diet, was derived from the liver. He now gave to the liver a glycogenic or sugar-forming function, and stated, in support of his view, that with an animal restricted to a purely animal diet, the blood going to the liver was to be found free from sugar, whilst that flowing from it was highly charged with sugar, and that the liver itself, differently to all other organs of the body, was strongly charged with the saccharine principle. The evidence advanced seemed so conclusive and simple, and, moreover, was so easy of corroboration by others, that the glycogenic function of the liver soon became looked upon as having an established existence. It was admitted into our text-books, and became engrafted, indeed, upon us as one of those truths which we accept without pausing for an instant to raise a doubt about. The amount of sugar said to exist in the blood of the hepatic veins was about 1 per cent. during fasting, and 1½ or even 2 per cent. at a period of full digestion; whilst the mean amount of sugar in the liver was put down at from 1½ to 2 per cent. The process of sugar-formation, therefore, appeared to be carried on upon a large scale, and to constitute a function of importance in the economy of animal life.

As the blood removed from the arterial system gave signs of being charged with scarcely any sugar, the lungs were supposed to form the seat of its destruction in the system.

After returning to England from studying under Bernard in Paris, I commenced a series of experiments with the view of ascertaining the precise conditions required for this supposed destruction of sugar in the lungs. I injected fibrinated and defibrinated blood through the capillaries of artificially inflated dead lungs, and I thought I discovered that in the fibrinated blood a disappearance of sugar had taken place. I was working under the notion, which prevailed then, that the contents of the right heart were naturally charged with a considerable amount of sugar. It was not known but that the condition of the blood collected in an ordinary way after death formed a representation of its natural state. For my experiments with the defibrinated blood, in order to have it in a fluid state, I was obliged to be very expeditious in collecting it from the heart after death had been produced. I injected my syringeful through the prepared lungs, and, examining what had flowed, found that it contained scarcely any sugar—no more than was to be met with in ordinary arterial blood. I did not give it a thought but what I had been operating upon strongly saccharine blood; and I thought this sufficiently proved by finding that the blood I obtained afterwards from the animal gave the ordinary strong reaction of sugar that had been looked upon as naturally belonging to right-ventricular blood. I therefore concluded that in blood containing fibrine, or in the condition belonging to life, sugar underwent destruction on being injected through the capillaries of the artificially-inflated dead lungs; and that the presence of fibrine was a necessary condition for this, for my specimens of defibrinated blood (these having been collected from the ventricle without any particular haste) showed signs of strong impregnation with sugar after injection through the lungs.

A further prosecution of my researches taught me that the conclusion I had arrived at was erroneous, and that the error resulted from my having taken the blood procured from the right ventricle instantly after death to be saccharine, like that collected a little later. It was at the very onset of my career that this erroneous conclusion was arrived at, and when I was under the firm conviction, in accordance with what I had been taught, that the blood of the right side of the heart was naturally strongly charged with sugar, in conformity with the doctrines laid down under the glycogenic theory.

I was still making some experiments on the presumed destruction of sugar in the lungs, and was collecting blood for injection, by means of a catheter, from the right ventricle during life, when I discovered that the ante-mortem and post-mortem states did not coincide. For the glycogenic theory the state of the blood on the right side of the heart had been judged of from an examination of that which was collected from it in an ordinary manner after death. Now, under such circumstances there is a copious orange-yellow or orange-red precipitate thrown down on boiling the prepared liquid with the copper test; and the amount of sugar in five analyses that I made showed itself to the extent of from 5-10ths to 94-100ths of a grain per cent. From these animals blood had been removed by catheterism from the right ventricle just previously during life, and gave only the merest trace of saccharine reaction—no more than was recognised as belonging to the contents of the arterial system. Subsequently, in a quantitative determination of three specimens of blood removed by a catheter from the right heart during life, I obtained respectively 47-1000ths, 58-1000ths, and 73-1000ths of a grain per cent. as an expression of the amount of sugar present.

By expeditiously opening the chest of an animal instantly after death, and collecting the contents of the right ventricle, I obtained the same behaviour as regards sugar as with the blood removed during life; while that which flowed later gave evidence of strong impregnation with sugar.

It thus became evident that it was erroneous to take the saccharine state, in which the blood removed from the right heart in an ordinary way after death is found, as a representation of its natural condition. The blood of the right side of the heart, as far as I can discover, is not appreciably more saccharine, under physiological circumstances, than that of the arterial and general venous systems; and even the blood of the portal vein agrees with it. In experiments on three successive dogs in which I carefully compared right ventricular with portal blood, I could recognise no difference of behaviour with the copper test between the two. In preparing for testing, the specimens had been scrupulously treated precisely alike.

Violent muscular efforts and interference with the breathing determine a considerable increase in the amount of sugar in the circulation, so that to obtain a representation of the natural state, natural circumstances must prevail when the blood is collected. Simply through interfering with the breathing, and thereby producing congestion of the blood-vessels, I have occasioned such an appearance of sugar in the circulation as to render the urine strongly saccharine in the course of an hour.

In order, gentlemen, that you may have an opportunity of actually seeing for yourselves if what I have been telling you with regard to the blood is correct, I will test the liquids before me, which came from an experiment I conducted for

the purpose two days ago. Mr. Salzmann, a pupil amongst you, who has been assiduously assisting me for some time past in my laboratory, was present, and helped me with the experiments, and will be able to check me if I am incorrect in the account I am about to give you of the steps that were adopted.

A good strong dog was taken, and the jugular vein on the right side cut down upon. A ligature being placed upon it, about a couple of ounces of blood were collected from it, and stirred to defibrinate. A suitable shaped catheter was then passed down the jugular and superior cava into the right ventricle of the heart. There was no difficulty in seeing by the movement given to the instrument that it was properly in the ventricle, but to remove any possibility of doubt on this point the catheter was ligatured in the vein after the withdrawal of about two ounces of blood had been effected, and its position was verified by examination after death. The right-ventricular blood was stirred to defibrinate like the other. Next, the life of the animal was destroyed by pithing, and, making an incision through the right side of the abdomen, a ligature was placed around the portal vein. Blood was collected from this vessel below the ligature, and, like the other specimens, stirred to defibrinate. Lastly, blood was collected from the inferior cava above the entrance of the hepatic veins, and likewise defibrinated.

The same quantity of each specimen of blood was now taken and treated with the same amount of crystals of sulphate of soda, and heated and filtered. The sulphate of soda causes the precipitation of all the colouring and albuminous matters of the blood; and, as you observe, we get a liquid as colourless and limpid as water to test.

Let us place equal quantities of these specimens into test-tubes, and treat them with the same amount of our copper liquid respectively. The specimen derived from the inferior cava blood collected after death gives, upon boiling, an orange-red reduction. The quantity of sugar present is so large that the whole of the copper is thrown down in the form of sub-oxide. The other three specimens behave, as you perceive, as near as possible alike. It may appear to those at a distance that there is no reaction at all, but I can see that some amount of reduction has occurred,—that there are particles of sub-oxide suspended through the contents of the test-tube, giving what I describe as a shot-silk appearance. On comparing them together, it is true there is just a shade of difference to be discerned between the behaviour of the specimen derived from the jugular and the other two. The jugular blood shows signs of being in a trifling degree more saccharine than the right ventricular and the portal. This is contrary to what would be looked for; but I consider it to be accounted for by the efforts of resistance that were experienced during the exposure of the jugular vein for the withdrawal of its blood.

After discovering the fallacy of taking the condition of the blood, collected in an ordinary manner, from the right ventricle after death, as a representation of its natural or physiological state, I still regarded the liver in the same light as before. It did not at first occur to me that a similar fallacy might exist here; and I undertook some experiments on injecting blood through the liver at different pressures with the view of finding out why such an escape of sugar took place from the organ after death, and not during life. Failing to meet with anything satisfactory, I began to think that possibly the liver, like the blood flowing from it, might not be in the saccharine state during life as had been inferred from previously-conducted post-mortem examinations. Without the slightest anticipation of finding this to be true, I started out upon experiments directed towards displaying the condition of the liver actually existing during life.

I knew that the liver contained a substance which enjoyed the property of being exceedingly susceptible of undergoing transformation into sugar. This substance was discovered by Bernard, and called by him glycogenic matter on account of its being presumed to form the source of the sugar produced under his glycogenic theory. I shall speak of it to you under the name of amyloid substance—a name which has the advantage of implying nothing as regards its destination. There is this misfortune, however, that amyloid matter is a name also given to a totally different material, a product of disease, which seems to contain nitrogen, and to have no real claim to the title. You must not, therefore, confuse the two together. The amyloid substance of physiology is composed of carbon, hydrogen, and oxygen, united, according to Pelouze, in the proportion of $C_{12}H_{12}O_{12}$. You see it here in the form of an amorphous white powder, and it cannot be obtained in a crystalline form.

Its solution in water is lactescent. With iodine it behaves like dextrine, and produces a deep wine-red coloration. Alcohol throws it down as a dense white precipitate from its aqueous solution, and it is also precipitable by glacial acetic acid. In contact with saliva, pancreatic juice, blood, etc., it undergoes, like starch and dextrine, metamorphosis into sugar. I will treat some of this solution of amyloid substance with saliva and apply gentle warmth; and it is astonishing, as you perceive, the rapidity with which the change is effected; for I can see now, at the end of not very many seconds, from the loss of lactescence, that transformation into sugar has taken place. The amyloid substance gives no reaction with the blue liquid, but with the contents of our test tube we get a copious reduction, showing that sugar in reality has been produced.

I say, I knew that this substance, so susceptible of transformation into sugar in contact with a ferment, existed in the liver, and that a ferment existed there also, for it had been shown that a liver deprived of its sugar by passing a stream of water through its vessels would soon become re-charged with sugar. I, therefore, looked out for an agent that would hold the transformation in check without exerting a destructive influence upon the materials concerned. Seeing that potash answered the purpose, I first tried the effect of injecting the liver from the portal vein instantly after death with a solution of this agent; and, to my astonishment, for I had by no means anticipated anything from the experiment, failed to recognise the ordinary presence of sugar. By afterwards injecting only a portion of a liver, I proved I was dealing with an organ susceptible of becoming saccharine on being left alone; and by injecting a liver that had been allowed to remain for a short time after death, and finding abundance of sugar, I satisfied myself that the result was not attributable to a destruction of sugar having been effected by the potash.

Acids, like alkalies, check the action of ferments upon the amyloid substance; and I afterwards found that the injection of a strong solution of citric acid into the liver produced the same result as the injection of potash.

I discard now the employment of these chemical agents for displaying the condition of the liver actually existing during life. Seeing how processes of the nature of fermentation are influenced by temperature, I looked to the effect of a sudden alteration of the temperature of the liver at the instant of death, and found that it supplied me with the same information as that afforded by injection. By plunging a piece of liver into a freezing mixture at the instant of death post-mortem change is prevented and the condition belonging to life represented.

I do not ask you simply to listen to what I have to say, but shall give you the opportunity of seeing the result and judging for yourselves. Immediately before lecture I experimented upon this rabbit in the manner I will point out to you. By the process of pithing the life of the animal was in an instantaneous manner destroyed, and instantly afterwards the abdomen was laid open and a piece of the liver excised and plunged into a freezing mixture of ice and salt that had previously been got ready. It was necessary that the ice and salt should have been mixed a little time in order that its cooling influence might be at the utmost. In a few seconds, by stirring about, the liver had become frozen quite hard. It was then taken out, cut up into slices, reduced to a pulp in a mortar, and immersed, a small quantity at a time, into about three parts of an ounce of water kept boiling in a porcelain capsule all the while. You must bear in mind that in the frozen liver we have amyloid substance in contact with a ferment, and it is necessary in preparing a liquid for testing that no transformation should be allowed to occur during the process. This is the reason for treating the liver as I did. The ferment must be suddenly coagulated and destroyed. A gradual rise of temperature would give it the opportunity for a time to act, and sugar would be formed. The contents of the capsule were then thrown on to a filter, and this highly-milky liquid has run through. It is the presence of amyloid substance which constitutes the cause of the milkiness we here observe. The liver allowed to remain behind in the animal was next removed, and a portion of it pounded in a mortar and treated with water and boiled. The filtered liquid is likewise milky from the presence of amyloid substance, though not quite to the same extent as the other.

We have, then, before us two decoctions of the same rabbit's liver. The one has been derived from the specimen placed in a condition to prevent any post-mortem change taking place; the other, from a specimen with which no such precaution

was observed. You know as much about the actual condition of these liquids as I do myself; for I have not as yet tested either of them for sugar. I do not hesitate thus boldly to proceed; and I should not shrink—I have not shrunk at any time, or before any number of persons—from performing the whole of the experiment from beginning to end. It is only with the view of economising our time that I had these decoctions prepared before lecture. Let us place equal portions of the decoctions into test-tubes, and treat them respectively with an equal amount of our copper liquid. On boiling that derived from the liver taken in an ordinary manner after death, we instantly get a copious orange-yellow reduction. This is what was formerly supposed to represent the natural or physiological state of the organ. On boiling the other, however, you do not notice that any change is observable. We continue boiling, and still the contents of the test-tube retain their blue colour. I expect after a time that a trace of reaction will be apparent, but at present this is certainly not the case; and with some specimens of liver that I have thus tested there has been such an almost absolute freedom from sugar that at the end of half an hour's repose of the test-tube the amount of deposit of red oxide accumulated has only been just perceptible to the eye. Speaking of what ordinarily occurs, on looking at the first behaviour of the test, you would say there is no sugar; but giving it a prolonged attention, a traceable indication is to be discovered. Seeing what susceptibility the amyloid substance possesses of transformation into sugar, it is fairly presumable that even this traceable indication may be due to post-mortem metamorphosis. A few moments must elapse before the centre of the piece of liver is reached by the influence of the freezing mixture; and in making the decoction, the destruction of the ferment, although nearly, is not absolutely instantaneous.

I did not resort to it in this case; but plunging a piece of liver instantly after death into a quantity of boiling water has the same effect as submitting it to the influence of cold.

I think that what I have shown you is sufficiently convincing that the liver is not in the saccharine condition during life, like it used to be supposed before my experiments were instituted. I will now take into consideration and criticise the objections that have been raised to my experiments and conclusions.

(To be continued.)

ORIGINAL COMMUNICATIONS.

SIX CASES OF OVARIOTOMY IN PRIVATE PRACTICE.

By T. SPENCER WELLS, F.R.C.S.,
Surgeon to Her Majesty's Household and to the Samaritan Hospital.

(Continued from page 304.)

Case 4.—On January 24, 1865, an unmarried German lady, 19 years of age, came to me with an introduction from Professor Crédé, of Leipsic. She gave me the following history:—She was born at Roslau, on the Elbe. Her parents and all her blood relations were healthy. She had lived most of her life at Zerbat, in Anhalt Dessau, and had always enjoyed very good health up to the preceding May. She had first menstruated when 16, and was always rather irregular, there being often a somewhat profuse discharge of blood recurring at fourteen days' interval. In May, 1864, pain was felt all along the inside of the thigh, running down from the hip to the knee-joint. At first it was confined to the left thigh, but afterwards both sides were affected. Pain soon began to be felt on the left side of the abdomen very low down; the patient became alarmed, and consulted Hofrath Hemming, who in August, 1864, discovered a tumour as large as an infant's head in the right hypogastrium, and diagnosed encysted dropsy. The tumour rapidly increased in size, but the symptoms, instead of becoming aggravated, rather diminished in severity. The patient went to Leipsic to consult the well-known Professor Crédé, who confirmed Dr. Hemming's diagnosis, and on October 1, 1864, tapped, drawing off about eight pints of dark yellow thick fluid. The tumour soon regained its former size, and on January 13, 1865, Dr. Crédé tapped again. He made on this occasion two punctures, as by the first only a few drops of blood were to be obtained. By the second he evacuated about nine pounds of thin watery fluid. The patient on arrival in England was much emaciated, and very anæmic looking, her pale cheeks having almost a greenish hue. There was no œdema of the extremities. The digestive organs were in good order. There was a slight cough, and inconsiderable yellow expectoration. The base of the right lung was evidently compressed; but, with that exception, the respiratory organs seemed healthy. The patient slept best on the right side. Her pulse was 88, very feeble; the sounds of the heart were normal, but there was a distinct anæmic murmur over the vessels on each side of the neck. The girth at the umbilical level was $33\frac{1}{2}$ inches, the distance from the umbilicus to the ensiform cartilage 7 inches, to the symphisis pubis 9 inches, and to either ilium $8\frac{1}{2}$ inches. The abdomen was occupied by a partially fluctuating tumour, about the size of the gravid uterus at the eighth month; it extended rather higher on the left than on the right side. Its consistence was unequal; in some parts it evidently had fluid contents, while below and to the left of the umbilicus there was a hard, resisting lump, about the size of a cricket-ball. The abdominal parietes were normal; there was no tenderness, nor were there any dilated veins. The vagina was in every respect virginal; the uterus was central and small; the os uteri was normal and virginal. In front of the uterus the tumour was to be felt, but it appeared to be moveable. My diagnosis was, "multilocular ovarian cyst, adhering anteriorly; no important pelvic attachments." As there was a clear week before the approaching catamenial period, and the patient, in the prospect of marriage, was very desirous to avoid unnecessary delay, I performed ovariotomy on January 27, with the assistance of Dr. Dehn, of Hamburg, Dr. Bowen, Dr. Ritchie, and Dr. Wright. Dr. Parson gave chloroform. The incision was six inches long. There were extensive parietal adhesions anteriorly; they were somewhat vascular and firm, though they yielded readily to the hand. One large cyst was tapped and emptied. The tumour, including another large cyst, was then drawn through the wound, and a long strip of omentum was separated from the cyst. The pedicle was as thick as two fingers, was from three to four inches long, and sprang from the left side of the uterus. It was secured in the smallest size of clamp, and kept outside without producing any traction. There was no serious hæmorrhage. The right ovary appeared healthy. The wound was closed by five deep and two superficial sutures above the clamp and one superficial suture below it. The patient rallied very well. For the first few hours there was pain, which was relieved by opium. On the first day cramp in the right thigh and a tickling cough were rather troublesome. There was a good deal of sthenic reaction, and for the first four days little was given except cold water. On the third day I removed all the stitches except the one below the clamp. On the fifth day there was a strong animal smell in the urine, similar to that occasionally perceived in the axillæ of young women when they perspire freely. On the sixth day I removed the last stitch. After that time recovery was uninterrupted. On the thirteenth day the clamp came away. The patient gradually gained strength. She called on me on February 18, three weeks after operation; went out daily afterwards; left for Germany, *viâ* Antwerp, on February 23, twenty-four days after operation; and I have heard that she bore the journey perfectly well, and joined her family in excellent health. The cyst removed was a fat cyst, containing true skin, bone, hair, and other structures. I gave it to Dr. Ritchie, who has not yet finished its careful examination.

Case 5.—On January 21, 1865, a married lady, 54 years of age, called upon me with a letter from Dr. Evans, of Hertford. She had had seven children, the youngest of whom was 11 years old, and she had miscarried several times, the last abortion having been in 1856. She was rather pale; her appetite was good; she slept well; and her chest was healthy. The urine was free from albumen, but occasionally deposited lithates. There was some difficulty in passing water, and a frequent desire to pass it. The girth at the umbilical level was $48\frac{1}{2}$ inches; the distance from the umbilicus to the ensiform cartilage, $15\frac{1}{2}$ inches; to the pubic symphisis, 12 inches; to the right ilium, 14 inches; and to the left, 16 inches. The entire abdomen was filled by a tumour which rose as high as the sternum, and passed under the ribs on each side, although to a greater extent on the left than on the right. Fluctuation was very perceptible above the umbilical level; not so beneath it. The tumour swayed freely from side to side. The abdominal parietes were thick and œdematous. There were numerous lineæ albicantes. There was no crepitus nor tenderness. Since her last miscarriage the patient had never menstruated regularly. In the spring of 1863 a bloody discharge from the vagina was the sequence of a fall. It continued for

several weeks. It then ceased, but in August, 1863, reappeared, and had never afterwards completely ceased. The uterus was central, normal, and pretty freely moveable. The os was soft and the cervicle mucous membrane velvety. The vagina was normal, and the tumour could not be felt through it. The patient's family history was excellent. In 1849 a severe blow on the left groin during pregnancy was followed by adherent placenta. Ever since the year 1848 she had been becoming gradually fatter; but she had observed no disproportionate size of abdomen till the spring of 1863. After this, and simultaneously with the re-appearance of the uterine discharge, there was an increase in the size of the abdomen, although a bandage was constantly worn. In the spring of 1863 something hard was to be felt on the left side of the abdomen lower down. Dr. Evans saw her in August, 1863. In September, 1863, Dr. Farre thought that the enlargement was general only, and that there was a congested condition of the womb. He confirmed this in October, and again in November, 1863. In November, 1863, the patient began to suffer from nausea and dyspepsia, and her size lessened. There was no increase until September, 1864; from that time her girth increased steadily. On December 3, 1864, eleven quarts of a fluid having all the appearance of linseed tea were drawn off. Dr. Gream was present at the tapping and said that the womb was healthy. The vaginal discharge ceased immediately after the tapping, and did not reappear till December 18. Since that time the girth had steadily increased, and the discharge had been continuous. My diagnosis was:—"Multilocular cyst of left ovary; no adhesions, abdominal or pelvic, to make ovariotomy unusually hazardous." I performed ovariotomy at the patient's home, in Hertfordshire, on January 28, 1865, with the assistance of Dr. Evans, Dr. Drage (of Hatfield), and Mr. Webb (of Welwyn). Dr. Parson gave chloroform. The incision was begun one inch below the umbilicus, and extended downwards seven inches, through a very thick œdematous abdominal wall; but before I made it I emptied one large cyst by puncture two inches above the umbilicus with an ordinary trocar. At the first incision I opened the adherent cyst. I sponged it out, and, having with some difficulty found its edge, I separated its firm parietal adhesions, and detached it from a piece of omentum which adhered to it. One small patch of cyst-wall remained adherent near the umbilicus, and was carefully separated after the rest of the cyst had been cut away. The pedicle was of the thickness of two fingers, and from three to four inches from the left side of the uterus. It was compressed in a medium sized clamp, and was fixed outside without any traction. During the operation a good deal of bloody serum oozed from the parietes of the abdomen, but there was no hæmorrhage of consequence. The right ovary was healthy or atrophied. The wound was closed with six deep and two superficial sutures above the clamp, and one superficial suture below it. The peculiarities of the operation were—(1) the preliminary tapping, (2) the closeness of the parietal adhesions, (3) the œdema of the abdominal wall. The quantity of fluid removed at the operation was thirty-nine and a-half pints; the cyst-walls and cysts removed entire weighed seven pounds. There was so little pain after this operation that no opium was given. The pulse being rather low, a teaspoonful of brandy was given every hour. The uterine discharge continued till night, and then ceased. I left early on the day after operation, and I am indebted to Dr. Evans, to whose care the patient was left, for the notes of the after treatment and progress. During the first few days there was a good deal of flatulence, but from that the patient had been a sufferer for some years. Dr. Evans removed the stitches on the fifth day. On the eighth day the bowels were moved; there was a good deal of prostration afterwards, and a profuse discharge from the wound. The clamp came off in the evening. On the tenth day the bowels were again freely moved several times. There was a very free discharge from the wound, and stimulants were plentifully supplied. The discharge gradually ceased, and the patient recovered her strength; and I have received an excellent report of her recently.

Case 6.—On January 10, 1865, I met Mr. Wright, of Nottingham, in consultation on the case of a single lady, 27 years of age, the subject of ovarian disease. She came of a consumptive family, but she herself had, till lately, enjoyed good health. She began to menstruate at the age of 15, and the periods had habitually returned at the end of three weeks, and had lasted five days. Lately, the catamenia had appeared every fortnight. In the autumn of 1863 the patient had begun to lose flesh, and she noticed that her body was increasing in size. The earliest symptoms were indigestion and headache. In the spring of 1864, Mr. Wright found a tumour in the left iliac and right hypochondriac regions. This tumour had gradually got larger, the increase latterly having been very rapid. On January 6, 1865, Mr. Wright, having diagnosed ovarian dropsy, tapped, and drew off twenty pints of thick viscid fluid, like linseed tea. I found the patient (who was of a cheerful disposition) with a bronzed look, which seemed to depend upon the ovarian mischief, as no other disease could be detected. The tumour, which was evidently ovarian, reached several inches above the umbilicus. My diagnosis was, "Multilocular ovarian cyst, probably rather closely connected with the uterus." If she were left alone, I thought that the patient could not live two years, and Mr. Wright and I agreed that she should come up to town and have ovariotomy performed before another tapping became necessary. On January 29 Mr. Wright wrote:—"The cyst is filling rather rapidly. She has just got over her menstrual period. She has had sympathetic pains in the right foot, right shoulder, and right scapula. Two or three days in bed, with a dose of physic, have quite relieved her." The patient came to town on February 4. She was in excellent spirits, and it was resolved to operate on the 7th. Just before the operation the girth at the umbilical level was forty-four inches, the distance from the umbilicus to the ensiform cartilage thirteen inches, and to the pubie symphisis ten inches. The tumour filled the whole of the abdomen, reaching into the epigastrium and both hypochondria. Fluctuation was very distinct in it. Just above the pubes a pyriform nodosity could be felt, and was supposed to be the uterus. The abdominal parietes appeared rather thick. Neither lineæ albicantes nor dilated veins were seen. There were no crepitus nor tenderness to touch. The uterus was pushed a little forward, but was tolerably moveable; the tumour could be reached just in front of the cervix. At the operation I was assisted by the Messrs. Wright, senior and junior, of Nottingham, by Dr. Ritchie, and Dr. Wright. Dr. Parson gave chloroform. The incision was commenced an inch below the umbilicus, and continued downwards seven inches. Adhesions were very intimate all over the front and sides of the abdominal wall; there were no adhesions behind, nor to the omentum. I broke them down readily with my hand, tapped first a large cyst, and then a smaller one, and then having largely opened the chief cyst inserted my hand and broke down a number of smaller ones, and then withdrew the whole mass, including some semi-solid matter. The pedicle was very broad and short, its shortness depending not so much on the Fallopian tube as on the fold of broad ligament running to the left side of the brim of the pelvis. The pedicle was secured in a medium sized clamp. It was kept outside with considerable traction, depressing the flaccid abdominal wall almost to the sacrum, and keeping the left side of the uterus within an inch of the abdominal wall. There was no hæmorrhage of any consequence, but a little oozing from the torn adhesions led to the necessity of sponging out the pelvis. The right ovary was healthy. The wound was closed with one deep and one superficial silk suture below, and five deep and one superficial above the clamp. The patient rallied well. About an hour after operation one-fifth of a grain of morphia was injected under the skin. Within the next three hours there was a good deal of pain and of cramp, which was relieved by forty drops of laudanum; twenty being given by the mouth and twenty shortly afterwards by the rectum. At nine o'clock the patient was very well. A quart of clear urine had been drawn off. She was perspiring; her pulse was 104. There was but little pain and no vomiting. The patient passed a good night, had no opium and scarcely any pain; in the morning the pulse was 112. At half-past two on the first day she was equally well, perspiring freely. The urine was abundant, but pain began to be complained of when the catheter was passed. A little uterine epistaxis was noticed. Thirty-six hours after the operation the patient was allowed to pass water naturally. On the second day water was passed frequently; it was somewhat ammoniacal; otherwise everything was going on well. On the third morning there was a little bloody discharge from the pedicle, evidently catamenial. In the afternoon I found the clamp loose, and removed it, tying a small piece of slough. I also removed the stitches, and as I found a pint of ammoniacal urine in the bladder, I directed the catheter to be used regularly. On the fourth day the pulse and appetite were good; there was considerable vesical tenesmus. On the fifth day, the urine being still ammoniacal, the bladder was ordered to be washed out twice daily with tepid

water. Uterine epistaxis still continued. There was a free fœtid discharge from the wound, and, to avoid as far as possible the chance of its absorption, strips of blotting-paper were arranged all round the stump. Some flatulent pain was relieved by cajuput oil. On the tenth day the urine was no longer ammoniacal; there was still a good deal of fœtid discharge from the wound. The stump had sunk slightly on the left side, but still adhered to the right lip of the wound. The general state was very satisfactory. On the eleventh day the bowels acted after the use of an enema, which was given on account of a feeling of discomfort about the rectum. In the afternoon the patient had a dark, jaundiced look, but was otherwise well. On the morning of the twelfth day a second enema was given and acted well, bringing away a large quantity of fæces. The pulse was 90; the urine quite clear; the nurse observed a fœtid discharge from the vagina. During the day the patient felt hot, feverish, and faint, requiring a great deal of wine. At night her pulse was 130, and her skin suffused with perspiration. During the night the bowels acted spontaneously. Next morning we had the patient moved into another room. She complained of no pain; her pulse was 132; her skin dry and hot; her tongue loaded; there was still some fœtid vaginal discharge. The vagina was hot; the os uteri somewhat open; there was no fluid in Douglas' space, but the rectum was felt to contain fluid fæces. During the day the patient could eat nothing, but dosed continually, although she had no opium. At 10 p.m. the pulse was 120; there was free perspiration; urine was plentiful and clear. There were now two distinct varieties of discharge from the wound. First, a superficial layer of pus coating the granulations; and second, a fœtid, clear, bloody serum, which welled up from the bottom of the cavity, where the pedicle was, and where the right lip of the wound was still deeply retracted. On the fourteenth day there was no great change; the pulse was 120, the patient felt well, but towards night became sick without actually vomiting. On the fifteenth day I pushed some small pieces of drainage tube down to the bottom of the wound. They sank deeply, but no discharge followed. On the sixteenth morning the patient had a rigor, which lasted ten minutes, and was followed by profuse sweating. In the afternoon she was pretty well, with a pulse of 120. Another rigor came on in the evening. During the day three fluid motions were passed. On the seventeenth day she was better; the pulse 116; there was a slight fœtid discharge coming away by the drainage tube. I again examined the pelvis carefully. The uterus felt too far back, but no fluid collection was to be discovered. A grain of quinine was ordered to be taken thrice daily. Next day there was another rigor; the pulse was 120. The quinine was increased until she took two grains every three hours. I again changed the patient's room, and as her nurse was fatigued we got a fresh one. On the nineteenth day I removed a small piece of black slough from the bottom of the wound. The discharge was rather free. Two grains of quinine were ordered to be taken every four hours. From this to the twenty-fourth day there was gradual and steady improvement. The pulse sank to 104 (at the rate of four beats per diem), the urine became more copious, the perspiration less, the quinine was steadily continued, and the drainage still kept up. On the twenty-fifth day the catamenia came on; it was the proper period. Some menstrual discharge made its way through the wound. Next day the catamenia ceased; there was still a little fœtid discharge at the bottom of the pedicle opening. The general condition of the patient was now tolerably satisfactory. Her appetite was very good, and she felt well. She still required a large quantity of stimulant, but her strength was gradually returning. She was able to sit up by the fire in an arm chair, and as I thought that the country air might benefit her, she started for Nottingham on the thirtieth day after the operation. She arrived safely at home, and I have since heard from Mr. Wright that she is very well and rapidly gaining strength. This was clearly a case in which absorption of some of the fœtid fluid about the pedicle produced septicæmia, and in which quinine given in two-grain doses every three hours appeared to be of great use. The patient quite craved for it. She also took wine very freely, and without the slightest intoxicating effect.

M. Broca.—The numerous scientific friends of M. Broca in this country will hear with regret that his health has become seriously affected by overwork, and that he has been obliged to leave Paris for the south of France, with a view to its restoration.

ANEURISM OF ANTERIOR COMMUNICATING OF CIRCLE OF WILLIS.

By T. W. W. WATSON.

Susan S., aged 49 years, died very suddenly on the night of March 5, 1865, had been a healthy woman all her life, but had varicose veins in both legs, and for the last three months suffered from a varicose ulcer about an inch above the outer malleolus on right side; had complained frequently of headache, and occasionally of an acute pain in her head; was in her usual health on retiring to rest on the night mentioned; but about 2 a.m. awoke her daughter, and asked for a shawl, as she felt such a "dreadful shivering;" but before the girl could procure it the mother appeared to "faint," and upon my arrival at 2·15 I found her quite dead.

Autopsy, made by Order of the Coroner about Forty-nine Hours after Death.—Externally the body was well developed, with no mark of violence upon it; varicose ulcer on right leg; rigor mortis slight; thorax, heart healthy; old adhesions at apices of both lungs; tubercles in both, more especially in right; abdomen, stomach, and intestines loaded with adipose tissue; the stomach contained about two ounces of digested food; intestines, spleen, kidneys, and other viscera normal. Head: On removing the calvarium, I at once diagnosed the cause of death from the immense quantity of blood effused beneath the dura mater; but on dissecting out the brain I found an aneurism of the anterior communicating artery of the circle of Willis, about the size of annexed sketch, the dark line in the centre denoting the site of the rupture of the sac from which the effused blood had escaped; other arteries healthy; the small ends of the one mentioned (the aneurism intervening) were much enlarged.

28a, Howland-street, Fitzroy-square.

PAPERS ON

THE THERAPEUTIC AND PHYSIOLOGICAL ACTION OF REMEDIES.

By WM. MURRAY, M.D., M.R.C.P. Lond.

Physician to the Dispensary, and Lecturer on Physiology in the College of Medicine, Newcastle-on-Tyne.

No. 2.—On Chloroform in Epilepsy.

Dr. Russell Reynolds has detailed in his classical work on epilepsy the effects produced on that disease by the inhalation of chloroform till the patient is fully under its influence. He uses the chloroform thus when an attack is threatening, and at certain intervals afterwards, and concludes that when administered in this way "it may delay the attacks for a time, but it exerts no permanently good influence." The plan of treatment I have adopted (the results of which are about to be detailed) differs from the above in some important particulars, although the principle on which it is administered seems to be the same.

1st. The chloroform is inhaled in quantities so small as to stop short of inducing unconsciousness, except of the most trifling nature.

2nd. It is administered two or three times daily for a period of two or three months at least.

3rd. It is given regardless of the fits, never being given to ward them off, and never omitted because of their occurrence.

The principle on which it is administered is that of paralysing the upper ganglia of the sympathetic, to induce conditions (hyperæmia) tending to unconsciousness, the very opposite of those which occur at the onset of an epileptic attack. Thus the primary influence of the drug as a stimulant to the brain, by inducing hyperæmia thereof, is brought to bear upon that organ thrice daily for a long period of time, and it is believed that there are cases of epilepsy in which this treatment must and does prove beneficial.

I should have used the nitrite of amyle instead of chloroform in some of these cases had the agent been less dangerous; for it seems to be the most powerful means we possess of exciting the heart's action and producing results similar to those which follow paralysis of the sympathetic in the neck. When a few drops of the nitrite of amyle are inhaled, the heart's action increases by forty beats per minute, and the

head, face, and neck become suffused by an intense hyperæmia; at the same time cerebral symptoms, such as throbbing and a sense of fulness of the head, indicate corresponding hyperæmia in the cranial cavity and its contents.

The following is a continued report of the patient Bryce, whose case was given in full in the *Medical Times and Gazette*, June 4, 1864. The attacks up to that date had been postponed in a very striking manner. The disease had lasted thirty years. During the last four years the attacks had occurred twice a week, and in the intervals he was almost helpless from losses of consciousness, vertigo, failure of memory, apathy, etc. By the use of chloroform the attacks at once became postponed for one month; the next interval was of nearly five weeks duration; the next seven weeks. He then left off the chloroform, and an interval of eleven weeks was followed by several severe attacks, upon which he recommenced the chloroform for about five weeks. The interval now reached three months, when a severe fit occurred during exhaustion from great bodily exertion. Since that attack, which occurred in September last, he has had no grave fit and only two slight ones, which occurred last week, so that the interval has now reached five months. The attacks have become forty times less frequent, and much less severe.

Case 2.—A young woman, who had an attack of fever four years ago, has since suffered from epileptic seizures. At the time when I first saw her she was seized daily. The fits were very severe. Her memory and other mental faculties were fast failing, and her physique was very feeble. Other treatment having failed to relieve, I advised the use of chloroform, of which she was very susceptible, and for seventeen days no fit occurred. After the attack which then occurred she again resumed the chloroform, and was without a fit for eighteen days. After reaching this interval, as several severe fits occurred, the chloroform was omitted, and the disease became worse. She has again commenced the chloroform, and sixteen days have now elapsed since an attack. In this case decided, but so far only temporary, benefit has been derived.

Case 3.—A young lady has had fits for three or four years. In October, when first I saw her, she was having them twice a week. They were unusually severe at the time of the monthly period, nevertheless all treatment directed to that source failed. The mental faculties were becoming obtuse and the memory was failing. In this case the chloroform was tried for three months, and in some respects good was done. The fits were at one period of the treatment postponed for two weeks and once for a month, but they occur with as much severity as before, and the mental faculties are still impaired.

Case 4.—This was an imbecile girl of 15 years, a congenital idiot, who suffered severely from the disease. In her case the fits became reduced to one-fourth their usual number, and the removal of the treatment was followed by a recurrence of these fits in their usual frequency. No permanent good was effected in this case; but very decided temporary relief was afforded.

In each of these cases it will be observed there was loss of mental activity and force. I shall now quote a case where the disease was accompanied by marvellous activity of the mental faculties and great excitability of temperament.

L. H. has had fits for about fifteen years, and they have increased in frequency during the last two years. At present they occur once a month. He is of a very active turn of mind, and he has great mental powers, which have been in no way impaired. The chloroform was tried on him for one week, and in a few days his symptoms became worse, he talked violently in his sleep, never slept without dreaming, great excitement prevailed, and some very severe attacks followed.

The remedy has also been tried in the following cases *without any apparent effect*:—

In a young Surgeon, for about three months, who has suffered long and severely, but has no prominent mental characteristics or bodily peculiarity.

Also a young lady, who is of an even, cheerful habit of mind, and moderately intelligent, whose fits have slowly increased in number during the last two years.

From all this it appears that in accordance with the view taken of the physiological action of chloroform administered in this way, its therapeutic properties are to be relied on in cases of epilepsy where there is manifest loss of brain power. In such cases it seems to lead to increased vascularity of the head and consequent stimulation of the brain, accompanied by that excitement of the system which occurs in the very first stage of chloroformosis. It seems to do positive harm in cases where the brain is active and excitable, and in cases where the mental faculties are of average power and unimpaired no appreciable effect is produced on the disease.

In none of the cases in which the remedy was tried for a lengthened period has its use been followed by injury to the mental faculties.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

LIGATURE OF THE RIGHT COMMON CAROTID ARTERY FOR HÆMORRHAGE FROM THE RIGHT INTERNAL CAROTID — DEATH — AUTOPSY — ATHEROMATOUS DEPOSIT ON SURFACE OF INNER COAT OF THE ARTERY AND ULCERATION OF PHARYNX IN THE REGION OF THE TONSIL.

(Under the care of Mr. DE MORGAN.)

For the notes of this case we are indebted to Mr. J. Ablewhite Smith, the House-Surgeon. We have lately given several cases of ligature of the common carotid artery for hæmorrhage from malignant tumours which this artery or its branches has supplied. The following case is interesting as illustrating the spontaneous giving way of the coats of an artery at the site of some atheromatous deposit, and apparently also from external ulceration commencing in the pharynx. This case also illustrates well the difficulty often met with in determining the exact source of hæmorrhage when it occurs in affections of the throat. It was evident that a large artery had been opened, and the result of pressure on the carotids and complete cessation of the hæmorrhage after ligature of the right artery led to the inference that the lesion had taken place in one of the main branches of that vessel, yet after death a large opening was found in the internal carotid of the left side. The only way in which the right artery could share in supplying the blood which escaped was by means of the free communication which exists between the arteries of the two sides at the base of the brain. Had the patient lived long enough for the full restoration of strong circulation the hæmorrhage would have returned, and it would have been necessary to tie the remaining carotid artery.

H. D., a strumous-looking boy, aged 18, was admitted into the Hospital December 27 last with enlargement and open suppuration of glands beneath the right angle of the lower jaw. The disease had existed five months. The patient had always been delicate, but there was no history of phthisis or struma in his family. Under a course of tonic remedies his health improved a little, and the enlargement of the glands began to subside. On February 1 he complained of soreness of the throat, and the right tonsil was found to be enlarged. On the 3rd the left tonsil also became enlarged, and the surface of both tonsils was dotted with yellowish spots. There was swelling under the lower jaw on both sides and great difficulty in swallowing. The patient complained also of intense frontal headache. The enlargement of the glands beneath the jaw increased, and on the 4th a small patch of ulceration was seen on the back of the pharynx. On the 6th the patient seemed better; he swallowed with less difficulty, and there was a diminution of the swelling beneath the jaw. On the 9th the ulceration of the pharynx seemed to be extending towards the left side. On the 10th patient felt and appeared better, but about midnight, while coughing, he was suddenly seized with profuse hæmorrhage from the throat. The House-Surgeon (Mr. Smith) was immediately called, and found the patient kneeling in the bed with blood flowing in large gushes from his mouth. Compression was at once made over the carotids. Pressure on the left artery did not check the bleeding, but when the right was compressed and the left released the bleeding soon ceased. The patient was very faint, his extremities were cold, and his pulse very feeble. He had lost about three pints of blood.

February 11, 12.15 a.m.—Mr. Smith tied the right common carotid immediately above the omo hyoid muscle. After the operation the colour began to return to his lips. The pulse was very feeble and rapid—160. He muttered frequently to himself and seemed restless. Pulsation of the left temporal

artery distinct. 1.15 a.m.—Surface warmer; right pulse fuller, left still small and feeble; breathing calm; restlessness continued. Subcutaneous injection of $\frac{1}{6}$ grain of morphia. A little brandy was given, but it brought on coughing, and patient spat a few drachms of dark blood, apparently not recent. 1.40 a.m.—Sleeping calmly; pulse 122, fuller; occasional twitching of the facial muscles of the left side. Vomited a quantity of dark blood. No return of hæmorrhage. Enema of an ounce of brandy administered. 2 a.m.—Breathing rather laboured; pulse weaker; surface warm. Sponge was pressed down to fauces, and some thick mucus removed. This was repeated at times, and relieved the difficulty in breathing. 3 a.m.—Breathing more laboured, as from an accumulation in the trachea; pulse weaker; no fresh bleeding. An enema of 1 oz. of turpentine was given, and hot flannels sprinkled with turpentine were held under patient's nose. Gradually the breathing became more embarrassed, and the patient died at 5.15 a.m.

Post-mortem examination, made by Dr. Cayley.—Body well nourished; rigor mortis well marked; surface extremely pallid. There were some very large glands at the angle of the jaw on the right side, which extended down the side of the neck; the glands on the left side of the neck were also enlarged, but to a less extent. There was a recent incision, exposing the right common carotid artery; and this vessel was ligatured immediately above the omo-hyoid muscle. The fauces contained a quantity of coagulated blood. The right tonsil was much enlarged, and its follicles much dilated; the left tonsil was also considerably enlarged; there was no ulceration of either. In the posterior wall of the pharynx in the middle line, above the level of the soft palate, was a small ragged opening, leading into an irregular cavity situated behind and rather to the left of the pharynx. This was two or three inches in diameter, and contained a very little loose black clot. There was no distinct lining membrane to this cavity, which was bounded by the surrounding muscles and cellular tissue, and there was no pus either in it or near it. When water was injected into the *left* internal carotid it escaped in a full stream through the opening leading into the pharynx. In the left internal carotid, less than half an inch from its entrance into the carotid canal in the temporal bone, was a perforation forming an oval opening, the long diameter of which was about three lines; its edges were somewhat thickened and everted, and were smoothly rounded off. In the artery below this, and also in the common carotid, were a few small yellowish atheromatous deposits beneath the lining membrane. There were two or three similar deposits in the right carotid, which, with its main branches, was otherwise normal; the inner coat was cleanly divided by the ligature. In the arch of the aorta were several small atheromatous deposits. All the cavities of the heart contained some fibrinous clots; the right cavities contained also dark fluid blood. The heart itself was normal. The bronchial tubes contained throughout small quantities of loose black clots, and some frothy blood. In both lungs, principally towards the posterior parts, were scattered numerous small patches of pulmonary apoplexy. In other respects the lungs were normal. The abdominal organs were normal, and not particularly anæmic. The stomach and upper part of the small intestines contained some blackened and altered blood. The abdominal, aortic, and iliac arteries were normal. The brain was normal, but anæmic; the arteries in its base were normal.

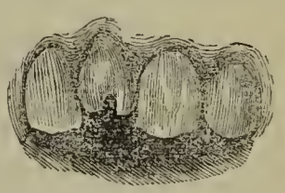
THE METROPOLITAN FREE HOSPITAL.

DISEASE OF THE LIVER AND ASCITES IN CONNEXION WITH INHERITED SYPHILIS.

(Under the care of Mr. HUTCHINSON.)

The following case is one of especial interest as regards the visceral lesions which are now well known to be not infrequent in the later stages of constitutional syphilis. The case also shows in a remarkable manner the value of the malformations of the teeth as a sign of inherited taint. The malformation differed from what is usual in that it was not symmetrical. Only one tooth was affected; but it fortunately was quite typical. The condition of this tooth was the single symptom which led to a correct conjecture as to the nature of the disease. Mr. Hutchinson stated that to any one inclined to be incredulous as to the correctness of the diagnosis, he should cite four mutually corroborative facts—first, the very peculiar tooth; second, the history of keratitis in childhood; third, the existence of liver disease (both keratitis and liver disease being well known to be often syphilitic); and fourth, the beneficial effects of specific treatment. To these might be added the pale, earthy complexion of the patient. The following are the notes of the case. We may add that the patient herself was brought before a meeting of the Hunterian Society, on which occasion Mr. Hutchinson mentioned two other cases which had come under his notice in which hepatic disease and ascites occurred in connexion with inherited syphilis:—

Mrs. H., aged 34, was admitted about three months ago, and is still in the Hospital. She is the oldest born of her family, has two sisters and four brothers living. The next to her is four years younger. Mrs. H. was sent up from Sheerness by Mr. E. Swales on account of ascites, which had lasted for three years. Paracentesis had been performed thirteen times. At one time she suffered much from œdema of her legs—so much so that punctures were made in them. This was in June, 1863. During the last twelve months she has been tapped eight times. When first the dropsical symptoms commenced she was very ill, and was for some time confined to bed. The ascites commenced three months before the legs began to swell. During the last three months she had required paracentesis with increasing frequency, and her general health had much failed. Her aspect on admission was pale and sallow, but not jaundiced. Her physiognomy was not peculiar, if we except a somewhat earthy pallor of face. Her left upper central incisor displayed, however, the most characteristic notch. Her other teeth were normal in shape. The abdomen was distended to an extreme degree, and both legs were somewhat œdematous.



After she had been in the Hospital about three weeks, Mr. Hutchinson performed paracentesis, and drew off two pails full of yellow fluid. When the abdomen was emptied, the edge of the liver could be easily felt. It was rounded, very firm, and presenting large nodular irregularities. The whole organ was evidently much contracted. She recovered well after the paracentesis, and she afterwards continued the steady administration of the iodide of potassium. Under this she has greatly improved in health, and no further operation has been needed. Mrs. H. states that she has always had delicate health, and that in childhood she was considered to suffer from her liver. Eight years ago she had an attack of jaundice, and was for a time very ill. She had a second slight attack of jaundice after the second tapping. She recollects that at the age of 9 or 10 she had inflammation of both eyes, which lasted for some months, and was so severe that for a few weeks she was quite blind. The cornea do not now show any superficial scars; but there is a very slight degree of haze as if from interstitial keratitis. Her urine is not albuminous, and there is no evidence of cardiac mischief. She does not appear to have ever suffered from periostitis nor from any form of skin disease.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

REPORTS FROM CASES OF CATARACT.—CLINICAL REMARKS.

(Under the care of Mr. HAYNES WALTON.)

In the course of remarks on several patients with cataract who were in attendance, Mr. Walton drew attention to the formation of cataract, the mode of its progression, and the proper period for an operation. He rebutted the idea that the first symptom of cataract, that by which the disease could be first recognised, was to be detected by impaired vision, and showed that, although to the person afflicted this subjective evidence must be the first, the loss of the transparency of the lens whenever it occurred in striæ, or dots or patches of any kind, might be seen with the ophthalmoscope before there were any appreciable deterioration of sight. He had proved this many times. The power of such recognition cleared away much of the difficulty of distinguishing between the causes of the commencement of impaired vision, which was so very perplexing up to a recent period, and enabled us to say whether the visual disturbance was or was not due to cataract.

The rate of the progress of cataract was commented on, and the advantage of prognosis, if it could be made out, especially

to the patient, as it usually involved one of the very anxious subjects surrounding him, and the Surgeon seldom escaped the question, "How long will it be before I am blind?"

He had for many years watched cases with the view of solving the question, and these were his conclusions. There were no marks or signs by which it could be told in any individual case what would be the ratio of increase, and, therefore, when vision would be lost; and this would be more difficult in proportion as the attack was more recent. The reason of this is simply because there is not only no uniform rate of progress, but because exceptionally there may actually be an arrest of increase for months or years. All he could say was only in the way of generalisation and to the effect that cataract progresses much more quickly in early life than in old age, and that at all periods of life it is more quickly developed when the lens has been uniformly pervaded by haze or opacity than when striæ or spots appear. Illustrations were mentioned to confirm these statements. In some, after the lapse of from ten to fifteen years, the cataract had not sensibly increased, or but just perceptibly augmented. As still more sure evidence of the fact that cataract may go to a certain limit and not increase, was adduced the partial implication of the lens in some of the forms of congenital cataract, and the persistency of this state during a long life.

The state of vision, according to the degree of cataract present, was next examined, some curious results mentioned, and some circumstances difficult to be explained were adduced. It would seem from what we could gather that it would be impossible to tell from a mere inspection of a cataractous eye, supposing always the rest of the eye to be sound, what is the degree and quality of the sight. In almost every case, with even very partial opacity, the distant vision is impaired, but not necessarily the near sight; and in many old and elderly people the near vision is very much improved, and short-sightedness is supposed to have come on. Those who have worn spectacles for years are now able to read the smallest print without them, and altogether throw them aside.

Mr. Walton said, that conversant as he was with this condition of things, he had been from time to time puzzled with cases that were in extreme. Now and then, when for the first time he looked at a case, he would think there could be no definite sight, and a trial has astonished him; but he was quite amazed with the following example:—A gentleman, aged 55, who had had remarkably good far sight, and good near sight with common spectacles, applied to him for an explanation of certain optical changes. He examined his eyes, told him that cataract was present, and advised an operation on the right, that in which the lens was most opaque. The gentleman asked for a book in fine print, and read it readily with either eye without his glasses. For two years he had put these appendages aside, as he did not need them for any minute objects. His distant sight only was affected, and he could not recognise his friends across the street. He laughed at the idea of an operation. The gentleman kindly consented to allow some of Mr. Walton's friends conversant with eye disease to examine him; and all were deceived in their diagnosis about the sight, not only on account of the density of the opacity that occupied the pupil, but the impossibility of illuminating with the opthalmoscope the right eye in any degree, and the very slight amount of light that entered the second. No one could solve the riddle.

Mr. Walton begged his hearers to note that among the practical lessons to be drawn from the several topics that had been brought forward was the important one of not operating in any case of cataract by anticipation; that is, before the patient had lost all useful vision—not before his avocations in life were interfered with, or the interruption to sight was sufficient to produce positive discomfort. He based the rule on the well-known fact that however large may be the percentage of successful operations, that failures do, and must occur. It would be otherwise if by an operation the eye could be restored to perfect integrity. He mentioned an instance in which, just twelve years ago, he prevented one of these operations; and the gentleman about to be operated on is still attending to his Professional duties.

We must not omit to notice what was said about the artificial dilatation of the pupil by the use of some of the preparations of belladonna. The improvement to vision that may ensue by the widened pupil in some cases of cataract has been long known. But it is not always possible beforehand to tell when it will be beneficial, as under apparently the same conditions it may or may not be useful. Mr. Walton gave the particulars of several cases—some of them congenital—in which, without the dilatation, there was no useful vision, but with it the smallest type of a newspaper could be read. A trial only could decide the matter, and a trial should be made, for nothing was easier or less hurtful. He knew persons who have applied the belladonna twice a week for several years, and by it are enabled to pursue their avocations. It is well to use the least strength that will answer, that the adjusting power of the eye, which is a little influenced while the belladonna is acting, may be affected as little as possible. It is strange that the iris is affected by the belladonna in the same manner, by the same strength for any time, and that it quite recovers its natural state whenever it may be left off.

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Medical Times and Gazette.

SATURDAY, APRIL 8.

THE PHARMACEUTICAL, AND THE CHEMISTS' AND DRUGGISTS' BILLS.

We will venture to repeat here the objections which we have felt it our duty, on behalf of the English general Practitioner, to make to these bills. The existence of a grievance or of danger to the public from incompetent dispensers is not proved nor probable. Even if it were proved, it could not be remedied by Act of Parliament. The good objects of the Bills can all be better obtained by voluntary effort without a bill. The exclusive privileges it is proposed to confer may be highly inconvenient to the public. The restriction to certain persons of the right of "compounding the prescriptions of duly qualified Medical Practitioners," makes the whole affair seem ironical, so far as public safety is concerned, because it clearly leaves the field open, and gives virtually legal sanction to unduly qualified Medical men who shall prescribe, and unqualified personages who shall dispense, their prescriptions. Literally it will come to this, that a man who on an emergency shall make up a box of colocynth pills from a Physician's prescription shall be fined £5, whilst he may compound a drink from the receipt of a "botanist" or sell a box of Morrison's pills with the sanction and approbation of the law. Lastly, the habit of counter practice, and of consultations and prescriptions of chemists in their back parlours will increase and multiply, and the regular Practitioner be starved, all for the "safety of the public."

There are, in London alone, hundreds of M.R.C.S. and L.A.C.'s, whose daily income is affected by this bill. If any of them think about it as we do, we ask them to forward their names at once to the *Medical Times and Gazette* Office, stating whether they are willing to wait on the framers of these bills to discuss the matter. They must bear in mind that Sir F. Kelly and Sir John Shelley are well disposed to the Medical Profession, but take their tone in the present matter from the very able, energetic men who—small blame to them—desire to aggrandise the Pharmaceutical Society or the United Society of Chemists and Druggists, and to substitute the pharmaceutical chemist for the general Practitioner. But if our Medical brethren are silent now, it will be in vain to grumble hereafter.

ARMY MEDICAL DEPARTMENT.

Amid the discussions on armour-plated and turret ships, the wordy clamours of rival artillerists, and the self-laudation of one noble peer because he was in power when the Royal Victoria Hospital was built, no one thought fit to vouchsafe a word upon the condition of our army Medical brethren. They never have, and they probably never will, receive any attention, unless the fortunes of war should carry a wounded aristocrat within the province of some third-class man, whose scientific attainments should prove too much for his patient. Even when any question of Professional interest is discussed in the House, the opinions and labours of civilians are quoted, as if there were no Medical Departments, or as if the members thereof were so many mummies. We do not desire to depreciate the value of the services which civilians of our Profession have rendered to the army; but we hold it to be unjust and ungenerous to exalt them at the expense of their less fortunate military brethren. It is as well known as any fact can be, that the reams of official complaints and sanitary suggestions made by military doctors would be sufficient to cover acres of ground, or to make fools'-caps for present and future Government dunces for years to come. It is rather too much to expect men to maintain an everlasting chorus of complaint, and to iterate and reiterate their opinions on the sanitary defects of military life before men who care nothing for importunity and still less for Medical science. It was only when the gigantic disasters and mismanagement of the Crimean war had dissipated every atom of the characteristic lethargy and good nature of John Bull that the Government had any ears to hear. To preserve place and lull the irritation which was general over the British isles, the Government was ready to do anything. Civilians of eminence were sent out to the East, and things were found to be as bad as they could be. The general impression was, and still is, apparently, that no Army Doctor is possessed of the commonest observation or the smallest amount of conscience in the discharge of his duties.

Our Profession, as a body, is possessed of very little political influence. A man who proposed to make a turret-ship to fire at the moon would be listened to with more show of attention and complacency than one speaking of the unfortunate Medical Department. Because, forsooth, it is a humane Profession, and the men who practise it cannot neglect their duties without being guilty of a cruelty and moral culpability which few have the hardihood to incur, we are to shiver in the cold shade of Government neglect and national ingratitude. We had extracted this lesson from the very chronic disorder under which the Army Medical Officers are labouring, and we had learned to trust to time and the steady diminution of candidates to work a change. When that supply was at zero, the Horse Guards and War Office began to perceive that they might have a Director-General without any Department to direct—in short, a Doctorless army. In January, 1862, in conformity with the prayer of a memorial presented to Sir George Lewis, a committee was appointed to inquire into the condition of the Army Medical Department. That committee presented its report in the summer following, and it was soon known that they recommended that the chief grievances complained of should be redressed. The Secretary for War declined, however, to lay the Committee's report on the table of the House, because it was intended only for the information and guidance of the War Office; as if that bureau was not perfectly aware of all that any committee could discover. A promise was afterwards given that "arrangements were in progress"—arrangements which have continued to progress ever since, we suppose, whilst the Department has been continuing to deteriorate. These promises have turned out as delusive as the rest. Nothing has been done, and almost all the evils remain just where they did. This has not surprised the Medical officers, for they receive all statements made by ministers of state with incredulity. When, however, the Department was dying of inanition the War Office began to urge concessions upon the Horse Guards, which the latter refused to yield as steadily as the former refused to give a greater pecuniary bait. Still, things had come to such a pass that the authorities were at their wits' end, and radical changes were imminent and certain. Even that warm friend of the army Medical officer—*The Army and Navy Gazette*—had gauged the merits of their case clearly enough to perceive this, for it commenced to damn them with faint praise, and to advocate their cause with an ill-concealed irony and enmity. What happened? A rush of candidates of the third class, and chiefly composed of one national element, appeared; they rallied round their chief; stood to the pumps of the sinking ship; and it was mainly by their efforts that the water-logged vessel was preserved. Horse Guards goes down in due time to Netley to thank the noble salvors of a derelict department, and that night the Director-General sipped right royal wine, received the approving smile of his patron and benefactor, and beheld the near approach of that honourable distinction which has since been added to his name. Our readers have been furnished with a list of the passed candidates from Netley Hospital, with the number of marks each one obtained at his examinations there; but they have not been informed of another result at which these candidates appear to have arrived from their own examination into their present and future position as Army Medical Officers. They were so little impressed with the value of their newly acquired privileges and prospects, as to have forwarded a memorial to the War Minister some months ago, in which they expressed their regret at having entered the service, and ventured a hope that no injury might arise therefrom to their Professional brethren. If this be a fact—and we believe it to be so,—it ought to be a sufficient answer to those who declare that satisfaction now reigns triumphant in the Medical branch of the service. What answer was returned to this memorial we know not. The War Office must have felt very much as the fowler did, in regard to the unwary geese which had been caught in the net he had spread for storks. If we remember the fable aright, the geese appealed for mercy on the ground that they were not storks, with as little effect as logic. The late ill-timed accession of Medical candidates for the army has robbed the Profession and the Department of every grain of corn when the harvest was ready to the sickle.

Now, Army Surgeons—and none more loudly than Irish Army Surgeons—complain of being subjected to a constant repetition of petty annoyances, for which no amount of material advantages can compensate. But what are these material advantages? Let any one take up an Army List and he will see. Many Medical officers have left, and many are still leaving, the service in disgust. Only a week or so ago we read of an Assistant-Surgeon of 1854 contesting the coronership of some place in Ireland. By the way, we do not remember to have seen any *official notification* of this officer's resignation yet. Spite of all this, which is a plain statement of facts, we find some journals advocating the army for its pecuniary advantages. Yes, ten shillings a-day is a good beginning for a man, young and inexperienced; but thirteen shillings, the rank, title, duties, and discomfort of an Assistant-Surgeon, with grey hairs and a big liver, presents another, and an equally certain, aspect of the question. Ask any old Medical officer, or any of our leading Physicians or Surgeons, and the verdict is clear and unanimous. The army presents a wretched opening for a young man of ability—for any one who is animated by a sincere love of his Profession and a desire to succeed in and by it. If a young Surgeon, endowed with the capacities of a Hunter or a Paget, entered the service to-morrow, it would be little short of a miracle if he were again heard of. No amount of *Professional* attainments

would enable a man to achieve reputation in the public services. The large number of unnecessary and uncongenial duties he is called upon to perform, the absence of emulation, the nature of a military life, are such that it requires uncommon zeal to prevent a man's becoming merged in a prevailing dead level mediocrity. It is believed that Dr. Gibson prefers the third-class candidate, because he finds those of the first rank to be the most troublesome and the least amenable to the red-tape discipline and monotonous functions of his Department. After a man has served some time as a Medical officer he becomes more and more unfitted for civil life, and is more and more bound—body and soul—to his salt. After long years he is promoted perhaps, shunted off to India, and eventually retires a Surgeon-Major. There are none of the staff appointments, special services, or snug berths for the Medical Department which exist for officers of the Royal Engineers or Artillery. No prizes are open to the old Medical officer, such as is the colonelcy of a regiment, for instance, for the old combatant officer. During the gigantic war which has been going on in America, amid the most ingenious and practical people in the world, in what have the Medical officers of our army benefited? Had there been very important questions of artillery or military science, officers would have been sent by our Government, but "matters Medical" are beneath their notice.

We wish the Director-General and Horse Guards all joy. They have their hearts' desire, which is "Candidates, but of no high order." The time must come one day when they will rue their gross unfairness to the Medical Profession. We are diminishing in numbers as rapidly as we are increasing in all that claims the respect of mankind—viz., in scholarly and scientific attainments,—and the day must come when this will be no longer tolerated by the rising generation of Medical men. At present we see no chance of improvement. The supply of candidates has settled the matter. The Horse Guards are chuckling over the victory; and the young aspirants for money and station will yet be left to behold the Dead Sea apples crumbling to ashes in their hands.

THE RUSSIAN PESTILENCE.

The latest accounts from abroad tend somewhat to diminish the alarm naturally felt at the intelligence of the depopulation of whole villages by a fatal and hitherto unknown disease, of whose origin and nature the most opposite reports prevailed, and which our reminiscences of Defoe's vivid history of the Great Plague did not tend to counteract. The mist, however, that magnified the proportions and obscured the lineaments of the spectre, is at length rising, and reveals to us the face—not of the supposed spectre—but of an old foe, which, though already contended with not unsuccessfully, has risen from time to time in a Protean shape, at once a stimulant to increased sanitary vigilance, and a warning of what might occur should that vigilance be relaxed. From the minute and excellent report of Dr. Tillner, Physician to the Grand Duchess Maria, of Russia, published in *The Times* of April 5, it is highly probable that this disease is a modified form of the famine fever, which, according to Dr. Murchison, first appeared in Ireland in 1739, and which has since visited the British Isles again and again, having been especially fatal in Scotland and Ireland. Dr. Murchison, whose accuracy no one can impeach, states, in his "Treatise on Continued Fevers," that it was observed in North America in 1847 and 1848. Should the two be identical, the cause of its non-recognition by our Russian friends on its recent appearance among them is found in the following sentence from Dr. Murchison:—"In 1847 an epidemic of relapsing fever, identical with that observed in Britain prevailed in the Silesian provinces of Prussia and Austria; and in the summer of 1855, after the hardships and privations of the preceding winter, it is said to have been 'pretty common among the British troops in the Crimea.' With these exceptions I am not aware that relapsing fever has ever been met with in any other part of the Continent of Europe." The symptoms of relapsing fever and of the Russian disease described by Dr. Tillner closely correspond. The access of each commences with shivering, followed by increased heat and sweating. The pulse in relapsing fever beats from 120 to 150, being often as high as 140 on the second day. In the Russian disease it is usually 130. The temperature is elevated to 104° F. in the Russian fever, and in relapsing fever varies from 102° to 107° F. In the Russian plague the skin is yellow; in famine fever "there is never any characteristic eruption, but a large proportion of cases are jaundiced." There is a marked crisis in both diseases on the seventh day, followed by an interval of almost perfect health—languor being the only symptom complained of. The amelioration in both cases is ushered in by profuse perspiration, and seven days later a second relapse occurs, followed by an interval as before. The mind is generally unaffected in each disease. The rate of mortality in the Russian disease is, according to Dr. Tillner, 8 per cent.; in relapsing fever from 2 to 4 per cent., according to Dr. Murchison. Death in relapsing fever sometimes occurs by sudden and profound collapse, the face and extremities becoming livid. "Sometimes a fatal termination occurs in this way a few hours after there had been any evidence of danger." Hence, perhaps, the supposed resemblance of the Russian fever to cholera. At other times death occurs by coma and convulsions. Death in the Russian fever occurs by great prostration and a kind of general paralysis. Moreover, the causes which produce relapsing fever have been at work in St. Petersburgh, and have also modified the disease. According to Dr. Tillner there is an excess in the capital of 43,000 workmen above the usual number, and these have been obliged to forego animal food and live almost entirely on black bread containing 1 per cent. of ergot of rye, and to live in unhealthy localities. Poisoning by ergot has thus been, no doubt, superadded to fever caused by famine, overcrowding, and destitution. Further details will no doubt prove the identity of the two diseases, and by robbing the disorder of the mystery that now hangs about it increase our confidence in the remedial means to be employed should we be visited by the scourge.

THE WEEK.

THE GENERAL MEDICAL COUNCIL.

We must reserve till next week any comment on the proceedings of this body. It will be seen that compulsory interference with education is virtually abandoned; but that an attempt will be made to induce Parliament to amend Clause 40 of the Medical Act and to punish persons who falsely pretend to possess Medical qualifications. The form of amendment agreed to by the Council, if it become law, will render registration compulsory on all Practitioners.

A RECENT RAILWAY CASE.

We ventured in a late number to call attention to the gladiatorial displays of Medical witnesses in those cases of action for compensation by railway companies which seem to have become one of the recognised institutions of the age. We have no doubt that these performances afford considerable amusement to the briefless barristers in the back row of the assize court, that they possess great interest for the attorneys and their respective clients who inaugurate the show and pay the performers, and that they arouse sufficient of the combative instinct to give a not unpleasurable stimulus and excitement to the Medical athletes who are the combatants. For ourselves, looking at them in the interests of the Profession, neither merely as unconcerned spectators nor as personally affected by the questions at issue, we regard them as simply deplorable exhibitions which damage our calling in the eyes of the public, rob it of its claim to be the exponent and dispenser of scientific truth, and detract very much from our pretensions to Professional feeling. Since we wrote another

case has occurred which, although not so gross an instance of irreconcileable difference of opinion on the part of the Medical witnesses, is no less to be regretted on account of the high Professional and scientific rank of the opposed forces. The case was that of a gentleman, a clerk in a Government office, who had been seriously injured in the terrible accident at Blackheath on December 17, 1864. He had previously been in robust health, was addicted to literary pursuits, and added to his income by employing his spare time as author and private tutor. By the collision this person was thrown violently forward against the partition of the carriage in which he was; he pitched upon the top of his head, and the blow was of such force as to be described as "doubling the head up in the neck," and forcing it back on the vertebral column. The result was paralysis—on this both sides were agreed—and disturbance or diminution of mental power. The latter was proved by the evidence of a clergyman, who detailed a conversation he had had with the patient. Four or five of the leading Hospital Physicians and Surgeons in this metropolis gave evidence that the man had suffered a "lesion" of the brain and spinal cord, from which it was improbable he would ever recover. On the other side four or five equally eminent Hospital Physicians and Surgeons were called, who acknowledging that the man was injured, admitting the existence of some paralysis, still were unanimous in stating that the whole of the symptoms were the result of "shock," or "concussion," that there was no organic injury, and that in all probability the patient would get quite well. Now, we, of course, can give no opinion on which side truth preponderated, we are quite ready to admit the enormous difficulties attending prognosis and diagnosis in such cases, and we are most willing to suppose that this case presented special points of doubt. We might ask the gentlemen who opposed the opinion of the plaintiff's Medical attendants if they will be good enough to define "concussion" and "lesion," or at least to tell us where "concussion" ends and where "organic lesion" begins, and whether it is possible to conceive of shock sufficient to produce paralysis without associating the effect with some alteration of nervous structure? But we have no wish to enter here on the scientific points of the conflict, we divest ourselves of our Professional habits of thought, and take the place of a layman, and what do we observe? 1st. That the Medical witnesses agree with others on their own side, with remarkable unanimity, on a debateable Medical point; 2nd. That the witnesses on each side, although agreeing amongst themselves, differ in opinion as remarkably and as entirely from the witnesses on the opposite side; 3rd. That the opinion of the Medical men on the side of the plaintiff happens to coincide with the pecuniary interests of the plaintiff; 4th. That the opinion of the Medical men on the side of the defendants happens as remarkably to coincide with the pecuniary interests of the defendants; 5th. That the Medical witnesses on each side receive remuneration from the side on which they are employed. We draw no conclusion from these facts, but we very well know what the world says.

PARLIAMENTARY.—MORTALITY OF MINERS—THE POLICE AND UNION INFIRMARIES—DEMOLITION OF THE DWELLINGS OF THE POOR—PAROCHIAL MEDICAL RELIEF—MORTALITY IN EMNETH—THE EPIDEMIC IN RUSSIA.

In the House of Lords on Thursday, March 30,

Lord Kinnaird, in moving the first reading of the Metalliferous Mines Bill, said: In 1862 a Royal Commission was appointed to inquire and to report as to the health and safety of those employed in the lead, copper, tin, and ironstone mines. The result was a report, which was presented to Parliament at the end of last Session. The inquiry brought to light a most fearful state of mortality among the men. On comparing the mortality among the miners with that among other classes in the same districts, it was found that double the number of miners died. It was also ascertained that that was not the immediate effect of working underground, because it was found, on a comparison of the returns of the Registrar-General, that the colliers in the North of England were, notwithstanding the numerous accidents which occurred, the healthiest and longest lived of any of the working classes in that country. It was true the colliers were better fed than the metal miners, but it was clearly proved that the difference was owing to the better system of ventilation which was in practice in the collieries. In the metal mines there was no such danger of explosion as in the collieries, and therefore their ventilation was entirely neglected. The Commission had upwards of 300 specimens of air taken from different mines and submitted to the analysis of scientific men, and it was found that the air was unfit for men to work in. They had also caused many miners to be examined by Medical men, who all agreed that the sufferings of the miners from disease were owing to want of ventilation. It might be imagined that the miners were all strong and muscular; but the contrary was the fact, for there were none to be seen among them, even when they had not reached middle age, but pale, emaciated men. It was a common expression that a man of 50 among the miners was an old man. There were other causes also which tended to produce this melancholy state of things. In collieries the men on returning from work were lifted by a hoist, but the metal miners had to climb 1200 or 1600 feet after the fatigues of an exhausting labour. When they got to the top they were in a state of such profuse perspiration that they easily took cold, and much sickness and many deaths were thereby occasioned. The Commissioners did not think it desirable to point out how these evils were to be remedied, but the necessity for legislation was clearly established. It was, he admitted, a difficult subject to deal with, but having given much attention to it, and having lived among the miners for two months, during which time he was constantly underground, he was prepared to show that the evils under which these men laboured might be remedied. The working of the Act might be intrusted to a Board or Department under the Board of Trade, similar to the Railway Department, and there was in the Mining Record Office an admirable nucleus for carrying out the provisions of the Bill. He believed that such a Board would meet with the concurrence of the mining interest. He proposed that this Board should inquire into the state of the different mines, and enforce the provisions necessary for the health of the men, which were all pointed out in the Report.

The Bill was then read a first time.

In the House of Commons,

Sir J. Shelley asked the Secretary of State for the Home Department whether his attention had been directed to the report of an inquest held at the Strand Union on the body of a gentleman, from which report it appeared that the gentleman, in an apoplectic condition, was taken there by the police, supposed by them to be of unsound mind from drink, and left without any information by what means he came into their hands; and whether he would cause a communication to be forwarded to the police authorities requiring that in future, when any sick person, incapable of giving any explanation of his or her condition, was taken to a Union Infirmary, all the facts bearing on the case which the police could furnish should be forwarded in writing with the patient for the guidance and information of the Medical officer.

Sir G. Grey was understood to say that he would communicate with the magistrates on the subject.

In the Upper House on Friday, Lord Shaftesbury called attention to the want of house accommodation for the persons driven from their homes by new railway works in the metropolis. The demand for lodgings thus created could not find the immediate supply it required, and the consequence was a dangerous overcrowding in the districts to which the displaced population was driven. The consequences of this uprooting were disastrous to the classes who suffered from it. Within the last twenty years there had been a great improvement in their moral condition by means of schools, working men's clubs, and reading-rooms; but with the dwellings of the poor all their institutions were also swept away. The enormous evils thus created could not be adequately met either by model lodging-houses or cheap railway trains, which could be of little use till suitable houses were built to run them to. To lessen the inconvenience caused to the working classes by such sudden removal, he moved that the standing order No. 191 be so amended as to secure to the Legislature full information of the number and description of the houses to be taken under the power of any railway bill, and to the inhabitants eight weeks' notice to quit.

After some discussion, Lord Shaftesbury withdrew his

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motion, with the understanding that it was to be brought on again in an amended form.

In the House of Commons,

Sir J. Shelley asked the President of the Poor-law Board whether the Poor-law Board intended in this Session to take any, and if any what, steps to carry out the recommendation of the Select Committee on Poor Relief, that in future cod-liver oil, quinine, and other expensive medicines should be provided at the expense of the guardians, and not as heretofore by the parochial Medical officers?

Mr. Villiers said the subject referred to was one to which the Board had given much consideration, and on which they had communicated much with guardians in different parts of the country, and they did not despair of inducing them very generally to adopt the recommendation of the committee in question. There were difficulties in the way, however, owing to the existing contracts with the Medical men, which were made on the other system. These contracts usually were made for life, and there had sometimes been an unwillingness to revise them; but in certain cases the Doctors did not live in the union, and were then selected annually, and in all these cases there was reason to hope that the recommendation would be adopted. The Poor-law Board in such cases would use all its authority to induce the guardians to adopt it. (Hear.)

Dr. Brady asked the Secretary of State for the Home Department if his attention had been directed to a statement made by the coroner at an inquest held at Emneth, in the county of Norfolk, last week, directing attention to the extraordinary mortality among children in Emneth, amounting to 80 per cent. of the population, which the parish Surgeon attributed to gross and culpable neglect, the children dying from starvation.

Sir G. Grey said he had received a letter from the coroner, stating his belief that the great mortality among the children was attributable to the neglect of the mothers. The letter had been forwarded to the High Constable of the county, who would inquire into the facts.

In the House of Lords, on Tuesday, the Bishop of Oxford asked whether the attention of the Government had been called to a report which had appeared in the public papers, and which had created considerable excitement in the public mind, as to an epidemic which seemed to be rapidly advancing towards this country from Russia. The statement was that it was one of those mysterious diseases resembling the cholera; that the plague had passed the Ural Mountains, and had reached St. Petersburg, where its ravages were so great the number of deaths was no longer officially stated, and had broken out in some parts of Prussia.

Earl Granville said that his noble friend the Foreign Secretary had already given orders to the consuls and our ambassador in Russia to furnish all the information they could procure on the subject; and on that very day he had sent suggested questions to the Foreign Office in order that they might be telegraphed to our representatives not only in Russia, but in the Baltic ports, and that replies might be received as soon as possible.

FROM ABROAD.—HORSE- AND ASS-EATING IN PARIS—PRIZE QUESTION OF THE BELGIAN ACADEMY OF MEDICINE—THE ENGLISH AND FRENCH IN THE CRIMEAN WAR.

Hippophagism is still making progress in Paris. The Prefet of Police has authorised two establishments for the sale of horseflesh. These are to be inaugurated by a great popular banquet, to which the wives of *chefs d'atélier* and of workmen alone are to be invited, it being naturally understood that the only chance of introducing this substance into the domestic dictary must be through the instrumentality of the female portion of the community. But alas! how unstable is greatness and success; when all seems smiling in the prospect of the acquisition of this new viand, it is threatened to be displaced, almost before it has acquired its footing, by the discovery of another long-neglected variety of animal food, not in the shape of the unmanageable *charqui*, but of the muscles of that patient, ill-treated, serviceable beast of burden, the common ass. At a banquet given by an academician, having MM. Velpeau, Tardieu, Latour, and other notabilities as his guests, the "bifsticks" and "filets" prepared from the flesh of an old she ass were unanimously pronounced as more tender, succulent, and delicate than similar *plats* prepared for comparison from the horse. A little nonsensical qualmishness was at first betrayed by some of the guests; but on the whole this asinine triumph was complete.

The Belgian Academy of Medicine has published the programme of its Prize Questions:—1. A medal of 300 francs for the best essay on the "Effects of the Use and Abuse of Tobacco in a state of health, demonstrated by cases and experiments." (Essays to be forwarded by July 1, 1865.) 2. A medal of 500 francs, "The character of the disease which attacks domestic animals, known as 'Carbuncular Typhus,' indicating its causes, and the therapeutical procedures requisite for its cure, and the means of preventing its development." (April 1, 1866.) 3. A medal of 500 francs, "The Chemical History of Digitaline, establishing clearly by new experiments its destructive characteristics and composition." A simple process for obtaining it as a constant and definite product is to be given, and a sample of such product is to be forwarded. (April 1, 1866.) 4. A medal of 1200 francs, "The Life and Writings of J. B. Van Helmont, expounding his Medical doctrines, criticising their value, and clearly establishing the influence which they have exercised on the science and practice of Medicine." (April 1, 1866.) 5. A medal of 1200 francs, "Cancers which are termed Surgical, considered especially with regard to their treatment." (April 1, 1867.) 6. A medal of 500 francs, "The Chemical and Pharmaceutical Examination of *Tanaisie (tanacetum vulgare)*." (April 1, 1867.) 7. A medal of 1500 francs, "An Examination into the functions dependent upon the various portions of the Encephalon, experiments on living animals, clinical and microscopical observations, as well as the facts furnished by histology and comparative anatomy constituting the bases of the investigation." (April 1, 1868.) The essays, written in Latin, French, or Flemish, must be forwarded to the Secretary of the Academy before the dates we have specified.

At an early stage of the Crimean warfare, the numerous shortcomings in the provision for the necessities and comfort of our army aroused public indignation in an extraordinary degree, and the great superiority of the French in this respect was loudly proclaimed. This difference, however, only characterised the commencement of the war, and arose from the army of the one country being kept on a constant war footing and the other being caught somewhat unprepared. But no sooner had public opinion become thoroughly aroused to the importance of the emergency and the unlimited resources which we have at our disposal entrusted to duly responsible agents, than a mighty change came over the scene. The troops encamped on a foreign shore furnished a smaller mortality than they had done at home, and effectual sanitary inspection became a recognised portion of military organisation. While as the campaign progressed our arrangements became more and more matured, and our soldiers better and better provided for, with the natural result upon their health, our allies, the first impulse having passed away, and the provisions made, sufficient in the case of immediate success, proving inadequate when exertions had to be prolonged, found their army daily diminishing in effective force, though the insufficiency of supplies and attendance and the consequent ravages of disease. When, chiefly on this account, the campaign was abruptly ended, we were in point of fact in a better condition for continuing the war than the French had been for commencing it.

The truth of the above statement has been vouched for by all the French Medical officers who have written upon this campaign, and now we have another witness to the same effect in M. Chenu, who has just published the most elaborate report on the Medico-Chirurgical service of the Crimean war that has yet appeared. It is a work of immense labour, in which he has entered into an elaborate comparison of the condition of the French, Piedmontese, and English armies. To confine ourselves at present to the general results, M. Chenu finds that while in the French army of 309,268 soldiers there occurred 95,615 deaths, in the English army of 97,864

there occurred but 22,182 deaths. This return comprises, it is true, deaths from all causes, whether wounds or diseases; but when any of the categories are separately examined the same comparative results are brought out.

Although not connected with our present subject, we may transcribe some interesting observations made by M. Chenu upon another topic also of great interest to ourselves—viz., the Medical officer considered as a non-combatant:—

"What is the position of the military Medical officer? He is looked down upon by the soldier because he is a non-combatant, and yet his true value is only comprehended on the field of battle, in the ambulance, and surrounded by contagion in the Hospital. In the hour of danger he is, indeed, well spoken of. 'The Surgeon who succumbs in the performance of his holy duty,' says the *Moniteur de l'Armée*, 'deserves as well of the army of his country and of his sovereign as does the soldier who falls in battle.' But danger once passed, these benevolent reflections are soon forgotten; and yet in what does he differ from the combatant officer? He marches with his regiment or his ambulance to the field of battle, and he is in no wise secured from wounds or even death, his sole distinction there being that he cannot return the blows he receives, since his special functions compel his attention to the wounded who are falling around him. But does he contribute less to the general end all have in view? In the Hospital his position is still more perilous, and there the danger to which he is incessantly exposed has no brilliancy wherewith to stimulate his courage. His energy is expended in obscure struggles, and he is not supported, excited, or intoxicated, either with the ardour of the combat, the incense of the powder, or the exhilarating sound of the trumpet. The enemy which surrounds him is invisible, and he has no means of defence, and is more and more exposed to attacks every day. In the midst of an infected Hospital he must brave the danger of contagion in order to fulfil a sacred duty, and he must regard the prospect of death itself with calmness in order to retain his Medical lucidity. It is a dangerous field of battle upon which he falls defenceless, succumbing bravely and humbly amidst those whom he has sought to save."

These words are amply justified by the figures which follow. 1. In an effective of 5852 officers of all grades, there were killed or died from their wounds 779, or 17 per cent. 2. Of officers of all grades in the entire army, comprising intendants, almoners, and various administrators, there died of various diseases 402, or 7·30 per cent. 3. Of an effective mean of 450 Medical officers, 82, or 18·22 per cent., died of various diseases. 4. Of officers of all grades there died of typhus 26, or 0·17 per cent. 5. Of army Medical officers there died of typhus 58, or 12·88 per cent.

REPORT ON CHEAP WINE.—NO. XVI.

(*By our Special Empirical Commissioner.*)

German Wines: their Uses—Wine Clubs—Red Hock—Sparkling Wines—Characters of Good Champagne—Cause of Unwholesomeness in Wines—Mixing Wines—Real Elements of Cost in Wine—Wine Duties and their Moral Purport—Conclusion.

I AM unwilling to finish these papers without at least a respectful mention of those noble vintages of the Rhine which afford such models of what wine ought to be. Of light alcoholic strength, and yet almost imperishable through their purity, and with marked fragrance of the true vinous character, the Rhenish wines are the wines for intellectual gaiety. They increase appetite, they exhilarate without producing heaviness and languor afterwards, and they purify the blood. But they are not *cheap* as a rule. There are some wine merchants who have specimens of moderate price; for instance, there is a "Rheinwein" sold by Fearon's, at £1 per dozen, which I have prescribed in dropsy from liver disease; in just the class of case in which we should give nitro-muriatic acid. There is a thin, sub-fragrant, sub-acid Moselle (Zeltinger), of which I have had a specimen from Mr. Andres, of very moderate price. The higher class of Rhenish (all of which are called *Oc* by our man-servants) differ remarkably in their flavours, but as a rule are all very useful in cases in which we want to support the nervous system, clean the tongue, quench thirst, and oxidate the blood. How I have seen a poor fellow with pleurisy—his face just dusky, turn from sherry and grasp at a goblet of Rudesheimer! These wines are the reverse of cheap, and should be reserved for the rites of hospitality or for serious illness; but if any rational persons desire to have specimens of these and of other first-class wines at moderate cost, they should form *wine clubs*,—just as the English in India form mutton clubs—and order a cask from such a firm as Mayer, of Mayence, and have it bottled there and put on board. I venture to say that it will be a sign of a true advance in the Healing Art when these wines are more frequently prescribed.

There are Red Hocks, the finest of which is the *Assmanshauser*, a wine of great body, powerful peculiar aroma, and high price. It comes, whether in conviviality or in illness, with the higher class of Burgundies. There are some middling red hocks, as the *Affenthaler*, which are often passed off as Assmanshauser, and some very indifferent ones which I have bought in London, and consigned to the nearest gutter. A sense of charity induces me to mention a stuff called *Walpotsheim*, of which I unluckily got a specimen at 24s., and of which I noted that it was "wretched stuff; cork dyed; wine probably a poor white wine coloured by logwood; slightly turbid." I have had good middling wine of these sorts at about 35s. per dozen, but it is too dear for an ordinary wine, and not good enough for an extraordinary. Moreover, some of these red hocks have had a want of care in their manufacture, so that they do not keep well.

Sparkling Wines must not be passed over without one word of notice, because of their very great medicinal virtues. When, on an emergency, we want a true stimulant to mind and body, rapid, volatile, transitory, and harmless, then we fly to champagne. But champagne, to be good, requires such care and skill, and is subject to so much loss in its manufacture; it is so truly a child of art, that it cannot be cheap. The properties of good champagne are firmness and cleanness, with high grapy and sometimes true vinous bouquet and flavour, which must be appreciated when the effervescence has passed off, and for this purpose the wine must be judged of when it has been open three days. It may be sweet, or may be dry, but must be *clean*.

It must have these high qualities, spite of the fact that its fermentation has been checked, and that it has been subjected to dosage with brandy and sugar. The process of *racking*, so as to get rid of sediment—*i.e.*, of decomposable vegetable matter—is performed by opening each bottle more than once. Bad *dry* champagne tastes of bad wine and bad brandy, in about equal proportions; and to these, bad *sweet* champagne superadds the flavour of brown sugar-candy. There is nothing more dangerous for a patient subject to acid dyspepsia. Amongst the maladies which are benefited by good champagne is the true *neuralgia*: intermitting fits of excruciating pain running along certain nerves, without inflammation of the principal part—often a consequence of malaria, or of some other bad and exhausting causes. But there is another neuralgia, which is really a true rheumatic inflammation of some nerve, especially the sciatic, and attended with all the gastric and assimilative disturbance characteristic of rheumatism, and I can conceive of nothing more mischievous than the administration of bad champagne in such a condition. Yet I have known it done.

Even amongst highly priced *dry* champagnes, some are too heavily brandied and coarse; whilst the true connoisseur looks for lightness and fragrance. So far as effervescence is concerned, the perfection of the wine is to have the carbonic acid so intimately dissolved that it escapes creamily, so that when the cork is drawn it does not blow half of the wine out of the bottle. As for sparkling wines in general, they are looked upon by the true œnologist with much the same favour with which the philosophic botanist regards some of the monstrosities of flowers which adorn the ladies' boudoirs—pretty playthings, but not to be despised on that account. *Dulce est desipere in loco.* They have, nevertheless, far too great a vogue amongst those rich people who think themselves Mæcenas, whilst at the best they are but Trimalchio, and who conceive that a profusion of costly sparkling wine gives brilliancy to an entertainment, and supplies the place of good taste and true hospitality. Vast quantities of spurious wine are sold as champagne, and this must be the case until the public learn to discriminate good wine from bad, and dare to introduce new wines at their tables, trusting more to merit than to name. The man who can afford to give

sparkling wine freely should try the sparkling St. Jeray (Burgundy), the sparkling Voeslau (Austrian), sparkling Scharzhofberger (Moselle), sparkling Hock, sparkling Tokay, etc. The perceptive and reflective faculties should be duly exercised, even at a wedding breakfast.

There is one method of producing these wines by art which almost surpasses that of nature. Instead of trusting to evolution of carbonic acid for the last stages of fermentation, it is better to choose sound wine and charge it with carbonic acid gas, as soda water is made. We are much more sure of getting a wholesome wine; and as for the gas, it produces its fillip and flies off without leaving an unwholesome fermenting substance in the stomach. I have tasted a *Vino d'Asti*, at 2s. per bottle, aerated in this way, which is far above bad champagne, as it does taste of wine.

I have now finished my Report on Cheap Wines, into which I have ventured to introduce such observations as came to hand upon wine in general. These are the results of experience, and I hope will be accepted as such by my Medical brethren. There are a very few remarks which I beg to offer in conclusion.

What is it that makes some wines and other fermented and distilled liquors unwholesome? Why after drinking a very small quantity of some do we feel next day headache, languor, nausea, and oppression at the stomach, whilst after others we feel light and vigorous? Certainly it cannot be alcohol *per se*, for the more we see of the use of wine in health and sickness the more we see how innocuous the true alcohol of wine is in moderate quantity. I believe it to be the undefined oily matters, of the *fusel oil* or *feints* kind, which are generated in some fermentations, and more especially of grain. Some kinds of new beer are terribly brutalising and stupifying; I hear of some whiskies in Ireland which soon make men drop dead drunk. Some new wines probably have similar oils in their composition, and others have them in the shape of added spirits. Luckily *time* seems to destroy them.

Is it unwholesome to mix? i.e. to take different liquors at one sitting? If each is good, the whole will not disagree; I never could trace any substantial ground for the prejudice that they do harm. On the other hand, a very small quantity of bad wine will disagree, whether "mixed" or not. It is the question of consanguineous marriages in another shape.

Is pure wine really cheap? Some of my friends tell me that I delude them; that pure wine is cheap in name, but dear in fact, because they can drink so much of it; whereas really they can't drink and don't want more than a very little of port or other brandied wine. I really am not advocating extravagance; but then I consider nothing extravagant which conduces to the health and innocent refreshment of mind and body. Neither do I reckon a thing cheap which can't be used, just as bread a week old is used in some ghastly girls' schools, in order that the children may not devour too much of it. Uneatability and undrinkability are queer recommendations for meat and drink. But let us come to figures, and we shall see that port wine is not so cheap as it seems, and that if people who buy a dozen of port would calculate how much they give for the wine, and how much for the added spirits, they would find that the cost of very bad port is, at least, equal to that of very good Burgundy.

For, as is known perfectly well, port wine fortified up to 40° per cent.—the dry tawney, throttling, old-in-the-wood stuff, so much admired by some personages—consists partly of wine, partly of added grain or potato spirit, the price of which last, German or English, is 1s. 3d. to 1s. 7d. per gallon. Now, as I showed in my last, a pipe of port wine consists of 39 *liquid* gallons=50 *proof* gallons of spirit, to 76 of wine, making 115 gallons, which equal one pipe. Suppose, then, a pipe of port to cost £40 in bond; we may distribute that cost thus:—

	£	s.	d.
39 liquid gallons spirits, equal 51 proof gallons at 1s. 6d. per proof gallon	3	16	6
76 gallons of wine	36	3	6
115 gallons.	£40	0	0

Or, supposing a man has given 5s. for a bottle of port, the cost will be distributed thus—

	£	s.	d.
Bottle, bottling, cork, etc., say	0	0	5
Duty, at 2s. 6d.	0	0	5
One-third of a bottle of proof spirit, at 1s. 6d. per gal.	0	0	1
Two-thirds of a bottle of port wine, say 18 fluid ounces	0	4	1
	£0	5	0

But if two-thirds of a bottle of port cost 4s. 1d., it is clear that a bottle costs 6s. 3d., and that, in buying port wine, we are really robbing ourselves of one-third of our wine, and paying wine price for a third of miserable proof spirit, which (duty apart) is only worth 1s. 6d. a gallon, or 3d. a bottle.

Whoever would make a fair experiment on a matter so important to health, morals, taste, soundness of mind, and domestic economy, let him drink any bottle of port he can get for 6s., 7s., 8s., or 10s. 6d., side by side with a bottle of Burgundy, which he can get at such a place as Ward's, in Mayfair, or Hedges and Butler's, in Regent-street, for 4s., 5s., 6s., or 7s. (I mention these two places because I have patients now who are drinking their Burgundies with benefit.) At any rate, let the Burgundy cost 2s. or 3s. less than the port, and then, as they are sipped side by side, let any impartial man say which is the better, which has the more wine in it, which is the cleaner, firmer, purer, and better flavoured? The first will taste sickly, vapid, and dead, side by side with the glorious Burgundy. And then to think that we pay such a price for stuff, one-third of which is that mere spirit of wine, which, with a little sweetness and flavour, makes gin! Further, let any one try the same experiment with the White Hymettus, the St. Elie, Szamarodny, or Dry Ruszte side by side with any sample of sherry which shall cost at least 2s. per bottle more. Let them be tried with water and without, and be judged of by wine body and wine flavour. Of course, the port and sherry bigot will complain that they don't heat his throat nor "warm his backbone" as the brandied wine does; but, thank Heaven, there are a good number of us who have warmth enough in our backbones without seeking it from a distillery.

Who should Drink Brandied Wine, and who Pure Wine?—They should drink brandied wine who really require strong alcohol, such as persons in serious and critical states of debility, flooding, fever, etc.; the very aged and others who cannot digest wine, and any one in great fatigue who really is forced to goad the stomach by a concentrated stimulant. (I may observe that many people think pure sherry as bad as claret.) The persons who should drink pure wine are the healthy population in general, and especially the young and vigorous, if they drink any—for why should innocent young children and girls drink brandy?—the thousands of persons who complain of irritable throats and bronchitis; those who are liable to boils, scrofula, skin diseases, chlorosis, or other cachexies; the gouty and rheumatic and phthisical, above all others, and those who are in want of good pure blood.

Wine Duties.—One word in conclusion on the wine duties. I may recall to my readers' recollection that natural unbrandied wine contains alcohol equal to from about 14 to 24 per cent. of proof spirit; that wine containing less than 26° pays 1s. per gallon; from 26° to 42°, 2s. 6d. per gallon; and 3d. for every degree of strength above 42°. On the whole, this rate of duty is beneficial and equitable, and it carries the important moral lesson into every household of the natural strength of wine. Occasional hardships there are, no doubt; for instance, if a natural wine, or a wine which has concentrated in cask, comes over with 27°, it is a hardship that the duty should jump to 2s. 6d. per gallon for one degree of extra strength. Again, some authorities, such as Mr. Shaw, demand that all wine, no matter how fortified, shall come in at 1s., on the plea that the revenue would be increased, and the consumption of heavy wines be largely increased, and that heavy wines are the only ones people care to drink.

For my own part, looking upon taxation not only as a means of raising money, but as an instrument for modifying habits and tastes, I would most respectfully urge the Chancellor of the Exchequer to show every favour to pure wine. This must react in time on the manufacturers, who will supply us with a better fermented and more wholesome liquor, not requiring brandy to keep it. The wine-makers would have no temptation to brandy their wine, if it would keep. In the next place, it would be a gross injustice to the "lower orders" to tax their spirit which they drink as gin, 10s. 6d. per gallon, and let in the same spirit, in the shape of fortified wine, for their "betters" really duty free; for if fortified wine pay no more than pure wine, the added spirit is let in free.

That which is demanded by many is a sort of sliding scale, so that every degree above 26° shall be charged 2d. With the admirable arrangements at the Custom-house this could be easily done; for the determination of the alcoholic strength of wines is made with marvellous precision and rapidity. Thus a wine at 26° would be 1s.; at 27°, 1s. 2d.; at 30°, 1s. 8d., and so on. All the natural wines and finest sherries

would thus come in at an easy rate, whilst the ill-made and fermentescible stuff which will not keep without added spirit would be trounced as it deserves.

Here I stop. Looking on my Professional brethren as missionaries of health, philosophy, and morals to the bulk of the people, I ardently desire their approbation of this humble attempt to promote the use of good wine; and I cannot forbear transcribing a portion of a letter from a well-known Physician, which I honestly confess gave me extreme satisfaction, not merely because praise is dear to me, but because it justifies me for having ventured to bring the subject before the Medical Profession. "I am glad to find White Keffesia so cheap. It suited my palate and stomach better than any wine I remember to have tasted. . . . I have read all your papers, and feel not a little indebted for the immense amount of information they have given me, in a form concise, pleasant, and easy to remember. . . . I firmly believe that the great majority of my brother Doctors would say the same. . . . I only hope others have got as many hints, both for their own and their patients' benefit, as I have out of these papers."

GENERAL MEDICAL COUNCIL.

The General Medical Council commenced its annual sittings at the Royal College of Physicians on Tuesday, April 4.

The following is the list of members present at the sittings :—

Dr. Burrows (President),
Dr. Alderson,
Mr. Arnott,
Mr. Cooper,
Dr. Acland,
Dr. Paget,
Dr. Embleton,
Dr. Storrar,
Dr. Andrew Wood,
Dr. Fleming,
Mr. Syme,
Dr. Thomson,
Dr. Smith,
Mr. Hargrave,
Dr. Leet,
Dr. Apjohn,
Dr. Corrigan,
Dr. Sharpey,
Dr. Parkes,
Dr. Quain,
Mr. Rumsey,
Dr. Christison,
Dr. Stokes, and
(Dr. Francis Hawkins, Registrar.)

The President, in opening the proceedings, said that the very peculiar nature of the business to be transacted this year required the Council to meet at an earlier period than usual; and he much regretted to learn that the period which he had been called upon to fix was not altogether in accordance with the wishes of many of the members, and no doubt had led to the inconvenience of others. When, however, he looked round and observed the chairs all occupied by distinguished men, some holding most important offices as Medical teachers at our universities, and others holding prominent positions in various localities, he believed it quite impossible to fix any time for the assembling of the Council which would not be attended with more or less inconvenience to its members. Of all the duties which devolved upon him as President, the least agreeable was that of deciding the time for the meeting of the Council. Appeals of a conflicting character were very naturally made to him from different quarters as to the time of meeting, and it was very painful not to be able to respond to them; and therefore it was with peculiar pleasure that he had observed that the Irish Branch Council had taken the subject into their consideration, and would probably propose some modification of the standing orders relieving the President from the responsibility of fixing the time of meeting. He feared, however, that the proposition of the Irish Branch Council, as far as he understood it, would hardly accomplish the desired object. In the month of January the Scotch Branch Council passed a resolution from which it might be inferred that they deemed it important that there should be a very early meeting of the Council this year, and in the latter part of the same month he called the attention of the English Branch Council to that resolution. After due deliberation, the English Branch generally agreed that the meeting this year should be earlier than usual, and that the time at which they were now assembled would probably be the most convenient, and give an opportunity for the accomplishment of one object which they had in view. At a later period he learned that the Irish Branch Council were not of the same opinion, and that they believed delay would be advantageous, and that the deferring of the meeting till after the Easter recess would be more likely to conduce to the attainment of the objects of the Council with respect to fresh legislation. That opinion might be quite correct, but he feared that their proposal that the President should appeal to the three Branch Councils before fixing the time for the meeting would not exonerate him from the responsibility of deciding. He assured them that in giving his decision he had not been actuated by any consideration of personal convenience, but he had endeavoured to the best of his ability to suit the time to the nature of the business to be transacted, and after obtaining information from Parliamentary agents and other sources he had assumed the responsibility of summoning the Council for the present time. Whatever might be the opinions of the members of the Council as to the time of meeting, he felt confident that now they had assembled they would all earnestly and cordially co-operate in an effort to expedite public business and grapple with those questions that pressed for solution and decision. Those questions were, first, the amendment of the Medical Act; and, second, the question of Medical registration and education, the consideration of which had been temporarily suspended through the rising of the Council last year. Looking back with a pleasurable remembrance on the year during which he had filled the office of President, he felt assured that he could reckon upon the loyal and generous support of all the members to enable him to conduct their deliberations with that regularity, order, calmness, and dignity which ought to characterise the proceedings of the General Medical Council, and which were essential to the proper protection of the public and Professional interests with which they were entrusted.

The following were appointed as a Committee for the transaction of the business of the Council during the present session :—Dr. Andrew Wood, Dr. Acland, Mr. Rumsey, and Dr. Alderson.

The following were appointed as a Finance Committee :—Dr. Sharpey, Mr. Arnott, Dr. Fleming, Dr. Aquilla Smith, and Dr. Quain.

Dr. Andrew Wood moved—"That the consideration of the question of the amendment of the Medical Acts shall take precedence of all other business." He said that he did not think the motion would require much enforcing. Whatever had been the opinion of the Council on the subject in previous years, it was now absolutely necessary for the Council to take action in the matter, unless they wished to be superseded by another body. The excuse had been formerly made that the matter had been brought forward so late in the session that it was impossible for the Council to deal with it. He had therefore resolved to do away with that excuse by bringing it forward as early as possible. With regard to the time of the meeting of the Council, he had listened with much satisfaction to the explanation of the President, but he much regretted that the meeting was not fixed for an earlier date. He then called attention to the position in which the subject was left at the rising of the Council last year, and said that what was actually carried was that it be committed to the Branch Councils to consider the needed amendments in the Medical Act, and communicate the result of their deliberations to the General Council. The Branch Councils had acted in accordance with that resolution, and the present Council had the result before them. It would now be their duty to consider what amendments they should adopt, get them drafted by a Parliamentary solicitor, and put the bill into the hands of the Secretary of State. He believed that unless the bill were taken up by the Government, there would be no chance of improvement in the legislation.

Dr. Corrigan said he believed nothing could be done at present in the matter, but he should, under the circumstances, support the resolution. The Irish Branch Council had been charged in the press and elsewhere with being obstructive in the matter, and he wished now to openly rebut that charge. He was glad to see the press now represented, although he had refrained from entering the arena outside the Council, and answering the attacks which had been made by anonymous writers. He stated that the first proposal for the amendmend of the Medical Act originated with him after consultation with his colleagues on the Irish Branch Council. They repeated their proposal year after year, and in the year 1864 the English Branch Council passed a resolution to the effect that it would be inexpedient to interfere with the existing legislation. Who had been the obstructives time after time? It was neither the Irish Branch Council nor the Scotch Branch Council, but the obstruction took place with the General Council, and it was no use to disguise the fact.

Mr. Arnott said he should neither vote for nor against the motion, but he was not satisfied that the time had come for

new legislation. He contended that the powers now possessed by the Council had never been fairly tried, and therefore any alteration would be premature. The question might arise whether the Council was so constituted as best to promote and protect the interests of the public on the one hand and the Profession on the other. He for one believed that the Council was too numerous, and he was not at all satisfied that it was well constituted for effecting the purposes it had in view. He contended, however, that it had the power to lay down a scheme of Professional education, and he should hesitate to go to Parliament for further enactments until those now existing had been properly applied.

Mr. Hargrave said the Council had, at all events, whether it was or was not constituted in the best way, done much good in bringing into the Profession a class of very highly-educated men, and publishing a valuable Pharmacopœia.

Dr. Aquilla Smith said that the fixing of the meeting of the Council for the present time was due to the English Branch Council. With regard to the remarks of Mr. Arnott as to the powers of the Council not having been fully tried, he believed that they had tried all the powers they had, and the result proved that they had really no powers at all.

Dr. Paget rose to ask the Council whether there was any objection, as a mere formal matter, to receive the communications to the Council, so that they might be placed in the hands of the printer rather than be delayed perhaps three or four days during the discussion of the Medical Act. As to the time of the meeting, he believed the English Branch Council had merely meant to express an opinion that if the meeting were delayed, legislation in the present session of Parliament would be more difficult, and that opinion was founded on the representation which had been made to them that the Bill would probably have to remain in the hands of the Secretary of State before anything were done.

Dr. Andrew Wood, in reply to Mr. Arnott, said that that gentleman seemed to consider they should not go to Parliament lest Parliament should say the Council was not qualified for its duty, and that it ought to be abolished. That, however, was one of the strongest reasons why they should go to the Legislature at once, for if the Council were inapt or unqualified for its work, let it be superseded by some other body better adapted for the attainment of the end in view. As to the powers of the Council not having been fully tried, he contended that they had been tried to their greatest extent, and found wanting. The Council would not be true to itself, to the public, and to the Profession, unless it endeavoured to remedy the defects which now existed.

The motion was then put, and carried *nem. con.*

Dr. Andrew Wood moved that the names should be taken down of those who voted and those who did not.

Dr. Aquilla Smith seconded the motion.

The President said the resolution had been carried without a dissentient voice. Very possibly some had not held up their hands because they thought the motion would not be opposed. The standing order was that when there was a division the names might be taken, but there had been no division in this instance.

After some little discussion, the motion relative to the consideration of the Medical Act was again put, and there appeared, for it 18, and against it none, two or three of the Council declining to vote.

Drs. Wood and Smith pressed their request to have the names taken down.

Mr. Hargrave said he should like the names taken down, in order that those who had voted might be defended from the attacks of those outside the Council.

Dr. Paget moved, and Mr. Rumsey seconded, that certain communications to the Council should be printed.

Dr. Corrigan objected to the printing of communications of the contents of which the Council knew nothing.

Dr. Paget said he did not propose to have them entered on the minutes, but merely to print them that they might be placed in the hands of the members.

Dr. Andrew Wood said that the motion for the consideration of the Medical Act precluded any other business till that had been disposed of. He therefore moved that the communications which had been received relative to the amendment of the Medical Act should be referred to a Committee to be reported on.

The motion was seconded by Mr. Hargrave, and carried unanimously.

Dr. Wood moved, "That the Committee consist of Dr. Embleton (chairman), Dr. Acland, Dr. Paget, Dr. Fleming, and Dr. Aquilla Smith."

The motion was seconded and agreed to.

Dr. Wood moved, and Dr. Embleton seconded, "That the communications of the various Branch Councils relative to the amendment of the Medical Act be read, and used as the basis of the proceedings of the present Council."

The clauses in the Act in which amendments were proposed were 20, 31, and 40.

The communications of the Branch Councils relative to clause 20 were then read by the Registrar.

Dr. Andrew Wood suggested that the Council should then proceed to discuss that clause before the communications as to the other clauses were laid before the meeting.

Dr. Paget said it would perhaps be better to discuss first that clause on which there was least diversity of opinion, namely, clause 40.

Dr. Andrew Wood thought it would be better to adhere to the natural order.

Dr. Corrigan thought the whole of the Act should be discussed. The Council were not unanimous as to the other parts of the Act; and it would be a piece of patchwork to repair three clauses when the whole Bill needed to be re-considered. The more common-sense way of dealing with the subject was to go through the Act clause by clause. When the Amendment Bill was laid before the Secretary of State he would be deluged with communications on the subject of the whole Act, and he would naturally say, "I cannot do anything with this Amendment Bill, for the Medical Council, who should have considered the whole Act, have given their attention to only three clauses of it."

Dr. Andrew Wood said that what occurred last year was a sufficient reason for proceeding with the three clauses in question.

Mr. Arnott said that he thought Dr. Wood would do the question more justice by allowing the discussion to be deferred till to-morrow. The members of the Council would then be better prepared for the consideration of the subject.

The President said it would probably be desirable to act on the resolution requiring the communications from the Branch Councils to be read.

The communications on the remaining clauses (31 and 40) were then read by the Registrar.

The President suggested that the resolutions of the three Branch Councils should be printed on the minutes for easy reference.

The suggestion was agreed to.

Dr. Andrew Wood moved "That the Council now proceed to consider the expediency of amending Clause xx. of the Medical Act, and that the following resolution be adopted:—'That the amended Bill should contain clauses conferring on the Medical Council definite powers to issue to the various licensing bodies regulations on the subject of preliminary and Professional education and examination; and that, in order to carry out that object, clauses to the following effect be adopted, viz.:—'That it shall be lawful for the General Medical Council from time to time to issue to the various licensing bodies such regulations respecting the Preliminary and Professional education and examination of persons desirous of obtaining any of the qualifications mentioned in Schedule (A) to the Medical Act, as may appear to the Council fitted to secure, on the part of such persons, the requisite knowledge and skill for the efficient practice of their Profession. That all such regulations as shall have been passed by a majority of two-thirds of the General Council shall be obligatory on all Universities, Colleges, and other Bodies enumerated in Schedule (A) to the Medical Act of 1858. That, in the event of any of the said bodies not conforming to such regulations, it shall be lawful for the General Council, if they see fit, to intimate to the said body that it has not conformed to such regulations, and to direct that, in the event of the said body not conforming within six months after such intimation, the qualification granted by such body, after the lapse of the said period of six months, shall not be registered. That it shall be lawful for any body in regard to which such directions shall have been given to appeal to the Privy Council, who shall have power, if they see cause, to disallow the direction of the Medical Council. That it shall be lawful for the General Council to restore any right to registration which may have been suspended by them, when they shall be satisfied that their regulations have been conformed to.'" He said that the reason for taking legislative action in this matter was, that the Council might recommend to the various educating

licensing bodies the course they considered desirable; but those bodies might, if they chose, entirely disregard those recommendations. It was true that the recommendations might be enforced by an appeal to the Privy Council, and that that course had not been taken; but it was most desirable that the Council should have the power of initiating and enforcing regulations, and of suspending any licensing body which did not conform to them. In order, however, to check any arbitrary exercise of power by the Council, the resolution provided that no recommendation should be enforced which had not received the sanction of two-thirds of the Council. The resolution was in the terms of the recommendation of the Scotch Branch Council.

Professor Syme seconded the motion, and, in doing so, remarked that moral suasion, which was advocated by some, had not, of itself, been found effectual. In one instance he had tried to induce the Council to report a certain body to the Privy Council, but after a lengthy consideration of the circumstances, they came to the conclusion that it would not be expedient to take that step. Moral suasion had been much applauded among them, but, with all his admiration for it, he did not deem it adequate to meet the case they had before them.

Mr. Arnott said he did not think that the Council would agree to the resolution. In England, at least, the influence of moral suasion had been effective, and the requirements of the Council as to preliminary education had been complied with, and he believed it would continue to be effective if no imperative powers were conferred on the Council. There was, however, great doubt as to what the Council really required in respect to preliminary education. As to Professional education, he did not consider that the Council should be entrusted with the imperative power of saying that no man should commence his Professional career until he had had a certain amount of instruction at a Medical School. He did not believe that such a power would be conferred by the Legislature.

Mr. Hargreave said that in the resolution before the Council they were beginning at the wrong end of the question. They were seeking amended legislation and further powers when they ought to be dealing with the questions of education and registration. As regarded compulsory powers, he did not think the constitution of the Council was such that they ought to be entrusted with them. There were only two pure Surgeons in the whole body. ("Oh.")

Dr. Corrigan proposed as an amendment,—"That the whole Medical Act should be taken into consideration, clause by clause, for approval or amendment, as the taking into consideration of only three clauses must lead to an imperfectly considered Bill, which would not command the attention of the Legislature." He said the essential difference between the Scotch and Irish Branch Councils was that the latter had recorded their opinion that the Council should not have power to enforce regulations before they had received the sanction of the Legislature, while the Scotch Branch Council proposed that the General Council should have the power of making and enforcing regulations without first submitting them to the Privy Council, but reserved to the licensing bodies the right of appeal to the Privy Council. Mr. Hargreave was in error in saying that the College of Surgeons were ready to comply with the requirements of this Council. On the contrary, there was in Churchill's "Medical Directory" a resolution of the College of Surgeons to the effect that they would not comply, because other bodies had not done so. (Hear, hear.)

Dr. Sharpey said he entirely concurred with the resolutions of the English Branch Council, and he believed that those resolutions were in accordance with the spirit of the amendment proposed by Dr. Corrigan. With regard to the general subject of new legislation, he was of opinion that there had been a large amount of compliance in England with the requirements of the Medical Council, and he wished the Scotch Branch Council could devise some means for securing an equal amount of compliance in Scotland. He felt sure, however, that any attempt to bring about a general assimilation in all points would fail, especially with regard to the subjects of study in preliminary education. There was a general agreement as to what those subjects should be, but any attempt to secure more than that would not be attended with good results. As to the respective merits of the suggestions of the English and Scotch Branch Councils with regard to the appeal to the Privy Council, he thought it better for the Medical Council to submit their regulations to the Privy Council before endeavouring to enforce them than to frame them independently of the Privy Council and reserve the right of appeal. It would be less inconvenient for the Medical Council to obtain the preliminary sanction of the Privy Council than to have their regulations disallowed. He should second the amendment of Dr. Corrigan.

Dr. Christison supported Dr. Corrigan's view as to the desirability of reconsidering the whole of the Medical Act before going to the Legislature. He was also of opinion that the application to the Privy Council should take place before the Medical Council attempted to enforce their regulations.

Dr. Andrew Wood said he wished to withdraw his motion.

Dr. Corrigan said he could not agree to that course, as the motion was the theme on which the amendment was based.

Dr. Paget said he considered it would be very inconvenient for the Medical Council to submit their regulations to the Privy Council before they had the right to enforce them, and such a practice would stand in the way of any modifications of the regulations which might from time to time appear desirable.

Dr. Storrar said that the impression which would be conveyed by the recommendations passed in previous years was, that the Medical Council either thought themselves wrong in taking the subject in hand, or that they had not the courage to go forward. He did not think them wrong, but he believed they had not the courage to go forward. The new powers proposed by the motion might prove a very dangerous weapon in the hands of the Council, and he considered the Council wholly incompetent to lay down a universal scheme for preliminary education for the nineteen bodies represented at the Council. They had not as yet exercised the powers which they had, and therefore they had no case for seeking new ones.

Dr. Quain said he thought the amendment objectionable. It would be better to take the three important clauses first, and then the other part of the Bill could be taken clause by clause.

The amendment and motion were then put to the meeting. The numbers were—For the amendment 7, and for the original motion 11.

The original motion was then put separately, when there appeared—For it 3, and against it 14.

Dr. Andrew Wood gave notice that he should bring forward another motion with reference to Clause 20 on the following day.

The Council then adjourned.

WEDNESDAY, APRIL 5.

(SECOND DAY.)

The Council re-assembled at 2 o'clock. The roll was called, and the minutes of yesterday's meeting were read and confirmed.

Dr. Corrigan asked whether there was an official shorthand writer in attendance as last year?

The Registrar said there was not.

Mr. Syme said when it was resolved that a special reporter should attend last year, it was not known that the press would be represented. The reports in the public papers last year answered every purpose.

The Registrar read the minute of last year's proceedings relating to the special reporter.

Dr. Corrigan said he only wanted to bring out the fact that the absence of a special reporter was not an infraction of the resolution of last year.

The President said the subject had not been lost sight of, and that it was under consideration yesterday.

Dr. Andrew Wood rose to bring forward a motion of which he had given notice yesterday in relation to the amendment of clause 20 of the Medical Act. He said the rejection of the resolutions of the Scotch Branch Council yesterday left the General Council only two courses open to them, instead of three. These were the adoption of the resolutions either of the English Branch or Irish Branch. The adoption of the English Branch Council's resolutions would be practically the adoption of nothing at all, for they recommended that the legislation should remain *in statu quo*. He repudiated the idea of the regulations of the Medical Council being left simply to moral suasion to be enforced. As the Council had rejected the Scotch dose as too strong for them, he had now to present to them the Irish dose, which was milder, and would possibly be accepted by them. The proposal was that it should be enacted that the regulations framed by the Council should be submitted to the Privy Council for endorsement, and that they should then be capable of enforcement

on the educational bodies, the right of appeal to the Privy Council being reserved to such bodies as might not comply with them. He doubted very much whether, after regulations had been carefully framed by the Medical Council, whose special business it was to consider such matters, and been endorsed by the Privy Council, the Privy Council would give any aid to recalcitrant Medical bodies. He believed that practically the recommendation of the Irish Branch Council would be effective. He should, therefore, move—"That the following be adopted as an amendment of Clause 20 of the Medical Act:—'It shall be lawful for the General Council from time to time to lay down such regulations respecting the education and examination of Practitioners in Medicine and Surgery as may appear to them fitted to ensure adequate knowledge and skill in the practice of their Profession. And the said General Council shall submit said regulations to Her Majesty's most honourable Privy Council. And the said regulations, if sanctioned by the said Privy Council, shall then be obligatory upon all Universities, Colleges, and other bodies enumerated in the Act. And it shall be lawful for the Privy Council, upon its being represented to them that any University, College, or other body enumerated in the Act does not comply with such regulations, to declare that any qualification granted by such University, College, or body shall not confer any right to be registered under the Act. Provided always that it shall be lawful for Her Majesty, with the advice of her Privy Council, when it is made to appear to her, upon further representation from the General Council or otherwise, that such College or body has made effectual provision, to the satisfaction of such General Council, for the improvement of its course of study or examinations, or the mode of conducting its examinations, to revoke any such order.'"

Dr. Corrigan rose to order. He said the motion could not be entertained, though if it could he should vote in its favour. A motion and amendment on the subject having been made and negatived already this session, the standing orders precluded another motion on the same subject.

The President, after some discussion, ruled that the motion was in order.

Dr. Lee seconded the motion.

Professor Syme moved the following amendment:—"That Clause 20 of the Medical Act stand as it is at present, and that if any of the bodies mentioned in Schedule (A) should decline or neglect to comply with the recommendations of the Council with regard to education, whether preliminary or Professional, the Council shall express their disapprobation."

Mr. Hargrave seconded the amendment. He said it would be the effect of pouring oil on the troubled water.

Dr. Corrigan said he should support the motion of Dr. Wood. He could not agree with the amendment of Professor Syme, which was in favour of moral suasion. He was beginning to get a perception of what moral suasion was. It was the principle that in the event of any body not complying with the regulations of the Council as to education, the Council should express its disapprobation. It was remarkable that the amendment for the expression of disapprobation should be moved and seconded by the representatives of two recalcitrant bodies—the University of Edinburgh and the College of Surgeons of London.

Dr. Christison said that the University of Edinburgh were much more blameless than Dr. Corrigan thought. They had refused to comply with a certain regulation of the Council, but they did so because they discovered that in making that regulation the Council had exceeded its powers. There was another point with which they had not complied, because it was thought unadvisable; but although there had been an appearance of misconduct on their part, there was really no wish to act contrary to the Council.

The amendment and motion were then put. The numbers were,—for the amendment, 10; against it, 11.

Dr. Embleton moved,—"That Clause 20 of the Medical Act of 1858 stand as it is at present." He considered that the powers conferred by it were quite sufficient, but the Council had not made use of them. The age of moral suasion seemed to be returning, and he thought the Council would now have a worse case for compulsory powers than they had before.

Mr. Rumsey seconded the amendment, and said that the Council should use the powers they had before they asked for more. If any Medical body did not comply with the regulations of the Council, did they take means to carry them into effect?

Dr. Fleming said he considered that it was intended by the Legislature that the Medical Council should have compulsory powers of regulating the practice of educational and licensing bodies. They were well qualified to decide on questions of education and registration, and if an application were made to the Legislature for an alteration of the Act, he should not fear the result. He did not approve of the regulations of the Council being submitted to the Privy Council for endorsement. The Privy Council was composed of noblemen and gentlemen not acquainted with Medical subjects. They would probably confer with some Medical man unknown to the Medical Council, and he would practically be the person who decided the whole question.

Dr. Corrigan, in reference to the statement that the powers of the Council had never been tried, said that that was quite true, and they never would be. There were different bodies who had neglected to comply with the regulations of the Council, and the powers could be tried within two days. He maintained that they dared not appeal to the Privy Council in reference to the bodies he alluded to, and he wished to know when the occasion was to arise. As long as the Act remained as it was, the standard of education would never be improved.

Mr. Arnott said it was contrary to the whole spirit of English legislation for a body like the Medical Council to be raised up, and to seek the sweeping powers which were contemplated by the motion. It was not desirable to interfere with the different educating bodies for the purpose of securing a uniform system of education. There was no uniform way of educating a clergyman or a lawyer, and the attempt should not be made in the present case to lay down a uniform plan of education for Medical Schools.

The amendment was then put. There appeared, for it 11, against it 9.

It then assumed, according to the standing orders, the form of a substantive motion.

Dr. Parkes said he did not approve of the resolutions of the Branch Council for England, which was that no alteration should be made in the legislation; and, with regard to those of the Irish Branch, he could not approve of the proposal for the regulations being submitted to the Privy Council for endorsement before they were promulgated. The Privy Council would naturally consult some other Professional persons, who would really be a higher authority than the Medical Council, and possibly override their decisions. He should, therefore, move as an amendment the substance of Dr. Wood's motion of yesterday on the subject, with some slight alterations in the latter part:—"That, with reference to amending Clause 20 of the Medical Act, the following resolution be adopted:—That the amended Bill should contain clauses conferring on the Medical Council definite powers to issue to the various licensing bodies regulations on the subject of preliminary and professional education and examination, and that, in order to carry out that object, clauses to the following effect be adopted—viz., 'That it shall be lawful for the General Medical Council from time to time to issue to the various licensing bodies such regulations respecting the preliminary and professional education and examination of persons desirous of obtaining any of the qualifications mentioned in Schedule (A) to the Medical Act as may appear to the Council fitted to secure, on the part of such persons, the requisite knowledge and skill for the efficient practice of their Profession. That all such regulations as shall have been passed by a majority of three-fourths of the General Council shall be obligatory on all Universities, Colleges, and other bodies enumerated in Schedule (A) to the Medical Act of 1858. That, in the event of any of the said bodies not conforming to such regulations, it shall be lawful for the General Council, if they see fit, to intimate to the said body that it has not conformed to such regulations; and that, in the event of the said body not conforming within six months after such intimation, a representation be made to the Privy Council to authorise the suspension of the registrations, decrees, or licenses of such bodies. That it shall be lawful for any body in regard to which such an intimation shall have been given to appeal to the Privy Council, who shall have power, if they see cause, to disallow the direction of the Medical Council. That it shall be lawful for the General Council to recommend the restoration of any right to registration which may have been suspended by the Privy Council when they shall be satisfied that their regulations have been conformed to.'"

Dr. Fleming seconded the amendment.

Dr. Corrigan said he did not think the amendment would

confer any additional power on the Council. It provided for an application to the Privy Council to have the registering and licensing powers of recalcitrant bodies suspended. That power was conferred by the existing Act.

Dr. Andrew Wood supported the amendment.

Mr. Rumsey said it seemed that Dr. Parkes had overlooked clause 21 of the Act. That really contained the provisions suggested by the amendment before the meeting.

The amendment was put; the numbers were—For it, 5; against it, 12.

The motion of Dr. Embleton, for the legislation to remain as at present, was then put:—For, 12; against, 8.

The motion was therefore carried.

The resolutions of the three Branch Councils relative to section 31 of the Medical Act were read by the Registrar.

The President observed that the suggestions of the English and Scotch Branch Councils as to Clause 31 very much coincided, and they did not recommend any alteration. The Irish Branch Council, however, proposed an important modification.

Dr. Quain moved that Clause 31 remain unaltered.

Dr. Alderson seconded the motion.

Dr. Embleton recommended the postponement of the discussion of the question, as there was a Bill before Parliament with reference to Pharmacy. He moved a resolution to that effect.

Dr. Parkes asked whether the English Branch Council thought Clause 31 threw some obstacles in the way of that union of Medical bodies which Clause 19 contemplated.

Dr. Storrar stated that they were not of that opinion.

Dr. Paget seconded the amendment.

On a vote being taken, there were for the amendment 11, and against it 7.

The amendment was therefore taken as a substantive motion, and put accordingly. There were for it 11, and against it 5.

The recommendations of the three Branch Councils as to Clause 40 of the Medical Act were then read.

Dr. Quain said the object of the clause was to enable the public to distinguish between qualified and unqualified Practitioners, but in that respect it had been an entire failure. It was necessary that some alteration in the law should be made to protect the public, and to guard the Profession against having attributed to them the misconduct of unqualified persons calling themselves Doctors or Surgeons. He did not, however, think that registration should be made compulsory before a person was allowed to practise; but he considered that, as recommended by the English Branch, persons practising without the qualification specified by the Act should be subject to a penalty. He should therefore move the following clause in amendment of the 40th clause of the Act:—"Any person practising Medicine or Surgery, or being engaged in the treatment of diseases or injuries, not being registered under this Act, nor being able to give evidence of being qualified to be registered under this Act, who shall take or make use of any of the titles or designations enumerated in Schedule (A) to this Act, or that of Physician, Surgeon, Doctor, Professor of Medicine, Professor of Surgery, or any Professional title, name, or distinction commonly used by, or used to distinguish, duly educated or qualified Practitioners in Medicine or Surgery, shall upon a summary conviction, be liable to a penalty not exceeding £20 for each offence." That was the resolution of the English Branch Council, with the omission of the words "for gain."

Dr. Paget seconded the motion.

Dr. Andrew Wood moved, as an amendment, the adoption of the following clause:—"Any person practising Medicine or Surgery, or being engaged in the treatment of diseases or injuries, not being registered under this Act, who shall take or make use of any of the titles or designations enumerated in Schedule (A) to this Act, or that of Physician, Surgeon, Doctor, Professor of Medicine, Professor of Surgery, or any title, name, or distinction used by, or used to distinguish, duly educated or qualified Practitioners in Medicine or Surgery, shall, upon a summary conviction, be liable to a penalty not exceeding £20 for each offence." He said that the clause should be framed so that a very small amount of evidence would be required in a court of law to prove the offence of practising without due qualification. Nothing could be simpler than the proposal he had submitted, which was that persons should not practise unless they were registered. The words, as proposed in the original motion, "not being able to give evidence of being qualified to be registered," would very much complicate the matter. The past year had been prolific of instances of the necessity of protecting the public against the extortions of unqualified men. He wished it to be distinctly understood by the public that, in attempting to improve legislation in this respect, they were doing it for the protection of the public, and not for their own benefit. There was an impression among some Parliamentary men that Doctors wished to have a monopoly. It was important to correct that mistake. The subject was really more important to the public than to Medical men. He did not wish to prevent duly-qualified persons from practising if they were not registered, and he would never attempt to do so.

Dr. Christison seconded the amendment.

Dr. Acland said that as he understood the amendment it would have the effect of compelling persons who practised to be registered. He thought that compulsory power was proper; but there were difficulties in enforcing it. Some duly qualified persons, from eccentricity or other reasons, objected to be on the register. He considered, however, that it would be no grievance to compel them, for the general weal, to appear on the register if they practised.

Mr. Rumsey said that the list of titles enumerated in the amendment was not complete. The list should either be complete or entirely omitted. He was in favour of its omission, as the ingenuity of quacks would devise designations, however long the list in the Act of Parliament might be.

Dr. Wood agreed to substitute the words "or any other title, name, or designation used by" for "or any Professional title, name, or distinction commonly used by," as the amendment originally stood.

Dr. Quain said that nobody was more in favour of compulsory registration than he was; but he did not think it could be obtained. Monopoly was always charged upon them whenever they agitated the question.

The amendment was put. There were in favour of it, 14; against it, 4. It was then taken as a substantive motion.

Dr. Corrigan rose to move an amendment. He said they all had one object in view; but there was a difference of opinion as to how it should be secured. He should move the adoption of the alteration proposed by the Irish Branch Council, which was, "That on and after the day of it shall not be lawful for any person, unless registered under the Act, to pretend to be or take or use the name or title of Physician, Doctor of Medicine, Licentiate in Medicine or Surgery, Master in Surgery, Bachelor of Medicine, Doctor, Surgeon, Medical or General Practitioner, or Surgeon, or Apothecary, or Accoucheur, or Licentiate or Practitioner in Midwifery, or any other Medical or Surgical name or title; and any unregistered person so offending shall forfeit and pay a sum not exceeding £20, to be recovered in a summary way before the justices of the peace." There was very little difference between this and the motion of Dr. Wood. The difference was that by the alteration proposed by Dr. Wood it would be necessary to prove that a man not only improperly assumed a Medical or Surgical title, but that he also practised; whereas, the suggestion of the Irish Council would make it penal to assume the title, whether he practised or not. He regarded the necessity to prove both the assumption of the title and the fact of practising as fatal to the operation of the clause.

Dr. Stokes seconded the amendment.

Dr. Paget objected to the amendment. He said that the Act was one to regulate "Practitioners in Medicine and Surgery," and he thought it utterly impossible that Parliament would sanction a penal clause against persons who did not practise.

Dr. Quain said there were 10 per cent. of qualified persons who were not registered. If registration were made compulsory, it would exclude from practice persons holding the degree of Bachelor of Medicine, who were qualified to practise, though not registered.

The President said that Dr. Storrar had given notice of a motion on that subject.

The amendment and motion were put by the President. There appeared—for the amendment, 3; against it, 15.

The motion of Dr. Wood was then put and carried *nem. con.*

Dr. Wood said that now the Council had decided that an alteration should be made in the Act, protecting the public against unqualified Practitioners, it was necessary to take action in the matter. It was desirable that an arrangement should be made for ensuring prosecutions, and he should probably himself bring forward a motion on the subject in the morning. He should now move that a Committee be appointed to draw up a memorial to the Home Secretary in reference to the amendment of the Medical Act, and to report to the Council."

Dr. Paget seconded the motion.

Dr. Paget moved "That the communications from the Directors-General of the army and navy Medical Departments, relative to the examinations of the candidates for Medical commissions, be referred to a committee to report thereon."

Dr. Andrew Wood said the communications should be read before they were referred to a committee. They were addressed to the Council, and should be fully laid before them.

After some discussion,

Dr. Paget moved, and Dr. Arjohn seconded, "That the communications be printed entire for the use of the Council."

Dr. Storrar moved as an amendment that the papers should be first read. They might contain confidential matter.

Dr. Corrigan seconded the amendment.

The amendment was carried.

The Council rose at 6 o'clock.

REVIEWS.

A Manual of Practical Therapeutics, considered chiefly with reference to Articles of the Materia Medica. By E. J. Waring, F.R.C.S., etc. Second Edition. Pp. 956. London: John Churchill and Sons.

Both student and Practitioner must find, we feel assured, in Mr. Waring's work a very useful volume. We have already noticed it (*Med. Times and Gaz.*, September 30, 1854), when in its first edition, eleven years ago, and then saw reason to commend it.

The publication of this, its second, edition has, like that of the last editions of several other works on Therapeutics and Materia Medica, been delayed, as the author states, for the appearance of the British Pharmacopœia. Besides alterations to bring it in accordance with this, notices of medicines introduced since its first edition have been added, and existing articles modified to suit the present state of opinion on their subject matter. In the preface to this edition the author remarks in explanation of some of these modifications,—

"Since the publication of the first edition of this work the treatment of inflammatory and febrile affections has been in a transition state, diffusible stimulants having, in a great measure, replaced blood-letting and other antiphlogistic remedies formerly in vogue. Although I have been unable fully to recognise the great asserted superiority of the new mode of treatment, to the total exclusion of other measures, which centuries of experience have proved to exercise valuable remedial powers, yet my own more extended experience, as well as the recorded cases of others, has conclusively shown that the old mode of treatment was capable of great improvement, and that we may have recourse, with manifest advantage, to stimulants at an earlier period and in larger quantities than was formerly considered either advisable or safe. A similar remark applies with equal force to the employment of quinine in the treatment of paroxysmal fevers, in which depletion and calomel are, in a great measure, replaced by the preparations of cinchona."

Improved as this edition is, and brought now more immediately under the notice of the English student, we shall give a short summary of its plan and contents, although we have already briefly noticed it on its first appearance, more especially as this appearance was eleven years ago, and that the first edition has been for some time out of print.

Its object, we may remind our readers in the author's words, formerly quoted by us, is to give collected, and brought "within a small compass, the opinions and experience of the most eminent writers of modern times, as to the real value of the articles of the materia medica in the treatment of disease;" and honestly, and with discrimination, we may add, has this object been accomplished. After a short introduction, follow —Part I., on "Articles of the Materia Medica;" Part II., on "Medicinal Agents and Classes of Medicines;" an Index of Diseases; and, lastly, a general index. An alphabetical arrangement is followed throughout the volume. Part I., forming the great bulk of the book, gives under each medicine critical accounts, generally excellent, of its value in different diseases, with copious references to authorities, and the modes of administration they recommend added. These accounts are preceded by the usual definitions of each medicine both as a drug and natural object, its source, and a brief notice, in finer type, of its medicinal properties and action. In Part II. we also find much valuable matter, although in "Medicinal Agents and Classes of Medicines" we find a somewhat heterogeneous collection of subjects. The author gives no classification of medicines, but notices most of the classes familiar to English readers. Nor has he evidently yielded to any temptation his subject may have offered to leave "practical" for "theoretical" therapeutics in his remarks on these (alphabetically arranged) classes. Many, we dare say, will commend him for this course. In this part we find fifteen pages devoted to the therapeutic value of *blood-letting*, six additional to *leeches*, eight to *baths*, five to *ice*, seven to *water*, and nearly nine to *electricity*. On the last subject we wish that A. Becquerel's "*Traité des Applications de l'Electricité à la Thérapeutique*" had been in our author's hands, as likely to have increased the value of his useful summary. The Index of Diseases, which extends over almost sixty pages, gives after each disease references to the paragraphs treating of the value of any medicine in it. This part of the volume, although it must enhance its value on the score of convenience, is, perhaps, open to some objection, as being liable to encourage an irrational empiricism in the practice of those who use it. However, we think this objection has not much foundation if the passages indicated are only carefully considered by the reader. To produce such an undesirable result for the sake of the supposed convenience of the Practitioner is plainly far from Mr. Waring's intention, for he says (p. 3):—"The practice of treating a disease according to its name, without minutely examining into each particular case, and adapting the appropriate remedies to the several indications which present themselves, cannot be too strongly reprobated." And, as far as is practicable in a work of the kind, he points out in the several paragraphs these indications. Our readers are, no doubt, aware that Dr. Stillé also includes a similar index of diseases in his splendid work on Therapeutics and Materia Medica.

We have little to say of the author's execution of the plan he set before himself to qualify our approbation other than to note some few imperfections of diction apparent here and there, the consequence, however, rather of hasty compilation of what is really an extensive treatise, despite the small compass into which it has been packed, than to any more serious fault.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 28.

Dr. Alderson, F.R.S., President.

An experimental and clinical inquiry, by Dr. Roberts, (communicated by Dr. Bence Jones) was read

ON THE SOLVENT TREATMENT OF URINARY CALCULI.

This paper is divided into two parts. The first part is devoted to experiments and observations relating to the solvent treatment of uric acid calculi by alkalising the urine by internal medicines. The inquiry starts from two known data—namely: first, that uric acid is dissolved by solutions of the alkaline carbonates of a certain strength; and secondly, that alkaline carbonates can be introduced into the urine, so as to render it alkaline, by the administration of certain salts by the mouth. The practicability of dissolving renal and vesical calculi, composed of uric acid, by alkalising the urine, is inquired into under ten headings or sections as follows:— Section 1. Comparison of solutions of carbonate of potash and carbonate of soda: in which it is shown that solutions of carbonate of potash are better solvents for uric acid than solutions of carbonate of soda. Section 2. Comparison of solutions of different strength: in which it is shown that the greatest solvent power (for uric acid) lies in solutions containing from forty to sixty grains of carbonate to the imperial pint. Above this strength dissolution is soon prevented by the formation of a crust of biurate which invests the stone. Below this strength the solvent power gradually declines. Section 3. Comparison of the effects of varying volumes of solutions of constant strength.—It is shown that the quantity of the solution permitted to pass over the stone, between the limits necessarily imposed by the capacity of the kidneys to separate aqueous fluids, is of slight importance. A flow of three or six pints during twenty-four hours was found nearly as effective as a flow of eight or fifteen pints. Section 4. Absolute rate of dissolution of uric-acid calculi in

solutions of the alkaline carbonates.—It is shown that solutions of carbonate of potash, of the maximum solvent power, when passed at the rate of from three to eight pints in the twenty-four hours over uric calculi, at the temperature of the body, dissolve from ten to twenty per cent. of the weight of the stone each day. Section 5. The most convenient way of alkalising the urine, the degree of alkalescence which can be communicated to it, and the doses required to produce the desired effect.—The bicarbonate, acetate, and citrate of potash are found the most effective substances to alkalise the urine. Of the three the citrate is preferred. It is found that forty grains of citrate of potash dissolved in five ounces of water taken every two hours alkalises the urine to a mean degree corresponding with the maximum solvent power of solutions of carbonate of potash. Section 7. The effect of alkalised urine on uric acid calculi.—The urine of a person taking full doses of citrate of potash, as recommended in Section 5, is passed over a uric acid calculus at blood heat. The stone (weighing 180 grains) loses weight at the rate of twelve grains and a-half in the twenty-four hours. In the performance of experiments on this point it came out that if the urine became ammoniacal (from decomposition of urea) it ceased to dissolve the uric acid, and the stone became invested with a crust of precipitated phosphates. Whence the important deduction is drawn that ammoniacal decomposition of the urine in cases of vesical calculi puts an absolute bar to the effectiveness of the solvent treatment by alkaline carbonates. Section 7. Illustrations of the application of the solvent treatment in practice; first in renal calculi, secondly in vesical calculi.—Two cases of complete dissolution of uric acid calculi in the bladder are quoted from other authors. The author relates three cases which occurred in his own practice. In none of the latter did complete dissolution occur. One of the cases proved to be an example of mulberry calculus; another, an alternating calculus of uric acid and oxalate of lime. This second specimen offers peculiarities of surface which indicate with certainty that dissolution of the uric acid had taken place: these peculiarities are explained by the aid of drawings of the stone after extraction. The third case proved abortive apparently because the treatment was not carried on sufficiently long. In neither of the cases was the treatment carried out as effectively (as the later experience of the author showed) as it might have been. The principal instruction from the cases is, the proof they offered that alkalising the urine does not cause the stone to be encrusted with a phosphatic deposit, so long as ammoniacal decomposition of the urine does not take place. Section 8. Discrimination of the cases in which the solvent treatment is and is not applicable.—The conclusions come to are:—That the solvent treatment is inapplicable in all cases where the urine is ammoniacal. When the urine is acid (before treatment) the case is *primâ facie* suitable for the alkaline solvent treatment; but exceptions must be made of cases where it is known or strongly suspected that the stone is composed of oxalate of lime, also where the stone is large. In cases where the urine is acid, and there is no indication of the nature of the stone, it may be either uric acid or oxalate of lime, or an alternating calculus composed of these two substances. Such cases deserve a trial of the solvent treatment for a limited period of a month or six weeks. The cases which are especially suitable for the solvent treatment are those in which (the urine being preliminarily acid) it is known or strongly suspected that the stone is composed of uric acid, and has not yet reached any large size. Section 9. Directions for carrying out the solvent treatment effectually.—The urine must be kept continuously alkaline, and alkaline to a mean degree corresponding with the maximum solvent powers of solutions of carbonate of potash. The treatment must be given up immediately if the urine become ammoniacal. Section 10. An examination of some of the objections which have been urged against the principles of the solvent treatment. The appendix to the first part contains some experiments showing that cystine is even more amenable to the alkaline solvent treatment than uric acid. The second part of the paper contains three sections. Section 1 contains experiments on the solvent treatment of uric acid calculi by injections into the bladder. Solutions of the following substances were tried in a manner to imitate injections into the living bladder:—Bicarbonate and carbonate of potash, common phosphate of soda, basic phosphate of soda, borax, borax with liquor sodæ, potash soap, carbonate of lithia, liquor potassæ, and liquor sodæ. The results obtained demonstrated conclusively that their operation was so slow that no practical advantage could be obtained from their use. Section 2 records some experiments on the effects of a solution of carbonate of potash and dilute nitric acid on oxalate of lime calculi: neither solvent promised any useful result. Section 3 shows the unsusceptibility of phosphatic calculi to solutions of the alkaline carbonates. Brodie's method of injecting dilute nitric acid into the bladder was imitated in one experiment, with results confirmatory of his statement respecting the use of this treatment in phosphatic concretions.

Dr. Harley had derived pleasure and benefit from the reading of the paper. It was valuable, as it combined chemical research with clinical instruction. Upon these two all improvements in Medicine must be based. A want of the knowledge of the chemical constitution of calculi formed the real obstacle to this mode of treatment in its earliest history. We now know that the uric-acid and phosphatic calculi require different chemical agents for their solution. That which was the antidote to the one was the bane to the other—one requiring the treatment by acids, and the other by alkalies. It was in cases of renal calculi, which he believed were more common than vesical, and in which no operation could be performed, that the plan advocated by Dr. Roberts was most valuable. Renal calculi were more easily dissolved by means of chemical agents than vesical, in consequence of the constant flow of urine over them. By a judicious regulation of tests, and a careful examination of the urine at short intervals, the nature of the calculus might be determined, and he believed in many cases might be successfully treated by chemical agents.

Mr. Moore referred to a difficulty which might arise where there were two calculi in the bladder of different chemical constituents; where, for instance, one had a coating of urate of ammonia, and the other was a fusible calculus.

Dr. Roberts having briefly replied, the Society adjourned.

THE PATHOLOGICAL SOCIETY.

Tuesday, March 21.

Dr. Peacock, President.

Mr. Partridge showed specimens taken from the body of a child who had had

MALFORMATION OF THE GENITALS.

The patient had been considered a girl by his parents, as the external parts somewhat resemble those of a female. In what appeared to be the labiæ, however, were bodies which Mr. Partridge conceived to be testes. Mr. Partridge had shown the child to the Society when living, and then one of the members suggested that the bodies were ovaries, and not testes. On dissection after death, however, they were found to be testes.

Mr. Partridge next showed a specimen of

GANGRENE OF THE PENIS.

A man, 45 years of age, who had been sober, and who had never had venereal disease, went to bed ill, and became delirious and unconscious. Eight days later he was seen by a Medical man, who found the penis cold and colourless, and eventually it became gangrenous from root to extremity, and finally separated. The patient rallied under bark, acids, and wine, and good diet. Mr. Partridge supposed that the gangrene followed low fever.

Dr. Murchison said that gangrene of the penis was not very uncommon after fever. He had seen six or seven cases during the recent epidemic.

Mr. Nunn said that he had rarely seen gangrene of the male genitals, although gangrene of the female genitals was not so rare. He had seen one case of gangrene of the penis in the Middlesex Hospital. The patient had not been a sober man.

Dr. Murchison said that in two of six cases he had recently seen there had been gonorrhœa. In one of the six cases there had been gangrene of the nose as well as of the penis.

Dr. Murchison showed specimens of

DISEASED MUSCLE FROM CASES OF TYPHOID FEVER.

He said he had frequently met with hæmorrhage and abscess in muscle after typhoid fever, and in none more frequently than in the rectus abdominis. Zenker, who had described similar conditions, attributed the rupture of the fibre to degenerations of either a granular or a waxy character. No

doubt, in some cases, degeneration of the fibres was seen, but in some it was not to be found. In the specimen which he exhibited he could not satisfy himself that the fibres were much diseased. There was a cavity containing oily and granular matter and corpuscles like pus cells. The patient had died of typhoid, the immediate cause of death being hæmorrhage from the bowels; the whole of the coils of intestine at the lower part of the ileum had sloughed out.

Dr. Murchison then brought forward the

ATROPHIED BRAIN OF AN IDIOT,

from a boy, 17 years of age, who had died of fever in the Fever Hospital. He had the manner and appearance of an idiot, and had always been idiotic. The brain was very small, and the chief bulk of the cranial cavity was occupied by fluid both externally and in the ventricles. It had unfortunately not been weighed at once, but, after having been three or four days in spirit, it weighed twenty-five ounces.

The President said that the brain, though atrophied, was apparently much larger than in other cases on record. The weight of the brain after maceration in spirit could not be compared with other observations, as the organ diminished very much in weight after having been in spirit even a short time.

Mr. Norton exhibited a specimen of

ABSCESS IN THE CEREBELLUM.

It occurred in a boy, 17 years of age, under the care of Dr. Sieveking, at St. Mary's Hospital. The symptoms he presented were extreme pain in the right ear; pain in the course of the right fifth nerve; dull, aching, throbbing pain in the head, extending down the spine, and much relieved on pressure. The pupils dilated; vision double; pulse 70, easily compressed. No delirium until a very late period of the disease, and then but little marked. At the post-mortem examination, the vessels of the dura mater were found much injected. An abscess extended through a large portion of the right hemisphere of the cerebellum. The seventh nerve was highly inflamed; but there was no pus near it. Lymph was deposited over the whole of the interpeduncular space. The anterior surface of the petrous portion of the temporal bone was somewhat softened in the position of the tympanum, and on passing a knife into this part thick yellow pus exuded. Mr. Hinton and Mr. Norton examined the internal ear, and found the membranous labyrinth of the cochlea somewhat thickened, but the semicircular canals apparently healthy.

Dr. Cayley exhibited a specimen of

RUPTURE OF THE CAROTID ARTERY.

The full details of this interesting case will be found in our Hospital Reports.

Dr. Cayley also exhibited a specimen of

TUMOUR OF THE SPINAL CORD.

A woman, 54 years of age, began to have pains in the left inguinal region, and loss of power in the left leg. Six months later both legs were paralysed and anæsthetic. There were occasional twitchings, but no reflex movements. At the autopsy a tumour, supposed to be of a myeloid nature, was found growing from the dura mater.

Dr. Morris Tonge exhibited, for Dr. Julius Pollock, a specimen of

COAGULUM IN THE PULMONARY ARTERY.

It was taken from one of Dr. Priestley's patients, aged 45, who was confined in the lying-in ward of King's College Hospital on the 31st of January last. She went on well till the fifth day after delivery, when she was noticed to be rather eccentric in manner, and on the twelfth day was quite maniacal. On the thirteenth day she was seized suddenly with severe collapse, resembling that of cholera; the face, lips, and extremities became blue, and she passed into a state of syncope, from which she was roused for a time by the administration of stimulants. She soon lapsed into a semi-conscious state, and died the same night. Shortly after the accession of the attack of collapse it was found that the left leg was œdematous and very painful and tender. On post-mortem examination it was found that there was recent and intense peritonitis. The left femoral vein and the veins of the left leg down to the foot were filled with large soft dark clots. The left ventricle contained fluid blood. The pulmonary artery contained a large firm almost colourless clot, which extended into the right ventricle on the one hand, and into the small ramifications of both branches of the pulmonary artery on the other. This clot had, no doubt, been the cause of the sudden attack of collapse, but in what manner was not very clear.

Dr. Robert Liveing then brought forward a specimen from

A CASE OF TRICHINÆ IN MUSCLE.

The following is Dr. Liveing's account of the case:—Chas. G., aged 68, a native of Jersey, was admitted as a "casual" patient into the Whitechapel workhouse on December 24, 1864. He complained of pains in his chest, with cough and expectoration. He walked with a peculiar shuffling gait, but nothing remarkable was noticed in his symptoms. His appetite was always good. Very little of his history is known previously to December 24, except that he had been several times to France. He was seized with a difficulty of breathing on March 7, and died on the following day, having been confined to his bed only thirty hours. On making a post-mortem examination of his body in the dissecting-room of the Middlesex Hospital, I found extensive pleurisy and pneumonia of the right side, sufficient to cause his death. On examining the muscles I found that they contained a large number of larvæ of the trichina spiralis, all enveloped in cysts which had become more or less calcareous, and thus very conspicuous to the naked eye. The muscular tissue itself was healthy, and of a bright colour. The muscles were well developed, and showed no signs of wasting. The muscles containing the largest number of the larvæ trichinæ were those of the neck, chest, and upper arm, particularly the pectoralis major, deltoid, and biceps. Those of the abdomen and thigh contained a much smaller number, while in the sole of the foot they were comparatively rare. The muscles of the abdomen, however, contained a large quantity of fat between the bundles of muscular fibre, which accounts for the small number of trichinæ found in this region. They abounded in the larynx and pharynx, also in the upper part of the œsophagus, but they could not be found in the lower half or in the heart, or any of the purely involuntary muscles, such as the stomach, etc. In spite of a copious injection of Burnett's fluid into the arteries of this subject, the trichinæ showed unequivocal signs of life when removed from their cysts. I think it probable that they existed in the muscles of this man at least some weeks (possibly months) before he was admitted into Whitechapel workhouse.

Dr. Cobbold remarked that although he had enjoyed fewer opportunities of investigating the natural history of this parasite than he had in the case of other human entozoa, yet not less than three instances of trichina in the human subject had now come under his personal observation. In all these cases similar features presented themselves, and two of them were dissecting-room subjects. From the condition of the cysts in Dr. Liveing's case, he believed that this man must have been attacked with trichinosis at least six months prior to his death, and notwithstanding that this person had entirely recovered from the immediate effects of the disease, he (Dr. Cobbold) was tolerably certain that they had indirectly promoted his decease. In cases of recovery from flesh-worm disease, the lungs were often left in a very weakened condition. Dr. Cobbold also remarked (in reply to a question by Dr. Murchison) that in trichinosis death ordinarily resulted from irritative fever superinduced by the almost innumerable wounds caused by the migrating larval brood. The injuries might even be classed as traumatic. Dr. Liveing had remarked upon the comparatively small number of trichinæ in the abdominal muscles. This was probably due to the abundance of fat in these muscles. Dr. Cobbold stated that he had fed various animals, such as the dog, rabbit, guinea pig, rat, mouse, donkey, fowl, sheep, etc., with the diseased flesh, but at present he had only killed two dogs. These gave a negative result, probably from having vomited the lumps of muscle given to them. No doubt this arose from the circumstance that the body had been injected with chloride of zinc.

Dr. Frederick Robinson exhibited a specimen of

MITRAL VALVE DISEASE.

The orifice was narrowed owing to bony deposit, so as only to admit of the passage of a large quill. The heart was much enlarged, occupying a position transversely across the chest, and weighing seventeen and a-half ounces. Left auricle much dilated, as well as the ventricle; the latter also hypertrophied. The subject of the disease was a delicate young man, aged 28, who never suffered from rheumatism. Whilst serving in the army in India, in 1860, he was attacked by pain in the cardiac region whilst running to the parade-ground. He dated the cough, bronchial affection, and dyspnœa which followed and continued at intervals ever since to this seizure. Dr. Robinson considered that this case strengthened the views of Dr. Peacock as to congenital and accidental

lesions of the valves being a more frequent source of organic disease than has generally been received.

CASE OF SPONTANEOUS CHELOID.

Dr. Hillier exhibited a man, 27 years of age, the subject of that somewhat rare disease of the skin the true cheloid of Alibert. The morbid appearances first presented themselves eleven years ago on the front of the chest, over the middle of the sternum, and were not preceded by any injury or scar. At first there was one hard shining tubercle, oval in shape, firmly set in the skin, of a red colour, and attended at intervals with darting pains. Since the commencement of the disease two other similar growths had appeared, one above and the other below that first formed. They varied in length from three-quarters of an inch to one inch and a-half, and were about three-quarters of an inch wide. The one which first appeared was undergoing absorption; it had lost its red colour, and exhibited a depression similar to that due to the scar from a deep wound. The one last formed was larger than an almond, was red, and small blood vessels were to be seen on its surface, with claw-like processes extending from it into the adjacent skin. The man's general health was good. No local treatment had been adopted; the experience of former cases discouraged the use of caustic or the knife.

Mr. Holmes (Hon. Sec.) exhibited, for Mr. Chas. Roberts, of York, a specimen of

HORNY GROWTH REMOVED FROM THE FACE.

Mr. Roberts' report was the following:—The horny growth which I enclose was removed by me from the face of an old woman, about 75 years of age, the wife of a blacksmith, residing in a small agricultural village a few miles from York. It was growing from the skin immediately over the edge of the lower jaw on the left side, at a point corresponding to the angle of the mouth. The patient stated that about three years ago a small wart (which she had had all her life) became irritable, and from frequent scratching bled freely. As the irritation subsided, a horn grew, and slowly increased in size for two years, when she broke it "short off." The enclosed horn has been the produce of the last twelve months, and has increased in diameter and length much more rapidly during the last three months. The soft, bulbous base was very vascular and painful, and the horn, by hanging down into the neck and catching the dress, was a source of great pain and inconvenience to the patient. In removing it, it was only necessary to divide the skin, as the tumour had no connexion with the deeper tissues.

Dr. Cruckshell showed a specimen of

RUPTURED ANEURISM OF THE AORTA.

The symptoms had been so obscure that aneurism had not been suspected. The patient, a woman, 34 years of age, had complained of pain in her chest, and had spat blood. She was getting up one morning, when profuse hæmorrhage occurred, and she died. The aneurism was of the descending part of the aorta, and had opened into the left bronchus.

MEDICAL NEWS.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, March 30, 1865:—

John Williams, University College; Hubert Wilson South Stirton, Trafalgar-road, Greenwich; Edwin Burrell, Westley, Bury St. Edmunds; Charles Claridge Brewer, City-road.

As an Assistant:—

John Lloyd, George-street, Cardiff.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Brodribb, William P., L.R.C.P. Edin., has been appointed Secretary to the Court of Examiners, Apothecaries' Hall.

Brown, Isaac Baker, Jun., M.R.C.S. Eng., has been appointed Assistant-Surgeon to the London Surgical Home.

Dalby, William T., M.D. Aberd., has been appointed to the Commission of the Peace for the County of Surrey.

Haines, R. W., M.R.C.S. Eng., has been elected Junior House-Surgeon to the Manchester Royal Infirmary and Dispensary.

Hood, William C., M.D. St. And., has been appointed to the Commission of the Peace for the County of Surrey.

Jackson, George, M.R.C.S. Eng., has been elected House-Surgeon to the West London Hospital, Hammersmith.

Scoresby-Jackson, R. E., M.D., F.R.C.P., has been appointed Physician to the Royal Infirmary of Edinburgh.

Smith, R. W., L.R.C.P. Lond., has been appointed Medical Officer for King's Norton Union, Worcestershire.

Smith, William, M.R.C.S. Eng., has been elected Junior House-Surgeon to the West London Hospital.

Snow, William, M.R.C.S. Eng., has been appointed House-Surgeon to the Kent County Ophthalmic Hospital, Maidstone.

Symes, William H., M.B. Dub., has been appointed Physician to the Carlow County Fever Hospital.

Walker, Henry G., M.R.C.S. Eng., has been elected House-Surgeon to the Hereford General Infirmary.

Watson, James D., L.R.C.S. Edin., has been elected Medical Officer for the Parish of Bothkennar, Stirlingshire.

DEATHS.

Kelly, William, M.D., Surgeon-Major Royal Artillery, at Bath, on April 4, aged 58.

Prater, William, M.R.C.S. Eng., of Fair-place, Okehampton, Devon, on March 18, aged 38.

Robinson, Charles S., M.D. St. And., at 23, Harewood-square, N.W., on April 1.

Rogers, Frederick J., M.R.C.S. Eng., at the Infirmary, Leicester, on March 29, aged 28.

At the Levée on Wednesday, the following presentations to the Prince of Wales, on behalf of the Queen, took place:—Dr. Th. Bernhardt, by the Lord Chamberlain. Assistant-Surgeon Henry Griesbach, M.D., Madras Army, by the Secretary of State for India. Dr. James Vaughan Hughes, by the Adjutant-General. Dr. Priestley, by Sir Charles Locock. Assistant-Surgeon T. Sharkey, Royal Artillery, on appointment, by Colonel G. Gambier. The following gentlemen attended the Levée:— Sir Charles Locock; Drs. Scott Alison, Gream, John T. Griffith, M'Cann, Ramsbotham, and Ruttledge; Messrs. Du Pasquier, Cæsar Hawkins, Joseph Toynbee, F.R.S., Haynes Walton, and Spencer Wells.

Summer Lectures at the Paris Faculty of Medicine.—These lectures, which commenced April 3, are to be delivered by the following Professors:—Medical Natural History, Baillou; Physiologie, Sée for Longet; Midwifery, Pajot; Therapeutics and Materia Medica, Trousseau; Legal Medicine, Tardieu; Pharmacology, Regnauld; Surgical Pathology, Gosselin; Pathological Anatomy, Empis for Cruveilhier; Medical Pathology, Béhier, Hygiene, Bouchardat; Medical Clinic, Bouillaud, Guillot, Grisolle, and Piorry; Surgical Clinic, Jobert, Laugier, Velpeau, and Nélaton; Midwifery Clinic, Depaul; Clinic of Diseases of Children, Roger; Clinic of Diseases of the Skin, Hardy; Ophthalmic Clinic, Follin.

Royal Institution of Great Britain.—The general monthly meeting was held on Monday, April 3; William Pole, Esq., M.A., F.R.S., Treasurer and Vice-President, in the chair. Walter Armstrong, Esq., R. M. Birkbeck, Esq., Henry Brandreth, Esq., M.A., James William Butler, Esq., the Rev. Tullie Cornthwaite, M.A., F.L.S., George Duppa, Esq., Mrs. Henry, Henry Mather Jackson, Esq., Major William Lyon, Sir Theophilus Metcalfe, Bart., Alexander McDonald, Esq., Colonel Robert Morrieson, were elected Members of the Royal Institution. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

The Main Drainage Works.—There are now about 1300 miles of sewers in London, and 82 miles of main intercepting sewers. 318,000,000 of bricks and 880,000 cubic yards of concrete have been consumed, and 3,500,000 cubic yards of earth have been excavated in the execution of these main drainage works. The total pumping power employed is 2380 nominal horse power; and if at full work night and day 44,000 tons of coal per annum would be consumed. The sewage on the north side of the Thames at present amounts to 10,000,000 cubic feet a day, and on the south side to 4,000,000 cubic feet per day; but provision is made for an anticipated increase up to 11½ millions on the north side, and 5¾ millions on the south side, in addition to 28½ million cubic feet of rainfall per diem on the north side, and 17¼ million cubic feet per diem on the south side, or a total of 63 million cubic feet per diem, which is equal to a lake of 482 acres, 3 feet deep, or fifteen times as large as the Serpentine in Hyde-park. All the works are now complete, save only the northern low level, which, as having to run under the Thames embankment, cannot, of course, be yet constructed.—*Times*, Friday.

Guy *v.* Staples.—Nisi Prius Court, Midland Circuit, April 1.—This was an action by a Surgeon to recover £66 for Medical visits which he had paid to an old man named Jupp, at the request, as he alleged, of the defendant. It was admitted that the defendant had written a letter, requesting the plaintiff to attend Jupp, who had a bad leg. The plaintiff did so, and continued his attendance for about fifteen months until Jupp died. With the exception of the letter, no communication on the subject had taken place between the plaintiff and the defendant. The plaintiff obtained a verdict for £40.

Bromide of Ammonium in Pertussis.—Dr. Küehenmeister states that additional experience confirms the favourable opinion he formerly expressed concerning the value of this medicine. He gives of a concentrated solution of the bromide from five to fifteen drops three times daily, according to the age of the child, proceeding to the larger quantity named only gradually.—*Zeitschrift für Mediein*, 1864, p. 410.

Death amongst the Parsees.—Physieians who attend Parsee patients are always charged (if the cases are likely to terminate fatally) to give timely warning to the friends of the sick man. When it is believed that he is drawing near his end, the attendance of the Physician is dispensed with; the dying man is given over to two Parsee attendants, who divest him entirely of clothing, and convey him to a chamber on the lowest floor, from which all the furniture has been removed, and in which there is nothing but two stones. The poor man is placed upon these stones, held up in a sitting attitude by one of the men, and his body is besmeared with cow's urine. If possible, he must be made to drink some of the same; this is regarded as of great importance, and, under the circumstances, of singular efficaey in fitting his spirit to appear before the Judge of all. After this a quantity of warm water is poured upon the poor man, one vesselful after another, and in the great majority of instances the vital spark is extinguished at this time. We have heard of a case where a Physician was summoned in all haste. Before he reached the house, however, the friends of the sick man thought him to be on the point of death, and, without waiting, removed him to the death-chamber. The Doctor arrived, and was told that the patient was dead. He asked to see him, but was denied access. He inquired regarding the symptoms, and on being informed of them, he declared his belief that that the man was not dead, and insisted on seeing him. But they would not allow him to approach the body; he might see it from a considerable distance. This ablution with the sacred element is regarded as a means of washing away their sin.—*The Times of India*, February 22, 1865.

The Metropolis Sewage and Essex Reclamation Bill.—The Select Committee appointed to inquire into the best means of disposing of the metropolitan sewage on the north side of the Thames have now issued their report. They say that the scheme brought before them by Messrs. Hope and Napier, and embodied in the Bill before the Lower House, fulfils the following requisitions:—"It provides, in the first place, for the complete removal from the River Thames of the whole of the ordinary sewage of the northern part of the metropolis, leaving only, on the occasion of heavy rains, a portion of the sewage still to run into the river, but so small and exceptional that it may, for all practical purposes, be left out of consideration. It provides, in the next place, for the irrigation by sewage, in whatever quantities may be found useful, of a considerable area particularly well adapted for such a purpose, inasmuch as the natural character of the soil is light and favourable. Moreover, the low level of the district enables the sewage to be applied with very little mechanical aid, and, in fact, mainly by gravitation. It may also be observed that an extension of this area might be made by pumping the sewage to a moderate elevation. Lastly, with respect to whatever portion of the sewage may not be disposed of in its course, the scheme proposes to apply it in the reclamation of a barren portion of land on the coast, in a manner recommended by experience." The combination of these different modes of using the sewage is, the Committee think, of great consequence in insuring at all times and seasons the beneficial application of the whole sewage, with the small exception above mentioned on the occasion of heavy rains. Upon this evidence the Committee are of opinion "that the scheme which has been submitted to them is a useful and profitable mode of applying the sewage of the northern portion of the metropolis, and they have no reason to suppose that any more useful or profitable scheme could be devised." The Committee consisted of Mr. Headlam (chairman), Mr. Ayrton, Mr. Knight, Dr. Brady, Mr. T. J. Miller, Colonel Smyth, Mr. Selater-Booth, Mr. Paget, Mr. Clay, and Mr. Charles Turner.

The Decision of the Guardians of the Holborn Union in the Late Official Inquiry.—We now learn to what extent the Guardians of the Holborn Union have accepted the official report, the conjoint work of Mr. Farrall and Dr. Carr, the Medical assessor, and which we hold as official, proceeding as it did from the Poor-law Board, being dated Whitehall, Jan. 20, 1865. It will be remembered that the latter gentleman, after commenting on the whole of the Medical evidence, the character and general relations of the Union Workhouse, suggested that for the future the drugs should be supplied by some respectable wholesale druggist, and paid for by the Guardians; 2ndly, that the salary of the Medical officer should be raised from £100 to £150; and 3rdly, that two properly educated nurses should be appointed and paid sufficient salaries to command a high elass character. In the face of these recommendations, emanating, be it remembered, from the Poor-law Board, and doubtless receiving the sanction of the Commissioners, it will scarcely be credited that the guardians have only in part accepted them! They cannot yet see that means calculated to expedite the recovery of the sick pauper will save their rates; that the employment of well-trained nurses can alone prove the only valuable auxiliary to their Medical officer; and that to offer an advaneed remuneration is not the surest way of commanding a proportionately advanced Medical *expert*. It is true the guardians have agreed to raise the salary of their Medical officer to £125 per annum, being an advance of £25; they have also determined on employing one paid nurse as an experiment; but they have wholly rejected the suggestion of paying for the drugs.

The Treatment of Aneurism by Compression on the Distal Side of the Sac.—(Extract from a clinical lecture on the Combination of Distal with Proximal Compression in Certain Cases of Aneurism. By J. M. O'Ferrall, F.R.C.S., L.K.Q.C.P.I., M.R.I.A., Chief Surgeon to St. Vincent's Hospital.)—I have long since been of opinion that compression of an artery on the distal side of an aneurismal sac should precede or accompany that on the cardiac side of the aneurism. Three cases have already been treated with success on this plan. I have often observed arrest of pulsation easily accomplished, attended at the same time with a flaccid state of the sac; but I have also remarked in such cases that the moment the pressure ceased the sac filled and throbbed as before. The formation of the coagulum is thus desirable as the first step to consolidation. A half-empty sac is the ready recipient for the slightest thready current that can follow the cessation of the compressing force on the cardiac side. It, therefore, appeared to me advisable to interrupt the current only when the sac was full of blood. These considerations, together with the knowledge of the fact that ligature of the artery on the distal side has sometimes cured an aneurism when the upper or cardiac portion of the vessel could not be reached, made me resolve to try this expedient whenever a fair amount of pressure was not followed by success. From what I have observed, I am inclined to think that cessation of pulse in a sac which suddenly diminishes in size and becomes flaceid is less likely to be followed by a permanent cure, whatever time may have been occupied in the compression; and that a sae which retains its volume, and is, moreover, full of coagulum, is less likely to be refilled, however short the duration of the compression force. When the supply is completely cut off by ligature of the trunk, I believe that the danger of relapse from refilling of the sac by collateral sources is more likely to occur when the sac collapses and becomes flaccid at the moment of deligation than when its dimensions are unchanged. This firmness of the parietes of the sac is always considered favourable to the success of the operation, as implying the presence of fibrinous deposits, whether we attribute them to stasis of the blood or to inflammatory exudation, as suggested by the researches of that distinguished Surgeon, the late Dr. Abraham Colles. I have no doubt, however, whether a sac be filled by fibrinous deposits of some duration, or by coagulum recently formed, that a full sac is very influential in preventing the ingress of blood from a compressed artery above, or collateral branches from below; the compression below the sac need not, in some cases, last more than a few minutes before the current above is stopped. If, on making the pressure above and arresting the pulsation, the sac remains full, the object is attained, and

time is merely required to allow the blood then liquid to coagulate in the sac. In other cases, it may be prudent to continue both compressions for a longer time.—*Dublin Medical Press*, Mareh 15.

THE CASE OF DR. PRITCHARD.—The *Scotsman* of Monday says :—"The particular stage at which the investigation in this complicated and exciting ease has arrived renders it impossible that any definite statement of results can be published for a few days. The chemical examination of Mrs. Pritchard's body is proeeeding, and will probably be completed in the course of this week ; but very special precautions have been taken to prevent any exposure of the first results obtained, and, as some time must elapse before any report will be made even to the authorities, it is not expected that public curiosity will be gratified for some days to come. We have grounds, however, for stating that the case against the prisoner has assumed a grave aspect from the result of the post-mortem examination alone of Mrs. Taylor's body. The condition and appearance of the organs denoted no serious or fatal illness of a natural character." The Glasgow *Morning Journal* of Saturday says :—"In the course of our inquiries yesterday, a fact or two came to our knowledge, the importance of which, in a painful investigation like the present, it would be difficult to over-estimate. Hitherto, little or no direct proof has been brought forward of the accused being in possession of antimonial preparations in any considerable quantity, or, indeed, of having them at all. The sale-books of the druggists with whom he was in the habit of dealing throw, it is understood, but little light on the matter ; and if the police officials have found the drug in any form in his surgery, this information has, of course, been studiously kept secret. There can be no doubt, however, after what we have learnt, that for several weeks past Dr. Pritchard was really in possession of tartarised antimony, and this, moreover, in unusually large quantities, purchased by himself at the establishment of a respectable wholesale druggist in town. We believe we are within the mark in stating that not less than two ounces of this medicine was thus procured by him within the space of two months. Another somewhat striking circumstance is that a few days before the death of Mrs. Taylor he was supplied from the same warehouse with a goodly quantity of 'Fleming's' tincture of aconite—a medicine possessed of virulently poisonous qualities when administered incautiously. It is quite true that both of the drugs mentioned are largely used in the healing art, but it is not easy to guess at first sight what need any Surgeon in private practice could have for great quantities of them, more especially of the tartar emetic. A very free use of antimony as an outward application might, perhaps, partially explain the necessity for purchases so unusually large, but we are led to understand that any such practice has been of late years almost completely laid aside by Medical Practitioners who keep pace with the pharmaceutical improvements of the day, as we may reasonably assume Dr. Pritchard to have done. A grave question, then, must now arise as to what has become of the powerful poisons which the aceused is known to have bought."

THORACENTESIS IN A CHILD.—M. Roger relates at some length the details of a case of purulent pleurisy occurring in a child 8½ years old, the treatment of which occupied nearly six months, during which the operation of thoracentesis was performed five times. Iodine injections were resorted to, and a canula was left within the wound to facilitate the discharge of the pus. From this case he derives the following considerations :—1. The importance and at the same time the difficulty in coming to a quick decision with regard to this operation in certain urgent and complicated cases of purulent pleurisy. (In this case it was complicated with bronchopneumonia of the opposite side.) 2. The advantage of making in children the puncture without preliminary incision of the walls of the thorax. 3. The necessity which almost always exists in empyema of repeating the operation several times. 4. The difficulty which exists, do what we will, in preventing the admission of air into the pleura. 5. The frequent innocuity of the presence of this air. 6. The manifestation as a consequence of its introduction of stethoscopic phenomena not always of easy interpretation, and which may be mistaken for perforation of the lung with consecutive hydropneumo thorax. The readiness with which lateral deformity of the spine, with concavity on the bad side occurs, and the rectification of this deformity which takes place sometimes rapidly after recovery.—*L' Union Méd.*, No. 82.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. Dufour writes to ask the *Medical Times and Gazette* to recommend a dentist who will extract a decayed tooth skilfully. We strongly advise him to consult the Council of the Odontological Society, or any one of them—viz., Messrs. Saunders, Rogers, Cattlin, Imrie, Perkins, Ibbettson, Sheffield, Harrison, Fox, Kempton, Hulme, Tomes, Bigg, Owen, and Hill. If he cannot get his tooth drawn, perhaps he will write again.

Another Competitor.—The report of the Jacksonian Committee was only made to the Council on Thursday evening, when the award was made in favour of a metropolitan Surgeon, for the essay on Club-foot. We shall publish the result next week.

A Fellow by Examination.—From inquiries made, we are told that the election will take place in July, and should no death vacancy or resignation occur, the candidates going out of office are Messrs. Wormald (the senior Vice-President), Quain, and Shaw ; they are, however, eligible for re-election, and no doubt will offer themselves.

Errata.—The remarks on Mr. Bryant's case of Double Herpes-zoster were unfortunately printed from an uncorrected proof. Besides several obvious mistakes, *for* "anæmial," *read* "acromial."—In our last No., p. 349, under the heading "Medical Knighthoods," *for* "Dr. Lenton C.B.," *read* "Dr. Linton, C.B."

"CASTOR-OIL PILLS."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—So-called "castor-oil pills" are very much in vogue in my neighbourhood ; many patients in delicate health, some only just confined, use them, supposing that they are really what they profess to be. A patient of mine very nearly lost her life by taking two last week, under an impression that they were the same thing as castor-oil. Of course, castor-oil pills do not contain a particle of castor-oil. Will you have the kindness to warn the godfathers of these bastard productions that they are in danger of having a charge of manslaughter brought home to them ?

I am, &c. M.D.

HYDROSTATIC MATTRESSES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your last week's issue you give an extract from a communication to the *Gazette Médicale*, by M. Cosmas-Dumenez, of the great advantages derived by M. Demarquay from the employment of the hydrostatic mattresses during the last five years.

As the hydrostatic mattresses referred to were invented and introduced to the Profession by myself, about twenty years ago, it is gratifying to find that, after such a lengthened period, the advantages derived from their use are sustained by the evidence of so high an authority, and that the opinions of English Practitioners are so favourably endorsed.

Since there are few members of the Medical Profession, either in the United Kingdom, our colonies, or in India, who have not had experience of their value in cases of fractures, sloughing, paralysis, etc., or the prevention of bed-sores, we may, perhaps, by remaining passive to the remarks of M. Cosmas-Dumenez, lead our Continental friends to believe that they are not of English introduction, and that we are behind the age in the production of such Surgical and invalid appliances.

I trust I may be pardoned in stating that the published accounts in our Medical journals, first by Mr. Cæsar Hawkins on my hydrostatic cushions, and more recently by other eminent Medical men on my hydrostatic mattresses, show nothing has certainly been done by any other manufacturer towards their development, and which is confirmed by the fact that only one award was made by the Jurors of the International Exhibition, which was a medal to myself.

Various forms of permanent elastic caoutchouc were exhibited by me, independently of the hydrostatic mattresses and cushions, especially forms for the local application of heat and cold, at any temperature, from that of zero to boiling water.

Mr. Seymour Haden directed my attention to the construction of elastic caoutchouc bags for the local application of cold by ice, and after some expense I succeeded in accomplishing the objects which were desired. A valuable communication by Dr. Esmarch, translated by Dr. Edmund Montgomery, and published by the New Sydenham Society, vol. xi., enters very minutely into the subject, and gives most useful results.

It is now somewhat surprising that attempts are being made to introduce the elastic caoutchouc bags as patented articles, and altogether ignoring my priority and manufacture.

I am, &c.

Pall-mall East, April 4. WILLIAM HOOPER.

WASTING OF THE TESTICLE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I shall feel obliged if any of your readers will give me the benefit of their experience in cases similar to the following :—

At the beginning of January, W. J., aged 24, stonemason, consulted me for "shrivelling of the testicle." He tells me that when 17 he practised masturbation daily for twelve months, but finding his health failing at the end of that time, he ceased to do so. Ever since he has been subject to nocturnal emissions. He has never had gonorrhœa or orchitis. Eighteen months he got a severe cold, had swelling of cervical glands, with dull aching pain in left testis, but no redness or swelling ; lancinating pain in groin and down thigh. After a week's rest in bed and the use of fomentations and purgatives the pain gradually subsided, but from this date he has observed a softening and gradual decrease in size of the left testis, with occasional darting pain. He has all the desire for intercourse, but is unable to effect his purpose, as the erection is imperfect and seminal emission so speedy and scanty, an oozing continuing for some hours subsequently. On examination, I found the genitals well formed, but left testis is only of size of hazel-nut, and very soft ; right testis not so firm and large as natural. Manipulation causes no pain in left and only slight in right. He has the appearance of a vigorous young man, with a plump, ruddy countenance, but is highly nervous and imaginative. He is of steady and temperate habits.

Viewing the impaired function as the result of excessive action and excitement during his youthful imprudence, and with the object of checking, if possible, the progressive atrophy of the testis, I have prescribed the tepid salt water douche, cod-liver oil, with tinct. ferri æther., chlor., and sol. strychniæ, ter die.; nourishing, unstimulating diet, and, above all, a strict avoidance of sexual excitement, but I cannot find any improvement. Syme and Ferguson do not refer to the subject; Druitt simply says "there is no cure." Have any of your readers had better success?

I am, &c.

ACTA NON VERBA.

A Parish Surgeon's Grievance.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following case exposes another parish doctor's grievances, and one which I have never before heard mentioned:—

An imbecile old man, who lived with his wife and an unmarried son, and whose weekly family income consisted of 8s. from his club, 12s. from the son's labour, 2s. to 3s., with two to three days' keep, by old woman's work, and 2s. 6d. from the parish, was so negligently left that his clothes caught fire and he was dangerously burnt. I had visited the old man some three times during the past three months, in order to sign his club medical certificate; and this I did partly out of charity, partly from a promise by members of the club that I should be remunerated for so doing. I consequently knew the old man's state, and knew of how little avail my presence would be, and so, being tied by other cases in hand, and having sent opiates and given directions, I omitted, or (as was said) neglected, to visit him that evening. He died early in the morning. A few days after I received a note from the coroner, stating that there was a charge of neglect against me. I attended the inquest; and while the neglect that really caused the old man's death was only mentioned, half the coroner's papers were filled up with evidence of the Doctor's behaviour. While there was not a single expression of dissatisfaction, there was not the slightest evidence of omission or neglect having accelerated death or even increased suffering. Again, there was no evidence given that the old man was a parish patient, but to the contrary. Judge, then, my surprise when the next issue of the local papers charged me with "wilful neglect," and stated that I was to be reported to the Poor-law Board. I therefore wrote to the coroner, and found the newspaper report dwindled down to this, "that the jury, at the conclusion of the inquest, made observations upon my omission to visit, and requested him (the coroner) to report to the local board of guardians." I beg to add that the board of guardians decline to take up the matter.

Now, I know and attend upon, I may say, all the people concerned—jury and deceased's family; and I have subsequently made inquiries, and have not heard the slightest word of dissatisfaction. In fact, the whole inquest was got up by the local police-constable. He has a direct interest in the payment of expenses, an indirect interest in the matter of future promotion. He it is who opines he has enough to make an inquest; he alone tells the coroner; he chooses the witnesses; he chooses the jury; and in this case he it was who gave the local reporters to the newspapers the erroneous verdict containing the charge of "wilful neglect."

I may misunderstand the object of a coroner's inquiry, but if the carelessness of friends and relations is to be condoned, and an inquest into the cause of death to culminate into the mode the Medical man conducts his practice, the committors of crime will have a new mode of escape, The Medical Profession, too, is come to a poor state when the police-constable of the district is upheld as the constituted authority and judge of the performance of its duties.

I am, &c.

A COUNTRY PRACTITIONER.

Arbitrary Choice of Medical Witnesses by Coroners.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I seek advice under the following circumstances:—On Sunday, March 19, at 2 15 p.m., I was called up by a police-officer and requested to go to the police-station, where he said there was a child either dying or dead. I live close thereto, and am the police Surgeon. I went immediately and found a woman with an infant and a man, who with her had been drinking and rambling about the township and neighbourhood for several hours. The child, about eight weeks old, was robust, well-nourished, quite warm and flaccid, but dead. As a result of my examination, the man and woman were taken into custody on suspicion of causing the child's death. An inquest was entered upon the day following, but adjourned until Friday for a post-mortem. Not I but another gentleman was sent for by the coroner, and instructed to make the required examination. The result of this inquest was, the woman was committed to be tried at the assizes on a charge of manslaughter. The same Medical man was of course examined before the magistrates at the police-court, where he repeated his evidence, and was bound over to attend at the trial. I would probably have arrived at the same conclusion as to the cause of death (suffocation); but not for the reasons he assigned—viz., certain marks, which were not present on the recent body when I saw it, but which were, I apprehend, the result of position and post-mortem rigidity. It was also given in evidence that one lung was empty of air; which I cannot understand if it was healthy and used for respiration. Have I not cause to complain that I was not the Medical witness employed? and is it right the mother should lose the benefit of my observation of the body?

If this was the only case in which the coroner so acted, I would not ask for advice of you or my brethren in the Profession; but it is at least the third. The first was in the case of a new-born child found partially buried in the sand on the river shore. A young woman recently confined was suspected of destroying it. I, sent for by the police, saw and examined it carefully when found; but I was unnoticed by the coroner, and the Medical gentleman in the first instance sent for by him was the same individual employed by him last week in the case I have just described; but as he was not at home another gentleman was employed, although neither saw the infant previously, and both lived further from the place of the inquest than I did. This case also became an assize one, and resulted in a conviction for concealment of birth.

The third case was one of murder. In June, 1862, a man was waylaid and killed. I also was sent for, and examined the wounds, etc., and again passed over by the coroner, and the same gentleman sent for to make the post-mortem, etc.; but in this case the magistrates deemed my evidence essential, and I had to attend the assizes.

In each of the two cases I have last sketched I remonstrated with the coroner in a gentlemanly strain, and with the respect due to his judicial office, but I am sorry to state that on both occasions he replied in an angry way, asserting his legal right to call upon any Medical man he pleased, stating I had no right as police Surgeon to a monopoly of post-mortems; or that being so made me more competent (two ideas which I would simply be ridiculous for one moment to suppose or entertain); that my letters were "silly;" and as to his repudiation of monopoly, it is remarkable that, in each of the three cases I complain of, it was the same gentleman he sent for.

In conclusion, I assure my brethren in the Profession that I would consider it a degradation to seek a favour from the coroner or any other official, or to be employed if I had not a right, equitable, if not legal; neither do I for a moment wish it to be supposed I claim a preference because I am the police Surgeon, and I am sure I would not complain if it could be shown that any other gentleman had a prior or better claim. But being systematically passed over by the coroner, I conclude it is owing to some dislike or prejudice, which I cannot understand.

I am, &c.

Birkenhead, March 28. MATTW. JENNETT.

COMMUNICATIONS have been received from—

Mr. C. O. F. CATOR; ACTA NON VERBA; Dr. BENCE JONES; Dr. W. MURRAY; Mr. W. HOOPER; ROYAL INSTITUTION; PHARMACEUTICAL SOCIETY; ETHNOLOGICAL SOCIETY OF LONDON; Dr. W. OGLE; Mr. JOHN GOULD; Messrs. LETTS, SON, and Co.; Mr. TUFNELL; APOTHECARIES' HALL; A COUNTRY PRACTITIONER; Mr. J. DUFOUR; WESTERN MEDICAL AND SURGICAL SOCIETY; Mr. W. FAIRLIE CLARKE; ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 1, 1865.

BIRTHS.

Births of Boys, 1090; Girls, 1076; Total, 2166.
Average of 10 corresponding weeks, 1855-64, 1985·.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	841	835	1676
Average of the ten years 1855-64	728·7	696·6	1425·3
Average corrected to increased population..	..	..	1568
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	2	2	7	2	11	4	1
North ..	618,210	3	1	7	2	13	15	4
Central ..	378,058	2	1	3	4	31	15	1
East ..	571,158	3	2	6	2	22	12	4
South ..	773,175	5	3	11	1	25	10	6
Total ..	2,803,989	15	9	34	11	102	56	16

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·860 in.
Mean temperature	37·6
Highest point of thermometer	58·7
Lowest point of thermometer	26·4
Mean dew-point temperature	31·3
General direction of wind	Variable.
Whole amount of rain in the week	0·10 in.

APPOINTMENTS FOR THE WEEK.

April 8. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

10. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital 1½ p.m.

11. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. J. Crawfurd, Esq., "On the Physical and Intellectual Characteristics of the African or Occidental Negro." "On Human and Animal Remains from a Cavern near Drimtion, Argyleshire." Professor Busk, "On a Human Cranium from a Stone Coffin at Phu Bodach, Bute," sent by the Rev. A. McLeod.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY (8 p.m., Ballot), 8½ p.m. Dr. Hermann Weber, "On Delirium during the Decline of Acute Diseases." Mr. Henry Lee, "On Acute Inflammation of the Veins."

12. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

13. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

14. *Friday.*

Operations. Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

ON THE ASSIMILATION OF SUGAR BY THE LIVER.

FROM

THE LECTURES ON PHYSIOLOGY,

DELIVERED AT

Guy's Hospital.

By F. W. PAVY, M.D., F.R.S.,
Assistant-Physician to the Hospital.

Part II.

Let us first see what Dr. Thudichum has to say in an "Experimental Epicrisis of some late Researches on Liver-Sugar," contained in the *British Medical Journal* of March 17, 1860. I should not myself have thought it necessary, so extravagant are Dr. Thudichum's assertions, to have detained you with an answer to this communication; but as I find Dr. Thudichum's conclusions quoted by an authority like Dr. Beale, and have seen them, in a notice or review of Dr. Beale's work, specially picked out and put forward in the light of weighty evidence against me, it is requisite that I should show what Dr. Thudichum's communication in reality amounts to.

Dr. Thudichum's attack is upon my method of procedure. He first details three experiments of his own upon dogs in which portions of the liver immediately after death were pounded in a mortar with potash. In the first, sugar was found; in the other two, there was none. Dr. Thudichum, however, assumes that sugar was originally present in all three, but had become destroyed in the last two. He says, "No doubt, in the second and third experiment the proof of sugar having been originally present in the liver is wanting; but the first experiment made me so well acquainted with all the conditions which are essential for finding or missing any sugar in the liver, by employing potassa as a reagent, that I was quite satisfied of the correctness of the conclusion, which caused me at once to give up all further experiments on this subject as lost labour, namely, *that no experiment can be admitted as proving the absence of sugar from the liver, in which the contact of that organ with potash, air, and water, at the ordinary or any higher temperature, has not been avoided.*" The last passage, I must tell you, is printed in italics.

One experiment! gentlemen, suffices to teach Dr. Thudichum all the conditions that are essential for finding or missing sugar in the liver when potash is employed as a reagent; and he immediately frames a conclusion which tells us that my experiments with potash are not to be admitted as proving that for which I have advanced them. He elsewhere asserts that the potash-test having been the basis of my conclusions, and being now proved to be fallacious, the conclusions themselves, in so far as they are derived from the analysis with potash, are not any longer valid. Let us examine the matter closely, and see upon which side in reality the fallacy lies.

All the information supplied about the first experiment, from which Dr. Thudichum was taught so much, is that the liver was pounded with an equal amount of caustic potash without the addition of water, and afterwards submitted to filtration through asbestos. The filtrate which passed during the first hour gave evidence, with an alkaline solution of copper, of being charged with sugar, whilst that which passed afterwards gave none. A second piece of the same liver, after being exposed to the air for fifteen minutes and then treated like the first, is stated to have behaved in precisely the same manner. From this it is concluded that when a liver containing sugar is treated with caustic potash, the sugar under the influence of the alkali, the oxygen of the air, and water is rapidly destroyed. In the second experiment, as in the third, no evidence of the presence of sugar was obtained even in the first filtrate; but it is assumed that sugar was originally present in the liver and had undergone more rapid destruction on account, as it is stated, of there having been an elevation of temperature occasioned when the admixture with potash was effected. To one ounce of the mixture of liver and potash of his second experiment, Dr. Thudichum added ten grains of grape-sugar, and tells us that at the end of twenty-four hours the reaction with the copper solution was so slight that "the ten grains of sugar had so effectually been destroyed in the mixture, that certainly not one-thousandth part of them was left over."

Now, gentlemen, I have repeated Dr. Thudichum's experiment of adding sugar to the mixture of liver and potash. I took 200 grains of a specimen of liver that was free from sugar, and pounded it in a mortar with 200 grains of caustic potash. Ten grains of grape-sugar dissolved in a small quantity of water were added, and the contents of the mortar turned out into a glass measure, and made up with water, only a little being required for the purpose, to one ounce. This mixture was examined from day to day, *and at the end of five days, the last time it was tested, it gave a copious indication with the copper solution of the presence of sugar.* In another experiment, five grains, instead of ten, of grape-sugar were used. The mixture was placed aside for three days. It was then thrown into a funnel, the neck of which contained some asbestos. The clear liquid that ran through, on being boiled with the copper solution, changed to a lilac colour, but threw down no deposit. It behaved like liquids that I have often met with where albuminous or nitrogenised matter has been present in addition to the sugar. I took a portion of the mixture, and *after neutralising it with sulphuric acid to get rid of the nitrogenised matter that had been dissolved by the potash, now found that my copper solution gave an immediate and copious indication of the presence of sugar.*

Dr. Thudichum seems to have been unaware or unmindful of the fact that the presence of nitrogenised matter interferes with the reaction of the copper liquid in testing for sugar. It is to be inferred from what he says, that he took no steps to separate the nitrogenised matter which his potash solutions would contain; and on this account his negative results, whether for or against me, must be taken as standing for literally nothing. Where the quantity of sugar is not very large, and the copper test is used for its detection, its presence may be completely masked by the presence also of nitrogenised or albuminous matter. I have before now found this even in the examination of urine. The urine has contained both albumen and sugar; but the latter has not been susceptible of recognition by the copper test until the former has been coagulated and separated by heat and filtration.

In proof that the behaviour of the liver, where a solution of potash had been injected into its vessels instantly after death, did not depend upon a destruction of sugar having been effected by the alkali, I mentioned that if a little time were given for the formation of sugar to take place before the injection was practised sugar was afterwards discoverable in abundance. Upon this point Dr. Thudichum writes: "The hurry with which Dr. Pavy found himself obliged to operate to avoid finding any sugar has its ready explanation in the rapid decrease of the temperature which the liver does experience when the abdomen is opened. The higher the temperature at which sugar, potash, and oxygen meet the more rapid and complete is the destruction of sugar; if the liver is allowed to get a little cool before injecting the potash sugar is found, because it has not all been destroyed." Can it be possible, gentlemen, that such an argument has been seriously advanced? It is the purest assumption to consider that for sugar to be found a sensible cooling of the liver must take place, as Dr. Thudichum would have found if he had taken the trouble to experiment for himself. What appreciable reduction of temperature, I ask, can take place in the liver, to bring about so striking a difference in the result, from allowing a few minutes to elapse after death, before the abdomen is opened and the injection practised?—for this is all that is necessary for encountering an abundance of sugar. So much for the potash process, which Dr. Thudichum, upon the grounds I have exposed to you, characterises as "being now proved (!) to be fallacious;" and thence proceeds to declare that my "conclusions themselves, in so far as they are derived from the analysis with potash, are not any longer valid."

But there are other processes by which I have arrived at the conclusions I have advanced. These Dr. Thudichum summarily deals with, evidently considering a few strokes of the pen sufficient to despatch them. He remarks that the experiments in which freezing and citric acid are employed *he has not repeated!* He, however, expatiates upon the oxidising influence of alkaline citrates under exposure to the air upon the suboxide of copper—a phenomenon that I cannot see affords a tittle of direct evidence bearing on the point in question—and then confesses that he is unable to comprehend the meaning of the freezing experiment, but suggests that in my proceedings following the freezing there is much reason for distrusting this experiment also. The proceedings referred to are the use of potash and subsequent neutralisation with sulphuric acid, which I at first spoke of

as the *usual* process I adopted for procuring a liquid from the frozen liver for testing. In answer to Dr. Thudichum upon this point, I have simply to say that it was gratuitous on his part—nay, in direct opposition to evidence given—to assume that this particular mode of proceeding was indispensable for obtaining the result that I described.

There is, therefore, gentlemen, in Dr. Thudichum's "Experimental Epicrisis" nothing approaching a refutation of any of the facts or conclusions that I have advanced. The imputation of fallacy to me arises out of Dr. Thudichum having fallen into fallacy himself. But supposing a fallacy did exist with the use of the potash, it would really have no bearing upon the physiology of the question, because the employment of potash or any chemical agent, indeed, is not necessary for obtaining evidence of the condition that I describe. The argument against the experiment with freezing is only founded upon a groundless surmise. I therefore hope that subsequent writers upon this subject will pause before they bring forward what has issued from Dr. Thudichum's pen, as evidence against the validity of my results.

Next, gentlemen, let us examine the nature of the opposition that Dr. Harley has raised to the results of my researches, and see what he has done to advance our knowledge upon this matter. In 1858 I communicated to the Royal Society the new results I had obtained, in a paper bearing, as originally sent in, the open title, "Has the Liver a Sugar-forming Function?" I had made Dr. Sharpey, as a physiologist and Secretary to the Royal Society, acquainted with the nature of what I had discovered; and it was afterwards at his suggestion that I altered the title to "On the Alleged Sugar-forming Function of the Liver." I had also shown Dr. Sharpey, who visited my laboratory for the purpose, in company with Dr. Harley, my experiments; and I can only say both he and Dr. Harley seemed satisfied with the results, and left me with the impression that I had shown them something new. As pretty good evidence of this, I was given to understand by Dr. Sharpey that my paper was to be inserted in the *Philosophical Transactions;* indeed, it was sent to me to revise for that purpose. Some time afterwards I learnt that Dr. Harley, supported by Dr. Sharpey, had something new to bring forward, which was to refute what I had done. A profound secret seemed to be made of the nature of the refutation, for I could get no information about it until the paper was read at one of the meetings of the Royal Society in December, 1859. I was present at that meeting, and, much to my astonishment, not a single new fact was brought forward. The paper simply amounted to this,—that Dr. Harley had not succeeded in reproducing the results that I had described, and therefore, according to him, the facts remained as they stood before. Dr. Harley nowhere mentions a word in his paper about having witnessed the results that I had shown him. One would have thought, if there had been any erroneous description on my part, that it would have been very easy, without the performance of an elaborate series of experiments, to have said that I had failed in producing before him the results I had described. As I said that evening, gentlemen, I repeat again, I cannot hold myself responsible for Dr. Harley's experimental performances. I then challenged any gentlemen present, if they wished to see a verification of my statements, to come down to Guy's and witness my experiments. As the result, Messrs. Busk and Huxley did me the honour to come, and, without offering an opinion as to whether or not this had anything to do with it, my paper, which I was told had been, or would be, condemned to be deposited amongst the archives of the Society, was sent to me once more to reproduce in a condensed form; and this appeared in the *Transactions*.

Dr. Harley has recently reiterated his opinions on this subject in the *Medical Times and Gazette* for January 14, 1864, without, however, adducing a single fresh experiment in support—in fact, gentlemen, the only originality that I am aware has emanated from Dr. Harley upon this matter is the discovery that his own urine was rendered saccharine by freely partaking of asparagus salad, and that the injection of certain agents into the portal system produces a saccharine state of the urine.

If Dr. Harley has not succeeded in re-producing my results, I may mention to you that Dr. McDonnell, of Dublin, has. I have just received a *brochure*, entitled "Observations on the Functions of the Liver," which shows that Dr. McDonnell has gone most laboriously into the subject; and he fully confirms what I have done. He ingeniously suggests a mode of experimenting for coming down upon the condition of the liver belonging to life, which had not occurred to me. Thus, he says, if a healthy, well-fed hedgehog—an animal, you know, belonging to the hybernating group—be gradually reduced in temperature, by having ice placed near it until it becomes torpid, and the temperature then be further reduced until, by degrees, the entire animal is slowly frozen into a solid mass; its liver does not give the slightest evidence of the existence of sugar. By this device, Dr. McDonnell adds, it is possible, as it were, to steal so gently upon life that at the moment of its departure the amount of cold is sufficiently great to prevent any of the amyloid substance being converted into sugar.

Dr. Marcet, also, who is well known as a working physiologist, has repeated my experiments, and, I have his authority for saying, with a corroboration of my results.

As some collateral support to the justice of my conclusions, it is right that you should know the nature of the opposition that has been recently raised to the glycogenic theory in Paris. M. Longet, the Professor of Physiology to the Faculty of Medicine, writes, in his "Treatise on Physiology," Paris, 1861, that the glycogenic function of the liver, which was formerly thought to be incontestably established, seems now to be refuted by recent observations. The observations which Longet refers to are those of Rouget, which oppose the glycogenic theory upon very different grounds to those advanced by me. It has been ascertained that the amyloid substance is to be found in the muscles and lung-tissue under certain conditions in the adult, besides in the liver; and in a great variety of situations in the fœtus. Now, it is argued, that if it is intended for transformation into sugar in one locality, why should it not be also in another, and that we should then have to give to a variety of structures a glycogenic function. Longet concludes that the production of sugar is not the purpose, but only the consequence of the presence of amyloid substance in certain tissues.

I now come to Dr. Beale's remarks in the second edition of his work on "Urine, Urinary Deposits, etc.," 1864.

Dr. Beale, after mentioning Dr. Harley's and Dr. Thudichum's objections to my results, says that he has himself many times been surprised at the very distinct reaction which is obtained by testing cat's liver the instant death has occurred. The cat, gentlemen, is not an animal that my experience has induced me to show a partiality towards for physiological experiment. Nevertheless, I was going to offer Dr. Beale, if he would undertake to hold the animal, that I would undertake to manipulate, and should be quite content to risk the result. I find, however, on reading Dr. McDonnell's *brochure* I have before referred to, that he has experimented by preference upon cats, and what he has to say renders it unnecessary for me to do more than refer to his results. Dr. M'Donnell gives the details of two experiments out of several that he says he has performed with, as nearly as possible, similar results. Nothing I think can be possibly wanted of a more conclusive nature than the one I will place before you precisely as he gives it.

"A large healthy female cat, for some days before fed exclusively on flesh meat, was pithed," Dr. McDonnell says, "three and a-half hours after her last meal. At once a portion of the liver was cut off and thrown into a quart of boiling distilled water. After being boiled for fifteen minutes, it was taken out and weighed, and returned again to the same water. An equal weight (exactly 500 grains) of that portion of the liver which had remained in the animal was then (*i.e.*, after the lapse of twenty minutes) likewise placed in a quart of cold distilled water and boiled. Each was boiled down to one-half. The portions of liver in each were bruised to a pulp, and the boiling of each was then renewed, and finally each was evaporated to dryness on a water-bath. Each was treated with four ounces of proof spirit, which was filtered off, and the residue washed with additional spirit. The spirit was evaporated on a water-bath, and the dry residues treated with equal quantities of distilled water, and filtered so as to give a solution sufficiently clear for the application of the cupro-potassic test.

Result.

500 grains of liver, boiled immediately after death, gave an indication of sugar so slight as to be almost inappreciable, and incapable of being estimated.	500 grains of liver allowed to remain in the body of the animal for twenty minutes after death contained 12·5 grains of glucose."

Dr. Beale remarks: "I cannot think that the life of the animal can make all the difference which is supposed in the action of

the liver. Surely if a considerable quantity of sugar can be demonstrated to exist in the liver immediately after death we are not justified in considering this a mere post-mortem change. A piece of cat's liver, the instant death has taken place, exhibits the presence of sugar in precisely the same manner as a piece of the same liver removed during life." Dr. McDonnell's experiment I advance as a sufficient rejoinder to this remark. We cannot argue against fact. Dr. Beale's experimenting, I submit, has been at fault, and he has allowed it to influence his judgment. It is not, I contend, a question for discussing what difference the life of the animal can make, but a question of fact; and we must I urge, consider the considerable quantity of sugar which has embarrassed Dr. Beale to be the result of post-mortem change, because it is open to proof that it is so. Dr. Beale, if I mistake not, has seen at one of my Gulstonian Lectures at the College of Physicians the result of an experiment performed by me upon a rabbit; and I will ask him if the same train of reasoning could be applied to that, as he has applied to his own experimenting upon the cat.

Next, Dr. Beale argues from analogy, and I beg him to accept my thanks for his temperate reasoning and the careful thought he has bestowed upon the matter. Because many cells retain their vitality for a considerable time after death, and the liver cells are more likely to agree in character with these than with nerve cells which cease to manifest their activity immediately, Dr. Beale concludes that "it is impossible to resist the inference, except in the case of positive demonstration to the contrary, that the same substances are formed by these cells a few seconds after death, as were produced by them a few seconds before death. . . . Moreover," Dr. Beale continues further on, "it is most probable that the changes taking place in the amyloid matter of the liver cell are not *vital changes* at all, but due rather to chemical and physical actions only." With this latter proposition I am fully prepared to acquiesce. I do not assume that the amyloid substance is in a vitalised condition. I submit that it is simply an organic substance influenced by the conditions around. It happens to possess as one of its chemical properties great susceptibility of transformation into sugar. Under natural circumstances the conditions are such that this susceptibility is allowed to manifest itself only to quite an insignificant extent, whilst after death it is allowed to come into active play. But it is not necessary to assume that death of the cell is required for this. The conditions can be suddenly altered during life so as to bring about a sudden alteration of result. For example, injuring the superior cervical ganglia of the sympathetic immediately determines a saturation of the system with sugar—an artificial diabetic condition. Supplying another condition, which consists in previously introducing a certain quantity of carbonate of soda into the circulation, entirely prevents such a result.

(To be concluded.)

ORIGINAL COMMUNICATIONS.

ON THE

MECHANISM OF PARTURITION IN CASES OF PRESENTATION OF THE CRANIUM.

By CHAS. G. RITCHIE, M.D.,

Late Resident Physician to the Royal Hospital for Sick Children, Edinburgh.

The mechanism observed in the spontaneous evolution of a cross-birth is strikingly similar to that of natural parturition. Nature seems to have a general plan by which she expels the fœtus, no matter what be its primary position. The modifications of this general plan are, however, endless; and even in confining attention to the mechanism of a single presentation it is impossible to do more than sketch a general outline and bear in remembrance that every case has its own mechanism depending upon its individual circumstances.

Before labour the cranium may lie over the brim of the pelvis in one of four positions.

B. (*Occiput in Front.*) In the first position of the cranium the long diameter (occipito-frontal) of the head corresponds to the right oblique of the brim, and the occiput is in front; the forehead is close to the right sacro-iliac synchondrosis, and the occiput is just above the left cotyloid cavity. The position is "left occipito-cotyloid." If the direction of the child's head correspond with the plane of the brim of the pelvis—in other words, if its biparietal diameter coincide with or be parallel to the left oblique diameter of the inlet—then the head is necessarily oblique relatively to the plane of the horizon. Some writers assert that the obliquity goes farther than this; that the head is oblique not only relatively to the horizon but relatively to the brim. Perhaps the importance of this point has been over-estimated. The exact position at the brim varies slightly in every case; and if there be any obliquity of the head relatively to the plane of the inlet, that obliquity must be so slight that it is possible to overlook it, even when the whole hand has been introduced into the vagina for the express purpose of determining the question.

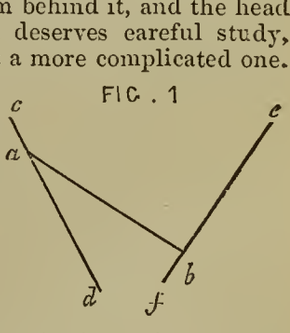
For the sake of convenience, the mechanism of the first cranial position may be divided into six steps; it being quite understood that these steps are not essentially distinct, but that, on the contrary, they run into each other, and sometimes occur simultaneously. They are—I. Flexion; II. First movement of descent; III. Levelling or adjusting movement; IV. Rotation; V. Second movement of descent and extension; VI. External rotation.

I. Almost every one allows that the first movement of the fœtal head in its course from the brim of the pelvis to the outer world is flexion (rotation on a transverse axis). The chin is pressed against the sternum, and consequently the sub-occipito bregmatic (a line running from beneath the occipital protuberance to the anterior fontanelle) diameter (3½ inches) is substituted for the occipito-frontal (4 inches) in the right oblique of the brim. The cause of this flexion is similarly described almost everywhere. We are told that the expulsive force of the uterus is communicated to the head of the child through its vertebral column, and that since the occipito-vertebral articulation is nearer the posterior than the anterior part of the cranium, the former is more forcibly pushed downwards than the latter, and flexion results.

A little reflection will show that this cannot be the correct explanation. As long as the membranes remain unruptured the ovum is to all intents and purposes an incompressible bag filled with water, and when the uterus contracts upon it it compresses it equably, and in so compressing it forces it downwards through the os uteri, the only point at which pressure is not exerted. When the membranes burst, the head acts as a plug to prevent the escape of the liquor amnii, the fluid remains in the uterus and continues to equalise the pressure on the fœtus. It is obvious, then, that the uterine force is not transmitted by the vertebral column of the fœtus, but that it may be looked upon as exerted directly in the axis of the womb.

The cause of the flexion is simple; it depends upon the head being articulated nearer the occiput than the face. Every part of the head is equally pressed upon from below by the resisting structures, but the sum of pressure in front of the spinal column is greater than the sum behind it, and the head rotates. Hubert, whose monograph deserves careful study, does not give this explanation, but a more complicated one. He says, if we engage a rod, *a b*, obliquely between two converging planes, *c d*, *e f*, and allow these planes to approach each other, the rod, *a b*, must rotate. He avers that the antero-posterior diameter of the head when in the funnel-shaped cervix is exactly in the position of the rod, *a b*, and that the cervix contracts and forces it to rotate. He does not, however, explain how the original obliquity occurs.

FIG. 1



The degree in which the head bends itself differs much, according to the relative dimensions of the pelvis. The movement is well marked where the pelvis is small, and, on the contrary, is very slight where the size of the head is well adapted to that of the canal through which it has to pass. In many of these cases, indeed, it is so slight as to be altogether overlooked.

II. The expulsive powers, *i.e.*, the contractions of the uterus, and the contractions of the abdominal muscles and diaphragm, are exerted in a direction downwards and backwards; the axis of the brim and of the upper part of the cavity is also downwards and backwards, so that the head has no difficulty in following that axis. The head then descends till the occiput reaches the lower part of the foramen ovale, and the bregma (or frontal protuberance, or some point between the two, according to the degree of flexion) is on a level with

the second bone of the sacrum. This is a movement of simple translation, and may be called the first movement of descent.

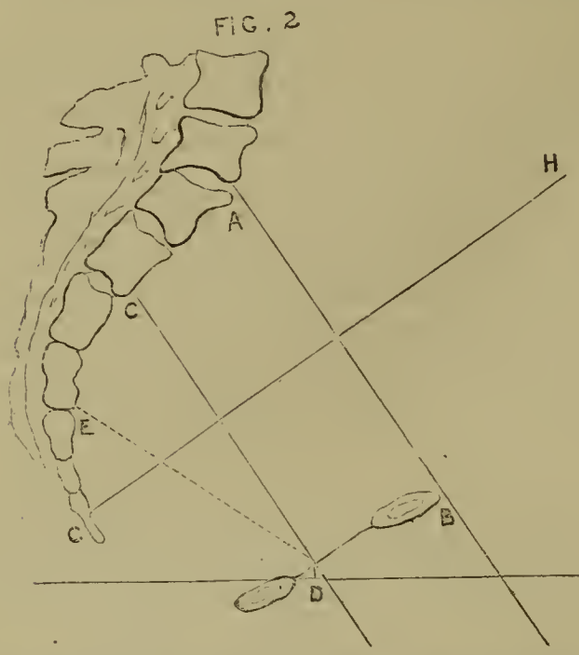


FIG. 2.—The anterior pelvic wall is supposed to be cut across opposite the extremity of the right oblique diameters. A B represents the position of the antero-posterior diameter of the head at the brim; C D, its position after the first movement of descent; and the dotted line, E D, its course after extension. G H is the axis of the brim and upper part of the cavity.

III. Most writers on Midwifery draw attention to the fact that the head generally unbends when it reaches the cavity of the pelvis. The forehead has a longer course to travel than the occiput has, and it, therefore, must move more quickly. The movement is not one, however, of simple extension. The position of the head is oblique, and while it is true that the sinciput has further to travel than the occiput, it is equally true that the left side of the head has further to travel than the right side. The movement is, then, oblique; it is a rotation on an axis somewhere between the transverse and the antero-posterior. It is partly an extension of the head, partly a flexion of it on the right shoulder. When this motion has been completed, the occipito-frontal diameter corresponds more or less perfectly to the right oblique diameter of the lower part of the cavity, and the biparietal nearly to the left oblique diameter of the same. The occiput remains behind the obturator foramen. As to the cause of this rotation. The occiput has begun to experience resistance greater than has as yet been offered to the sinciput, and whenever this difference of resistance is sufficient to outweigh the advantage gained by pressure on the sincipital or long end of the lever, then the head must begin to extend. The lateral flexion is produced in a similar manner, the anterior pelvic wall offers more resistance to the right side of the head than the left side encounters from the concave sacrum.

IV. The rotation *par excellence* is a rotation of the head upon its perpendicular axis. When it is completed, the antero-posterior diameter of the head corresponds no longer to the oblique, but more nearly to the antero-posterior diameter of the pelvis. The occiput at every pain seems to make an effort to pass behind the ascending branch of the ischium. At the same time it descends, so that the head becomes more flexed and the anterior fontanelle is no longer to be felt. During several, perhaps many pains, the occiput *feels its way*, advancing as the uterine contraction increases, and slipping back nearly to its former position when the pain comes to an end. At last the point is gained. The occipital protuberance has slipped fairly over the ascending branch of the ischium, and has no tendency to return. The cause of the rotation is evident. The occiput is being forced down upon a branch of bone running outwards and downwards, and whose inner and inferior edge is bevelled off, seemingly for the express purpose of throwing the head inwards. Rotation backwards is impossible, for the ischial spine rises up into a sharp point and forbids it, but there is no opposition to the turning of the hind head forward and inward. The sinciput again is just opposite the hollow of the sacrum, which seems to invite it, while its forward course is checked by the lesser sacro-sciatic ligament. The sub-occipito bregmatic diameter is thus acted on by two forces contrary, but not directly, opposed—its bregmatic extremity is being pressed inwards and to the left, its occipital inwards and to the right. Rotation is the necessary result.

Perhaps the obturator internus may have some little power of tilting the occiput forward and inward.

It occasionally happens that the head escapes the pivot movement when in the pelvis. It comes down obliquely on the perineum and suddenly wheels round, perhaps when it is on the point of passing through the vulva. The cause of the rotation in such a case lies in the perineum, which being attached on each side, is most distensible in its centre, so that when pressed upon it forms a groove from behind forwards. Now an oblong body pressed against a groove has always a tendency to accommodate itself to the direction of the groove, and therefore the antero-posterior diameter of the head has always a tendency to leave the oblique, and to get into the antero-posterior diameter of the maternal passage.

The fœtal head emerges from the pelvis somewhat obliquely. If (as Dr. Leishman has shown) a cord be held stretched between the coccyx of the mother and her pubic symphisis, the head in protruding from the vulva will necessarily impinge against the cord, and it will then be easy to draw a line which will show the exact part of the cranial vault which occupied the antero-posterior diameter of the pelvis when the head first became visible. This line when produced in each direction runs from the middle of the right limb of the lambdoidal suture over the cranial vault to the left frontal protuberance.

The obliquity is twofold—(1) The head has not pivoted an entire quarter of a circle, and consequently the antero-posterior diameter of the head scarcely corresponds to the conjugation of the pelvis; and (2) in spite of the adjusting or levelling movement, the left parietal protuberance is still rather higher in the pelvis than in the right one.

V. The head having rotated, the occiput is placed just behind the arch of the pubes, under which it passes. In so doing it is, of course, moving downwards and forwards. This motion is soon checked by the fœtal neck, which comes to press against the posterior surface of the symphisis, and thus fixes the occiput. The head now begins to extend, the forehead sweeps over the perineum, stretching it and depressing it, and at length reaches its anterior margin. The sub-occipito bregmatic, sub-occipito frontal, and sub-occipito mental diameters are successively presented, and the child's head is born. As to the mechanical cause of this movement. When the occiput is no longer pressed backward by the anterior wall of the pelvis, that has become free by lying behind the arch of the pubes, the head is acted upon by two forces, A B, the uterine force, and C D, the pressure of the posterior wall of the pelvis. A B is exerted downwards and backwards, C D is exerted almost directly forwards, and the head necessarily advances, as if it were pushed by a force C E, which bisects the angle of junction of A B, C D, and which is exerted downwards and a little forwards—*i.e.*, in the axis of the lower part of the pelvic cavity. Of course, the direction of the force

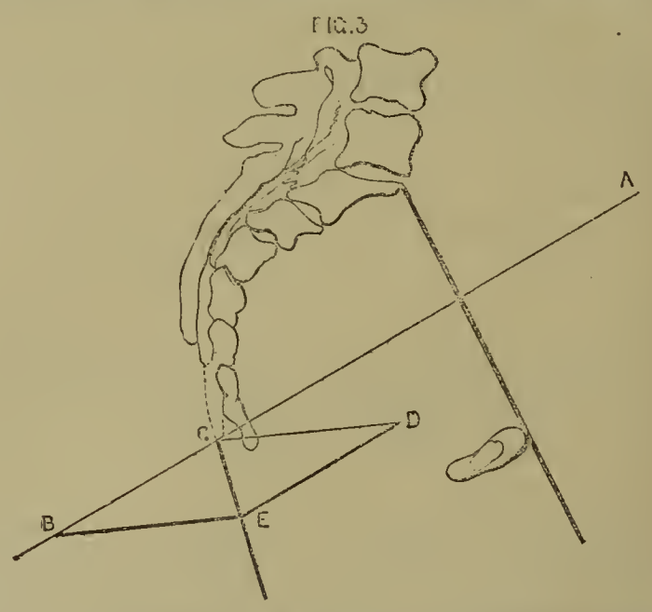


FIG. 3.—A B is the direction of the uterine force; C D is the resistance of the pelvic floor; C E the diagonal of a parallelogram formed by the two forces, being the direction in which the head is propelled.

C E is always varying as the head descends, because the direction of one of its constituents, C D, is constantly changing.

When the neck applies itself behind the symphisis pubes a new force comes into play. The force C E continues to push the sinciput downwards and forwards, but the occiput is resisted directly backwards. There are thus acting on the antero-posterior diameter of the head two forces contrary, but not directly opposed, and rotation—*i.e.*, extension—results.

The extension movement is only a continuation of the adjusting movement. From the moment that the head has accomplished its first movement of descent until it is altogether free of the maternal passages, this complicated movement is going on. After the pivot movement it somewhat changes its character. It is more of extension and less of lateral flexion, but still it continues; and even at the very moment that the face is sweeping over the perineum the head is not simply being extended, it is being also flexed on the right shoulder.

(To be continued.)

PAPERS ON

THE THERAPEUTIC AND PHYSIOLOGICAL ACTION OF REMEDIES.

By WM. MURRAY, M.D., M.R.C.P. Lond.

Physician to the Dispensary, and Lecturer on Physiology in the College of Medicine, Newcastle-on-Tyne.

No. 3.—On the Treatment and Cure of Abdominal Aneurism.

When M. W., was brought to London last May and shown to the Medico-Chirurgical Society, several gentlemen desired me to give an account of the case as soon as all risk of a return of the disease had passed away. To those interested in the subject I need not give much of the past history of this case. That the man had suffered for some months from aneurism of the abdominal aorta was acknowledged by all who examined him privately, and by the meeting of the Northumberland and Durham Medical Society as expressed in very decided terms by the President of the meeting. That the aneurism was consolidated and that the aorta and its terminal branches had ceased to beat was acknowledged by all who examined the patient at the meeting of the Medico-Chirurgical Society. Since June the patient has enjoyed a very considerable share of health. He has gained flesh and strength so rapidly, indeed, that he has been regularly engaged as a fitter in Messrs. Hawthorn's engine works, has worked generally twelve and sometimes fourteen hours a day, and has thereby been enabled to maintain his wife and his parents. His symptoms have been occasional loss of power in the legs and severe pain in the ham; and during the winter he has felt the cold very keenly, especially in his legs and feet. Once or twice he has had severe pain in the back, which has readily yielded to treatment. He has been subject to severe colds and headache, and his digestive organs have been sluggish with a tendency to constipation. Once, and once only (in October) he has had an epileptic fit, which was severe, and left him very prostrate. Notwithstanding these ailments, sometimes three or four weeks elapse during which he feels quite well.

The Aorta.—To this day I have not been able to discover the slightest pulsation in the aorta *below the tumour*, so that its occlusion may be considered an established fact. The femorals also are pulseless, and as far as I can make out there is no *large vessel* below the seat of the aneurism by which blood is circulating. The tumour has completely disappeared, and a dense resistance is all that can be felt over the seat of the aneurism; *above* this the aorta beats with a sharp forcible stroke.

So far, I think, it is clear, 1st, that this case of aneurism of the abdominal aorta has been cured by pressure; 2nd, that the aorta has been occluded without either temporary or permanent serious disorder; 3rd, that there must be a collateral system of vessels so complete as to carry on the circulation when the aorta is blocked. Since this case was brought forward others have been encouraged to adopt the treatment here employed. I had the pleasure of assisting Dr. Heath, of this town, in the treatment of a case of iliac aneurism by compressing the aorta, and the treatment has proved most successful. Since then, Dr. Mapother of Dublin, encouraged by the Newcastle cases, has achieved a brilliant success in a case of iliac aneurism treated in St. Vincent's Hospital. Each of these gentlemen will doubtless bring the particulars of his case fully before the Profession. Meantime, I add their experience to mine in making the following remarks:—

First Proposition.—The introduction of chloroform in the treatment by compression in no way interferes with the coagulation of blood or the deposition of fibrin; by *it* this treatment is applicable to arteries in the most sensitive and delicate situations, and it may be used for several hours continuously without danger to the patient. Its use will add greatly to the ease with which the treatment can be carried out, and therefore to its efficacy. It ought to be used in treating aneurism in *other* parts, as well as those in the abdomen.

Second Proposition.—From these three cases it is evident that consolidation of fibrin alone does not cure the aneurism; *this is due mainly to coagulation of blood.* This is proved, 1st, by the clear indications in Dr. Heath's case and my own that the tumour ceases to beat and becomes solid within the space of *one hour* (see report of case) when once the conditions of coagulation are established; 2nd, by the rapid disappearance of the tumour after it becomes solid. In the Newcastle cases the diminution in the size of the tumours was a surprise to us all. The rapid formation and removal of the clot argues powerfully *for* its sanguineous and *against* its fibrinous nature.

Third Proposition.—It is now established that the cure of an aneurism by pressure need not be a tedious process lasting many hours and extending over many days. The question may be stated thus:—Are we to have cure by coagulation of blood in *five hours* by completely arresting the current through the aneurism, or cure by lamination of fibrin in *twenty-five days* by frequently and imperfectly arresting the circulation? The answer of course depends upon the safety and efficacy of the *former* process. That it is as *safe* as the other I have no doubt, for in none of these cases has suppuration of the sac after treatment, or injury to the patient while being compressed, resulted. All that we can say with regard to the permanent efficacy of the treatment is, *that it has not failed in any one instance.*

Fourth Proposition.—The experience derived from the treatment of the two cases of iliac confirms an opinion I had formed, that in all cases of aneurism of the larger arteries springing from the abdominal aorta it is best and perfectly safe to press on the aorta itself. (To command the channel of the aorta and to arrest its pulsation seems to me after numerous trials to be a most feasible operation.)

I need scarcely apologise for introducing this somewhat mechanical remedy, for I consider it acts according to known physiological laws, and operating through them it is a therapeutic agent. I will not here enter on the question as to whether a stationary mass or a feeble current of blood is most likely to coagulate; on its settlement hangs the adoption of distal as well as proximal pressure. I would say, however, that I have a case where an aneurism seems to be developing very high in the epigastric region: and in this case when once the existence of the aneurism is certain, I shall apply a Signorini's tourniquet to the artery below the tumour, and by this *distal* pressure I hope to obtain a cure.

P.S.—I would compare the process of *coagulation* in an aneurism to those instances of crystallisation which occur when the slightest disturbance of the conditions of solution determines the immediate solidification of dissolved matter, where a sudden movement, a rough surface, etc., are enough to induce the formation of crystals—*vice versa*, the completely arrested current seems to assume the solid form *at once and decidedly* as soon as the conditions of the solution of fibrin are disturbed; we are still uncertain as to the exact nature of those conditions, but we can disturb them in an aneurism by the compression treatment.

Fabricated Port Wine.—A somewhat new article of commerce, Rhatany from Peru, is coming into considerable use for the fabrication of so-called port wine. This root of a bush grown in the environs of Arequipa, distinguished with difficulty in solution, even although the senses of the observer may be more acute than the guests of a worthy clergyman who, on leaving his table, affirmed that they had been served with port wine three times in different forms: first, smoking hot from a tureen, and then called hare soup; secondly, cold from a decanter; and, thirdly, hot with sugar and cream, the red-armed Hebe having the effrontery to declare that it was coffee. Rhatany, as an astringent, is used in medicine, but its high price, 2s. 9d. per lb. the first quality, and 1s. 6d. for ordinary, is evidently attributable to its service in the mode we have referred to.—*Wine Trade Review.*

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Medical Times and Gazette.

SATURDAY, APRIL 15.

THE PROCEEDINGS OF THE MEDICAL COUNCIL.

The sittings of the Medical Council have been continued during the week, and will, it is said, be continued until Saturday. The proceedings, though leading as yet to no very definite results, have, on the whole, been interesting. We can recognise a more business character about them. There is still, however, a great deal too much talking,—too great a tendency to criticise and to enter upon minute details. Some of the more silent members, however, are more active than formerly, and, on the other hand, there is less of oratorical display. The amendments of the Medical Act, and the recommendation of the Council with regard to the registration of students, and with reference to Professional education, have chiefly occupied the attention of the Council. With reference to the amendments of the Medical Act, it has been determined to put in force, if required, the powers which the Council possess, under Section xx. of the Medical Act, before seeking for new or greater powers over the educational bodies. The amendment of Clause xxxi. has not yet been agreed on, its consideration being postponed with reference to the Pharmacy Bills now before Parliament. The fortieth clause of the Act—the registration clause—is that which has specially occupied attention. The clause as proposed by the English Branch Council has been adopted, with a most important alteration. As we explained a few weeks ago, the English Branch Council proposed that no one should be allowed to use any Medical title whatsoever, except he was registered, or in *possession of a qualification which entitled him to be registered.* This latter paragraph has been struck out, and thus the clause has been made to correspond with the views of the Scotch and Irish Branch Councils. In a word, registration is to be made compulsory on all qualified Practitioners. If the various licensing bodies do not object to this arrangement, which virtually deprives them of their licensing powers, and if the Profession submits to a regulation which trenches somewhat on means already not over abundant, there is no doubt that the proposed clause simplifies matters greatly, and may be, in many respects, beneficial in its operation. The consideration of other amendments of the Act has been referred to a Committee, the report of which has not as yet been brought forward. The registration of Medical students has also been under the consideration of the Council, and the result has been to place it in the hands of the Branch Registrars, in whose offices students will henceforth register. The only other proceedings of the Council to which we need now direct attention are a report from the Pharmacopœia Committee, which says that Messrs. Redwood and Warrington are engaged in the preparation of a new edition under the direction of a committee of the Council. We are not told when we may expect this new edition to be published. We see that interesting reports have been presented from the Director-General of the Army and Navy Medical Department. These valuable returns give the number that passed and were rejected by each of these Boards of legally qualified candidates who submitted themselves for examination, and the names of the institutions from which they obtained their qualifications. The Army Board rejected thirty-one out of one hundred and twenty candidates; the Navy Board rejected twenty-one out of forty-nine candidates. The inference to be drawn from these returns is this—that nearly one-third of those gentlemen who are declared by Examining Bodies having a pecuniary interest in the statement, to be fully qualified to practise the healing art amongst all Her Majesty's subjects, are found by independent Boards to be more or less ignorant and unqualified to treat Her Majesty's soldiers and sailors. These returns fix a great responsibility on the licensing bodies and on the Medical Council appointed to look after them. This duty it is proposed should be undertaken by the Branch Councils in the supervision of examination. The sooner this is done the better. Having said that nearly a whole sitting was unprofitably devoted by the Council to an attack on, and a defence of, the Irish Apothecaries' Hall, we believe we have stated nearly all that has been done by the Council up to the close of Tuesday's meeting. We shall next week follow up our review of the proceedings of the Council.

QUARANTINE.

In a country such as ours, whose commercial relations are so vast, whose very existence depends upon the free interchange with other nations of the products of industry and the gifts of the earth, whose merchant ships visit every port in the civilised world, and whose own seaboard is familiar with the flag of every maritime community, the bare mention of quarantine at once raises universal attention. Up to the present time our information as to the nature of the disease which is said to be prevailing in countries which border upon the Baltic, is so imperfect that we can form no calculation of the chances of its extension to ourselves, and hence it would be obviously premature to discuss the propriety of enforcing quarantine laws in this particular instance. But since the subject has been mentioned in Parliament, in connexion with the rumours that have reached this country, it may not be out of place to consider very briefly whether under any circumstances it is proper or needful to enforce these restrictions upon trade and inter-communication between nations; and if so, what method can be devised to render them less irksome, and to reduce to a minimum the inconveniences that naturally result from their adoption.

The doctrine of *contagia* is generally supposed to be the basis on which the imposition of quarantine regulations is supported. Hence it is the customary battle-field on which those contend who, on the one side, maintain that they are deserving of being preserved, and who, on the other side, hold that all such impediments to free intercourse should be swept away, as antiquated relics of a bygone and unenlightened age. Since it is with a view to provide against the introduction from abroad of diseases which are apt to spread among a people as epidemics that quarantine laws are enacted, it has become almost a necessity on the part of those who subscribe to the latter view to draw as broad a line as possible between epidemic and contagious disease. No one has ever done this more boldly than Dr. Maclean some forty years ago; and on this account we quote him as the mouthpiece of the party of which at the time he wrote he was the most uncompromising adherent:—"The causes, the laws, and the phenomena of epidemic and contagious diseases being so dissimilar, or opposite, those diseases themselves are necessarily incompatible and inconvertible. That a disease capable of being propagated by a specific *virus* can never be produced by any other cause, and that a disease produced by other causes can never be propagated by a specific virus, are, indeed, self-evident proposi-

tions."(a) Nothing can be clearer than this as an expression of doctrine; yet can any argument based upon such a foundation be anything else than a mere playing with words? The fact is, that at the present time we are familiar with many maladies which are contagious in every sense of the word, some even capable of communication by inoculation, and others by close approach of the healthy to the sick, by the medium of clothing or of other articles which have lain within the influence of emanations from the sick man's body, and yet diseases which become at times widely diffused amongst the population of a country, defying the detective who would track their march, attacking all ranks of society, and slaying, albeit with discrimination, rich and poor, high and low, noble and peasant. Epidemic at such times and such seasons we cannot well avoid designating them, if by that term we mean that they appear widely scattered among the people and breaking out, if not simultaneously yet nearly so, in different and distant parts of the same country. Contagious no less unquestionably they are, inasmuch as those are most liable to suffer who come most closely into relation with the sick; and those are most free from attack who separate themselves most thoroughly both from them and their belongings. If modern investigation tends to anything, it is to this: rather to merge the epidemic diffusion of disease into the operation of a contagion than to do away with the theory of contagion, in order to erect upon its ruins a doctrine which shall explain the phenomena in question by the hypothesis of an incomprehensible atmospheric influence. Let us not forget the instructive lesson read to the Profession by Dr. Budd a year or two ago upon the text afforded by the history of ovine small-pox as it lately appeared among the flocks in this country. Neither let us forget Dr. McWilliam's demonstration of the origin of the Bōa Vista outbreak of yellow fever through the crew of the *Eclair* in 1845.

Another line of argument adopted by the non-contagionists is based upon the fact that epidemic diseases, whatever form they assume, invariably select for their outbreak and for their chief foci localities abounding in elements of unwholesomeness, dirt, crowding, and misery. That such is the truth no one will be dispesed to deny; but they go further than this, and if they do not assert it in so many words, they leave us to infer the doctrine that these epidemic diseases are all modifications of one primary ideal type, whether the modification appear as typhus, plague, yellow fever, or cholera. "Epidemic diseases were formerly universally considered to be essentially different in their nature, each being thought to depend on its own specific contagion; and the correctness of this view seemed to be confirmed by the great apparent difference between typhus, scarlatina, influenza, plague, yellow fever, and cholera; but whether each of these diseases depends on a peculiar and specific cause, or whether they all derive their origin from one common agent essentially the same in nature, but modified by peculiarities of climate and other circumstances, and which, under varying conditions, give rise to various forms and types of disease, each having definite characters and running a particular course—whichever of these views be adopted, it is agreed by the most eminent investigators that there is a general resemblance between the various forms of disease, and that they have the following characters in common:—They are all fevers; they are all dependent on certain atmospheric conditions; they all obey similar laws of diffusion; they all infest the same sort of localities; they all attack chiefly the same classes, and, for the most part, persons of the like ages; and their intensity is increased or diminished by the same sanitary and social conditions." Thus, in 1849, did the non-contagionist author of a Board of Health report, paraphrase and envelope in verbosity the more simple and out-spoken declaration of creed by Dr. Maclean in 1824. "Whilst all epidemic diseases are in reality nothing else than modifications of the *causus* or *febris ardens* of the ancients, an almost endless variety of names has been given to them in modern systems, to the great detriment of science."(b) The practical conclusion is, that in place of annoying and vexatious quarantine regulations, it is enough that the State should provide, on any threatened invasion of disease, for the sanitary improvement of the surroundings of the people.

We have no hesitation as to the side on which to place ourselves in this old and constantly recurring controversy. It is one which has raged on various occasions, and which will inevitably rage again with its ancient ferocity should Government, at any future time, propose to erect a barrier against the importation of any foreign epidemic by the imposition of quarantine. Just upon the same principle that we should close our door against the introduction into our house, however wholesomely it may be kept, of a person suffering from plague, yellow fever, or small-pox, and so place every obstacle in our power in the way of intercourse with its inmates, so we hold that the State is doing no more than its duty to the people of this country when it holds at arm's length individuals similarly affected, until they show that there is no reasonable chance of mischief accruing from their free admixture with a healthy population.

There is another side, however, to this question, and from an empirical point of view we are bound to inquire what experience has to tell us about the value of quarantine as a national protective measure. That quarantine precautions have failed to prevent the advance of cholera—that they have equally failed on various occasions to prevent the introduction of yellow fever into a port—is quite true; but in admitting this we by no means debar ourselves from advocating the value of the practice. The objections which might be raised on this score lose much of their force when it is considered how little we even now know for certain as to the nature of the morbid poison which engenders the former disease, and how probable it is that other media than the atmosphere and fomites are engaged in its propagation. The objection also is lessened in force when the difficulties in enforcing a rigid quarantine are kept in mind, and the incessant endeavours which are made at its evasion when attempted to be enforced—endeavours which nothing but the greatest vigilance of quarantine officers will suffice to neutralise. That imperfect quarantine should fail to arrest the progress of disease, is nothing to be surprised at; but still this is no valid argument against the efficacy of the practice when thoroughly and completely carried out. We cannot here enumerate all the elements which go to make up such thorough completeness; but experience has attested its efficiency when complete in accomplishing the object in view. Witness, for example, the remarkable comparative freedom from plague which has attended its establishment in various places on the Mediterranean sea-board. Witness, also, the experience of the State of New York, where in 1845 the House of Assembly, after a most rigid inquiry into the operation of these quarantine laws against yellow fever, reimposed them on all vessels arriving from infected ports, on the ground that from some such rigid enforcement that State had for a quarter of a century been maintained free from any outbreak of the disease.

One thing, however, we are prepared to concede, and it is this: that the evidence of communication of disease through the medium of merchandise is so defective that, could any means be devised by which cargoes might be liberated while personal quarantine was carried out, we should be little disposed to interpose a dissentient voice. Again, while we are of opinion that the practice of quarantine is one which is commendable under certain contingencies, we are of opinion that it would be sufficient to enforce it only on such vessels

(a) "Evils of the Quarantine Laws, and Non-Existence of Pestilential Contagion deduced from the Phenomena of the Plague of the Levant, the Yellow Fever of Spain, and the Cholera Morbus of Asia." By Charles Maclean, M.D. 1824.

(b) *Op. cit.*, p. 203.

as have come directly or indirectly from some port actually infected. We would also limit the duration of personal quarantine as much as possible consistently with what is known of the incubative period of the disease that may be in question, that each case should be judged of upon its own merits, and that a discretion should be placed in the hands of a qualified Medical quarantine officer to allow free pratique, or to shorten the duration of quarantine in those instances where the voyage from the infected port has extended beyond the extreme period of incubation, on the necessary evidence being forthcoming of freedom from disease during the passage. Neither would we in the least degree relax, but rather push forward, all those proceedings which are calculated to render habitations wholesome, and especially those in the low neighbourhoods of our sea-port towns. The one should be done, and yet the other not left undone.

But, after all, what do all the arguments *pro* and *con.* upon this question of contagion practically amount to? Whether we are engaged in combating disease actually present or in guarding against its spread, little indeed should we effect did we fold our arms in complacent expectancy until we had obtained demonstrative proof of the absolute correctness of the data upon which we habitually ground very much of the practice of our art. Upon this subject we cannot do better than quote, in conclusion, some excellent remarks of Dr. Gooch at a time when (in 1825) he strenuously and successfully opposed a suggested alteration in the quarantine laws:—

"In Medicine, and all but the demonstrative sciences, there is often light enough to guide our conduct where there is not enough to gratify our curiosity; hence practical men are often compelled to act on evidence which would sound unsatisfactory in the statement. There is no paradox in saying that he who can give a striking reason for every measure he adopts is, for that very reason, a bad Medical adviser, because he must neglect many which are necessary and useful, but the reasons for which at the outset are extremely obscure."

WORKHOUSE IMPROVEMENTS.

It is said that the Government intend to bring in a Bill after Easter to enlarge the National Gallery in Trafalgar-square. At present the rooms are over-crowded with pictures; there is not nearly a sufficient amount of wall space, and our national collection, which contains many very valuable works of art, labours under great disadvantages. To remedy this evil, it is proposed to erect new galleries at the back of the present building, on the site now occupied by St. Martin's Workhouse and over a portion of the adjacent barrack-yard. The workhouse would of course be swept away, but the barrack-yard would not be curtailed, because the galleries would here be supported on pillars, so as to form a covered ground for the training and recreation of the soldiers in wet weather.

If this plan is carried out it will become necessary to rebuild St. Martin's Workhouse on a new site. In doing so we trust that the parish authorities will adopt some of the suggestions which have been made of late for a better classification of inmates and for ameliorating the condition of the sick poor. Not that St. Martin's Workhouse is inferior to others in these respects, but because an opportunity of improving it is likely to arise. Thanks to the operations of the Workhouse Committee of the Social Science Association, a great deal of light has recently been thrown on workhouse management and a great deal of interest excited in the subject. Within the last few days, also, the same theme has been ably and sensibly discussed in a pamphlet by Dr. Stallard.(a) The cases at the Holborn Union and the St. Giles's Workhouse, which have raised so much indignation, are but the natural results of the existing system; and the public have to thank themselves—at least, their legislators—for them. The whole system of the new Poor-law is well described by Dr. Stallard as one of *negative* philanthropy. The diet and relief supplied are sufficient to keep men and women from actual starvation, but they are not sufficient to maintain them at the normal point of health and strength. Take as an instance the diet at the St. Giles's Workhouse, where a full-grown man is kept for twenty-four hours on $1\frac{3}{4}$ lbs. of bread, $2\frac{1}{2}$ oz. of cheese, 2 pints of oatmeal porridge, and some onions. On three days in the week the $2\frac{1}{2}$ oz. of cheese are replaced by $\frac{1}{2}$ lb. of uncooked meat, on one day by $\frac{1}{4}$ lb. of bacon, and on the other days by a pint of broth or pea soup. In the same way, whilst in Hospitals supported by voluntary contributions the cure of the sick is aimed at, all that Union Hospitals (*i.e.*, in parsimonious parishes) are intended to provide is a supply of Medical attendance at the lowest possible price, and of necessaries of the coarsest possible kind—just sufficient to satisfy the public conscience that the pauper has not been "*neglected.*" The faulty construction of Union Hospitals, and the nursing by pauper nurses are only parts of the same system of Poor-law "relief." We believe that the best remedy to dispel the horrors that gather round the dying pauper left to the tender mercies of a drunken nurse who sells his rations for gin, would come from the active, voluntary, but combined benevolence of Christian women, and we commend to the various Sisterhoods which are springing up around us the Union Hospitals of London as a most fitting field for their exertions. But such efforts we know do not meet with favour in all quarters, and it is perhaps more relevant to take advantage of the present aroused state of public opinion, and to appeal to the Government for some measure of active reform. That there is a growing feeling that a reform is necessary is shown by the verdict which was returned a few days ago by the jury impanelled to inquire into the death of Richard Gibson, an inmate of the St. Giles's Workhouse. They "desire to call the attention of the Poor-law Board to Ward 47 of St. Giles's Workhouse, in which the said Richard Gibson was confined during his illness. They think the said ward deficient in lighting, ventilation, and proper accommodation for the patients, as well as its very bad position, and ought to be closed. They also think that the dietary of the sick poor in the said workhouse is deficient, and that patients ought not to go from 4 o'clock p.m. to 8 o'clock a.m. without food. They also think that more paid nurses should be appointed to attend upon the sick, and they are of opinion that the neglect of the nurses to change the linen in the case of Gibson is severely reprehensible." We consider this verdict one of great importance, and we regard it with no small satisfaction. It comes from the class of men who are most interested in keeping down the rates—a class from whom the guardians in our metropolitan districts are in part selected; and it shows that they are becoming alive to their responsibilities, and anxious that the sick poor should be properly cared for, even though it should entail a slight additional expense. To parish Medical officers the advantages of a more liberal dietary and of skilled nurses are obvious. We sincerely trust that the St. Giles's Board of Guardians, stimulated by the inquiry instituted by the Poor-law Board, will lose no time in carrying out the recommendations of the jury, and that the example here set will be extensively followed.

Should it become necessary to rebuild St. Martin's Workhouse, we hope that great improvements will be made in the arrangements for the sick and infirm; that both in construction and management the wards will be placed more on a footing with those in Hospitals; and that accommodation will be afforded for a more thorough classification of cases than is at present possible. Probably the best way of carrying out these objects would be to separate the wards for the sick and incurable from the workhouse, so that they might be conducted on different principles without encouraging pauperism.

(a) "Workhouse Hospitals." By J. H. Stallard, M.B., London. L. Booth. 1865. See also "A Crusade for Sisterhoods in Hospitals." By a Knight Templar. Bristol: Kerslake and Co. Price One Penny.

THE WEEK.

UNIVERSITY OF LONDON.

We hear with great satisfaction that the Senate of this University have resolved on instituting the degree of Bachelor of Surgery (B.S.). This degree will, it is understood, be conferred simultaneously with that of Bachelor of Medicine, and on the same examination, with such modification as may be found necessary in relation to a practical examination in Surgery. This is certainly an advance in the right direction, and it is one which has been distinctly due to the graduates of the University. The regulations of the University have been such as to require from all graduates very high attainments in Surgery. Yet, however eminent those attainments may have been, there has been hitherto no public recognition of them, except that of Master of Surgery—a recent institution. Now a Bachelor of Medicine will also be recognised as a Bachelor of Surgery. The double qualification will be conferred by a single examination. There cannot be a doubt that all those who aim at a double qualification of a high order, and who having confidence in their own powers are ready to use them, will look to this degree. From this starting point those who wish to practise as Physicians will go on to take the M.D. degree, and the possession by them of a Surgical degree (B.S.) will be no valueless evidence of the extent of their Professional acquirements; whilst those who wish to practise as Surgeons can go on to the Master of Surgery degree, and to them the possession of a Medical degree, the M.B., will be even more valuable evidence of the extent of their Professional knowledge. The usefulness of the new degree will be further enhanced when it takes a place in Schedule (A) of the Medical Act. We see that notice has been given in the Medical Council that the like degree be recognised when conferred by any University. To such a proposal we cannot conceive that any objection can be made, for it is certainly in accordance with the expressed wishes of the Council that students should be rescued from multiplied examinations by a multiplicity of examining boards.

PARLIAMENTARY.—THE EPIDEMIC IN RUSSIA—THE EXPULSION OF THE METROPOLITAN POOR FROM THEIR DWELLINGS—MEDICINES FOR THE NAVY.

On Thursday, April 6,

Sir J. Pakington asked the Secretary of State for the Home Department whether the attention of Her Majesty's Government had been directed to the disease now prevailing in Russia and some parts of Prussia; and whether the Government proposed to take any steps to ascertain the true nature of the disease, and to avert its introduction into this country.

Sir G. Grey said the attention of the Government was directed to this subject by a statement which appeared in one of the daily papers of March 29. Instructions were immediately sent by telegraph to Sir A. Buchanan, at St. Petersburg, to make without delay the fullest inquiries into the subject, and to send from time to time all the information he can obtain as to the origin, nature, and progress of the disease, and as to the treatment of it. Instructions were also sent to Her Majesty's representatives at Berlin, Vienna, Copenhagen, and Stockholm, and to the consuls at the Baltic ports, to send full information as to the disease, should it appear in any of those parts of Europe. A Medical officer has also been directed to proceed at once to St. Petersburg to investigate and report upon the disease, and the officers of Customs have been directed to exercise the utmost vigilance in the examination of vessels coming from the Baltic. The information we have as yet received has been by telegraph, but Sir A. Buchanan says that he has forwarded by post a printed Medical report on the disease, which is stated to be a fever new in Russia, but not unknown in other parts of Europe, and it was said to be diminishing at St. Petersburg. Lord Napier says that the Minister of the Interior had told him that an unknown disorder had appeared along the valley of the Vistula, but that he was not aware that it came from Russia. The Consul at Dantsic, in a telegram dated to-day, says that a disorder prevalent in that district is a complaint of the brain, chiefly affecting children. The Consul at Warsaw, in a telegram also received to-day, says that some cases of typhus have occurred there, but no disease having the proportions of an epidemic disorder has up to the present time appeared in Poland. The Consul at Königsberg reports that no particular epidemic disorder exists there, and the Consul at Memel says that no symptoms of the disease have appeared in that district nor in the adjacent Russian provinces; and a telegram just received from the Consul at Stettin reports that no epidemic disorder prevails there.

In the House of Lords on Friday, the Lord Chancellor, in the absence of Lord Shaftesbury, moved the amendment to Standing Order No. 191, of which notice had been given. The object of the motion is to obtain for the House full information of the number of dwellings demolished and of the inmates displaced by proposed railway works in the metropolis, and to secure due notice to those persons who have to quit their residences.

Some discussion took place on the manner in which the amendment should be worded, the Bishop of London pointing out that the greatest difficulty would still remain unless houses were provided to which the people could remove. He suggested that the wealthy London companies might render some assistance in this difficulty.

The amendment was finally agreed to.

In answer to a question by the Bishop of Oxford in reference to the St. Petersburg epidemic, Earl Granville said it was quite true that a telegram had come that day from Berlin which gave a worse account of the epidemic than had been previously received from St. Petersburg. A Medical officer of great experience had been sent to St. Petersburg, and another gentleman of equal Professional attainments had since been sent to the Valley of the Vistula, to ascertain the real character of the disease. He was not aware that any further steps could be taken in the matter.

In the House of Commons, the consideration of the amended Metropolis Sewage and Essex Reclamation Bill was adjourned until the 25th inst.

In answer to a question by Mr. Onslow, Sir G. Grey said that the information received from the Continent was not such as to induce the Government to think of establishing a quarantine at present.

In a Committee of Supply on the Navy Estimates, £64,800 were voted for Medicines and Medical stores.

The House adjourned until Monday, the 24th.

FROM ABROAD.—A NEW PLESSIMETER—IDENTITY OF GRAVEL, DIABETES, AND ALBUMINURIA—DIMINISHED RATE OF MORTALITY IN PARIS—ELECTRICAL ANÆSTHESIA.

M. Moulin, an old pupil of Laennec's, describes, in the last number of the *Gazette des Hôpitaux*, a very simple plessimeter, which for many years past he has been in the habit of advantageously employing for the performance of percussion. It consists merely in a disc of caoutchouc, from two to four millimetres in thickness, and for ordinary purposes need not be larger than a five-shilling piece. It is pierced with a hole in the centre to facilitate the transmission of sound, and is easily carried about in the pocket-book, so as to be always at hand, which is not always the case with more elaborate instruments. Of course, it may be made of any form most convenient for use. The varieties of sound are transmitted with great exactitude and distinctness through this thin portion of an insonorous material.

M. Roubaud, a Medical Inspector of Mineral Waters at Pougues, has communicated to the Academy of Sciences a memoir having for its objects to prove that three affections, apparently so dissimilar as gravel, diabetes, and albuminuria are yet in their nature identical. He sums up his views as follows:—1. These three affections are not diseases of the urinary apparatus. 2. The anatomical lesions which during their course are met with in the organs of this apparatus, are either foreign to, or consecutive to, the affection in the immense majority of cases. 3. Their etiology is found in a more general circumstance—viz., an altered condition of the blood. 4. This alteration is constituted by the excess of an excrementitial product—uric acid—which, according to special conditions that lead it to remain insoluble, or to

react on the glucose or on the albumen of the blood, gives rise to either gravel or gout, to diabetes, or to albuminuria. 5. A future memoir will furnish an exposition of the circumstances which induce this varied mode of action of the uric acid. 6. The excessive formation of uric acid—*i.e.*, the evolution of the uric acid diathesis, is referable to disturbances in digestion or nutrition which render albuminoid products incapable of complete combustion. 7. It has been while pursuing the scientific investigation of Medical hydrology that I have arrived at the preceding considerations, which are amply justified by numerous cases that have come under my care at Pougues.

An interesting statistical document in relation to the more tality of Paris has just been published in the shape of a Report presented to the Prefect of the Seine by M. Deville, based upon the returns made by the Medical Inspectors for the Verification of Deaths during the years 1840—63. This system of inspection was instituted in 1840; this report, therefore, gives an account of its entire operations during twenty-four years. In 1836, which was the year in which the first quinquennial census was taken, the population of Paris was 868,438, and the number of deaths during the same year was 24,047—*i.e.*, about 1 death in 36 inhabitants. In 1846 there occurred 1 death in 37; and in 1851, 1 death in 38. In 1860 the limits of Paris were greatly extended, so as to form 20 in place of 12 arrondissements, and in that year the population being 1,696,114, there were 43,516 deaths—*i.e.*, 1 in 39, or 2·56 per cent. In the year 1863 the proportion of deaths is calculated at 1 in 40. Among the causes of this important amelioration, the reporter places—1. The extension of the superficies of the capital in relation to its population. This was in 1841 but 3402 hectares, with a population of 935,261; while since 1860 this has been 7802 hectares, or more than double, with a population of 1,696,141. An examination into the details of the mortality, and especially during the visitation of epidemics, shows that this is not merely proportionate to the extent of the arrondissement or its relative population, but to the amount of agglomeration and the bad hygienic conditions which result. 2. The next favourable condition which the report brings prominently into notice is the purification of the air by means of plantations, the number of which have been so much increased within the last ten years; for while in 1853 there were only 215 hectares of planted ground in Paris, in 1863 this amounted to 328 hectares. 3. Next comes the better supply of water, both for domestic use and for the effectual cleansing of the streets and houses. In 1840 the Administration was enabled to distribute for general and private use only 65,000 cubic metres of water in the twenty-four hours; but by 1861 this had reached 100,000; in 1862, 133,258; and in 1863, 136,634 cubic metres in the twenty-four hours. 4. Conjointly with this more abundant supply of water, a vast system of subterraneous sewerage has been carried out. 5. The operations of the *Commission des logement insalubres*, instituted in 1850, have also contributed to the amelioration of the sanitary condition of the habitations of Paris. 6. Lastly, the reporter attributes a portion of the improvements which have been attained to the progress of Medical science, and points out that the illegal practice of Medicine and charlatanism stand in the way of still greater progress.

Dr. Rodolfi has just held the second of what he terms his "electro-therapeutical sittings," in the Brescia Hospital, at which the anæsthetic power of the electrical current was again demonstrated before a numerous assembly, together with other phenomena. Among the latter was the production of a peculiar sound by the passage of the electrical current through the muscles. Four women suffering from nervous affections were experimented upon, it being first ascertained that as regards the intellect, sensibility, and motility, they were in a normal condition. 1. A woman, æt. 24, who had suffered from epileptic attacks for some years, submitted to De La Rive's electrical current for two minutes, manifested complete anæsthesia with slight "sub-delirium." The application having been continued for five minutes, the usual phenomena of epilepsy were induced. 2. On the other hand, another woman, who was seized with an epileptic attack in the presence of the assemblage, was at once submitted to the current. After this had been in operation during five minutes, the attack was completely suspended, the anæsthesia of the hands and forearm being obvious to all present. 3. In this woman, the subject of "a hysterical form of bronchitis," Dr. Rodolfi called the attention of his visitors to the special sound produced by the passage of the current through the muscles, and observed that, after long searching for a galvanometer suitable for measuring the intensity of the anæsthesia, and the force necessary for its production, he had found that patients themselves constituted the most exact of all galvanometers. The machine must be so regulated that the sound is produced, this diminishing or disappearing also in proportion as the anæsthesia is induced. It having been previously ascertained that no noise was audible in the arm of the patient prior to the introduction of the current, such noise was after this plainly heard in the flexors and extensors by those present. It was a continuous sound, resembling a distant approaching railway train or a roaring, and it diminished progressively with the appearance of the anæsthesia; so that after the current had continued for five minutes, and anæsthesia had become complete in the hands, the sound could only be heard in an intermittent manner along the arm, having completely ceased in the parts which had become anæsthetic. In the course of a quarter of an hour the anæsthesia had extended to the elbow. 4. In another woman suffering from cephalagia dependent on amennorrhœa, the sound heard immediately after the establishment of the current disappeared in one arm, and diminished in the other after the production of anæsthesia. The assembled *savants* determined that this sound should be termed the "electrical muscular sound."

GENERAL MEDICAL COUNCIL.

THURSDAY, APRIL 6.

(THIRD DAY.)

The Council met at 2 o'clock.

The minutes of the last meeting having been read and confirmed,

The President said that the first business of the meeting was the reading of the communications from the Directors-General of the Army and Navy Medical Departments.

The Registrar accordingly proceeded to read the communications.

Mr. Arnott, during the reading, moved that the documents be printed and marked "confidential," for the use of the Council.

Dr. Acland seconded the motion.

Dr. Corrigan rose to order. He said that in the face of the resolution of yesterday that the communications should be read, the Council could not entertain the motion just brought forward.

After a short discussion the remainder of the documents was read. They contained returns of the results of the examinations of candidates for appointments on the Medical staff of the Army and Navy. In the case of the candidates for appointments in the Navy, a large number were ignorant of the Latin language.

Dr. Andrew Wood moved "That the communications just read be received and printed on the minutes." He considered that there was not an examining board in the kingdom which would not be benefited by their publication. The thanks of the Council were due to Dr. Apjohn, who moved for the returns.

Dr. Parkes seconded the motion, and suggested that in future the Director-General of the Medical Department of the Army should also forward returns of the examinations of the candidates for appointments on the Medical staff of the Indian Army.

The motion was carried.

Dr. Apjohn moved, and Dr. Paget seconded, a vote of thanks to the Directors-General of the Army and Navy Medical boards for the returns, and a request to the Director-General of the Army Medical Board that the returns may henceforth include the examinations of candidates for Indian service.

The report of the committee of communications relative to the amendment of the Medical Acts was read.

Dr. Embleton moved "That the report be received and entered on the minutes."

Dr. Fleming seconded the motion.

The resolution was carried unanimously.

Mr. Arnott moved "That certain communications referred to by the Committee be read and printed on the minutes."

Dr. Paget said that some of the letters were personal, and it would be unadvisable to print them.

Dr. Aquilla Smith expressed the same view.

Mr. Arnott said the report stated that some of the letters were worthy of consideration. They could not consider them unless they had their contents before them.

Dr. Embleton said the letters should be printed.

Dr. Paget said that if they were printed names should be omitted.

Mr. Arnott agreed to append a clause to that effect to his motion.

The motion was seconded and carried.

Dr. Andrew Wood moved "That a committee be appointed to draw up a memorial to the Home Secretary in reference to the amendment of the Medical Act, and to report to the Council."

After a short delay,

Dr. Andrew Wood said he had ascertained that it would be better to defer that motion, in consequence of some reports having been brought forward by which circumstances were altered. He then moved "That the Council resolve itself into a General Committee on Education, and that the President take the chair."

The motion was seconded by Mr. Hargrave, and carried unanimously.

The Chairman asked whether the reporters should remain. He believed that when the Council were in committee the rule was that the proceedings should not be reported.

Dr. Andrew Wood said that he thought the presence of the press was a very wholesome check. The only object in going into committee was to get rid of the usual formalities of debate.

Dr. Corrigan said that it was most desirable that the press should be present on this occasion, and he should therefore move "That the reporters be allowed to remain."

Dr. Andrew Wood said there was no bye-law that reporters should be excluded from committees of the whole Council. The exclusion was intended to apply only to committees of part of the Council. It was his impression that those who wished to exclude the press must make a substantive motion to that effect.

Dr. Parkes moved, "That a Committee of three be appointed, one member from each division of the kingdom, to be called the Committee on Education. That the powers and duties of this Committee be—1. To prepare a definite statement of the systems of examination of the different licensing bodies, as stated in the documents already sent in to the Council, so that the agreements and differences of the several systems may be brought into one view. For this purpose the Committee shall be enabled to seek further information, if necessary, from the different licensing bodies, through the Registrar of the Council. 2. To arrange a plan by means of which, without actual visitation, the different examinations may be continually supervised, and to submit this to the several Branch Councils, after which the Committee be empowered to act upon it. 3. To arrange a plan for the visitation of examinations, when that is necessary, either by the agency of members of the Council or of other members of the Profession selected especially for this duty, and to submit this plan to the Branch Council, and subsequently, when it has been approved of, to act upon it." He said he considered the appointment of a Committee important. It would be their business to take into consideration the documents which were sent in from the different examining boards and frame some comprehensive scheme which might show the precise mode of examination, and to give particulars of the qualification required by the different licensing bodies. That plan should be submitted to the different Branch Councils in order that a general plan for the continual supervision of examinations might be adopted. The Committee should require from each licensing body a full statement of the questions which were put at each examination, and the amount of time occupied in each examination as to general, elementary, and practical subjects. They should also require a statement as to the mode in which the examination of the different candidates was considered and determined by the examiners and obtain samples of the written examinations. There should be constant supervision of the examinations, in order that a uniform system might be insured.

Dr. Paget seconded the motion.

Mr. Hargrave opposed it.

Dr. Corrigan said he did not think Dr. Parkes had estimated the frightful labour his motion would put on the Committee of three. In the first place, they would have all the papers to read.

Dr. Parkes: Not all; only some of them.

Dr. Corrigan said if they were to have only some of the papers the supervision would be totally valueless. The examining bodies would, perhaps, send only the most favourable. On the other hand, if all the papers were laid before them the labour would be enormous. There were about 4000 candidates, and they were examined in ten different subjects; that would give 40,000 papers, and he had estimated that they would take one hundred and seventy-five days and nights to read, without a wink of sleep. He should certainly himself refuse to be on the Committee. (Laughter.) The best safeguard for proper examinations, and the one most calculated to induce examiners to do their duty, was that advocated last year by Dr. Stokes—namely, the admission of the public at the examinations. In France the public were admitted to all Medical examinations, from the lowest to the highest degree.

Mr. Syme said that it appeared to him that if the supervision of examinations were to be carried on effectually it must be done by all the members of the Council taking part in it.

Dr. Quain said that the motion as it stood was impracticable. It must either be rejected as a whole or taken up clause by clause. He should suggest that the course pursued last year should be adopted, which would be better than a desultory discussion on several points at once.

Dr. Christison said he did not agree with Dr. Quain as to the value of a desultory discussion. The questions under consideration had been before the Council year after year, and it was time that some decisive step should be taken. He sincerely trusted that the Council would not separate this year without instituting a new system as to examinations, or declaring themselves satisfied with the present state of things. He would suggest that whatever motion was passed it would not contain any expression implying the assumption by the Council of any function which they did not possess. The motion spoke of supervision of the examination papers. The Act did not empower them to call upon examining bodies for the examination papers or to supervise those papers. He should be glad to see a committee appointed at the present session of the Council to take into consideration Clause 18 of the Act.

Dr. Aquilla Smith, in the course of some observations, called attention to the importance of efficient preliminary examinations. The fact, revealed by the army and navy returns, of a large number of the candidates being ignorant of the Latin language, showed the necessity of reform in the way of conducting preliminary examinations. He believed the classical attainments of students entering the Profession were every year becoming lower. Not only were some of them ignorant of the Latin language, but many of them were ignorant of the English language also. He did not expect any improvement as long as the present slovenly mode of preliminary examination was allowed to be followed.

Mr. Syme moved:—"That each of the Branch Councils, in compliance with Clause 18 of the Medical Act, shall visit the examinations in their respective districts, preliminary as well as Professional, for obtaining the qualifications mentioned in Schedule (A), and report to the General Council the result of those examinations."

Dr. Andrew Wood seconded the amendment.

Dr. Parkes said he was willing to consent to the amendment, and would simplify matters by withdrawing his motion.

Dr. Andrew Wood said that he considered that a system of visitation of examining boards should be established. It would be a most beneficial practice, and he believed there was no disposition on the part of the examining boards to object to visitation; and if any of them thought it would hurt their dignity the Act of Parliament would override their dignity.

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He did not agree with publicity in examinations. In the first place, did those boards where publicity was allowed turn out the best men? ("Yes.") He would leave it to those gentlemen who made that assertion to prove it. He did not know whether Irish students were subject to "funk;" but at all events, publicity would not do in Scotland. (Laughter.) There were some of the most competent and best-qualified students in Scotland who would not be able to pass such examinations, because they would experience the feeling called "funk" in the presence of the public. Those who attended public examinations would not be the class of men calculated to raise the standard of such tests. Those professional men whose opinions were worth anything would be far too busy to attend. The class of persons attending would be students who were anxious to know the sort of questions which would be asked of them, and "grinders" who wished to find out what points to give prominence to next time they had a student to put on the grindstone. He objected to *viva voce* examinations. There were many who, from nervousness or inability to express themselves, would egregiously fail at a *viva voce* examination, but who would pass a written examination in the most creditable manner.

Dr. Corrigan opposed the motion. He believed the admission of the public tended to generate a sound public opinion as to the efficiency of an examination. With regard to "grinders," he did not agree with the terms of reprobation in which Dr. Wood had alluded to them. He believed they were a most useful class of men, and if any evils had arisen from their existence the crime lay on the examiners for not making the examinations practical.

Dr. Paget said he did not think it practicable for the Branch Councils to visit the examining boards according to Mr. Syme's motion.

Mr. Syme said he meant that a portion only of the Branch Councils should perform the visitation.

Dr. Andrew Wood: A committee of them.

Dr. Acland said he did not consider that the deputing to the three Branch Councils the visitation of the examining boards in their respective countries would promote the uniformity which was desired. A small committee composed of members from each of the Branch Councils, whose business it should be to draw up a uniform scheme of examination for adoption throughout the kingdom, would be a superior organisation.

The Chairman said that Mr. Syme had amended the wording of his resolution as follows:—"That each of the Branch Councils, or such of their members as may be deputed by such Council, shall, from time to time, visit the examinations conducted by the qualifying bodies in their respective kingdoms, preliminary as well as Professional, and report the results of their observations to the General Council."

Dr. Paget advocated a more general measure; but he gathered from what had occurred in the Council that they were not prepared to grant it, and therefore he would be content with a limited measure this session. He begged to move, as an amendment to Mr. Syme's motion—"That the Branch Councils be instructed severally to organise a set of trial visitations on a scale which may enable them to report upon the success of such visitations, the conditions of efficiency, and the requisite means for rendering them adequately extensive."

Dr. Sharpey said he was of opinion that gentlemen not belonging to the Council should be appointed to visit the examinations which took place in the United Kingdom from time to time. The duty of visitation would be a most invidious one, and it would be unadvisable for members of the Council to undertake it personally.

Dr. Storrar said he had always been an advocate for visitation; but he did not approve of conducting examinations in public. They were so conducted on the Continent, and he was never so dissatisfied with Continental examinations as he was at the present time.

Dr. Corrigan said there were difficulties in the way of visiting preliminary examinations as well as Professional, as proposed in the motion. The Council would have to visit every examining board from which they received certificates of preliminary examination. Those boards were very numerous and very distant from each other. One of them was situated in Barbadoes. (Laughter.)

The amendment and motion were then put from the chair. The number in favour of the amendment was 4, and for the motion 10.

The amendment being lost, the motion was put separately, and carried without opposition.

Dr. Andrew Wood moved, and Dr. Stokes seconded—"That the Council resume."

The motion was carried unanimously.

Dr. Quain submitted the report of the Pharmacopœia Committee. He observed that it was proposed as an alteration this year that instead of the book consisting of two divisions and an appendix, the materia medica and preparations should be arranged alphabetically and continuously.

It was resolved—"That the report be received and entered on the minutes."

The Council then adjourned.

FRIDAY, APRIL 7.

(FOURTH DAY.)

The Council met to-day at the usual hour.

The first business on the programme was the consideration of the report of the Committee on Communications relative to the Amendment of the Medical Act.

The first of the four communications particularised in that report was read by the Registrar. It was a letter from J. F. Milner, Esq., of Hereford, dated December 2, 1864, praying for protection of registered Medical Practitioners against the practice of Medicine by chemists and druggists, and against the holding of club appointments by the same.

Dr. Acland said that he had long thought that it was necessary for the subject raised in Mr. Milner's letter to be brought before the Council. It was acknowledged that the position of chemists and druggists was very unsatisfactory as far as regarded pharmacy. It was clear that the present Act of the Council had no power over chemists and druggists who practised as Medical men. He was not sure whether they ought to have that power, but, at all events, when they were about to go to Parliament for an amendment of the Act it was certainly desirable to consider whether any power should be sought. He did not propose to discuss the question, but to propose a motion merely to refer it to a Committee to consider the case. The matter had become a very complicated one, and he was not sure that it was the duty of the Council to seek any alteration. There was a large number of chemists and druggists who had had no Medical education, but who practised Medicine both in and out of their houses. There were skilled pharmaceutists who would not on any account practise Medicine, and there were duly qualified Medical men who found it most to their worldly advantage to keep a chemist and druggist's shop and practise in that way. It should be considered whether the Council had any duty to the public with regard to such cases. He then moved—"That with reference to the letter of Mr. Milner, of Hereford, a Committee be appointed to consider and report whether the Medical Council is charged under the Medical Act with any duty in relation to Medical and Surgical practice by chemists and druggists, and whether any, and if so what, changes in the Medical Act are desirable with regard to it, and to consider and report on the two Bills relating to pharmacy now before Parliament."

Dr. Parkes seconded the motion. He said that it should be requested of the promoters of the Pharmacy Bills now before Parliament that no persons belonging to their societies should be allowed to take charge of any case requiring Medical knowledge. The letter of Mr. Milner represented a great and widely-spread grievance.

Dr. Christison supported the motion.

Dr. Wood called attention to Clause 55 of the Medical Act. He said that he was not certain that the Council should support any bill which did not clearly define what were the proper functions of chemists and druggists. If they supported a bill in which those points were not clearly defined, they would be raising up another Apothecaries' Society.

Mr. Cooper said the subject was a very important one, and he was happy to find that it was going to be considered.

Dr. Acland said that, having long thought over the subject, he was doubtful whether it would not be well both for the public and for the Profession that the regulation of pharmacy should be entrusted to the Council, and that the Pharmaceutical Society should be represented at the Council.

The motion was carried unanimously.

The following gentlemen were appointed to serve on the Committee:—Dr. Acland (chairman), Dr. Christison, Dr. Parkes, Dr. Alderson, Mr. Rumsey, Dr. Paget, Dr. Thomson Dr. Apjohn, Dr. Storrar.

A letter from E. E. Tucker, Esq., of Abersychan, dated February 3, 1865, complaining of the practice of Surgery by a gentleman in his neighbourhood, whose only qualification is that of the Society of Apothecaries of London, was then read.

Dr. Wood said that the letter seemed to raise a very important question under Clause 31 of the Medical Act. The whole tenor of the working of the Act had tended to satisfy him of its deficiency. By Clause 31 a person who had obtained a qualification in Medicine might be registered and might practise that branch; and a person who had passed in Surgery might be registered and practise that branch; and those who had passed in both branches might practise both. The practical effect was that persons qualified only in Medicine practised Surgery, and *vice versa*. In the case mentioned in the letter, the gentleman had obtained a qualification from the Society of Apothecaries, and was therefore entitled to practise Medicine; but he had been found practising Surgery. That was a natural result, and he (Dr. Wood) was strongly convinced that no person should be registered who had not passed in all branches of the Profession. It was the duty of the Council to contribute as far as possible to securing that those sent out to treat the public should be qualified in every branch.

Mr. Syme moved "That Clauses 19 and 31 of the Medical Act be referred to the committee appointed to take into consideration the amendment of that Act."

Dr. Wood seconded the motion.

Dr. Acland said it was important for the examiners of the College of Surgeons to know how much Medicine a Surgeon should know, and for the examiners of the College of Physicians to know how much Surgery a Physician should know, and last year he moved a resolution to that effect. The collective wisdom of the Council ought to decide the question, for the protection of students and others.

Mr. Rumsey said he believed the Register had conferred the right of practising on persons who would not otherwise have been thought qualified, and it had thus tended to the degradation of the Profession. Recently, at a lunatic asylum in the West, a gentleman was proposed for appointment as the Medical officer who was merely a member of the College of Surgeons, and who had never been examined in Medicine. A member of the Board felt the difficulty, and applied to the Lunacy Commissioners in London to know what was to be done. The answer received was that the Register allowed them to appoint any one mentioned in Schedule (A) of the Medical Act. Before the publication of the Register he would have been regarded merely as a Surgeon. The question was a most important one, and touched the whole question of public appointments throughout the kingdom.

Mr. Arnott said that the evident answer to the letter under consideration was that the Council could not interfere. The branches of Surgery and Medicine were so blended that there were many cases in which it was impossible to define whether they were Surgical or Medical. In both branches there were, of course, some broad cases in which there could be no doubt as to which class they belonged; but in many great doubt existed, and it would be impossible for a jury to decide the point. He therefore contended that no person should be registered who did not possess the double qualification.

Mr. Cooper advocated the possession of the double qualification as the title to registration.

The motion of Mr. Syme was unanimously agreed to.

Mr. Arnott moved—"That a letter be written to Mr. E. E. Tucker, to the following effect:—The Council has learned with great regret the particulars of the case stated in Mr. Tucker's letter. The Council has not, under the present Act, the power to interfere for the protection of the public against ignorance of Surgery on the part of Practitioners who have no Surgical qualifications; but the subject now engages the serious consideration of the Council."

The motion was seconded and carried.

The Registrar read a letter from Dr. Styrap, of Shrewsbury, dated March 3, 1864, asking that increased powers be given to magistrates with respect to offences against the Medical Act, and that the penalty on second conviction be increased.

Dr. Embleton moved—"That an answer be returned to Dr. Styrap to the effect that the subjects of his letter are at present under the consideration of the General Medical Council."

Dr. Fleming seconded the motion, which, on being put to the meeting, was carried unanimously.

Dr. Embleton moved—"That the following sections of the Medical Act, viz., 38, 39, 40, and 41, be referred to the Committee on the amendment of the Medical Act."

The following memorial, dated April 3, 1865, from twenty-eight Licentiates in Dental Surgery of the Royal College of Surgeons of England, was read by the Registrar:—

"*To the General Council of Medical Education and Registration of the United Kingdom.*

"We, the undersigned, Licentiates in Dental Surgery of the Royal College of Surgeons in England,—(a Degree founded by the College on Section xlviii. of the present Medical Act)—although entitled to register under that Act, in virtue of our other Professional qualifications, considering it to be desirable, and believing it to be only just, that those persons who have taken this degree should be allowed the privilege of registering as 'Licentiates in Dental Surgery,' under the proposed amended Medical Act, beg respectfully to bring this, our view of the subject, under the consideration of your honourable Board.

"We are aware that the following objections have been raised to this privilege being allowed to the possessors of this degree:—

"First.—That, if the privilege were granted to persons who have taken this degree only, they would, under Clause xxxiv. of the present Medical Act, be considered in law as 'duly qualified Medical Practitioners,' and might, if so disposed, practise legally any or all branches of the Medical Profession without having received a full Medical education, and thereby interfere with the interests of the fully qualified Medical man.

"Second.—That to grant this privilege to them would be to infringe upon and injure the existing rights of those persons at present practising Dental Surgery who do not possess this degree, by giving to the new Act a retrospective character; and

"Third.—That it is open to those persons practising Dental Surgery who desire to possess the privilege of registering under any Medical Act to take the degree of 'Member' of the College of Surgeons, as well as that of 'Licentiate in Dental Surgery,' and to register under the former title.

"To the first of these objections we respectfully submit that the very slight additions we have suggested to the wording of Clauses xxxi. and xxxiv. of the present Medical Act would, if adopted, make it clear, beyond the possibility of a doubt, that the possessors of this degree only, if registered as 'Licentiates in Dental Surgery,' could not legally practise any other branch of Medicine or Surgery, and therefore that the incorporation of these, or similar words, into any amended Medical Act, would fully meet and do away with this objection.

"To the second objection we also respectfully submit that the few words proposed to be added to Clause lv. of the present Medical Act would, if adopted and incorporated with such amended Medical Act, completely protect all the existing rights of those persons at present practising Dental Surgery who do not possess this degree, as also the prospective rights of those at present preparing to practise Dental Surgery who may not have it in their power to take this degree, and so meet and do away with this objection.

"And to the third objection we respectfully submit:

"First.—That the argument on which it rests is founded upon an imperfect knowledge of the amount of 'special study' required to form the duly qualified Dental Surgeon, as we think will be apparent to your Honourable Board by a reference to the accompanying curriculum of education required by the College of Surgeons for the degree of licentiate in Dental Surgery;—

"Next.—That to expect the full course of education required for the 'membership' of the College to be added by the Dental Surgeon to the curriculum required for his special diploma, in order to give him the power of registering under such Act, would be to exact a more extensive and more expensive Professional education, both in respect to time and money, from the dental than from the general Surgeon—a requirement which we most respectfully submit would be both unnecessary and unjust; and

"Lastly.—That to be registered as a 'fellow' or 'member' of the College only does not *in itself* afford any proof that persons so registered are duly qualified to practise the speciality of Dental Surgery, as we think will also be apparent to your Honourable Board after referring to the curriculum above named.

"Entertaining these views, we think it right to bring them under the attention of your Honourable Board, and we pray that you will take them into your favourable consideration.

"Thomas Bell, F.R.C.S., L.D.S., F.R.S.,
"John Tomes, F.R.S., L.D.S., M.R.C.S.,
"Samuel Cartwright, F.R.C.S., L.D.S.,

Members of the Board of Examiners in Dental Surgery of the Royal College of Surgeons of England.

"Arnold Rogers, F.R.C.S., L.D.S., late Member of the above Board.
"W. A. Harrison, F.R.C.S., L.D.S.
"G. A. Ibbetson, F.R.C.S., L.D.S.
"Wm. A. Cattlin, F.R.C.S., L.D.S.
"A. G. Canton, M.R C.S., L.D.S.
"Thomas Rogers, M.R.C.S., L.D.S., President of the Odontological Society of Great Britain.
"H. J. Barrett, M.R.C.S., L.D.S.
"S. J. A. Salter, M.B., M.R.C.S., L.D.S., F.R.S.
"Henry Rogers, M.R.C.S., L.D.S.
"Alf. Barrow Jones, M.R.C.S., L.D.S.
"Edwin Sercombe, M.R.C.S., L.D.S.
"John W. Elliott, M.R.C.S, L.D.S.
"Nathaniel Stevenson, M.R.C.S., L.D.S.
"H. Howard Hayward, M.R.C.S., L.D.S.
"Joseph Rogers, M.R.C.S., L.D.S.
"William Cattlin, M.R.C.S., L.D.S.
"Alfred Coleman, M.R.C.S., L.D.S.
"Joseph Walker, M.R.C.S., L.D.S.
"J. H. Allingham, M.R.C.S., L.D.S.
"Charles Vasey, L.F.P.S., L.D.S.
"John Thomas Henry West, M.R.C.S., L.D.S.
"Geo. Gregson, M.R.C.S.E., L.D.S.
"E. H. G. King, M.R.C.S., L.D.S.
"Thomas C. White, M.R.C.S., L.D.S.
"Charles James Fox, M.R.C.S., L.D.S."

Dr. Storrar said that whatever the merits of the case now brought forward, it was utterly impossible to discuss the details. It would, however, be unjust to the memorialists to refuse to give their representation thorough consideration. The degree of Licentiate in Dental Surgery was founded by the Royal College of Surgeons in 1858 at the instance of a large number of its most respectable members, who wished to rescue dental science from the wholesale quackery in which it was involved. The movement of the Surgeon-dentists had been a decided success, and students attended their schools for the purpose of acquiring information on the subject of dental Surgery. He did not wish to propose that the memorial be acceded to, but he would move that it be referred to the Committee on the amendment of the Medical Act.

Mr. Hargrave seconded the motion.

Mr. Rumsey said he fully concurred with the remarks of Dr. Storrar, but he was sorry that he did not carry his motion farther. They might give a qualified approval to the application of the memorialists that licentiates in dental Surgery should be registered as such. That was no new principle. The privilege of registration was conferred on licentiates in midwifery, and it would be only placing licentiates in dental Surgery on the same footing to accord them the privilege of registration.

Dr. Christison said that the proposal of Mr. Rumsey would have the effect of extending the number of registered persons not qualified in all branches. (Hear, hear.)

Mr. Rumsey explained that it was only because the Council had the power of registering those qualified in some special branches that he suggested that they should be empowered to register another special branch.

Mr. Arnott opposed the motion.

The President said that, with all respect to the memorialists, he thought that the Council would be entering upon a very dangerous course if they consented to admit on their register gentlemen who simply had the qualification of Practitioners in dental Surgery from the Royal College of Surgeons. It would be very difficult for the public to distinguish those who were merely dentists from those who held the full Surgical qualification.

The motion was put and carried.

Dr. Sharpey moved, "1. That it is expedient to amend Clause 18 of the Medical Act by adding to it the following words, or words to the same effect, viz.: 'and may also inspect the written answers of the candidates, and report concerning the examinations and answers to the General Council; and to the persons deputed by the General Council as aforesaid, in such number as may be determined by the General Council, with the approval of one of Her Majesty's principal Secretaries of State, there shall be paid such fees for services and such reasonable travelling expenses as shall from time to time be allowed by the General Council and approved by the Commissioners of Her Majesty's Treasury; and the said payments shall be made out of the residue of the monies annually received for carrying this Act into execution, after defraying the expenses of the General Council and the Branch Councils, and, if necessary, out of further monies to be provided for the said purpose by vote of Parliament.' 2. That the proposed amendment be referred to the Committee on the Amendment of the Medical Acts." He said the objects of the motion proposed in the amendment was, first, to remove ambiguity as to the extent to which persons deputed by the Council may attend the examinations of candidates and ascertain and report on the result of such examinations; secondly, to remove ambiguity as to the extent to which the Council was empowered to allow expenses to the visitors at examinations; and thirdly, to provide that, in case the funds annually received should be insufficient to defray such expenses, the deficiency might be provided for by a vote of Parliament.

Dr. Storrar seconded the motion.

Dr. Christison said he quite agreed with the general principle of Dr. Sharpey's motion.

Dr. Corrigan objected to the motion. He said that it proposed what was impossible, and on the working of it it must fall to the ground. In addition to that, the necessity of supervision had been discussed, and its propriety had been questioned. There was a resolution passed on the previous day that a trial should be made as to the practicability of visitations, and he could not but regard Dr. Sharpey's motion otherwise than as an attempt by a side-wind to get the Council to appoint visitors. The supervision would be worthless unless first-rate men were employed, and first-rate men who had made a position in the Profession would not leave their work to enter on such visitations. To send inferior men would be an insult to examiners, and the Profession would regard the plan proposed as an attempt to divert their money to provide a salary for a new officer. He proposed as an amendment "That the Professional examinations conducted by the several licensing bodies should be public so far as admitting the graduates, members, or licentiates of the licensing body conducting such examination, and that such publicity will be sufficient to secure the maintenance of efficient examinations without inspection."

Dr. Wood said that the question was fully discussed yesterday: it could not be re-opened during this session. A system of trial visitations had been agreed on. He asked the President to rule as to whether the motion was in order.

The President said that it was quite competent for Dr. Sharpey to bring forward the motion; but he was rather surprised at his doing so after the resolution of yesterday, with which it seemed inconsistent.

Dr. Storrar said that, in order to rid himself from the suspicion of inconsistency with what took place yesterday, he wished to explain that Mr. Syme's motion of yesterday was one which could be put in effect at once, while the motion proposed by Dr. Sharpey had reference to the future, and was intended to provide for the possibility of the Council deciding at some future time to institute inspection of examinations.

Dr. Fleming said that the motion was quite distinct from that of Mr. Syme.

Dr. Aquilla Smith said that it was not reasonable to ask further sums from Parliament when they had about £25,000 in the Consolidated Funds. He seconded Dr. Corrigan's amendment.

Dr. Fleming remarked that the motion asked for the money only conditionally.

Dr. Sharpey, in reply, explained the reason why he brought forward the motion at the present time. They were now considering amendments in the Medical Act, and as this referred to that subject, the present was the proper opportunity to bring it forward.

The President took the vote of the Council as to the amendment. There were—in favour of it 5; and against it, 9. The amendment was therefore lost.

Dr. Wood then moved the following amendment on the original motion:—"That it be remitted to the Committee on the Amendments of the Medical Acts to consider the expediency of amending Clause 18 by adding to it the following words, or words to the same effect—viz., 'and may also inspect the written answers of the candidates, and report concerning the examinations and answers to the General Council; and to the persons deputed by the General Council as aforesaid, in such number as may be determined by the General Council, with the approval of one of Her Majesty's principal Secretaries of State, there shall be paid such fees for services and such reasonable travelling expenses as shall from time to time be allowed by the General Council and approved by the Commissioners of Her Majesty's Treasury; and the said pay-

ments shall be made out of the residue of the monies annually received for carrying this Act into execution, after defraying the expenses of the General Council and the Branch Councils, and, if necessary, out of further monies to be provided for the said purpose by vote of Parliament.' "

Dr. THOMSON seconded the amendment.

On a vote being taken, there were,—For the amendment, 10; and against it, 8.

It was then put as a substantive motion. There were,—For it, 11; and against it, 7.

The amendment was therefore carried.

Dr. CORRIGAN asked that names might be taken down. The division was as follows:—

For the amendment:—Dr. Alderson, Dr. Paget, Dr. Embleton, Dr. Storrar, Dr. Andrew Wood, Dr. Fleming, Mr. Syme, Dr. Thomson, Dr. Sharpey, Dr. Quain, and Dr. Christison.

Against the amendment:—Mr. Arnott, Mr. Cooper, Dr. A. Smith, Mr. Hargrave, Dr. Leet, Dr. Apjohn, Dr. Corrigan, and Dr. Stokes.

Dr. QUAIN moved "That a committee of the Council be appointed with the following duties:—1. To report on any further amendments which may seem to be required in the Medical Act. 2. To communicate with the Solicitor on the amendments already adopted, or that may be adopted by the Council. 3. To prepare a memorial to the Home Secretary on the amendment of the Medical Act."

Mr. HARGRAVE seconded the motion.

Dr. CORRIGAN said that it was thought desirable last year to interfere as little as possible with the Medical Act, and the members of the Council were then requested to confine their attention during the year to three clauses only—Nos. 20, 31, and 40. On the first day of the present session he moved that the clauses of the Bill should be taken up and discussed *seriatim*. That proposal was negatived; but now Dr. Quain had brought forward a motion which practically amounted to a proposal to do what on the first day they decided not to do. ("Vote.")

The motion was put. There were in favour of it, 15; against it, 4.

The following were appointed as the committee:—Dr. Wood (chairman), Mr. Syme, Dr. Sharpey, Dr. Smith, Dr. Embleton, Mr. Arnott, Dr. Stokes, Dr. Quain, and Dr. Paget.

The REGISTRAR read a communication from the Registrar of the Branch Council for Ireland enclosing a certificate of the conviction, at Castlebar, County Mayo, of John Carter Barrett, for felony. The certificate was read. The offence committed was that of making a false entry of a birth in the register, when no such birth took place.

Dr. AQUILLA SMITH said that under Clause 29 of the Medical Act the name of any registered Practitioner convicted of felony or misdemeanour might be erased from the register. He should, in accordance, move that the case of John Carter Barrett be referred to the Solicitor to the Council.

Dr. APJOHN seconded the motion, and it was carried unanimously.

The Council then adjourned.

SATURDAY, APRIL 8.

(FIFTH DAY.)

The Council re-assembled at two o'clock.

The REGISTRAR read particulars of a case submitted to Counsel as to the 9th section of the Medical Act on the subject of voting in the Council, and the opinion of Counsel thereon, were as follows:—

CASE.

"Counsel will please see the Medical Act, 1858, 21 and 22 Vic., cap. 90.

"By the 9th section, which regulates the meetings of the General Medical Council, it is enacted that 'all acts of the General Council shall be decided by the votes of the majority of the members present at any meeting, the whole number not being less than eight; and at all such meetings the President for the time being shall, in addition to his vote as a member of the Council, have a casting vote, in case of an equality of votes."

"At a recent meeting of the Council, fourteen members, including the Chairman, were present.

"On a motion being put to the meeting, six hands were held up for it and six against it, the President and one other member of the Council not voting.

"The President thereupon declared that the motion was not carried.

"A member of the Council required the President to give his casting vote, which the President refused to do, adhering to his decision that the motion was not carried.

"The Council desires to be advised as to the effect of the Act of Parliament in respect to voting. Are all the members present bound to vote? If any member declines to vote, must he be counted, in ascertaining whether any question is carried by the votes of a majority of the members present, or may he, by declining to vote, be considered and treated as if he were not present? Is the President, if the votes shall be equal (however that equality is to be ascertained), bound to give a casting vote? May he give such casting vote although he has not given his original vote as a member of Council; or may he simply, in the event of an equality, declare the motion not carried, without giving his casting vote?

"If the Act is to be read strictly, every motion must be carried by the votes of a majority of the persons present, and it is presumed that the term 'equality of votes' used in the clause must be construed with reference to the prior part of the clause. In the case which actually occurred, construing the Act strictly, there was no such majority. Six voted for the motion, six against it, and two did not vote. If the latter are to be counted, the motion was clearly negatived, and no case arose which would give the Chairman the right to a casting vote.

"If the Act may be read as meaning 'by the votes of a majority of the members present' (and voting), then there was an 'equality of votes,' and the question arises whether the President was bound to give a casting vote.

"COUNSEL is requested to advise on the con-
"struction of the Act with reference to
"the above observations."

OPINION.

"The question whether all the members present are bound to vote seems to be one of little practical importance. It is clear that any member could retire during the time of voting, if he did not desire to record his vote, and this perhaps would be the more strictly regular method of declining to vote; but if the question were to be decided in a court of law, whether everybody remaining in the room was compelled to vote, I think the decision would be in the negative, and that it would be considered that any member declining to vote might, for that purpose, be considered as having retired from the meeting.

"My answer to the first question involves the answer to the second. If it is true that a member may remain in the room and yet decline to vote, of course he cannot be counted in ascertaining on which side the majority is.

"The question with respect to the President's votes seems to me also to pertain more to form than to substance, for it is clear that a President, content by his inaction to leave a motion to be lost, might, if compelled to act, vote against it; and as it would be impossible ever to hold that a motion was carried on which the numbers were equally divided, and which the President, therefore, declared to be lost, I hardly see how the question ever could be raised. Still, in point of form, it seems to me to be proper that every one present at the voting and taking an active part in the business, which is necessarily the case with the President, ought to vote; for it is impossible to consider such a one as retiring from the meeting. If this is so, it follows that the President ought not to give his casting vote without first having given his private vote.

"ARTHUR HOBHOUSE.

"11, New-square, Lincoln's-inn, June 14, 1864."

ADDITIONAL STATEMENT.

"With reference to the second branch of the Opinion, as to the votes of the President in the chair, the Medical Council would desire to ask for further explanation.

"In many cases questions may arise on which the President might desire to reserve his opinion, either on public or private grounds.

"The Act says that the President, in addition to his vote as a member, is to have a casting vote. The Act does not, however, say that he shall be bound to exercise the privilege; and the Council do not clearly collect from your opinion whether the President is legally justified (in the case of an equality of votes of the other members voting) in declaring the motion not carried without giving either an original or a casting vote."

OPINION.

"I can only repeat my former opinion in slightly amplified

language. If the President wishes a motion not to be carried, the more regular course is that he should vote against it. This he may do without expressing any opinion except that which is necessarily involved in his vote—viz., an opinion that, for some reason or other, it is not expedient to carry the motion.

"The same opinion seems to me to be as much involved in the alternative course; for if the President is content to declare a motion lost, which by his vote he might carry, he obviously thinks that, for some reason or other, it is not expedient to carry the motion, otherwise he would vote for it.

"At the same time, if the President chooses to take the second course rather than the first, I do not think that he commits any illegality. It is, in my view, a mere irregularity, productive of no practical consequences at all; and I do not see how the question could be raised in any court of justice.

"ARTHUR HOBHOUSE.

"11, New-square, Lincoln's-inn, June 25, 1864."

Dr. AQUILLA SMITH said that the statement in the second paragraph of the opinion was clearly a contradiction of the standing order. The opinion was "that it was clear that any member declining to vote might retire during the time of voting." The order was that no member, after having taken his seat, might retire without the permission of the Chairman. He agreed with the remark that any member present at the voting and taking part in the business ought to vote. Gentlemen taking on themselves the responsibilities of the Council ought to express their views when there was a division on a question.

Mr. HARGRAVE supported the opinion that if any person took part in the business he ought to vote. Neutrality was contrary to the spirit of Englishmen.

Dr. AQUILLA SMITH moved—"That every member of the Council who is present at any debate shall be required to vote, or be permitted to declare his intention of not voting before the votes are taken."

Dr. STOKES seconded the motion.

Mr. HARGRAVE moved as an amendment—"That every member of the Council who has taken part in a discussion be required to vote, and, if necessary, that the Chairman be required to give his double vote."

Mr. ARNOTT did not agree with the motion or the amendment. He said there were many questions on which persons ought to be able to express their opinion without being bound to vote. In the House of Commons the Speaker was bound to give his casting vote on an equal division, and he invariably did so against the measure. In the House of Lords the Lord Chancellor had no casting vote. There was no judge in the land who, on an equal division of opinion, would undertake to give a casting vote. To compel the President of the Council to give a casting vote was an absurdity. It would virtually be compelling the President to vote on every question. Mr. Hargrave's amendment not being seconded, he would move as an amendment—"That the President, or presiding member shall not give his casting vote unless he has first given his private vote."

The PRESIDENT said the opinion expressed by Mr. Hobhouse only took up one side of the question; it did not give the legal interpretation of the Act of Parliament. He was left as much in the dark as he was before as to whether he was legally bound to give a casting vote. If so, he should not invariably bind himself to vote against every question on which there was an equal division; but still he should decline to carry any great public measure by a casting vote, and would rather sacrifice his own private opinion than undertake to carry an important motion on which opinion was so equally divided.

Dr. WOOD said the difficulty was a legal one, which the Medical Council were not competent to decide. The opinion of Mr. Hobhouse did not commend itself to his common-sense, and he should suggest that an opinion be obtained from another lawyer. ("Oh, oh!")

Dr. CORRIGAN said that of all Acts of Parliament which he ever read Section 9 seemed the most distinct and positive. It said, first, that all questions "*must* be decided" by the votes of the Council; and secondly, that the President "*shall* have a casting vote" besides his vote as a member.

After a little further discussion, the question was withdrawn.

Dr. STOKES moved the following resolution, which was left from the last session of the Council:—"That with reference to the resolution of this Council, on the motion by Dr. Leet, June 2nd, 1863—viz., 'That this Council is of opinion that registered licentiates of the Apothecaries' Company of Dublin are, as Apothecaries, entitled to practise Medicine in Great Britain and Ireland'—the Council resolve that it did not desire to convey that the licence of the Apothecaries' Company of Ireland carried any other qualification than that specified in the Act of Incorporation of the Company." He said the resolution referred to was unworthy of the Council. Misapprehension existed in the minds of some of the members of the Council as to the comparative requirements of the Apothecaries' Company of England and the Apothecaries' Company of Ireland. The Apothecaries' Company of England were required to examine all persons who applied to them, for the purpose of ascertaining the skill and ability of such persons in the science and practice of Medicine, and as to their fitness to practise in Medicine. In the Apothecaries' Society of Ireland there was no such power. The only certificate given by them was, that the directors authorised the person who had passed the examination to open a shop and practise the art and mystery of an Apothecary. That was the whole power comprehended in the certificate.

Dr. WOOD seconded the motion.

Dr. LEET said that, as the framer of the resolution, he felt bound to object to the motion. The whole matter had been before the Council over and over again, and in drawing up the resolution he had the assistance of the late President and of several members of the Council. He maintained that the Apothecaries' Society of Ireland were fully competent, as a qualifying body, for granting licenses to practise Medicine, and quoted authorities in support of that view, among which was an opinion expressed by the Attorney-General for England. His resolution of June 2, 1863, did not express any opinion on the rights conferred by the Apothecaries' Company, but only the peculiar privileges of the registered Licentiates of that body. Why did not those who supported the views expressed in Dr. Stokes's motion proceed against the Apothecaries' Society by *mandamus*, and bring them into a court of law, instead of continually bringing the subject before the Council for the purpose of satisfying a feeling of jealousy? ("Hear, hear," and "No.") He referred to a case which had recently occurred in Ireland before Mr. Justice Fitzgerald, in which his lordship decided that Apothecaries attending coroners' inquests were entitled to fees as duly-qualified Medical men. He was prepared to move an amendment if the motion were not withdrawn.

Mr. SYME said he saw no reason for making any alteration in the resolution of 1863. He moved as an amendment—"That the Council do not see any reason for entering into an explanation of their resolution of June 2, 1863, respecting the licences of the Apothecaries' Company of Dublin."

Dr. WOOD said that this was a wider question than the question whether the Apothecaries of Ireland were qualified to practise Medicine. It was a question whether the Council was entitled to grant charters in Medicine. He believed the decision of the Council had been wholly illegal. The Dublin Apothecaries' Company had no right to come to the Council and ask them to grant them a charter in Medicine; and the effect of the decision of the Council was, that they had now assumed the right to give licences in Medicine. The Council should have treated the application of the Apothecaries' Company as a legal matter on which they could not decide, as they had done in another case. It was no part of the business of the Council to give an opinion as to whether a particular body could qualify to practise. A body was qualified to practise just what its charter granted. He was not jealous of the Apothecaries' Company of Dublin, but he was jealous of the Council going out of its way to express opinions on the charters of any company.

Dr. STORRAR seconded the amendment.

Dr. CORRIGAN said he should cordially second the amendment, if it were not for the fact that the Poor-law Commissioners of Ireland had, in consequence of the resolution of June, 1863, accepted the licence of the Apothecaries' Company of Dublin as a sufficient qualification for the Medical officer discharging the duties of Physician of a Hospital or Dispensary, thus placing the licence of that body on a level with that of the highest University or of the College of Physicians itself. He could not believe that that was the intention of the Council; and if it was not, their resolution had been misunderstood, and therefore required explanation. The Poor-law Commissioners had been misled by the resolution, and it was desirable that the Council should give a clearer expression of what they intended. He believed the position of the Irish apothecary was a very important one. It was, in fact, equivalent to that of the *officier de santé* of France. He (Dr. Corrigan) was the last man in the world who would

interfere with the Irish apothecary. He was a most useful man, and was one much trusted by the poor. When the cases under his care became serious, he applied to the Physician or the Surgeon; but did the Council intend by their resolution to convey to the authorities in Ireland that they put the apothecary on a level with the Physician or the Surgeon? If they did not mean to imply that, an explanation was necessary, in order that the mistake into which the Poor-law Commissioners had fallen might be corrected. It had been asked why those who wished the resolution altered did not apply for a *mandamus* against the Apothecaries' Company, and that question was cheered by those gentlemen who did not understand the question. (Laughter.) The fact was that a *mandamus* would not affect the case, for the Poor-law Commissioners in Ireland had extraordinary powers. They had full powers by Act of Parliament to determine what they required, and they were entitled to receive what qualification they liked. He reviewed various Acts of Parliament bearing on the question for the purpose of showing that they contained no authority to the Apothecaries' Company of Dublin to examine in Medicine. Since the passing of the resolution of June, 1863, however, they had included in their certificate the qualification to practise Medicine.

Dr. Leet said that was not correct. The qualification in Medicine was included in the certificate before the passing of the resolution.

Dr. Corrigan: I will ask Dr. Leet this question—When did the Apothecaries' Company first issue that certificate referred to by Dr. Stokes?

Dr. Leet: This certificate, which is the one accepted by the Poor-law Commissioners, was issued before that resolution.

Dr. Corrigan: When was the certificate spoken of by Dr. Stokes issued for the first time?

Dr. Leet: They are exactly the same. It was before the resolution.

Dr. Corrigan disputed the statement.

The President said that Dr. Corrigan must see that Dr. Leet, who represented the Apothecaries' Company, must possess more definite knowledge on the subject than Dr. Corrigan himself, who had only general knowledge. The statement, therefore, was not open to dispute.

Dr. Corrigan referred to various certificates of the Dublin Apothecaries' Company to show that up to 1859 the qualification as to Medicine was not included. The assumption, therefore, in giving diplomas in Medicine had taken place since that year. It was for the Council, as their resolution had been misunderstood, to determine whether they would correct the misapprehension which had taken place, and whether they were content to endorse the examination in Medicine of the Apothecaries' Company, and thus make it equivalent to examinations of the most learned Medical bodies in the kingdom, under the most eminent Medical examiners. The examinations of the Apothecaries' Company were conducted by the shareholders of the Company, and they could not place the duty in the hands of any deputy. There were originally sixty shareholders in that Company, but now the shares had come into the hands of forty-seven persons. Some of those shareholders were barristers, and some were abroad, and there were only about twenty-eight apothecaries in the neighbourhood of Dublin among them. If the Council recognised their examinations, the most ignorant man among them who ever dissolved an ounce of salts could give a certificate of qualification which would be as valid as that of any examiner in the kingdom.

Dr. Embleton recommended that the question should be referred to the Committee on the Amendment of the Medical Act.

Dr. Storrar said that it was never meant that the "full qualification" of the Apothecaries' Company went to the same extent as the "full qualification" of the College of Physicians. It was only "full" as far as regarded the qualication to practise Medicine. Dr. Corrigan had said something about the shares in the Dublin Apothecaries' Company. He (Dr. Storrar) believed that those shares were very valuable—so valuable, in fact, that it had been worth the while of some of the members of the College of Physicians of Ireland to obtain some of those shares. ("No.")

Dr. Aquilla Smith denied the assertion.

Dr. Storrar: Is it not so?

Dr. Leet: Fellows and Licentiates.

Dr. Corrigan stated in explanation that two gentlemen of the College of Physicians held shares in the Apothecaries' Company. One of them had married the daughter of a very respectable apothecary, who was a shareholder, and he now held those shares in trust for his children. ("Oh," and laughter.) The other was Sir Robert Kane, who commenced his career as an apothecary, but who had given up his shares. The Society, however, had persisted on keeping his name on their list to give them an appearance of respectability. (Loud laughter and "Oh! oh!")

Dr. Storrar said that he would give Dr. Corrigan a remedy against the fear of the examinations of the Apothecaries' Company not being efficiently conducted. Let him vote for the inspection of examinations. Dr. Leet himself, the representative of that body, had supported such inspection.

Dr. Thomson said that the resolution of June, 1863, merely declared that the Licentiates of the Dublin Apothecaries' Company were entitled to practise Medicine. It did not, in itself, confer that authority upon them.

Dr. Stokes, in replying to the observations which had been made, remarked that the certificate of the Apothecaries' Company of Ireland giving license to practise Medicine was illegal. He most strongly repudiated the imputation of jealousy of the Apothecaries' Company.

The amendment was put to the meeting. There were in favour of it 10, and against it 6.

The amendment being, therefore, carried was put as a substantive motion, and carried by 10 against 6.

Dr. Wood moved for the names to be taken.

The division was as follows:—

For the motion:—Dr. Alderson, Dr. Embleton, Dr. Storrar, Dr. Fleming, Mr. Syme, Dr. Thomson, Mr. Hargrave, Dr. Leet, Dr. Sharpey, and Dr. Christison.

Against the motion:—Mr. Arnott, Dr. Wood, Dr. A. Smith, Dr. Apjohn, Dr. Corrigan, and Dr. Stokes.

Declined to vote:—The President, Mr. Cooper, and Dr. Quain.

Absent:—Dr. Acland, Dr. Paget, Dr. Parkes, and Mr. Rumsey.

Dr. Stokes, according to notice, moved "That a committee be appointed to consider and report as to what should be the subjects of general education in which all students should be examined prior to the commencement of their Professional studies."

Mr. Arnott seconded the motion.

Dr. Storrar said the subject was a wide one, but if there was a motion for placing the preliminary education in the hands of literary men instead of Professional, he would hold up both hands in its favour.

The motion was agreed to.

The committee appointed were as follows:—Dr. Stokes (Chairman), Mr. Arnott, Dr. Storrar, Dr. Quain, Dr. Paget, Dr. Thomson, Dr. Apjohn, and Dr. Acland.

The Council adjourned at 6 o'clock.

MONDAY, APRIL 10.

(SIXTH DAY.)

The Council reassembled at two o'clock. The business commenced as usual with the calling of the roll and the reading of the minutes of the last meeting.

In reference to the conviction, at Castlebar, County Mayo, of Carter Barrett, of making a false entry of a birth,

Mr. Ouvry, Solicitor to the Council, stated that the crime of which Mr. Barrett was convicted was, according to Act of Parliament, felony.

It was asked whether the certificate was a proper one.

The Solicitor said he did not know that that question had been raised. He had assumed that the certificate was a proper one.

The President said that it was also desirable to know whether what took place amounted to a conviction.

The question was referred back to the Solicitor for farther inquiry.

Dr. Wood moved—"That the Council resolve itself into a General Committee on Education, and that the President take the chair."

Mr. Hargrave seconded the motion, and it was carried unanimously.

Dr. Acland moved—"That the returns from the various licensing bodies mentioned in Schedule (A) be printed and laid on the table for the use of the Council."

The paper referred to consisted of Observations and Suggestions on the Report of the Select Committee on Education, appointed by the General Medical Council in 1864, received from—The Royal College of Physicians, London, Royal

College of Surgeons, England, University of Cambridge, Royal College of Physicians of Edinburgh, Royal College of Surgeons of Edinburgh, Faculty of Physicians and Surgeons, Glasgow, University of St. Andrews, King and Queen's College of Physicians in Ireland, Royal College of Surgeons in Ireland, Apothecaries' Hall of Ireland, University of Dublin, University of Edinburgh, University of Oxford, Queen's University in Ireland, University of Glasgow.

Dr. PAGET seconded the motion.

Dr. CORRIGAN said that the documents should be printed, so that they might be put into the hands of each member of the Council.

The PRESIDENT suggested that it might be better to print them separately, instead of encumbering the minutes with them.

Dr. WOOD said that, when the observations were extracted, they would not be so bulky as they appeared. The surest way of preserving them would be to place them on the minutes.

Dr. CORRIGAN said the Council could not deal with the documents until they were before them. They could not be before the Council unless they were printed *in extenso*.

Mr. ARNOTT supported the proposition that they should be put on the minutes. In order that that might be done, they might be taken as read.

Mr. RUMSEY said it would facilitate business if the President's proposition to print them as a separate pamphlet were acted on.

The REGISTRAR said that all the documents, with the exception of three letters, had been printed, and been in circulation among the members for some weeks.

Dr. CORRIGAN moved, in amendment, "That the communications be accepted as read and printed on the minutes."

Dr. WOOD seconded the amendment.

Dr. ACLAND withdrew his motion.

The amendment of Dr. Corrigan was put, and carried.

Dr. WOOD moved, "That a Committee be appointed to consider and report on what should be the minimum course of Professional study through which all candidates should be required to pass before receiving any qualification entitling them to register." He said that the Council had for some time been asked to state what they considered the minimum amount of study, and the minimum number of subjects which a course of Professional study should embrace. It would be a very appropriate subject for the Council to express an opinion upon.

Dr. EMBLETON seconded the motion.

Dr. CORRIGAN said he should support the resolution if he thought it likely to lead to any practical benefit. He thought, however, that it would lead to the mischief of meddling improperly. There would not be one point on which there would not be a great variety of opinion and dissent; and the very prospect of that ought to deter the Council from taking any step in the direction indicated by the resolution. A student who had gone through the minimum, and was not proficient for practice, might turn round and say, "Why do you demand of me any more? The General Council has said that the course I have gone through is sufficient as a minimum." He believed the resolution would lead to mischievous results.

Mr. SYME opposed the motion. He did not consider that they could enforce the minimum if they fixed it.

Mr. ARNOTT said that at this late period of the Session there was not time to consider the numerous points which would be raised by such a resolution as that proposed. He said that the Council might express an opinion as to the general course which should be followed, but it was now impracticable to take up the consideration of the many details involved. A general expression would answer the purpose at present.

Dr. WOOD regretted that it had not been possible to bring on the resolution sooner, but he was satisfied that if the members were in earnest in the matter there would be plenty of time to enter into the subject. It was not creditable that the Council had been sitting so long year after year without endeavouring to guide the educating bodies as to the subject and mode of study which should be pursued. Mr. Syme's objection to the motion involved an abnegation of those very powers which the Legislature had entrusted to them, and it amounted to saying that neither by moral suasion nor force of law would they make any attempt to fix the course of Professional study.

The question was then put to the meeting. There were—for it, 6; against it, 15.

It was required that the names should be taken. The division was as follows:—

For the motion—Dr. Alderson, Dr. Acland, Dr. Embleton, Dr. Andrew Wood, Dr. Fleming, and Dr. Parkes.

Against the motion—Mr. Arnott, Mr. Cooper, Dr. Storrar, Mr. Syme, Dr. Thomson, Dr. A. Smith, Mr. Hargrave, Dr. Apjohn, Dr. Corrigan, Dr. Sharpey, Dr. Quain, Mr. Rumsey, Dr. Christison, and Dr. Stokes.

Not voting—The President and Dr. Leet.

Dr. CORRIGAN moved:—"That it seems impossible to lay down any scheme of education and examination comprising details which would be applicable to, or could be uniformly carried out by, all the licensing bodies enumerated in the Medical Act; and that this Council is of opinion that the Committee of Education, leaving all details to be carried out in such manner as may appear fit to them by the several licensing bodies, confine itself, in considering the question of education, to the following points—viz., that there be, 1, registration and adequate preliminary examination in arts; 2, the time to be interposed between the passing of the preliminary examination and the final examination; 3, the mode of subdivision of the Professional examination, and the period of study at which each part of the examination should be gone through, and the subjects to be comprised in each part." He said that with regard to lectures, terms, and several other points connected with study, there were no two Medical Schools which followed the same course. Sufficient instances would occur to all present to show that it would be impossible to confine all schools to the same course. The resolution pointed to the registration of students. It was painful to have always to tell the truth; but it was a monstrous fact that in some cases students received certificates for past years during which they had never attended the Medical School. That state of things would never be abolished while there were schools competing with each other and deriving profits from the sale of certificates unless a system of registration were adopted. Under such a system no such abuse would be possible. No certificate of preliminary education should be received unless it was known what subjects were included in that preliminary course; but when it was ascertained that the proper subjects had been studied the student should not be required to go through them again.

Dr. SHARPEY seconded the motion.

Dr. PARKES suggested that a smaller committee than one of the whole Council should be appointed.

Dr. QUAIN asked whether the Council was not going back to the resolutions passed on the last day of last session. It was then resolved "That all students pass an examination in general education before they commence their Professional studies." It was also decided that after a certain time Medical students should be required to be registered. The Council were beginning the same things *de novo*. There was a Committee on education appointed last year. He should therefore move that the Report of the Select Committee on Education be now proceeded with.

Dr. WOOD said that the registration clause did not lay down clearly that students were to be registered before commencing their Professional education. The Council were probably beginning *de novo*, but they were beginning at the right end.

Dr. CORRIGAN said that the resolution he proposed did not prevent registration, and did not interfere with Professional education; but it merely expressed an opinion that the Committee on Education should confine its attention to the questions of registration, preliminary education, and Professional education.

The amendment was seconded and put to the meeting. There were—for it 10, against it 9. It was then put as a substantive motion, when the numbers were—for it 15, against it 3.

Dr. AQUILLA SMITH moved, with reference to the proposed registration of Medical students—"1. That the registration of Medical students be placed under the charge of the Branch Registrars. 2. That every student be registered at the commencement of Professional study, the date of such registration to be considered as the date of commencement of Professional studies. 3. That each of the Branch Registrars shall open a register of Medical students from the 1st of April to the 15th

of May, and from the 1st of October to the 1st of December, in each year, according to the subjoined form :—

Date of Registration.	Name.	Age last birthday.	Preliminary Examination in Arts, and Date.

4. That every person desirous of being registered as a Medical student shall apply in writing to any one of the Branch Registrars, according to a form to be had on application, and shall produce or forward to him a certificate of his having passed a preliminary examination in arts recognised by the General Medical Council, and furnish satisfactory proof of his age, whereupon the said Branch Registrar shall enter his name and other particulars in the Students' Register, and the Registrar shall give him a certificate of such registration accordingly. 5. That each of the Branch Registrars shall supply to the several qualifying bodies, Medical schools, and Hospitals in that part of the United Kingdom of which he is Registrar a sufficient number of blank forms of application for the registration of Medical students. 6. That a copy of the Register of Medical Students so prepared by the Branch Registrars be transmitted to the Registrar of the Medical Council, who shall, under the direction of the Executive Committee, prepare and print an alphabetical list of all registered students, and supply a copy of such authorised list to each of the bodies enumerated in Schedule (A) to the Medical Act. 7. That the several licensing bodies be requested, after October, 1868, to abstain from examining any candidate for licence or degree whose name does not appear on the authorised list of Medical students or whose name is not already on the *Medical Register;* and that they be also requested to recognise the date of each student's registration as the commencement of Professional study. 8. That the several Branch Councils shall have power to admit special exceptions to the foregoing regulations as to registration, for reasons which shall appear to them satisfactory." He said that the system of registration adopted by the schools themselves was unsatisfactory and the returns were confused. It was desirable that the registration of students should be placed in the hands of the Branch Registrars, and that the returns should be transmitted by them to the Registrar of the General Council.

Dr. Fleming suggested that it would facilitate the business if Dr. Smith would move the different parts of the resolution *seriatim*.

Dr. Aquilla Smith accordingly moved "That the registration of Medical students be placed under the charge of the Branch Registrars."

The motion was seconded by Dr. Fleming, and carried unanimously.

Dr. Aquilla Smith then moved "That every student be registered at the commencement of Professional study, the date of such registration to be considered as the date of commencement of Professional studies."

Dr. Corrigan moved "That every student be registered at or before the commencement of Professional study."

Dr. Fleming moved "That each student shall be only once registered—namely, at the time he enrolls himself as a Medical student."

Mr. Syme advocated the registration of students, and said he thought that that most painful, most demoralising, and most useless system of certificates should be abandoned.

Dr. Paget said that the resolution of last year as it was finally settled could not be misunderstood. He proposed that the motion of last year should be adhered to. It accomplished all that was necessary. It was that students should be registered at the commencement of Professional study.

Mr. Syme seconded the motion.

The President entreated the Council to consider whether a change was really necessary. It was undesirable to alter so recent a decision as that of last year unless there was some valid reason for it. It would make it appear that the Council had no settled purpose.

Dr. Wood said he was not in favour of alterations, but the resolution of last year left it in the power of any Medical school to slip through the noose.

Dr. Paget observed that if the registration were to be "at or *before*" the commencement of Professional study, a student might be registered before he commenced his studies, and so have only two years instead of four.

Mr. Arnott said the chief object of the registration was to determine when the Professional study really began.

Dr. Thomson said the only real difficulty which suggested itself to anybody with reference to Medical education was to determine what time should elapse between the preliminary examination and the commencement of Professional education. Registration was necessary only at the commencement of the Medical education, but it should be provided that no registration should take place until a preliminary examination should be passed.

Dr. Aquilla Smith said that all that was wanted in the first instance was proof of preliminary examination.

Dr. Paget said that the determination of the preliminary education took place at the last session of the Council, and stood on the rules.

Dr. Wood said that that stood on the minutes; but it did not go forth to the different licensing bodies as a requirement of the Council.

Mr. Syme proposed the following motion in substitution for that of Dr. Smith :—"That all Medical students shall be registered at the commencement of Professional study, and not until they have passed a preliminary examination."

Dr. Sharpey seconded and Dr. Wood supported the amendment.

Dr. Corrigan said that before the Council could pass such a resolution they must define what was the commencement of Professional study. It was a point on which a diversity of opinion might arise; and the words "at or before the commencement of Professional study" would meet the difficulty.

The motion of Dr. Smith was not seconded.

The motion of Mr. Syme was put and carried by a large majority.

Dr. Aquilla Smith moved :—"That each of the Branch Registrars shall open a Register of Medical students from the 1st of April to the 15th of May, and from the 1st of October to the 1st of December in each year, according to the subjoined form."

Date of Registration.	Name.	Age last birthday.	Preliminary Examination in Arts, and Date.

Dr. Alderson seconded the motion.

Dr. Fleming said that the provision would give a latitude of two months to some of the schools, which was a very serious matter.

Mr. Arnott said that that latitude would be a very great evil. Two months in the winter session were of the highest importance.

Dr. Aquilla Smith said that he was willing to alter the resolution so that the registration should take place within fifteen days of the commencement of the session.

Dr. Corrigan asked how the resolution was to be carried out. There was no authority for anything of the sort in the Act of Parliament, and he wished to know how the Branch Registrar was to be paid for the duty? The Treasury would not sanction a payment for any purpose not included in the Act.

Dr. Wood said the case might be met simply by increasing the salary of the Branch Registrar.

Dr. Paget said the place of study should be mentioned in the register to avoid confusion in the case of two names being alike. He moved "That a column for the 'place of study' should be added."

Dr. Fleming seconded the amendment.

Dr. Apjohn said that fifteen days was too short to allow for registration. It should be twenty-five days.

Dr. Parkes raised the question whether there was any clause in the Act which would entitle the Council to require the registration.

Dr. Paget said that that question might be taken up by the Committee on the amendment of the Act.

Dr. Wood said that the opinion of Mr. Ouvry, the solicitor to the Council, was that the registration was only part of the machinery by which the Council could get information as to the course and manner of study pursued by Medical schools, and, therefore, it was allowable.

The amendment of Dr. Paget for the addition of a column for "place of study" was carried, and was then put as a substantive resolution and carried.

A question was raised as to whether the passing of the amendment precluded a further alteration of the original resolution.

The PRESIDENT said he considered that it did. He appealed to Dr. Paget as to whether he meant his amendment to carry the time allowed for registration, and the rest of the resolution entire.

Dr. PAGET answered in the affirmative.

The sudden closing of the question having taken the Council generally by surprise, it was resolved that the consideration of Dr. Smith's motion be re-considered, and that the decision on Dr. Paget's amendment be set aside.

Mr. RUMSEY said that, in order to make the time for registration shorter and more definite, he would move as an amendment—"That after the words 'Medical students,' the following words should be added, 'and that every student be required to register within twenty-five days after the commencement of each session or term;' and that a column be added for 'place of study.'"

Mr. HARGRAVE seconded the amendment.

Dr. CHRISTISON thought that twenty-five days were too long. Fifteen days would be long enough.

Dr. THOMSON said he was in favour of requiring the registration to take place as soon as possible, but he considered fifteen days too short a time. He would suggest that twenty-one days should be allowed. He was aware that the attendance was much improved by shortening the time for registration.

Dr. WOOD said that the Council would be going backwards in its requirements if it allowed twenty-five days.

The amendment of Mr. Rumsey was modified as follows:—"That after the words 'Medical students,' there should be added, 'and that application be made by every such student for registration within fifteen days after the commencement of Professional study,' and that a column be added for the place of study to be entered."

The amendment as modified was then put and carried.

It was afterwards put as a substantive motion, and carried unanimously.

Dr. AQUILLA SMITH then moved—"That every person desirous of being registered as a Medical student shall apply in writing to any one of the Branch Registrars, according to a form to be had on application, and shall produce or forward to him a certificate of his having passed a preliminary Examination in Arts recognised by the General Medical Council, and furnish satisfactory proof of his age; whereupon the said Branch Registrar shall enter his name and other particulars in the Students' Register, and the Registrar shall give him a certificate of such registration accordingly."

Mr. ARNOTT said that proof of age and preliminary examination were not sufficient to constitute a person a Medical student, and the Branch Registrar ought to have fuller proof of his being a student than that before registering him as one.

Dr. SHARPEY said that a certificate of his being entered as a student at a Medical school should also be required.

Mr. RUMSEY said the difficulty might be met by the production of a certificate of entering a Medical school.

Dr. AQUILLA SMITH agreed to add to his resolution, after the word "age," the words "and place of study."

Dr. CHRISTISON said he did not think that a certificate of age should be required of a student on commencing his Professional study. A declaration would be sufficient in that case. He should not, however, be allowed to receive a diploma to practise until he produced evidence of his being twenty-one years of age.

The PRESIDENT said he did not see any reason to make any requirement as to proof of age at the commencement of Professional education. Previous acts of the Council provided that he should not be allowed to practise until he was twenty-one years of age.

Dr. CORRIGAN advocated the omission of all allusion to age in the resolution.

Dr. FLEMING moved that, in the original resolution, after the words "General Medical Council," there should be added the words "and of his having entered on Medical study."

Mr. RUMSEY seconded the amendment.

After a few further suggestions,

Dr. AQUILLA SMITH agreed to alter his resolution as follows:—"That every person desirous of being registered as a Medical student shall apply in writing to the Branch Registrar of the kingdom in which he resides, according to a form to be had on application, and shall produce or forward to him a certificate of his having passed a preliminary examination in Arts recognised by the General Medical Council, and place of study; whereupon the said Branch Registrar shall enter his name and other particulars in the Students' Register; and the Registrar shall give him a certificate of such registration accordingly."

Mr. RUMSEY said that, after having heard the resolution as altered by Dr. Smith, he should prefer it to the amendment which he had seconded; and, if Dr. Fleming would allow him, he would withdraw his name from the amendment.

Dr. FLEMING said he considered the alteration he had raised a very important one, and he could not allow Mr. Rumsey to withdraw his name.

The amendment was then put and lost.

The original motion as altered, on being submitted, was carried by a large majority.

Dr. AQUILLA SMITH moved, "That each of the Branch Registrars shall supply to the several qualifying bodies, Medical schools, and Hospitals in that part of the United Kingdom of which he is registrar, a sufficient number of blank forms of application for the registration of Medical students."

Dr. CORRIGAN seconded the motion, and it was unanimously agreed to.

Dr. AQUILLA SMITH moved, "That a copy of the Register of Medical Students so prepared by the Branch Registrars be transmitted to the Registrar of the General Council, who shall, under direction of the Executive Committee, prepare and print an alphabetical list of all registered students, and supply a copy of such authorised list to each of the bodies enumerated in Schedule (A) to the Medical Act."

The motion was seconded by Dr. Corrigan, and carried.

Dr. AQUILLA SMITH moved, "That the several licensing bodies be requested not to admit to examination, after October, 1869, any candidate for licence or degree whose name does not appear in the authorised list of Medical students, or whose name is not already on the Medical Register."

Dr. CORRIGAN seconded the motion.

The motion, on being submitted, was carried unanimously.

Dr. AQUILLA SMITH moved—"That the several Branch Councils shall have power to admit special exceptions to the foregoing regulations as to registration, for reasons which shall appear to them satisfactory."

Dr. CORRIGAN seconded the motion, which was carried unanimously.

Dr. ANDREW WOOD moved, as an addition to the regulations as to registration, "That the Branch Councils be desired to take means to make these resolutions known to the Medical students of the various Medical schools."

Dr. FLEMING seconded the motion, and it was unanimously agreed to.

Moved by Mr. HARGRAVE, seconded by Mr. COOPER, and resolved, "That the Council resume."

Dr. EMBLETON, moved, according to notice, "That the returns from the licensing bodies, in compliance with recommendation 23 of the Committee on Education, and the Registers of the Medical Students in England and Ireland, be referred to a Committee."

Dr. WOOD seconded the motion, and it was carried unanimously.

The following were appointed as the Committee for the purpose:—Dr. Embleton (Chairman), Mr. Cooper, Dr. Thomson, Dr. Leet, Dr. Apjohn, and Dr. Stokes.

The Council then adjourned.

TUESDAY, APRIL 11.

(SEVENTH DAY.)

The proceedings were resumed at the usual hour.

After the reading of the minutes,

Dr. WOOD moved—"That the Council resolve itself into a General Committee on Education, and that the President be requested to take the chair."

The motion was seconded, and carried unanimously.

The consideration of the Report of the Select Committee on Education was resumed.

Dr. WOOD said there were one or two points in the resolutions of yesterday which might be amended. For instance, it was resolved that students intending to enrol themselves should apply according to a certain form. Where was the form to be got?

Dr. Corrigan rose to order. He said it would be better not to alter the resolution of yesterday until the whole Report was before the Council.

Dr. Wood moved—"That the age of 21 shall be the earliest age at which any licence shall be obtained, and that in all instances the age shall be duly certified." This was the recommendation of the Select Committee on the subject. In the University of Edinburgh no final examination took place until a student was 21 years of age.

Dr. Aquilla Smith said that at some places a diploma was granted before that age.

Dr. Wood said that was a very great evil, and means should be taken to prevent it. A man should not be allowed to engage in practice till he was of age.

Mr. Syme moved—"That the age of 21 be the earliest age at which the candidate for any Professional license shall pass his final examination, and that the age in all instances shall be duly certified; and that a return, with the exceptions to this recommendation allowed by the licensing bodies, together with the reasons for such exceptions, be transmitted to the Branch Council of that part of the United Kingdom in which they have been granted."

Dr. Paget seconded the motion.

Dr. Arjohn thought the motion unnecessary. It was a very rare occurrence for students to be examined before they were 21. The authorities in Dublin opposed the restriction.

Dr. Stokes said that the Council should reflect on the disadvantage at which they might place a young man by refusing to examine him before the age of 21 years. There were many who improved themselves after their final examination, and if they were not examined till they were 21, they would be deprived of a large amount of that quiet study which often intervened between the final examination and the age of 21.

Dr. Thomson said that young men were often better fit to be examined at 20 than at 21. After their final examination they often went through a very valuable preparation for practice up to the age of 21, which they could not undergo if the prospect of the final examination were kept hanging over their heads during that time. They would in that case be only repeating the exercises of the grinder. To decide that no diploma should be granted till a candidate was 21 was another matter, but the test for that diploma might be applied at the end of the prescribed course of Professional education. Twenty-one years of age was early enough to come into contact with the public, but he believed that the resolution would be a bar to a very great amount of useful preparation.

Mr. Arnott said he entirely coincided with the motion. The duty of the Council was to decide what would be the best thing for the public, and he contended that candidates should be tested at the latest possible time as to their fitness to go amongst the public to practise.

Dr. Paget supported the motion.

Dr. Corrigan moved, as an amendment—"That the age of 21 be the earliest date at which any Professional license be obtained, and that the age shall, in all instances, be duly certified." The resolution would inflict a great hardship in many cases. A young man might come of age in October, and yet he would not be eligible for the examination in June or July previously. He might be going out to the colonies as soon as he had passed, but in consequence of such a resolution as that proposed by Mr. Syme, he would be kept in England for nearly twelve months after his majority. A case had occurred in his own experience in which a young man would be of age about four weeks after the examination, and it was absolutely impossible for him, from the circumstances in which he was placed, to remain in the country till the next examination. The authorities allowed him to be examined, but withheld his licence until he was of age. A candidate would not come before the public one hour sooner in consequence of the amendment than he would if the resolution were passed.

Mr. Cooper said he quite agreed with the resolution. The age of twenty-one should be the earliest at which the final examination should take place.

Dr. Corrigan called attention to the fact that the amendment which he had moved had been embodied in the recommendations which were circulated last year; and it would be breaking faith with the licensing bodies if the Council were to go from that recommendation after those bodies had agreed to support the proposal. It would not be a fair way of treating them, as they had assented to the amendment, and had had no opportunity of expressing an opinion on the motion of Mr. Syme.

Dr. Wood said that Dr. Corrigan had argued, by inference, that the Council were not to pass a recommendation because all the Medical bodies would not agree to it. That was a position which ought not to be enforced on the Council. The Council ought not to be told that they were not to reconsider a recommendation which they promulgated last year. Dr. Corrigan had himself, during the sittings of the Council, helped to set aside a recommendation as to registration which the Council had made last year; and, therefore, the argument he had used was not a fair one. The case cited by Dr. Corrigan would certainly be a hard one, and probably some modification of the resolution might be required.

Dr. Sharpey said that a provision might be introduced into the resolution, leaving exceptional cases, such as had been instanced by Dr. Corrigan, to the discretion of the Branch Council.

Dr. Stokes asked the Council to pause before they took such a step as that proposed in the resolution.

Dr. Thomson said that an exceptional clause, such as had been suggested, would meet the necessities of the case.

Dr. Acland said that the recommendation embraced in the amendment was one which the Council decided on long ago, after much discussion; and, until some abuse arose in connection with it, there was surely no reason for altering it. The spirit of the Council was that twenty-one years of age was the earliest date at which a medical man should be allowed to practise, and he believed that that opinion would be respected. Each of the members of the Council might do the best they could with their own bodies to get the recommendations of the Council observed.

Dr. Quain said that the final examination and the license for practice were practically one and the same thing. He had learned for the first time during this discussion that they were two things. (A Voice: "So they are.")

Dr. Corrigan said that there was no analogy between the alteration which he had proposed with regard to registration, and which was referred to by Dr. Wood, and the present case.

The President said that he had had the honour of being a lecturer and examiner at Cambridge for a long period, and also of being a lecturer in a metropolitan school of Medicine. His experience of students, extended over a long period, was that there were many cases in which young men of precocious talents and immense industry were ready for examination before the age of 21 years, but the Council were not to legislate for exceptional cases. They should lay down a general rule, which, though it might operate with some inconvenience on some candidates, would be applicable to the great majority of students and advantageous to the public. If a young man were ready for final examination before the age of 21, it could be no hardship to him to spend a few months extra in the wards of a Hospital, and in the pathological theatre attached to it.

The amendment was then put and lost.

The original motion was carried.

The next section of the Report referred to the duration of Professional study.

Dr. Wood moved—"That no licence be obtained at an earlier period than after the close of the last winter session of the fourth year of study after the registration of the candidate as a Medical student."

Mr. Arnott said that the real question raised was whether the time of study should be four years, or three years and a half. The motion seemed to be a limitation of the period by a side wind.

Dr. Fleming seconded the motion.

The President said that this was comparatively a new topic for discussion. The Council came to no decision on the subject last year.

Dr. Paget moved, as an amendment—"That no licence be obtained at an earlier period than after forty-eight months of study subsequent to the date of registration of the candidate as a Medical student."

Mr. Arnott seconded the motion.

Dr. Corrigan suggested the omission of the words "of study," as every young man had some vacation.

Dr. Paget agreed to omit the words.

Dr. Thomson asked whether Dr. Paget meant that if a student were registered in October or November he could not obtain a licence until that time four years. That was not the present practice, and he believed that Dr. Wood's motion was based on what was known to be the *bonâ fide* practice.

The President said that the motion and amendment involved two different principles. Some thought that Medical

education commenced only with attendance at a Medical school, while some thought that it might commence otherwise.

Dr. Storrar said that the motion might secure the commencement of study by a summer course, in which such subjects as botany and chemistry might be taken in hand before the October session. Four years might be taken up profitably in that way.

On the amendment being submitted, the numbers were—for it, 12; against it, 7.

On being put as a substantive motion it was carried by 12 against 8.

The next recommendation of the report was Clause 2, under the head of Professional study. It was: "That the course of study required for a licence shall comprehend attendance during not less than four winter sessions, or three winter and two summer sessions, at a recognised Medical school; and that evidence shall be produced that the remaining period of the four years has been passed in the acquisition of Professional knowledge."

Mr. Hargrave moved the adoption of the recommendation.

Dr. Paget seconded the motion.

Dr. Corrigan said that the proposition would destroy several of the schools in Ireland. There were few of the schools which had resident Medical teachers, and therefore could not be strictly a Medical school. He would recommend the Council to decide what was a "recognised Medical school."

Dr. Parkes said that the case might be met by the insertion of the words "a Medical school recognised by the body granting the licence."

Dr. Wood said that the Council should decide what a recognised Medical school was. It was a very important question, and should not be left to the licensing body. The body to which he belonged had rather a high standard on the subject. Dr. Corrigan was quite right in raising the question, and the definition given must determine how the members were to vote.

Dr. Embleton moved, as an amendment, "That the Council, before proceeding further, determine what are the requisites for constituting a Medical school under their recommendations." He said that that was a question which it was absolutely necessary to settle.

Dr. Wood seconded the motion.

Mr. Hargrave said the importance of the question was exaggerated. It was a point on which there could not be any great mistake.

Dr. Aquilla Smith said that the Council ought to accept as a Medical school any school recognised as such by the licensing body.

Dr. Parkes said that there would be a difficulty if the Council decided that a Medical school must have a Hospital attached to it.

The President observed that King's College, London, and University College were a long time without Hospitals.

Dr. Acland said he attached very great importance to the proper definition of what should be regarded as a Medical School. In many institutions scientific instruction was in a very peculiar position, and a resolution should not be passed which would exclude the scientific instruction given at those institutions from the Medical Profession. Oxford, which he represented, was a case in which valuable scientific instruction was given. If the Council passed a resolution cutting Oxford off from the recognised Medical Schools, it would not matter the least to Oxford, but it would matter to the Medical Profession. He should, when the opportunity occurred, propose, as he did last year, the insertion after the words "Medical School" of the words "or other institution recognised by the several licensing bodies and approved by the Council."

Dr. Aquilla Smith said that there was a sufficient definition already existing.

The President said that the Council should bear in mind that, in addition to Medical Schools, there were many institutions in England which gave scientific instruction on subjects ancillary to Medicine. Certainly no objection could be raised to a person taking his instruction on those subjects at those places. The recognition must not be too limited. What was wanted was, to secure that a proper amount of study should be given to those subjects.

Dr. Christison said that the definition should not be too limited. The recognition of Medical Schools should be left with the licensing bodies.

Dr. Aquilla Smith agreed with Dr. Christison.

The amendment of Dr. Embleton was put and lost.

Dr. Acland moved that after the words "Medical school," in the original motion, should be added "or other institution recognised by the several licensing bodies, and approved by the Council."

Dr. Parkes seconded the amendment.

After some conversation,

Dr. Acland agreed to substitute for his amendment one suggested by Dr. Christison.

Dr. Christison accordingly moved, "That the course of Professional study required for licence shall comprehend attendance during not less than four winter sessions, or three winter and two summer sessions, at a school recognised by any of the licensing bodies mentioned in Schedule (A) of the Medical Act."

Dr. Parkes seconded the amendment.

Dr. Corrigan said that the amendment would limit the period of study to two years and a half.

Dr. Paget said that the amendment provided that the course should "comprehend" certain sessions, but it did not say that it should be restricted to them. That was an answer to Dr. Corrigan's objection.

Dr. Christison said that the Council might give some instructions as to how the remainder of the four years might be filled up; but he recommended the Council not to legislate in that direction. It was often desirable to relieve students from study for a time, in order to give them some relaxation. It would be a great hardship to require that the whole of the forty-eight months should be devoted to unintermitting study.

Dr. Fleming said that the amendment laid down the minimum of the time which must be spent during the four years in attendance at a Medical school.

The amendment was then put. There were in favour of it 15, and against it 1. It was then put, and carried as a substantive motion.

Dr. Parkes proposed that Clause 3 of the Report be omitted.

Dr. Storrar seconded the motion.

The motion was unanimously agreed to.

The next recommendation was Clause 4, and was as follows:—"That it be recommended to the several licensing bodies that the courses of instruction required by them should be framed in such a manner as to secure a due share of attention, both to preparatory branches and to those more strictly connected with the practice of Medicine and Surgery; and that it be suggested accordingly to these bodies that their regulations should be such as to prevent attendance upon lectures from interfering with Hospital and clinical study."

Mr. Syme moved that the paragraph be adopted as a recommendation of the Council.

Dr. Storrar seconded the proposition.

Mr. Hargrave objected to the motion, but said he had not an amendment on the subject.

The motion was put and carried.

The Council then considered the 5th Clause, which was—"That, while avoiding for the present all other details by which this object may be attained, it be recommended that no subject of lectures be enforced by regulation to be attended oftener than once."

Dr. Thomson moved that Clause 5 be omitted. The resolution already passed provided all that was necessary.

Dr. Embleton seconded the motion.

Mr. Syme moved as an amendment—"That Clause 5 stand part of the recommendations of the Council on the subject of Professional study."

Dr. Aquilla Smith seconded the amendment. He said that compulsory attendance at more than one course of lectures on the same subject was a great grievance to Medical students. The recommendation as it stood would be a great boon to students, and would prevent the crowding together of several subjects at once.

Dr. Corrigan supported the motion. The Council had no right to interfere with any educating body if it thought that more than one course of lectures on the same subject were necessary.

Dr. Apjohn thought that the regulation might be injurious, as in the case of anatomy, in which it could not be said that one course was sufficient.

Mr. Hargrave said he was surprised to find the clause proposed. All that a student would learn in his first course was the A B C of his Profession; and, if such a clause were adopted, the students would confine themselves to the miserably insufficient and inadequate amount of study comprised

in one course of lectures on each subject. If the clause were carried, the body he represented were prepared to go before the Privy Council; and they had plenty of funds to enable them to do so. (Laughter.)

Mr. Arnott said the recommendation would go far to interfere with the proper amount of lectures which ought to be attended. There were many subjects in which the details were so numerous that they could not be learned from books. They required the help of a teacher to bring them fully before the student. A discretion should be left to the educating body.

The amendment was lost, and the original motion, for the omission of the clause, was carried.

Clause 6 was—"That the Council intimate that they will view with approbation any encouragement held out by the licensing bodies to students to prosecute the study of the natural sciences before they engage in studies of a strictly Professional character."

Dr. Storrar moved that Clause No. 6 should be adopted.

Dr. Embleton seconded the motion.

Dr. Apjohn said he thought the young men would be much better employed by pursuing general education than Professional, previous to the Professional course. He moved that it be omitted.

Mr. Arnott said he saw no objection to the clause. There were many subjects on which the minds of young men of 17 or 18 years of age might be very usefully employed, and which might be taken up with advantage to their observing and reasoning faculties.

Dr. Corrigan seconded Dr. Apjohn's amendment.

Dr. Wood said that such subjects as zoology, botany, and natural history were good training subjects. In the College of Surgeons in Edinburgh they were included in the preliminary examination, but they were made optional. In addition to the advantage of them as training subjects, the knowledge of them acquired before the Professional course tended to relieve that course of the pressure of subjects.

Dr. Aquilla Smith supported the motion.

Dr. Corrigan said that he thought that the Council in making the recommendation would be going beyond their functions. He should like to know what the nature of the encouragement held out was to be. If that were explained, he might vote for it.

Dr. Christison said that there had been more discussion on the subject than he anticipated. He had not supposed that there would have been a division of opinion on it. He considered the requirement that young men should include some of the natural sciences in their preliminary education was a very wise one. He himself had taken some of the natural science courses before he knew that he should be a Medical man. The same was the case with Professor Syme. If a young man were required to take his chemistry before his Professional course commenced, it would do him a great amount of good.

Dr. Storrar requested that the Council would allow him to strike out from the beginning of his motion the words "intimate that they."

The alteration was allowed.

The amendment for the omission of Clause 6 was put to the meeting and negatived.

Dr. Acland moved as an amendment to the original motion,—"That the Council recommend that the licensing bodies take into their consideration what portion of natural science shall be comprised in the course of general education prior to the commencement of strictly Professional study."

Mr. Rumsey seconded the amendment.

It was then put to the meeting and lost.

The original motion was then put in the following altered form:—"That the Council will view with approbation any encouragement held out to the licensing bodies to students to prosecute the study of the natural sciences before they engage in studies of a strictly Professional character."

Clause 7 was then read by the President. It was, "That the several licensing bodies be requested to furnish a short statement of the mode in which their examinations are now conducted, whether by written, oral, or practical examination, and of the length of time a candidate is under examination in each or all of these ways."

Dr. Aquilla Smith proposed its adoption.

Dr. Apjohn seconded the motion.

Dr. Parkes moved an amendment, but as the time for rising was drawing near, it was deferred, Dr. Wood, Chairman of the Business Committee, promising to put it in the programme for to-morrow.

Dr. Aquilla Smith said he would withdraw his motion, that the amendment of Dr. Parkes might become the substantive motion.

The Council then resumed, on the motion of Dr. Wood.

The President informed the Council that the Solicitor had reported that the certificate of the conviction of John Carter Barrett, at Castlebar, for felony, was a proper document.

On the motion of Dr. Smith, seconded by Dr. Stokes, it was resolved that the name of John Carter Barrett be removed from the Register.

The Council then adjourned.

FOREIGN CORRESPONDENCE.

GERMANY.

Berlin, April 2.

Two different epidemics have of late attracted much attention in Eastern and Central Europe,—viz., the recurrent or relapsing fever of St. Petersburg, and the cerebro-spinal meningitis which has appeared in several parts of Germany. About the first of these the most exaggerated accounts have appeared in the newspapers, describing it as one of the most horrible plagues ever seen in Europe, and calling upon all governments to close their frontiers and ports against Russia, etc. The fact is that within the six months from September, 1864, when the epidemic first appeared, until the end of February, only 1722 more persons have died in St. Petersburg than in the corresponding months of the previous year, from which it is evident that this recurrent fever is not nearly so bad as cholera has been. The Government has done a great deal towards mitigating the sufferings of those affected by transforming barracks into Hospitals, and other measures. At present the epidemic has rather increased than diminished, and it will most probably continue until summer has fairly set in. Not much is known about its origin, although there can be no doubt that the severe cold, the dram-drinking, which is now carried to an unheard-of extent, the vile quality of the spirituous compound which is sold to the people, the bad black bread, the stinking canal water which is used for drinking, and the miserable lodging accommodation that is afforded to the poor population, have much contributed towards rendering the epidemic severe. Scurvy has also appeared, as it generally does about this season. The recurrent fever has been almost entirely limited to the working classes.

The general symptoms of the recurrent fever have been the following:—The disease commenced with a severe rigor, and on the second day the temperature rose to 104°. The fever then continued for about ten or twelve days, during which time there were such considerable variations in the temperature as have not yet been observed in any other form of fever. There was, moreover, not the slightest regularity in these variations; sometimes it fell on the second or third day of the illness from 104° to 86°, and that during twelve hours. A few days after it again rose to 104° or 105°, at which it continued for some days, and then fell again considerably. This latter fall was evidently a "critical" one, being accompanied with profuse perspiration and "critical" urine, bleeding from the nose, and the appearance of herpes labialis. The rapid fall of the temperature was occasionally accompanied with chills. The patients now appeared to be in a fair way of recovery, when three or four days afterwards they were again attacked, the temperature rising once more to 104°. This fresh attack usually lasted from two to four days, but sometimes longer; there being the same irregular variations of temperature during that time. The second attack ended as the first. Some patients, in the interval between the two attacks, appeared to be so well that they left the Hospital, others only complained of weakness and loss of appetite. In some patients then a third attack supervened, being similar to the two former ones. In all these cases the liver and spleen were considerably enlarged, and extremely sensitive to pressure, while the attacks lasted; as soon as the temperature fell, the size and sensitiveness of these organs were as suddenly diminished.

In some cases a petechial eruption was observed on the skin of the nape of the neck, and of the upper and lower extremities. Sometimes pneumonia supervened, which occasionally proved fatal; in other cases there was parotitis, and abscesses in the cellular tissue; icterus was sometimes severe. There was also albuminuria in a few cases. The patients generally complained of weakness, headaches, ringing in the ears,

thirst, loss of appetite, pain in the liver and spleen, and in the extremities. There was generally sleeplessness, but no delirium. The post-mortem examination showed acute parenchymatous inflammation of the liver and kidneys; the spleen was greatly enlarged in consequence of hyperæmia. The acini of the liver were enlarged, and their contents turbid; some cells contained an emulsion of fat. The treatment was at first expectant and symptomatic; after the true nature of the disease was understood, quinine was administered in two-grain doses every two hours, with evident benefit in most cases.

The other epidemic which I mentioned in the beginning of this letter is of a far more severe character, and would certainly prove a terrible calamity were it to assume considerable dimensions, being fully as dangerous as the worst forms of typhus, yellow fever, and cholera. Epidemic cerebro-spinal meningitis first appeared in Geneva in 1805. A somewhat more extended endemic occurred from 1837 to 1842 in the south of France, and another also in France from 1846 to 1849. It then appeared in certain places in southern Italy and Sicily, where it was called "tifo apoplettico;" in Algiers, in the United States, in Gibraltar, in Denmark, and Sweden, and in some workhouses in Dublin, Belfast, and Edinburgh (1846). In 1859 it again broke out in Norway, and in 1860 amongst the Dutch troops stationed at Arnhem. At present we have rather alarming accounts of it from the eastern provinces of Prussia, and also from Hesse, Brunswick, and Hanover. The average mortality is from 50 to 60 per cent., and death is preceded by terrible sufferings.

The disease consists of purulent inflammation of the pia mater of the brain and spinal cord. In some cases there are premonitory symptoms, such as vertigo, headache, weakness, stiffness in the muscles of the neck, and occasional chills; but in others the disease begins quite suddenly with delirium and convulsions, and death ensues within twenty-four hours. In the majority of cases, however, the symptoms are as follows:—A severe rigor sets in towards night, followed by intense heat; the patients complain of severe headache and vomit freely. Then there is a feeling of tension in the nape of the neck, great restlessness, tremor, especially of the extremities, and considerable hyperæsthesia of the skin, so that the merest touch makes the patients scream. They have the appearance of drunken men, with glazed eyes, reddened conjunctiva, contracted pupils; the pulse is sometimes accelerated, sometimes normal. After this condition has lasted for a few hours tetanic spasms of the trapezius and other muscles of the nape of the neck set in, the head being sometimes placed in a right angle to the trunk. Tetanic convulsions of the extremities occasionally follow, accompanied with delirium, which is succeeded by sopor and coma. The vomiting continues, and in the intervals of consciousness the patients complain of violent pain in the head and the stomach.

This stage of the distemper generally lasts from 24 to 36 hours, and is succeeded by one of depression and prostration. The patients do not answer questions, are lying on the back in a state of torpor, the extremities tremble, the pulse is very much retarded, the skin cool, the face pale, the pupils dilated; tetanus in the muscles of the neck and back continues, and eruptions of various kinds take place on the skin. Sometimes these resemble measles, at other times the scarlet rash, or erysipelas, and herpes, the latter being chiefly observed in the face. The coma increases, there is ptosis, strabismus, paraplegia, intermittent pulse, and death closes the scene.

In other cases there seems to be rapid absorption of the effusion, and the patients quickly recover. Again, in others, all the symptoms gradually vanish, and convalescence sets in, which is, however, very protracted. Secondary diseases are not unfrequently observed during the course of the distemper—viz., catarrh of the intestinal mucous membrane, pleurisy, pericarditis, parotitis, and inflammations of the eye. During the time of the epidemic many people suffer from symptoms resembling those of the first stage of the disorder; but if carefully treated they fall into a profuse perspiration and recover. This mild form has the same relation to the more severe one as English cholera to Asiatic cholera.

The post-mortem appearances are as follows:—The sinuses of the dura mater contain a very large quantity of blood, and sometimes coagula of fibrine; the arachnoid is dry and turbid; the pia mater covered with a purulent effusion, which is occasionally tinged with blood. The quantity of this effusion is sometimes so considerable that the arachnoid and pia are altogether disconnected; in the cerebrum it is chiefly found on the base, about the pons, the optic nerves, and the medulla oblongata; in the spinal cord chiefly about the dorsal and lumbar swelling. The brain is generally swollen or dry; sometimes there are small foci of softening. The changes in the other organs are not constant. There may be appearances of pleurisy and pericarditis, swelling of all the intestinal glands, hyperæmia of the liver and spleen. In the cavities of the large joints, accumulations of purulent matter have not unfrequently been discovered.

The disease seems to be quite independent of soil and climate, but is certainly most severe where there is dirt, over-crowding, bad air, and water. There can be no doubt about the existence of an actual contagion, for in those epidemics which occurred in France, the distemper generally stuck to certain regiments, which, when dislocated, carried it with them to other places. Evacuation of ill-ventilated barracks has occasionally checked the spreading of the complaint amongst the military. In some former epidemics the military have suffered most, and, amongst them, privates were more frequently affected than officers. Last year there were fourteen cases amongst the privates of the Alexander regiment and the 2nd regiment of Guards in this city. In the epidemic which is at present observed in Hanover, Brunswick, and Hesse, it seems chiefly children and young people who suffer. In Einbeck, a small place in Hanover, not less than eighty children and only five adults have been affected since January last. The mortality was there 33 per cent. Remedies seemed to be utterly powerless to check the disease; sometimes trismus prevents the internal administration of medicines, and in such cases the subcutaneous injection of morphia might, perhaps, be useful in diminishing the pain and spasms, and soothing the patients.

GENERAL CORRESPONDENCE.

OVARIOTOMY—CLAY'S ADHESION CLAM.

Letter from Professor John Clay.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the abstract of Mr. Baker Brown's admirable paper "On a New Method of Securing the Pedicle in Ovariotomy," read before the Fellows of the Obstetric Society in February last, Mr. Brown is reported to have said—"Having repeatedly used the actual cautery of late, employing Dr. Clay's instruments," etc. In the same paper the name of Dr. Clay, of Manchester, is more than once mentioned in reference to the procedures of the operation, and the inference to be drawn from the above quotation is, that the instruments used by Mr. Brown were some devised by Dr. Clay, of Manchester. As I was not aware at the time of reading the report that Dr. Clay had devised any instruments to be used as an actual cautery, or that he agreed with that mode of securing the pedicle, or dividing the adhesions in the operation of ovariotomy, I addressed a note to Mr. Baker Brown requesting to be informed whose the instruments were which he employed, and he kindly sent me a reply, of which the following is a copy. I regret to learn that my note was not answered earlier in consequence of Mr. Brown's indisposition:—

"17, Connaught-square, Hyde-park, W.

"My dear Sir,—I have been prevented by illness from replying to your note before this. I certainly spoke of your clam as Mr. Clay's—the word "Dr." was a typical error entirely. Ever since you first introduced your clam to the Profession I have used it, and now seldom or ever use any ligatures, and as you see I even use the clam, or rather an improvement on yours, to secure the pedicle. As you are fairly entitled to all the credit due to the clam, you are perfectly at liberty to make any use of this note you choose.

"Ever yours sincerely,

"To John Clay, Esq., Birmingham." "J. B. Brown.

I may be allowed to add that I am the more anxious that this explanation should be publicly made, as the instruments have been considered by an eminent ovariotomist unfitted for the purpose for which they were invented. I may state, however that the gentleman referred to heated the cauterising iron in boiling water, which was a perversion of the application of the instruments which I never contemplated. The instrument heated by the flame of a spirit lamp has never failed in my hands in severing the adhesions and effectually preventing any hæmorrhage. From experiments which I have recently made, I found that the cauterising iron requires to be heated to about 800° Fahr. To attain this uniform tem-

perature with easy and accuracy, I found that this may be accomplished by immersing the iron in a metal bath composed of one part each of lead and zinc, melted in a suitable iron ladle. The iron when immersed in the metal is apt to become coated with it, which is of little importance in the operation, having no injurious effects on the structures to be divided. This coating of metal, if desired, can be removed by subjecting the iron to a greater heat than that of the metal bath.

Mr. Brown merits every acknowledgment for the skill and courage he has evinced in employing the actual cautery for securing the pedicle in ovariotomy, a mode of procedure which has opened a new era in the performance of this important operation. I am, &c.

John Clay, Professor of Midwifery,
Queen's College, Birmingham.

CASE OF ARREST OF DEVELOPMENT.

Letter from Mr. John Gould.

[To the Editor of the Medical Times and Gazette.]

Sir,—I send you a most extraordinary case of an arrest of development, should you think it worthy a place in your valuable journal.

I was recently called to attend a woman in her fourth labour. I was informed on my arrival she did not expect her confinement for a month; delivery, however, was very quickly terminated.

The first birth—for it was a case of twins—was one of the most extraordinary monsters I ever beheld. It had no head, arms, nor legs, there were only body and thighs; at the termination of each of the latter was a very small flat protuberance, evidently rudimentary feet, as the edges had little prominences representing undeveloped toes. The umbilical cord at its junction with the body was preternaturally dilated, and destitute of its external investing membrane. Two inches above the umbilicus was an irregular opening about half an inch in diameter, through which protruded a membranous-looking substance. Immediately above, and a little to the left of this orifice, was a small patch of hair about the size of a shilling. In place of the mammæ and nipples were two small transverse depressions, the left somewhat higher than the right. The sexual organs were those of a female, but the vagina and anus were included in one common orifice.

I enclose a rough sketch, of which the above is a brief description, and have also preserved the specimen in spirits.

I have heard it said that monstrosity never occurs except in cases of twins. I should be exceedingly glad to know the opinion of members of the Profession who may have had much experience in similar cases.

I am, &c. John Gould.

Hatherleigh, April 3.

OBITUARY.

We are sorry to have to announce the deaths of two active members of the Obstetrical Society—viz., Dr. F. W. Mackenzie, of 11, Chester-place, Hyde-park-gardens, and Dr. Edwin E. Day, of 48, Hertford-street, Mayfair. The crowded state of our columns forbids more than this announcement at present; next week we shall give a fuller account of each. Dr. Mackenzie had already obtained a wide-spread reputation, and Dr. E. Day was steadily working his way to it; both were suddenly removed after a few days' illness, which came upon them whilst in the midst of Professional work.

Testimonial to Dr. Cookworthy.—Dr. Cookworthy, of Plymouth, has lately been presented with a handsome library chair by some of the patients of the Plymouth Dispensary, an institution which he has served as Physician for more than half a century.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, February 1.

Dr. Barnes, President, in the Chair.

A paper, by Dr. T. Snow Beck, was read

ON PUERPERAL FEVER.

The author related minutely the case of a young lady, aged 24 years, who was confined of her first child, presented symptoms of puerperal fever on the second day, and sank three days afterwards, or on the fifth day after her confinement. He pointed out that the leading feature in the case was the absence of that contractile power of the uterus necessary to the expulsion of the child and provide for the safety of the mother after its birth, this being apparent at each stage of the labour—the languid contractions of the uterus, the inability to increase the force of these contractions by the usual agents, the requirement for the use of the forceps, the necessity for the removal of the placenta, the hæmorrhage which followed, the existence of a large flabby open uterus when the hand was introduced, the great difficulty to induce sufficient contraction of the organ to prevent further hæmorrhage, and the impossibility to procure a firm persistent contraction after the cessation of the hæmorrhage. This lax condition of the uterus permitted the uterine sinuses to remain pervious, and arose from the absence of that due contraction of the muscular tissue which is essential to prevent any fluids circulating along their canals. Another case of puerperal fever was given, which also occurred in a healthy young woman, after apparently a perfectly natural labour, and which proved fatal on the ninth day. The body was examined thirty-six hours after death, and copious effusion of fluid into the abdomen, with shreds of soft friable recent lymph, and some injection of the peritoneum, were found. The uterus was large, pear-shaped, even on the surface, soft, and rather flabby; its interior was everywhere covered by a soft membrane, which presented the usual microscopic characters of the mucous membrane, and was covered by a red mucous secretion. All the tissues of the uterus were examined, and found to be perfectly healthy; no appearance of inflammatory product presented itself in any part of the organ. But the uterine sinuses were open, and water thrown into the larger veins of the abdomen readily traversed these canals, and escaped at the open orifices on the surface of the uterus. From the careful examination of these cases, the following deductions were drawn:—1. The phenomena of puerperal fever may be produced by the introduction of poisonous fluids into the general system. 2. The uterine sinuses remaining pervious to the flow of fluids would afford a means by which the poisonous fluid or fluids would enter the system. 3. The pervious condition of the sinuses remained in consequence of the absence of that firm and persistent contraction of the uterus after childbirth which appears necessary to effectually close these canals, and prevent all circulation of fluid along them. 4. The secretion from the interior of the uterus was probably sufficient, when mixed with the blood, to induce the effects observed. And it would further follow that—5—the various phenomena observed in puerperal fever may arise from this cause, modified infinitely by many incidental states; and the various inflammatory actions and products observed in the course of the disease would not be the essential parts of the disease, but morbid phenomena which occurred during the course of it. 6. The primary, though not the only, object in the prevention of these attacks of puerperal fever will then be to procure a firm, complete, and persistent contraction of the uterus after the birth of the child, and thus effectually to shut off all circulation within the vessels of this organ. The author considered that these cases gave a decided negative to the opinions that puerperal fever was caused by uterine phlebitis, lymphangitis, endometritis, metritis, or any similar inflammatory condition of the uterine organs, as no product of inflammation was anywhere discovered after a careful and even microscopic examination. The results were also opposed to the opinion of Cruvelhier, who compared the internal surface to a vast solution of continuity, and the gaping orifices of the sinuses to the open-mouthed vessels of an amputated limb. For here the internal surface of the organ was everywhere covered by a soft membrane containing all the elements of the

mucous membrane, and covered by a red mucous secretion; whilst the gaping sinuses could only be compared to the open-mouthed vessels of an amputated limb when the uterine sinuses were pervious and admitted fluids to circulate within them: the real point of comparison not being the open orifices, but the open canals leading from these into the veins of the general system. The comparison between puerperal fever and surgical fever was also founded on an erroneous basis; for again a natural condition of the vessels of an amputated limb was compared with an unnatural state of the vessels of the uterus, which ought not to be, and might in the majority of cases be prevented. The propositions given by Dr. R. Ferguson in his valuable essay on Puerperal Fever were examined. The author differed essentially from Dr. Ferguson on the causes of the vitiation of the blood and on the varieties of puerperal fever. The effect of this noxious impregnation of the general system was next considered, and it was shown that the quantity modified the result in a most singular way—a small quantity being eliminated by intestinal or urinary secretion, whilst a larger dose killed. When the uterus was very lax, and admitted of a ready flow of noxious fluid through the sinuses, the woman was stricken down as if by some fell pestilence, and sank in a few hours—"where the secretions are all suspended, and the patient sinks with rapidity." Where the deleterious fluid is introduced in smaller quantity, the system, after a vain struggle with the poisonous infection, sinks in a few days, the chief morbid appearance after death being extensive peritonitis of a peculiar character, copious exudation of soft friable lymph, and much serosity. To a yet smaller amount of deleterious impregnation were attributed uterine phlebitis, metroperitonitis, distension of the lymphatics with purulent fluid; the effects being more local, and the inflammations being the consequences of the first changes induced. Whilst a still smaller amount of infection would produce low febrile conditions, extending over an indefinite period, and sometimes inducing purulent infiltration in various organs of the body. Each of these states being influenced by a variety of concomitant circumstances—as the original condition, state of health, the character of the fluids secreted, the existence of any diathetic disease, epidemic influences, etc. On the question of contagion and the occurrence of epidemics, the author showed that the most experienced in this disease varied so much that no decided conclusion could be drawn. The prevention of the disease, it was urged, could be most effectually accomplished by procuring a complete and persistent contraction of the uterus after the completion of the labour; and that the means usually recommended were not sufficient for this object, it being generally considered sufficient to procure such an amount of contraction as to prevent any hæmorrhage, though it was necessary to go beyond this point of contraction before the safety of the woman could be secured. A nourishing and supporting diet was also necessary to remove the physical fatigue and mental anxiety of the labour, to restore the health from the waste occasioned by the previous months of pregnancy, and to enable the woman to pass through the subsequent changes which had yet to take place: much, however, depending upon the previous habits, state of health, and other incidental circumstances. On the subject of treatment, when the disease was once developed, the principles were considered to be—(1) to prevent the further injurious impregnation of the system, either by obstructing the further flow along the uterine sinuses, or by removing the noxious fluids from the interior of the uterus; (2) by supporting the system during the struggle in which it is engaged, and by meeting any incidental complication which might present itself; and (3) perhaps a further source of treatment was now afforded, which might enable us to counteract, to some extent at least, the deleterious impregnation which has already taken place. The first would be attained by procuring, if possible, the further contraction of the uterus, or by inducing the coagulation of the blood in the uterine sinuses. But the principal curative means appeared to rest upon the removal of all noxious fluids from the interior of the uterus, by cleansing it with a tepid solution of any sulphite or hyposulphite of soda each day or oftener; and should any fluid gain entrance into the uterine sinuses, it would probably be more beneficial than otherwise. The means to support the system were too well known to require further notice; whilst deleterious impregnation, which had already taken place, might be met by the internal administration of sulphite of magnesia or lime, in doses of one scruple to half a drachm every two or three hours.

Dr. Graily Hewitt stated that, having had considerable opportunities of witnessing the disease now under discussion, he would give some of the results of his own observations, although it was impossible in a few words to include a consideration of all parts of the subject. He had long entertained the idea that a very close connexion subsisted between a loose relaxed condition of the uterus after delivery, and the supervention of puerperal fever. He had followed a plan of treatment based on this idea, and had frequently insisted upon it in teaching. He considered that the author of the paper had offered anatomical proof of what had been a matter of surmise among many obstetric authorities of late years—namely, that puerperal fever and allied disorders are not necessarily and inseparably connected with the existence of inflammatory changes in the tissues of the uterus and neighbouring parts. He believed, with the author, that the disease arose from the introduction of putrescent or decomposing material into the uterine sinuses, and thence into the general circulation. This was the case in by far the majority of instances, but he believed that the poison was sometimes introduced by other channels. He could not regard puerperal fever as a disease *per se*, and he considered it would be difficult to distinguish anatomically and pathologically between ordinary puerperal fever and that condition produced by the contagion of scarlet fever or other fevers in the lying-in woman; for though the cause might be different, the effect was or might be the same. The essential part of puerperal fever is poisoning of the blood, and this may be effected in various ways. He had, as he had already stated, observed a very close connexion to subsist between the relaxed uterus and puerperal fever: he had always found the uterus larger than it should be at the outset of the attack, this increase of size being accompanied with tenderness and other signs. In this respect, therefore, he quite agreed with the author of the paper. It would afford confirmation of the truth of this view of the subject to describe the treatment which he (Dr. Graily Hewitt) had for some time adopted in cases of puerperal fever and its results. Disregarding entirely and completely the old ideas as to inflammatory changes in the uterus, he was in the habit of applying the bandage very tightly over the uterus the moment the first symptoms appeared, and of administering internally a stimulant diet, including large doses of alcohol. Other remedies were used, but they were quite subordinate. Depleting and lowering medicines were wholly omitted. The quantity of alcohol given was sometimes at the rate of as much as two ounces of brandy every two hours. This treatment he had seen cut the disease short in the course of twelve hours. He had the greatest confidence in the efficacy of such treatment in bad cases of puerperal fever, having seen not a few apparently hopeless cases recover under it. In reference to the prophylaxis of the disease, these observations were interesting. The binder served a very important purpose, and he was in the habit of paying the greatest attention to its careful application; believing that in a well-contracted uterus we have the best safeguard against puerperal fever. The facts related by the author of the paper bearing on this latter subject were very important.

The President said the subject was one of such paramount importance that it deserved a special discussion every year. He believed if attention were thus continually brought to it, that much would be done in the way of preventing this the most destructive of all causes to puerperal women. It was impossible to advert now to more than one or two points. He agreed with Dr. Beck that puerperal fever was a distinct thing from typoid or scarlatina, which often attacked puerperæ, but preserved their essential characters. On the leading idea of the paper — the necessity of contraction of the uterus as a preventive of puerperal fever,—he would say, that contraction was eminently desirable to accomplish, but he had seen repeatedly puerperal fever occur in women after perfect contraction, and, on the other hand, no puerperal fever, although the uterus remained relaxed. After the great discussion at the Académie de Médécine, Dr. Martineng published a memoir setting forth this view, and advocating the use of ergot and all means to ensure contraction as preservative against fever. Dr. Barnes, having under observation 2000 or more cases yearly of poor women attended by the Royal Maternity Charity, thought he was able to negative the proposition that puerperal fever was more frequent amongst the poor and badly fed. The cases in the Charity were very rare. For one case amongst these women, he saw ten amongst the easier classes. As a means of preventing the loss of blood—as hæmorrhage undoubtedly predisposed to puerperal fever,—he had found nothing of equal efficacy to the injection of a solution of perchloride of iron into the uterus after clearing out the cavity of placental remains

and clots. He had used this plan for several years, and in a large number of cases after labour and abortion, and had always had reason to congratulate himself upon the result. The perchloride of iron had the further advantage of being antiseptic. He had certainly saved several women from death from flooding, and believed these and others had been rendered less liable to puerperal fever. In reply to a question from Dr. Timothy Pollock, the President stated that the plan he adopted was to carry in his "obstetric bag" a saturated solution of the salt. Of this solution he used one part to eight of water. But he thought that even a weaker solution was sufficient. It instantly coagulated the blood in the mouths of the uterine vessels.

Dr. Snow Beck briefly replied, and stated that he considered puerperal fever essentially distinct and different from typhus fever, typhoid fever, scarlet fever, or any of the acute specific diseases; each of the latter being caused by a distinct and definite poison, which might be communicated from individual to individual in the same ward; whilst the former was produced by the introduction of putrid or similar fluids into the general system through the sinuses of the uterus, when they remained pervious after a confinement, and was not communicated from individual to individual in the same ward. Perhaps the term "puerperal fever" was not the most appropriate, but it had been concentrated by long usage, and it was not desirable to change it without good cause. There was a great distinction between puerperal fever and febrile states occurring during the puerperal period, the former being incurable up to the present time, the latter readily admitting of cure. This distinction had been clearly drawn by Professor P. Dubois. He had used the soluble sulphites as injections for cleansing the interior of the uterus, from the opinion that they were the most effectual agents in correcting the condition of the fluids secreted. But he had no doubt other agents would be found equally and perhaps more efficacious, and amongst them possibly the preparation of iron mentioned. But if it were even admitted that this plan of treatment was advisable, and devoid of the great danger sometimes attributed to it, then an important step had been attained. He, however, would strongly urge the necessity of procuring complete and persistent contraction of the uterus, and of carrying this contraction further than was usually considered sufficient, as being one of the most effectual means of preventing this most serious disease. He thought that by separating the many diseases occurring during the puerperal period, and included under the one designation "puerperal fever," though differing essentially in their nature, course, and treatment, great good would result.

MEDICAL NEWS.

Royal College of Physicians of London.—At a general meeting of the Fellows, held on Monday, April 10, 1865, Thomas Watson, M.D. Cantab., D.C.L. Oxon., was unanimously re-elected President of the College for the ensuing year. At the same meeting, the following gentlemen, having undergone the necessary Examination, were duly admitted Members of the College:—

Samuel Jones Gee, M.B. Lond., 46, Queen Anne-street; John Southey Warter, M.D. Edin., 23, Frederick-street, Gray's-inn-road; Benjamin Bingay Thurgar, M.D. Edin., 35, York-street, Portman-square; George Bernard Brodie, M.D. St. Andrews, 10, Bolton-row; and Offley Bohun Shore, M.D. Edin., Stamford.

At the same meeting, the following gentlemen were reported by the Examiners to have passed the first part of the Professional Examination for the Licence of the College:—

Nathaniel E. Davies, St. Bartholomew's Hospital; Alfred Harwood, Guy's Hospital; Lyttleton Hallett, St. Bartholomew's Hospital; Mowbray Jackson, St. Bartholomew's Hospital; Osmer King, Guy's Hospital; Edwd. James Leverton, St. Bartholomew's Hospital; Philip Henry Mules, St. George's Hospital; Edward Nettleship, King's College; Campbell Orme, St. Bartholomew's Hospital; Lestock Holland Reid, St. Bartholomew's Hospital; William Alsept Richards, King's College; Wm. James Tattersall, St. Bartholomew's Hospital; Herbert Tibbits, St. Bartholomew's Hospital; Wentworth Raynes Tindale, St. George's Hospital; Samuel John Truman, Guy's Hospital; Herbert Chrippes Upton, St. Bartholomew's Hospital; and Matthew Hall Wright, Birmingham.

Royal College of Surgeons of England.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on April 11, and when eligible will be admitted to the Pass Examination:—

E. M. Owens, Henry Maynard, W. J. Richards, E. L. Crowther, Arthur Matthews, George Spearman, R. C. Lucas, T. B. Dyer, William Johns, and H. W. Fagge, Students of Guy's Hospital; J. R. Walker, H. F. Parsons, J. R. Hill, J. G. Randall, and E. B. Owen, of St. Mary's Hospital; Waren Tay, W. E. Ditchett, F. M. Mackenzie, and F. S. Colquhoun, of the London Hospital; H. C. Buckley, E. W. Parkinson, G. W. Barroll, and F. W. Jackson, of St. George's Hospital; J. A. J. Timmins, B. W. Lamb, J. B. Hughes, and F. D. Power, of St. Bartholomew's Hospital; T. F. Hopgood and T. B. Hay, of University College; C. S. Blythman and J. R. Perkins, of King's College; J. R. James, of the Middlesex Hospital; and Kenneth Reid, of Montreal.

The following passed on April 12:—

R. B. Moore, John Quick, H. B. Pattinson, F. H. Haynes, W. G. Kemp, Bernard Renshaw, D. F. Boulton, H. G Wilson, W. B. Burn, E. H. McClean, and J. E. M. Finch, students of St. Bartholomew's Hospital; R. T. Wright, F. W. Parsons, G. A. Canton, Edward Ireland, O. T. Molecey, and J. H. Bell, of King's College; W. E. Cant and W. R. Tindal, of St. George's Hospital; S. E. Solly and J. J. Ridge, of St. Thomas' Hospital; A. G. Evans and T. E. Stainthorpe, of the Middlesex Hospital; A. B. Elliott and B. N. Dalton, of Guy's Hospital; F. A. Holmes, of St. Mary's Hospital; J. K. Hyde, of Charing-cross Hospital; Thomas Loane, of the London Hospital; F. W. Strange, of Liverpool; J. D. Bush, of Newcastle; D. E. Bernard, of Bristol; George Fisher, of Leeds; and James Sawyer, of Birmingham.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, April 6, 1865:—

Edward Charles Evans, Cardiff, South Wales; Charles James Harris, King William-street, Charing-cross; Ralph Alexander Busby, Royal Free Hospital; Lewis Wayne Morgan, The Hafod, Pontypridd; George Cox Grantham; Frederic Ruffe, Tamworth; Charles James Wright, East Parade, Leeds; Henry Edward Herbert, Charing-cross Hospital; John Stuckey, Langport, Somerset.

The following gentlemen, also on the same day, passed their first Examination:—

Thomas Bell Hay, University College; Thomas Cuddeford, St. Bartholomew's Hospital; W. I. Tattersall, St. Bartholomew's Hospital; Isaac Coalbank, St. Bartholomew's Hospital; Herbert Chrippes Upton, St. Bartholomew's Hospital; John E. M. Finch, St. Bartholomew's Hospital; Frederic Richard Fisher, St. George's Hospital; John Sherwin, King's College; Matthew Hall Wright, Sydenham College, Birmingham.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Charlton, Egbert, M.D. St. And., has been appointed Medical Officer for the Dartford Union Workhouse.

Hobley, Mr. S. H., has been appointed Resident Dispenser to the Hitchin Infirmary.

Harmer, W. Milsted, M.R.C.P. Edin., has been appointed Physician to the North Grove House Private Lunatic Asylum, Hawkhurst.

Jeaffreson, George E., M.R.C.S. Eng., has been appointed Medical Officer to the Suffolk Albert Memorial College at Framlingham.

Milburn, F. Le Fevre, M.R.C.S. Eng., has been appointed Assistant-House-Surgeon to the Sheffield Public Hospital and Dispensary.

Shears, Arthur, M.D., Edin., has been appointed Assistant-Surgeon to the Nottingham Dispensary.

Summerhayes, Henry, M.R.C.S. Eng., has been elected Surgeon to the Islington Dispensary.

DEATHS.

Affleck, Robert, M.D. St. And., at St. George's, Grenada, on March 1.

Blair, William H., L.R.C.P. Edin., House-Surgeon to the Royal Infirmary, Windsor, at Peterborough, on March 20, aged 25.

Chalk, Frederick M., M.R.C.S. Eng., Assistant-Surgeon 2nd Batt. 2nd Regt., at Bermuda, on February 9, aged 29.

Day, Edwin E., M.B., M.R.C.P. Lond., at 48, Hertford-street, Mayfair, W., on April 7, aged 29.

Denton, Samuel, B.A., M.R.C.S. Eng., off Java Head, on board the ship *Montrose*, on December 7.

James, George W., M.D., at Woburn, Bucks, on March 24.

Lovell, William Cecil, M.R.C.S. Eng., late of Chepstow-place, Bayswater, on April 6, aged 38.

Mackenzie, Frederick W., M.D. Lond, at 11, Chester-place, Hyde-park-square, W., on April 3, aged 49.

Ratton, Surgeon-Major James, 3rd Light Cavalry, on his way from Kamptee to Bombay, on March 5, aged 51.

Reed, William H., M.D., D.L., of Underdown, Pembrokeshire, at Haverfordwest, on March 26.

Renaudin, M., Medical Director of the Asylum at Mareville, near Nancy, and for more than twenty years one of the editors of the *Annales Médico-Psychologiques*, died early in the present month.

Seccombe, John Collier, M.R.C.S. Eng., at Greenhithe, Kent, on April 5, aged 59.

Tearne, Edward M., M.R.C.S., Eng., at Presteign, Radnorshire, on April 8, aged 42.

Walmesley, Thomas, M.R.C.S. Eng., at Wem, Salop, on March 21, aged 65.

The Devon and Exeter Hospital.—An election to the office of Surgeon to this Hospital, vacant by the death of Mr. W. H. James, has just taken place. The candidates were Messrs. Roper and Cumming. The following was the result

of the poll:—Mr. Roper, 118; Mr. Cumming, 105; majority for Mr. Roper, 13.

THE RUSSIAN EPIDEMIC.—The Medical Department of the Council have already despatched Dr. Whitley, late Medical Registrar of Guy's Hospital, to St. Petersburg, and Dr. J. Burdon Sanderson to Dantsic and Elbing, to report upon the alarming epidemic. Next week Dr. Thudichum will proceed to another chief seat of the disease.

THE FRENCH ACADEMIES.—At the *Académie de Médecine* M. Bergeron has been elected into the section of Hygiene by the votes of 52 of the 80 academicians present. At the *Académie des Sciences* Wilhelm Weber, of Göttingen, was elected a corresponding member in place of De la Rive, declared foreign associate. The other candidates were Dove, Berlin; Groves, London; Jacoby, St. Petersburgh; Kirchoff, Heidelberg; Kupffer, St. Petersburgh; Plucker, Bonn; Rich, Berlin; and Stokes, Cambridge.

SURGICAL OPERATION.—A most successful Surgical operation was performed last week in the Military Hospital. Dr. Holmes, assisted by Dr. Stratford, extracted a stone from the bladder of a boy about eight years of age. He is now doing well and in a fair way for recovery. This is only the second operation of the kind which has been performed in this colony, Dr. Stratford having successfully operated some years ago upon a boy about four years of age, who is now living and in good health.—*New Zealand Herald.*

THE JAMAICA INQUEST.—The *Colonial Standard* of March 10 states that "the coroner's jury on the case of Richard Bailey, a patient in the Public Hospital, who died after an operation performed on him by Dr. Anderson, the Medical officer of that institution, terminated their labours on the 27th ult., after a sitting of seven days, and returned the following verdict:—'The jurors find that Richard Bailey died at the Public Hospital on February 11, 1865; that he laboured under chronic disease, and that his death was hastened by improper Surgical treatment whilst in that institution.'" Our readers will not feel much surprise at this verdict, recollecting the character of the Medical evidence given at the inquest, to which we called attention in the *Medical Times and Gazette* of March 25.

ROYAL COLLEGE OF SURGEONS.—At the last meeting of the Council, one of the Jacksonian prizes was awarded to Mr. William Adams, F.R.C.S, of Henrietta-street, Cavendish-square, Surgeon to the Royal Orthopædic Hospital, as the author of the best essay "On Club Foot: its Causes, Pathology, and Treatment;" and a special honorarium was awarded to Mr. John Crown Agnis, F.R.C.S., Surgeon to the Royal Horse Guards, his essay being next in merit to that by the former gentleman, and in consideration of the original research displayed in it by the author. The remaining prize was awarded to Mr. Thomas Annandale, M.R.C.S., formerly of Newcastle-on-Tyne, but now of Edinburgh, for his essay "On the Malformations, Diseases, and Injuries of the Fingers and Toes, with their Surgical Treatment." For the Collegiate triennial prize, "On the Structural Anatomy and Physiology of the Lymphatic Vessels and Glands," no one had competed. At the same meeting of the Council, Messrs. William Griffith, of Oswestry, and Richard Forth Snape, of Bolton-le-Moors, who had been elected Fellows at a previous meeting of the Council, were admitted as such, their diplomas bearing date respectively, March 16, 1838, and June 13, 1842. Professor Ferguson, F.R.S., will commence his course of lectures "On the Progress of Surgery during the Present Century" early in June next. The examinations on Anatomy and Physiology commenced on Saturday, when 107 candidates presented themselves.

ODONTOLOGICAL SOCIETY.—A meeting was held on April 3; the President, Thos. A. Rogers, Esq., in the chair. After the ordinary business, Mr. Merryweather exhibited a case of casts, showing the conditions of the same mouth from 4 years of age till 21, at intervals of six months. Mr. Vasey exhibited models referred to at last meeting. Mr. Walker related the history of several cases which had occurred in Hospital practice of abscesses formed in the jaws. Mr. Harrington explained the nature of a self-acting drill which he exhibited adapted to lessen the difficulty of cutting away the carious parts of teeth. He has successfully used the drill since June, 1863. Mr. Hulme read a paper on "Rhizodontripy;" or the operation of drilling into the pulp cavity. After referring to the history of this operation, the author related the circumstances attending its performance on a patient of his own, whose tooth he had a subsequent opportunity of dissecting. The tooth showed a secondary deposit of dentine. From this and other cases the author deduced conclusions favourable to the theory of Dr. Hullihen, and observed that in any case the subject was worthy of investigation. He recommended that a careful collection of statistics should be made. An interesting and lengthened discussion followed, in which Messrs. Rogers, Harrison, Vasey, Walker, and Coleman took part. The Society then adjourned.

CURIOUS ACCIDENT CAUSED BY A PIPE.—A schoolmaster was playing at snow-balling with his scholars, having a long pipe in his mouth, when he fell forwards, hurting his mouth with the end of the pipe. He wiped away the little blood that flowed; but when he wished to resume his pipe he found that the mouth-piece was missing, and search for it in the snow was made in vain. A few days after he applied to Dr. Fingerhoth on account of some difficulty in swallowing and a stiffness in the region of the right sterno-cleido-mastoideus. On that side of the palate there was some redness and swelling, but no trace whatever of a wound, while under the mastoid process there was also a small soft swelling, only tender upon great pressure. Leeches were applied to the angle of the jaw and gargles were ordered, and the redness of the throat and difficulty of swallowing were relieved, but kept recurring again at intervals until August, the external swelling having during the whole period remained unaltered. By September the swelling in the neck had attained a diameter of three inches, while the tonsil and palate again were swollen, and a large quantity of blood was discharged from the mouth. The author found him in an exhausted state, and another attack of hæmorrhage carried him off. At the post mortem, a ragged opening was found in the fold of the velum palati communicating with the mouth, and a female catheter passed through this penetrated into the tumour formed in the vicinity of the mastoid process. This swelling contained about 2 lbs. of blood and putrid pus, and when this was removed the end of the pipe, $1\frac{3}{4}$ inch long, was found, roughened and deprived of its polish. In the course which it took it had irritated the carotid artery, which had become narrowed and fragile, and a small aperture beneath the narrowed part had given rise to the fatal hæmorrhage.—*Preuss. Med. Zeit.*, No. 23.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

We are obliged to postpone our notice of Dr. Lankester's paper on the *Inquests in Central Middlesex*, as likewise the article on *Modern Dermatology.*

Student.—Buy Ellis and Ford's "Dissections." They appear alternate months, price 3s. 6d., and will be completed in twenty-five parts, of which thirteen have appeared already. Nothing can equal their naturalness and precision.

Erratum.—In Mr. M. Jennett's letter in our last week's impression, *for* "2.15 p.m.," *read* "2.15 a.m."

COMMUNICATIONS have been received from—

Mr. M. JENNETT; Mr. JOHN DIXON; Dr. QUINLAN; Mr. W. COPNEY; Dr. D. B. WHITE; Dr. R. F. SNAPE; Mr. JAMES BLAIR; Dr. C. HANDFIELD-JONES; APOTHECARIES' HALL; ODONTOLOGICAL SOCIETY; Dr. FOTHERBY; MEDICAL SOCIETY OF LONDON; Mr. FAIRLIE CLARKE.

APPOINTMENTS FOR THE WEEK.

April 15. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

17. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

MEDICAL SOCIETY OF LONDON. Postponed until the 24th.

18. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. Meeting.

PATHOLOGICAL SOCIETY, 8 p.m. Meeting.

19. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

HUNTERIAN SOCIETY, 8 p.m. Mr. Hutchinson, "The Medical Aspects of Constitutional Syphilis."

20. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

HARVEIAN SOCIETY OF LONDON, 8 p.m. Meeting.

21. *Friday.*

Operations, Westminster Ophthalmic 1½ p.m.

ORIGINAL LECTURES.

LECTURES ON CHEMICAL AND MECHANICAL DISEASES AND THEIR RELATIONSHIP.

By H. BENCE JONES, A.M., M.D., F.R.S.

Lecture V.

DISEASES OF SUBOXIDATION.—ON GOUT.

The gouty diathesis consists in an excess of urate of soda not only in the serum of the blood, but in the fluid that diffuses from it into all the vascular and non-vascular textures of the body. An attack of gout is a chemical process of oxidation set up in the parts where the urates are most able or liable to accumulate. By the oxidising action the urates are wholly or partly changed into urea and carbonates, which can more readily pass from the textures into the blood, and be excreted by the kidneys, skin, and lungs. The oxidation even in the bloodless textures causes increased flow of blood and mechanical pressure in the vessels nearest to the inflamed part, and hence pain and redness, and then swelling and œdema, proceed. Though the gouty diathesis is a disease of the textures as well as of the blood, yet in its origin and situation an attack of gout is even more a disease of the tissues than a disease of the blood.

The urate of soda bears the same relation to gout that sugar does to diabetes; and as the want of oxidation of sugar is the cause of the diabetic diathesis, so the want of oxidation of the urates, and their consequent accumulation in the textures and blood, is the cause of the gouty diathesis. Errors excepted, as almost every grain of starch passes through the stage of sugar, so almost every grain of albuminous substance that enters the blood sooner or later, in its way out, passes through the stage of uric acid, and, if thoroughly oxidised, escapes as urea, carbonic acid, and water. The number of substances that are formed between albumen and urea are vastly more than between starch and carbonic acid; but, whatever their number, uric acid is the penultimate, and urea the ultimate, product of oxidation. Hence there are at least two ways in which an excess of uric acid may occur in the blood and textures: 1st, from an excess of animal or vegetable albuminous food entering the system,—*i.e.*, from excessive production; and 2nd, from an arrest of oxidation,—*i.e.*, from want of destruction. Of course, the greatest accumulation of uric acid will occur when the albuminous food is excessive, and when at the same time the oxidation is least. Even if no excess of albuminous food is taken, yet if the oxidising action is deficient, uric acid may accumulate in the serum, and it will immediately diffuse even into the bloodless textures. On the other hand, an excess of albuminous food may be taken, and, provided the oxidising action is also in excess, no accumulation of uric acid in the blood or textures may occur. It is therefore evident that there are two modes of preventing the gouty diathesis: 1st, by diminishing the amount of vegetable and animal albuminous food; and 2nd, by promoting oxidation. In other words, the smallest amount of food and the greatest amount of air are the antidotes for the gouty diathesis. If an excess of fresh air is taken whilst a large quantity of food is eaten, these cause no gouty diathesis as long as the antidote (oxygen) destroys the *materies morbi* (urates); but if from any cause the oxidation becomes less, the urates accumulate in the liquor sanguinis, and pass by diffusion into and around the cells of all the vascular and non-vascular structures of the body, and remain unoxidised where there is least oxidation, and even form crystals of urate of soda in consequence of the slow deposition of the urates on the surface and within the structure of the non-vascular cartilages. Where urate of soda accumulates it acts like a foreign body, increasing friction, setting up irritation and inflammation, by which the uric acid is more or less oxidised, and thus being made soluble, it is more or less removed, and when the inflammation subsides, effused fibrin almost alone may remain to mark the situation of the attack.

If no inflammation comes on, the liquor sanguinis may free itself of urates by the kidneys, and then the deposited crystals may more or less entirely re-dissolve, and diffuse back into the blood; or, if the serum continues full of urates, the chalk stones may gradually increase in the direction of least resistance, making the joints more and more rigid, and the skin more and more thin, until the pressure breaks the surface, and the chalk stones escape as myriads of microscopic crystals. Thus, the fingers and toes may become supplementary kidneys, to the great relief of the blood and textures, and the gouty diathesis may almost be considered as microscopic gravel in the textures, and an attack of gout as a chemical operation for the removal of the gravel from the part in which it had accumulated.

That the urates diffuse into the synovial fluid and on to the surface of the cartilages, the following case shows:—W. W., aged 48, was admitted into St. George's Hospital on November 23, 1855. He was a painter and glazier in good circumstances, and had suffered more or less from gout for eighteen years; otherwise he enjoyed good health, and never had colic. The urine contained a small quantity of albumen; the heart's action was feeble; the right hand was red and swollen; his feet were slightly œdematous; chalk stones existed in his ears. The acute attack of gout in a fortnight gradually subsided, and he was about to leave the house when a fresh inflammation of the hands, feet, and knees came on, with great prostration of strength. In a few days he was seized with epileptic fits; the slightest motion immediately brought on an attack; the pupils were contracted, there was excessive tremor of the limbs, and he sank four weeks after his admission.

Both knee-joints were carefully opened. They contained two or three drachms of thick synovia, and in each cavity there was a flake of fibrin about an inch and a-half long, shreddy, with whitish specks visible to the naked eye. On examination under the microscope, small acicular crystals were seen mixed with fibrinous matter, and when a drop of dilute hydrochloric or acetic acid was added, the whole surface of the fibrin in a few minutes became covered with microscopic uric acid crystals. The moist fibrin from both joints showed these crystals of uric acid, and when the fibrin was treated with nitric acid and evaporated, there was distinct evidence of uric acid. On the surface of the cartilage there was only a very small spot free from the deposit of urate of soda. Both great toes at their tasso metatarsal articulations contained the same deposit on the surface.

The spleen was large and soft; the kidneys granular, and the cortex much wasted. There were some small deposits of red sand visible to the naked eye in the mammary processes.

A man, aged 41, was admitted into St. George's Hospital with continued fever, and died on August 20, 1849. On examination by Dr. Handfield Jones, gouty deposit was found in both knee-joints: 1st, under the synovial membrane at the margin of the cartilage; 2nd, in the superficial structure, or on the surface of the cartilage, from whence it could not be removed by gentle washing or scraping; 3rd, in the substance of the cartilage at some depth; 4th, in the cancelli of the subjacent bone (the patella).

The gouty matter appeared for the most part as aggregations of amorphous masses, varying in size, and encrusted over frequently with minute crystalline spiculæ.

The cartilage was remarkably thickened, being at least three times its ordinary dimensions. Near its middle it was much more elevated than towards its margin, and very soft and yielding. When a vertical section was made of it, the surface exhibited a marked fibrous structure, quite visible to the naked eye, the fibres being arranged vertically to the surface, and being much more marked in the deeper than in the superficial layers.

The microscope showed that the basis substance was considerably increased, the cells being in much scantier proportion than natural, but not essentially altered. The fibres were not isolated from each other. The fibres or bands were of some considerable width, separated by narrow intervals of healthy structure.—*Proceedings of Pathological Society*, vol. ii., p. 103.

On the Means of Detecting Gout.

The chemical test for the gouty diathesis—that is, for excess of urates in the blood and textures—is based on an analysis of the urine and of the serum of the blood.

Even long before the gouty diathesis is formed, the urine will give warning of the future disease. An excess of urea in the urine may be caused either by an excess of exercise or by an excess of vegetable or animal albuminous food. The amount of urea bears a certain, though not direct, proportion to the amount of daily exercise; when the exercise is moderate, an excess of urea in the urine indicates that albuminous food in excess is passing through the system; when the oxidation of the albumen is perfect, urea and carbonic acid are formed; but with less perfect oxidation, urea and oxalic acid

result. Hence, oxalate of lime, with excess of urea, constitute the earliest evidence of imperfect oxidation of an excess of albuminous food. When the oxidation is still less, then oxalic acid and urea are not formed from the uric acid, but the urine shows an increase in the quantity of urates.

Simple inspection of the urine is quite worthless as a means of determining the amount of urates in the urine, for the clearest urine may have the greatest amount of urates dissolved in it, and urine that thickens on cooling may contain less uric acid than perfectly clear water. You will see in a paper I published in the *Philosophical Transactions*, Part ii., 1849, p. 249, that urine passed at 5.10 p.m. became thick on standing, and contained 0·52 grain uric acid per 1000 grs. urine; urine passed at 11 p.m. remained clear on standing, and contained 0·87 grain uric acid per 1000 grs. urine. Again (p. 251), urine passed at 7.35 p.m. became thickish on standing, and contained 0·29 grain uric acid per 1000 grs. urine; urine passed at 10·5 p.m. remained clear on standing, and contained 0·33 grain uric acid per 1000 grs. urine. Again, urine passed at 7·55 p.m. became thickish on standing from urates, and contained 0·31 grain uric acid per 1000 grs. urine; urine passed at 10.45 p.m. remained clear on standing, and contained 0·90 grain uric acid per 1000 grs. urine.

When analysis shows that an excess of uric acid is thrown out of the body, this is a proof that the gouty diathesis is ready to form whenever the kidneys cease to remove the excess from the system. The presence of any urates at all in the urine is a sign that oxidation is not so perfect as it might be, and the more urates in the urine the more imperfect the oxidation in the system must be considered; but as long as the products of the imperfect oxidation are thrown out by the kidneys or skin no gouty diathesis is produced.

Thus, then, first, excess of urea when little exercise is taken; secondly, oxalate of lime with excess of urea; and thirdly, urates in excess, by analysis, constitute the three tests of the different degrees of suboxidation which precede the establishment of the gouty diathesis.

When uric acid in excess is in the system, analysis of the urine may not indicate any excess there—indeed, the uric acid may be absent from the urine and be retained in the blood—as, for example, in Bright's disease. Then the chemical examination of the serum may give positive proof of the existence of this imperfect oxidation, and lead to the certainty of the textures containing the same urates ready to set up inflammation of a gouty nature at any moment; usually symptoms of gout begin to make themselves felt by pain, followed by heat and redness, and then the chemical methods for detecting gout are usually quite unnecessary.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ON THE

MECHANISM OF PARTURITION IN CASES OF PRESENTATION OF THE CRANIUM.

By CHAS. G. RITCHIE, M.D.,
Late Resident Physician to the Royal Hospital for Sick Children, Edinburgh.

(Continued from page 383.)

VI. When the head is born the occiput turns slightly towards the left thigh of the mother; there is a short pause, and then the occiput again, and this time more distinctly, turns to the left. The reason of this double movement of external rotation is this:—While the head is clearing the outlet the shoulders are entering the pelvis in the left oblique diameter, so that the neck is slightly twisted, and the first very partial rotation is its untwisting. Often the movement is altogether absent, in which case no doubt the shoulders descend more in the transverse diameter. The second rotation is produced by the shoulders turning into the antero-posterior diameter in the same way and to the same degree as the head has just done. The rotation of the shoulders is like that of the head, imperfect; the right shoulder is the lower one, and when it rotates it places itself a little to the right of the symphisis. It is thus in position analogous to the occiput, and it is, therefore, not surprising that the left shoulder, like the forehead, disengages first. It sweeps over the perineum, and emerges at the posterior comissure. In primiparæ, where the perineum is very strong and resistant, it not unfrequently happens that the right shoulder descends steadily and is the first born. The explanation of the movements executed by the shoulders is the same as that just given for those of the head, their more uncertain course being due to the less resistance which they offer to the pelvic canal.

Occasionally the head, instead of turning with the occiput to the left thigh of the mother, rotates in the contrary direction; the bisacromial diameter, probably transverse at first, having turned into the right oblique instead of the left oblique diameter of the pelvis.

B. (*Occiput in Front.*) In the second position of the cranium the long diameter (occipito-frontal) of the head corresponds to the left oblique of the brim, and the occiput is in front. The position is "right occipito-cotyloid," and its mechanism is identical with that of the first position, the word right being substituted for the word left, and *vice versa*.

C. (*Occiput Behind.*) In the third position the occipito-frontal diameter lies in the right oblique of the pelvis, and the occiput is posterior. The position is "right occipito-sacro-sciatic. In occipito-anterior positions parturition is comparatively easy, because the body of the fœtus does not enter the pelvis until the head has left it. The neck of the child is long enough to allow the occiput to disengage itself from under the pubic arch before the shoulders enter the brim. The length of the fœtal neck is $3\frac{1}{2}$ inches, the length of the anterior wall of the pelvis is only $1\frac{1}{2}$ inches. In occipito-posterior positions the neck is not long enough to allow of the disengagement of the head before the entry of the body. The posterior wall of the pelvis is $4\frac{4}{5}$ inches in depth, and to this must be added the whole length of the extended perineum, which may be computed at from 8 to 10 inches. The lateral wall is $3\frac{1}{2}$ inches in depth on the dried specimen, and its depth is increased in the living subject by the psoas muscle. Again, in occipito-anterior cases, after the head has been flexed, the flat neck is applied against the flat anterior wall of the pelvis, and the convex sinciput fits into the concave posterior and postero-lateral walls. In occipito-posterior cases these advantages are lost.

The first movement of the head in the third cranial position is flexion; the second descent. The occiput descends until it reaches the floor of the pelvis. Already difficulty is experienced because the occiput does not fit into the concavity of the postero-lateral walls, and so space is lost. The hind head is now pushed forwards by the pelvic floor, just as the sinciput is in the first position. The forehead can evidently not participate in this forward movement, and the consequence is flexion still more forced, provided that be possible. This resource soon fails, and then the only possibility of an advance of the occiput lies in the body of the fœtus becoming simultaneously engaged in the pelvis. The dorso-frontal diameter of four and a-half inches is offered to the right oblique of the inlet. The occiput, unable to advance in the axis of the outlet, still descends, and presses against the perineum with extreme force. If that structure does not give way the presenting part may at length reach the posterior comissure; it emerges half obliquely, and then the head is born by extension. The cause of the extension is easily understood. When the occiput has once disengaged itself, rotation of the head on its transverse axis becomes comparatively easy; the occiput can advance no further, and therefore the expelling force acts on the forehead and causes extension. In cases where the fœtus is premature and macerated, the extension movement may be altogether absent. The dorso-frontal diameter even of a seventh month fœtus may pass through a normal pelvic outlet, provided the fœtus be macerated.

With the mechanism just described, a normally-sized child in a normally-sized pelvis would have very little chance of being born alive, if at all. Fortunately there is another mechanism. In the great majority of occipito-posterior cases the head rotates three-eighths of a circle and emerges—"occiput to the pubis." The descending occiput, after the head has been well flexed, reaches the floor of the pelvis, and is resisted by the right sacro-sciatic ligament, the lower part of the sacrum, and the coccyx, this resistance being exerted in a direction inwards and forwards. Obviously the occiput cannot move forwards, downwards, and inwards without forcing the sinciput against the antero-lateral wall of the pelvis, the consequence of which is pressure on the forehead directed backwards and inwards. Thus, then, there are two forces contrary, but not opposed, and rotation must follow. Unfortunately, the forces are both very oblique, very much directed inwards, and it may happen occasionally that they are directly opposed, in which case rotation is impossible.

What occurs under such circumstances? The uterus contracts strongly, and the occiput is firmly resisted; the forehead begins to descend, the anterior fontanelle is pushed backwards, and the superciliary ridge is to be felt behind the pubis. The relations of the head to the pelvis are thus altered, and it may be that the oblique forces are no longer directly opposed. If that be so, the rotation begins, and the forehead re-ascends.

It is puzzling, at first, that the anterior planes of the pelvis should cause the occiput to rotate under the pubes, and instead of having the same effect on the forehead should send it backwards to the sacro-iliac synchonchosis; while, on the other hand, the posterior planes, instead of allowing the occiput to rotate into the hollow of the sacrum, should force it forwards. The grand reason is that the occiput is always lower than the sinciput, and experiences the first and greatest resistance from the floor of the pelvis. When that resistance begins to make itself felt in first positions, the occiput is on a level with the pubic arch, and the forehead with the cavity of the sacrum. In third positions the resistance begins when the occiput is past the sacral cavity and the forehead far too high for the arch of the pubes.

The question of the exact period of labour at which the rotation is effected is extremely interesting. There is no doubt that it may occur at various periods, according to the degree of resistance, and we have seen that if the resistance be slight it does not occur at all. It may be laid down as an axiom that in occipito-posterior cases, as long as they remain so, difficulties increase in proportion as the labour advances. If, then, the child be not very large, its head will not rotate until it is almost in the vulva; while, on the contrary, if it be of considerable size, the pivot movement will take place much earlier. There is one part of the cavity of the pelvis in which I conceive rotation to be nearly impossible: it is on a level with the ischial spines. These spines are much more prominent in some pelves than in others; but in the great majority of cases they project enough to oppose the occiput very efficiently in its course forwards.

Perhaps in those tedious cases where the forehead begins to come down this is really the cause of difficulty. The occiput is on a level with the ischial spine. It can descend no further because it is resisted from below, and it cannot rotate. The forehead descends, the occiput slips up above the obstruction, and the pivot movement begins.

There is still a third way in which occipito-posterior cases may terminate. It has just been shown that when the occiput reaches the floor of the pelvis and begins to be violently resisted, there is a tendency to extension of the head. This extension may proceed a certain length, the superciliary ridges may even become visible, and still the head rotate at last. If, however, the head be very small, extension may go on. The forehead then descends behind the pubis to the floor of the pelvis; the eyes, nose, and mouth show themselve successively; and the head is disengaged, as in the first position, by the face. During this extension there must be a moment at which the occipito mental diameter of the child, which is 5 inches in length, corresponds to a pelvic diameter of $4\frac{1}{2}$ inches. Such a mechanism is evidently impossible where the head and pelvis are normally proportioned.

D. (*Occiput Behind.*)—In the fourth or left occipito-sacro-sciatic position, the mechanism is exactly analogous to that of the third position. The occiput rotates three-eighths of a circle, and emerges from under the pubes.

In the rapid sketch just given, much has been omitted. The mechanism of parturition includes the mechanism of the opening of the os uteri, the protrusion and rupture of the membranes, the preparation of the soft parts, and the compression of the fœtal head. To none of these has allusion been made; all that has been attempted has been to show the skeleton of the process, and from the charge of presumption we may defend ourselves by Naegele's quotation from Seneca:—"Multum restat adhuc operis multumque restabit. Nec ulli nato postmille sæcula præcluditur occasio aliquid adhuc adjiciendi."

Wounded Soldiers in the Field.—The terms of the Convention agreed to in August last at Geneva, by the representatives of most of the European Sovereigns, for "ameliorating the condition of the wounded in armies in the field," were accepted, on behalf of Her Majesty's Government, by Earl Russell, on February 18. The instrument is now published as a Parliamentary paper.

CASE OF ALLEGED POISONING.

By W. PROCTER, M.D., F.C.S.

M. N., aged 32, had been for twelve or thirteen years in the habit of taking morphia in the form of either the acetate or hydrochlorate. According to the statement of her husband, it was first prescribed for her in America to allay palpitation of the heart. The use of it had thus become habitual, and she gradually increased the dose until she took five, ten, or fifteen grains, according to the quantity which she could afford to purchase. On November 19 last she sent her daughter, an intelligent little girl, to the shop of the druggist who usually supplied her for five grains of morphia. The druggist himself was absent, and the girl was served by a porter (who, in the absence of his master, occasionally waited upon customers) from a drawer which contained strychnia, other alkaloids, and poisonous substances besides the acetate and hydrochlorate of morphia. The mother having received the powder, said, after putting it into a glass of water, that the morphia was not like that she usually had obtained, being different in colour and not sinking so readily in the water, but reconciled this apparent difference by saying that it was probably owing to a new bottle being opened. She then swallowed the contents of the glass, and without further remark went upstairs with her daughter. This occurred about three o'clock in the afternoon, and she had taken no food that day except a single cup of coffee. On going upstairs she sat down to read, and shortly afterwards complained of feeling unwell, had slight tremors, looked wild, seemed to have pain in the chest, felt faint, and "clutched her clothes." She was then laid on the floor and "seemed to swoon." Dr. Ure was sent for, but on his arrival she was dead, so that the only account of the symptoms which could be obtained was from the women about her at the time, and all tending to show that she died in a state of syncope. Not more than twenty-five minutes, or at the utmost half an hour, could have elapsed from taking the morphia to the time of her death.

I was requested by the Coroner to make a post-mortem examination of the body and conduct the necessary analysis. The body was that of a well-formed, tolerably healthy-looking woman. There was no spasm or rigidity of any of the muscles, the right arm was laid over the chest, and the left arm without contraction by the side. The body was laid flat on the back, the legs being extended without any retraction of the feet; there were no external marks of violence; the pupils were dilated, and the mouth was closed with the tongue behind the teeth. In examining the several cavities of the body: 1. The Head.—The membranes of the brain were slightly congested, and a small amount of serous effusion existed in the ventricles. 2. The Thorax.—The lungs were congested in a small degree; the cavities of the heart were empty, not contracted, and there was no appearance of disease of either the valves or of the valvular apparatus; the heart itself was flabby and softened, with thinning of the ventricular walls. Microscopic examination showed it to have undergone fatty degeneration to a great extent, with well-marked characters; in some portions the whole fibre seemed to be made of granular matter, in other portions the transverse muscular stria were absent, and their place supplied by minute fatty or oily globules. 3. The Abdomen.—After the removal of the stomach, all the other organs were observed to be healthy; the bladder was empty. The blood was fluid throughout the body.

Examination of the Stomach and its Contents.—Both internally and externally this organ was natural and healthy; it contained about two ounces of a darkish, inodorous, semi-fluid matter, having an acid reaction, and several small pieces of fatty substance floating in it, which the microscope showed to have the characters of bacon, and some minute portions of coffee berry were also detected. The stomach and its contents were then submitted to analysis; they were in the first place tested for hydrocyanic acid and the cyanides without any result; an examination for the alkaloids was then made by a modification of the process of Staas; no evidence could, however, be obtained of any of them except morphia, which gave well-marked and distinct reaction. No mineral poison was found.

Such were the results of the examination made for the purpose of answering the question—What was the cause of death? It is proper to state that great local interest was excited in the case, on account of an impression having gained

ground that the porter had made a mistake and given the girl strychnia instead of morphia; but the history of the case, coupled with the post-mortem appearances, independent of the analysis, at once remove any conclusion of this kind.

Did, then, the morphia cause the death of this woman? It is true that the post-mortem appearances are reconcilable with the effects of this alkaloid, but absence of all coma, etc., and the mode of death, does not coincide with the symptoms usually displayed where an over-dose of morphia has been taken. Then, again, the period intervening between taking the powder and the time of death would render the case one of unusually short duration for morphia poisoning, even admitting that the empty state of the stomach and the extreme dilution of the drug were conditions highly favourable to both rapid action and rapid absorption. But in this particular case there are other special circumstances to be borne in mind. This woman had for a series of years been in the habit of taking daily large quantities of this substance; it seems, therefore, scarcely probable that in such a person, accustomed to take fifteen grains, a single dose of five grains should prove so rapidly fatal. The post-mortem examination revealed extensive disease of the heart, to the insidious and fatal character of which numerous writers have drawn especial attention, and one from which death arising has frequently been ascribed to another cause. Taking, then, all the circumstances of the case into consideration, it seems a reasonable and probable conclusion that the death was due rather to the disease of the heart than to the morphia which was taken. If this is correct, the case is of interest from affording an illustration of a circumstance frequently met with in practice, and of the greatest value in Medico-legal investigations, that the apparent is not always the real cause of death.

York.

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Medical Times and Gazette.

SATURDAY, APRIL 22.

THE PROCEEDINGS OF THE MEDICAL COUNCIL.

The Session of the Medical Council, which commenced on Tuesday, the 4th inst., came to a termination on Monday evening last, the 17th inst. As the result of proceedings thus protracted, we discover, in the midst of a vast deal of *chaff*, very little substance. When we have said that more efficient arrangements have been decided on for the registration of Medical students; that a fixed period of forty-eight months from the date of registration to the final examination has been agreed on as the duration of Medical study, we believe we have recorded all the actual results arrived at.

The subject of supervising examinations has been referred to the Branch Councils, and the proposed amendments of the Medical Act have been submitted to the Home Secretary. For the results of these proceedings we must, however, wait, and may now resume our sketch of each day's operations. On Wednesday, the 12th, the discussion on the Report of the Committee on Education was continued, and the Report of the Committee on the Medical Act Amendments was brought up and ordered to be printed. On the following day this Report was the subject of consideration, which was commenced by an unsuccessful effort on the part of Dr. Corrigan to postpone all attempts at legislation to a future year. The only important point in the report is that which refers to the 40th clause of the Act, and which recommends compulsory registration. It was agreed to submit the proposed amendments to the Home Secretary by a deputation, which was accordingly appointed, and which attended at the Home Office on Saturday last.

It is most important that all parties concerned should have clear notions as to what this compulsory registration means, and as to the results to which it may lead. No one, however qualified, can, if the proposed clause become law, practise Medicine or Surgery, using his title or designation, however acquired, except he be registered. No one can be registered except he possess one of the qualifications granted by one of the bodies named in Schedule (A) of the Medical Act. All the power of an Act of Parliament will hereafter be required to make the slightest change in this schedule. The difficulty of obtaining such an act has already been happily well illustrated by the proceedings immediately following the return of the deputation from the Home Office, which may possibly be a warning to the bodies named in Schedule (A), still more to the Government, whose duty it is to protect the public, as to what may be expected in any attempts that may be made to amend this Schedule. We last week mentioned the important movement of the University of London in establishing the degree of Bachelor of Surgery, and briefly pointed out the advantages likely to result from it. The representative of the University at the Council proposed on Saturday that in the amended Act the degree of B.S. conferred by this or any other University authorised by charter to confer the same should be rendered registerable. The proposal was rejected. The motive for this rejection was so slightly disguised that one of the opponents honestly admitted that "the whole matter was simply a question of shop." Nothing, therefore, can be more clear than if this council of corporations succeed in obtaining the object proposed we shall be saddled with a monopoly more intolerable than anything which existed in the days of old "corporate rights and privileges." The Licensing Bodies may be content with the monopoly thus secured to them, and may be indifferent as to the future; but this cannot be the case with those who have to watch over the interests of the public, the future requirements of a rapidly increasing population, and of a still more rapid extension of scientific knowledge, as well as of Professional acquirements. And we believe that there will be no difficulty found in suppressing the false assumption of titles by quacks without establishing a monopoly of the character proposed.

The other points which have occupied the attention of the Council, and which require mention, are the request of the Licentiates in Dental Surgery to be placed on the Register, and the Pharmacy Acts. In our report of the proceedings on another page will be found very reasonable grounds for refusing to accede to the request of the Dental Surgeons, and on the same pages will be found the report on the Pharmacy Bills. The impression we derive from reading this report is, that if the Council was not prepared to do more than is here set forth, it would have been wise to have done less—to have done nothing at all. "The Committee see great danger to the interests of the public and of the Medical Profession, from the body which will be constituted by the Bill;" and "the Committee have considered whether the danger here indicated might not be averted by extending the jurisdiction of the General Medical Council, so as to include control over pharmaceutic chemists as well as over Practitioners in Medicine. But they believe such a plan to be, for the present at least, inadvisable and even impracticable." Nothing daunted, however, "the Committee

have further considered whether the danger they have pointed out might be averted by some simple provision in the Pharmacy Bill. By Section xvii. of the bill of the Pharmaceutical Society, it is declared that—

'Nothing in this Act contained shall extend, or be construed to extend, to lessen or prejudice, or in anywise to interfere with, any of the rights, privileges, and immunities heretofore vested in, and exercised, and enjoyed by any duly qualified Medical Practitioner.'

"This clause sufficiently protects Medical Practitioners in such right of practising pharmacy as they have hitherto enjoyed, but it does not attempt to prevent pharmaceutic chemists from practising Medicine. Considering their peculiar temptations to practise it, however, some check seems desirable. The Committee suggest that this object may be attained, in some measure, were the following clause to be added to Section xvii., viz. :—

'Or, to entitle any person registered under this Act to practise Medicine or Surgery, or any branch of Medicine or Surgery.'

"The members of the pharmaceutic body would thus have constantly before them the sentiments of the Legislature as to the principles on which the Pharmacy Act was founded." And that is all. Surely if the Medical Council cannot, at this moment of vigorous legislation in pharmaceutical matters, do something towards suppressing the clear and circumscribed form of illegitimate "counter practice," it is vain to hope that it can reach that viler form which is altogether beyond the pale of law.

Some few other points worth notice may still be found amongst the proceedings of the Council, to which we shall probably again refer.

MODERN DERMATOLOGY.—No. III.(a)

It would be a very profitless and thankless task to compare in detail all the modern classifications of diseases of the skin, or to attempt to thoroughly "ventilate" the question, What is the best basis of classification? We have said enough to show that, notwithstanding the courage and industry of dermatologists, little real, solid advance has been made in this matter since the time of Willan and Bateman. We shall be safe, probably, in saying that all dermatologists admit that the acute specific eruptions or eruptive fevers, and the syphilitic eruptions, may be formed into distinct, well-defined classes; and that the great majority recognise also parasitic diseases as forming a third definite class; but the authorities are not agreed as to the members of the three classes respectively, and outside of them nearly all is doubt and uncertainty if we depart from the Willanean principle of classification. Add to those three classes one to contain the "hæmorrhagiæ," and re-distribute somewhat the members of Willan's orders, and you have pretty well all the clear advance made. Nor can we be much surprised that but slight success has attended the attempts made to classify skin diseases on strictly anatomical, pathological, or etiological grounds, if we consider what a complex structure the skin is, how great its supply of blood, how delicate, rich, and manifold its nervous endowments, and how innumerable, varied, and complicated are the causes of disease to which it is ever obnoxious; in common with the other tissues of the body, it is exposed to all general and constitutional causes of disorder—to every alteration of the powers of nutrition, all disturbances of the general circulation, or of nervous force, and all blood diseases; and it is peculiarly exposed to the effect of external and local factors of diseased action, to the effects of excesses of heat and cold, of moisture and dryness, and to irritants of all kinds. The examination of any one of the works we have mentioned will satisfy the reader as to the difficulties arising out of these considerations. For a full and complete account of the anatomy and physiology of the skin—the foundation-stone of a knowledge of its diseases—we especially recommend Mr. Wilson's book; Dr. Hillier also gives a short chapter on the same subject. Both these gentlemen, and Dr. Fox, give very useful and clear definitions of the terms usually employed in descriptions of skin diseases to designate the elementary and secondary lesions of the skin.

When we come to inquire into "causation," it must be confessed that we get very little clear and definite information. As Dr. Fox remarks, "The causation of skin diseases is a subject of much dispute; almost every conceivable thing has at one time or another been supposed to produce this or that local eruption." In some, the cause is clear enough: they arise from well-known, if not well-understood, internal general causes, as the acute specific fevers, syphilis, and the scrofulous diathesis. Some appear to be due to diseases of individual internal organs; as urticaria, eczema, acne, and some pigmentary affections, to disease of the liver, the sexual organs, the kidneys, and the supra-renal capsules; while "menstruation, pregnancy, and dentition are each liable to be attended with symptomatic skin affections;" but, as Dr. Hillier remarks, "the precise manner in which the internal disease is connected with the cutaneous malady, unfortunately, we are not in a position to explain." Dr. Hillier and Dr. Fox both give some general remarks on causation—*i.e.*, remarks on what may be termed the general etiology of skin diseases. Among the "influences regarded as most efficient in producing eruptions" are enumerated:—

Specific poisons—the zymotic and syphilitic affections.

Dietetic poisons—as shell-fish,—urticaria, and erythema fugax.

Peculiarities of diet—as deficiency of some nutritive elements, or too great richness; ecthyma and scurvy being caused by the former, psoriasis and eczema by the latter.

Hereditary diathesis—as in psoriasis, icthyosis, leprosy of the East, and syphilides.

The tuberculous, scrofulous, and lymphatic habits—giving rise to non-specific eruptions.

Special states of malnutrition—as in keloid, cancer, etc.

The gouty and rheumatic diathesis—as in lichen agrius.

Altered nutrition from various causes—as exhausted nervous power, bad living, poverty, misery.

The accumulation of excreta in the blood from non-excretion, suppression of natural discharges, etc.

Convalescence from severe and lowering diseases.

With regard to most of these "influences," we may repeat Dr. Hillier's remark, that as to how the "causes" and the cutaneous eruptions are connected, "unfortunately, we are not in a position to explain."

The effect of external influences is much more simple and comprehensible, such as mal-hygiene and want of cleanliness, effects of climate and season, special occupations causing exposure to special local irritants, as in grocers, bakers, washerwomen, masons and bricklayers, paperhangers and artificial flower makers (arsenite of copper), cooks, firemen, etc., and ordinary local irritants, as animal and vegetable parasites. Here the connexion of cause and effect seems uniform and clear; but concerning the action of internal causes we know so very little that it is, perhaps, safest to say with Mr. Wilson, in a lately delivered address, "the primary causes of cutaneous disease are only two in number—namely, *debility* and *specific poison*." Dr. Fox also remarks, "The why and wherefore, however, we cannot at present determine; but of one thing we are certain, that the basis of most skin eruptions is *debility*." Mr. Wilson further recognises four forms of debility: "*nutritive debility*, in which the symptoms are chiefly those of deficient nutritive power, with waste of the tissues of the body, a state which gradually passes on to exhaustion and atrophy; *assimilative debility*, in which the symptoms are such as accompany disorder of the digestive and assimilative functions, and the secretions dependent on those functions; *nervous debility*, in which the symptoms take their origin in a weakened, irritable, and exhausted nervous system"; and *local debility*, a debility of

(a) *Erratum.*—In the last article on Modern Dermatology, at page 338, col. 1, line 10, instead of *eczema*, read *a vesicle*.

parts or tissues. We must confess to not quite comprehending the difference between nutritive debility and assimilative debility, nor can we appreciate the separation of these from nervous debility; as "all the functions of the animal body are so completely bound up together that none can be suspended without cessation of the rest" (Carpenter's "Physiology"), so can no one function be weakened without the rest suffering also; and as the properties of the tissues and organs depend upon their healthy nutrition, and this on a due supply of healthy blood, we do not see how there can be nervous debility or nutritive debility without disorder or debility of assimilation. Would it not be simpler and more correct to say that debility is a predisposing cause; but that in some diseases the symptoms of disorder of assimilation are especially prominent, in others those of nervous derangement, and so on? And when Mr. Wilson gives the "remote predisposing causes" and the "exciting causes" of his four forms of debility, we find that he includes, in fact, every cause of debility or disorder of the human system. Thus, in speaking of eczema, he says:—"The nature of the remote predisposing causes may be gathered from the following list—viz., hereditary diathesis, strumous diathesis, weakly parentage, vaccination, dentition, eruptive and malarious fevers; errors of diet; errors of air, exercise, and clothing; vicissitudes of cold, heat, and moisture; ungenial climate; transition of seasons; excessive or rapid growth; sexual excess; deranged digestion; deranged menstruation; uterine, reproductive, and puerperal derangements; overstrained mental and physical labour; anxiety, fatigue, and affliction; nervous shock and fright; gouty and rheumatic diathesis; constitutional and organic diseases; general cachexia; and hæmorrhage. The *exciting causes* may be judged of by the consideration of those which give rise to the local affection, and are as follows:—Cold, heat, moisture with cold, moisture with heat, errors of clothing and bedding, friction, mechanical and chemical irritants, and varicose veins"! The "list" somewhat forcibly reminds one of the remark we quoted from Dr. Fox, that "almost every conceivable thing has at one time or another been supposed to produce this or that local eruption."

It will be remarked that Mr. Wilson includes vaccination among the "remote predisposing causes" of eczema; the "remote predisposing causes" being "the distant beginnings of a state that is eventually to resolve itself into debility and disease," that is, they are the causes of that state of debility which is the "predisposing cause" of the skin disease. He also enumerates vaccination as in the same way a cause of lichen and lichen strophulosus, and adult vaccination as a cause of gutta rosacea; but he is content thus simply to support the popular charge against vaccination without any explanation or remark.

Dr. Hillier has some sensible observations on the subject; after noting that vaccination is "frequently regarded by mothers and the public generally as the cause of numerous cutaneous diseases," he says, "No doubt many children become eczematous very shortly after vaccination; but then it must be remembered that vaccination is usually performed at an age when eczema is very liable to occur without vaccination. In many families nearly every child is liable to eczema during the whole period of primary dentition, whether it is vaccinated or not. The slight febrile disturbance attending dentition brings out eczema, and the slight disturbance of health caused by vaccination is also sometimes sufficient to determine the occurrence of an attack of eczema in children naturally predisposed to it. Strophulus in the same manner may be thus determined; and I have several times met with cases of pruriginous strophulus which appeared to have been excited by vaccination. . . There is nothing improbable in the notion that the introduction of a virus like that of vaccine into the blood of an unhealthy person may so unsettle the health as to lead to subsequent cutaneous eruptions; just as an attack of measles, of variola, or even of varicella may have this effect. The cases in which this occurs are, however, so few as to form no argument against the general adoption of vaccination, but probably supply sufficient reasons for carefully attending to the health of the subjects submitted to vaccination." No one will dispute the justice and good sense of these observations; and we will add that it would be well to sometimes warn parents of the possibility or likelihood of an eczematous eruption following vaccination, and to explain its occurrence and the connection between the two, when such an event does happen, instead of pooh-poohing the charge that "vaccination caused this eruption, Sir," as is, we fear, too generally the mode of meeting, or rather of not meeting, it.

Dr. Hillier speaks of "children naturally predisposed" to eczema, and Mr. Wilson, among "remote predisposing causes," mentions "the eczematous diathesis," so that these authors recognise in some degree the existence of a diathesis especially predisposing the subjects of it to certain skin diseases—the "eczematous affections" of Mr. Wilson; this can only be the "dartrous diathesis" of some of the French dermatologists, and it will be well to consider the arguments in favour of its existence, for could it be clearly established a great step would be made in the simplification of etiology.

THE WEEK.

RE-ELECTION OF MR. SOLLY AT ST. THOMAS'S HOSPITAL.

We are glad to find that Mr. Solly was re-elected to the office of Senior Surgeon to St. Thomas's Hospital, at the Court of Governors on April 18, by a majority of 45 to 18.

So little is known to the public of the earlier history of our most successful Surgeons—of the struggles and sacrifices undergone in early life, of the numbers who succumb, who lose their lives, or health, or reason, or who retire disgusted of the race,—that we do not hesitate to give publicity to the following extract from Mr. Solly's appeal to the Governors of St. Thomas's, in which he shows the equitable grounds on which he asks to be re-elected. The income of a great Surgeon may be equal to that of a rich merchant; but the merchant has not to encounter all the toil and unpaid drudgery of the Surgeon. But the results are before us. Eminent English Surgeons are what they are, because they have been tempted to undergo the preliminary drudgery by the love of science, with the hope of future reward, in the shape of Hospital appointments and consultation practice. Is it better for us to have such a set of scientific men, working on and teaching during the best part of their lives—making anatomical investigations (on the brain, for example), or doing some other work *quod alteri sæculo prosit?* or shall we have a race of young Surgeons grasping at early practice, and each advertising a book on the rectum?

"Statement of Mr. Solly to the Governors of St. Thomas's Hospital.

"As I shall attain the age of 60 years in May next, and as the rule of your Hospital, passed in April, 1858, which limits the period of service of each Physician and Surgeon, applies in terms to me, I beg your kind consideration of the hardship and injustice of the application of that rule to myself. . . .

"That my position as full Surgeon has fallen considerably short of twenty years' duration has arisen from accidental circumstances for which I am not responsible, while they led to my giving thirty years of almost gratuitous service to the Hospital.

"The facts connected with my position at the Hospital are as follow. I was apprenticed to Mr. Travers in 1822, to whom my father paid a fee of 500 guineas. I worked for four years in the dissecting-rooms, preparing all dissections for the illustration of the lectures. As the result and proof of this labour I was appointed Demonstrator and Lecturer on Practical Anatomy one year before I was out of my apprenticeship, or old enough to obtain the diploma of the College. On receiving this appointment I demonstrated anatomy in the dissecting-rooms for three hours daily, and lectured on the same subject gratuitously for six years. During one of these years I lectured, from October 14 to the end of April, five days in

each week without intermission, except the Christmas week. These appointments now have salaries attached to them. I then held the office of Assistant-Surgeon for five years without any salary at all; then, for five years at £50 per annum (the salary is now £100 per annum). In the case of Mr. South and Mr. Mackmurdo it was decided that the law limiting the period of service should not come into operation till five years had elapsed from the time at which it passed: this enabled Mr. Mackmurdo to serve the Hospital for twenty years, and Mr. South for a much longer period, and attain the age of 67 before he resigned.

"In every other Hospital (with one single exception) where a limit to service has been made, the age fixed is 65, not 60; and the rule has in no instance been made retrospective—*i.e.*, applicable to the then existing staff.

"I, therefore, respectfully submit to the Governors of the Hospital that in making the rule of age to apply to me an injustice is done me, because the great prize for which I struggled so earnestly is taken from me under circumstances never dreamed of when my father placed me with Mr. Travers, and when I made the large sacrifices of time, labour, and thought which I have endeavoured to point out. May I venture, therefore, further to submit that, having served the Hospital faithfully, and I believe I may say usefully, for so many years, and being as equal to my duties in every respect as I have ever been, I may now claim at your hands that indulgence which has been accorded to others—namely, to serve the Hospital as full Surgeon for the full period of twenty years?"

THE OFFICIAL ACCOUNT OF THE RUSSIAN EPIDEMIC.

Until they are modified or contradicted by more trustworthy evidence, we must accept the answers made on the part of the Russian Government to the inquiries of the English Ambassador as the best account that has reached us of the nature, extent, and causes of the St. Petersburg epidemic. Our readers well know that it is the common policy of a Government to put the best face on an official account of the condition of its population, and that some allowance must be made for a praiseworthy desire to reassure the minds both of subjects and of foreigners. But if we receive even with some reserve the Russian Minister's account, it is quite clear that the present epidemic in St. Petersburg does not amount either in extent or mortality to what is popularly understood by "a plague." The *Times*, with its usual ignorance of the signification of Medical terms, falls into an amusing mistake when it remarks, in reference to the catalogue of symptoms given by the Minister, that "the 'bubocs' characteristic, but not distinctive, of plague, are not mentioned." Jupiter ought to get the aid of Esculapius before he writes articles on mortal ailments. The passage in the official document which tells of extensive phlegmons on the trunk and extremities, and of suppuration of the inguinal glands, often terminating in death, evidently failed to convey to the mind of the writer in the *Times* the faintest idea that such manifestations are identical with what our ancestors called "pestilential buboes." Of course, Medical men know that bubo is occasionally seen in typhus fever all over the world, and that this fact is one of the main arguments in support of the theory that plague is only an exaggerated form of typhus, but whenever the symptom does occur in fever it may always be accepted as evidencing a high degree of malignancy. In fact, the whole account given by the Russian Government fully warrants some measures of precaution in the case of sickly crews arriving from Russia, and we are very glad to see that the British Government have taken the initiative in the matter. Jupiter's satellite "S.G.O." sneers at such old-fashioned measures of precaution, and recommends that we should begin at once exterminating typhus by demolishing its nests. We yield to none in our appreciation of the value of sanitary improvements, but it is quite clear that it will take some time to pull down all the rookeries of London, and provide fresh homes for their inhabitants, even supposing that a grant for the purpose were obtained from Parliament; and meanwhile a few cases of malignant bubo-fever from St. Petersburg dropped here and there amongst the river-side population, or straggling up into St. Giles's or Drury-lane, would soon make a sensible difference in the Registrar-General's returns. By all means get rid of our typhus nests directly, if you can, but do not allow fresh foci of contagion to be planted whilst you are doing it. We subjoin an abridgment of the Russian Ambassador's statement, which was published on April 12. The questions to which it is an answer refer to the following heads:—

"1. *Nomenclature.*—The epidemic does not offer any new features of note, nothing unknown to science, no special form but the typhoid class with various known modifications; thus typhoid fever, petechial fever, bilious typhus fever (biliœses typhoïd of the Germans) *fièvre récurrente* (febris recurrens), *reeurrirendes fieber*, of the Germans; relapsing fever of the English. Typhus and typhoid fever prevail at St. Petersburg nearly every year in the autumn, and diminish towards the month of November—a period at which a great number of workmen leave the capital; towards the following months of March and April—the period of the return of the vagrant workmen to the capital—those fevers reappear, and always without offering any particularities unknown to Medical science. The typhus which is now committing ravages does not differ from the fevers of which we have just spoken, except by a greater extension and a greater intensity of the symptoms which characterise it; yet other maladies, appertaining to the same species of typhoid maladies, have shown themselves for the first time at St. Petersburg, and the number of cases returned has exceeded that of the typhoid fevers during the months of November and December, 1864, and January, February, and March of this year. They are bilious typhoid fever, and especially relapsing fever (*fièvre typhoide bilieuse*, and especially *fièvre réeurrente*).

"2. *History of the Epidemic.*—Although the relapsing fever (*fièvre réeurrente*) had never been observed at St. Petersburg, it has been previously observed in other localities. In 1840 that malady committed great ravages in Moscow, especially under a bilious form, and in 1857-58 at Novo-Archangelsk (Russian America), where it was studied by Dr. Govorlivoy, and last year it made its appearance at Odessa. At the present moment, while it prevails in the capital, it has also shown itself in various districts of the St. Petersburg radius (Novaïa-Ladoga, Gdow, Peterhof, and Tsarskoé-Selo), and on some points of the district of Novogorod, especially on the railway line, whither it seems to have been brought from the capital. But it is especially the petechial typhus which has committed ravages in this latter district, as also in the districts of Penza, Tauris, and Kharkow; in some other districts (Astrakhan, Vitebsk, Minsk, Volhynia, Vladimir, Kalouga, Kieu, Koursk, and Toula) the typhoid fever has attained but a slight development, and the returns do not show a high rate of mortality. With the exception of the epidemic of 1840 at Moscow, which was followed by the simple typhoid fever, in no part of Russia has the epidemic of the relapsing and bilious fever acquired any considerable development.

"3. *Contagion.*—The relapsing fever, simple and bilious (*la fièvre réeurrente, simple et bilieuse*), has shown itself to be contagious, like the general typhus. Some Doctors, Surgeons, attendants, and nurses have caught the malady in the Hospital wards; as yet but two cases of death are reported among the Doctors, and a few cases among the attendants and nurses. It is especially, as is the case with all epidemics, in the dwellings of the working men of the indigent classes that the contagion spreads, on account of the bad ventilation and the immediate contact with the clothing.

"4. *Causation, Symptomatology, and Treatment.*—The origin of this epidemic may be attributed to bad hygienic arrangements; to the consumption of vegetables which have been grown under unfavourable climatical conditions; to the immoderate use of spirits made from grain by the working and lower classes; to an unusual agglomeration of workmen in the capital towards last autumn, which occasioned a considerable crowding in their dwellings—a crowding very baneful to health, especially in the Russian climate. To these accidental causes there must still be added (and this is applicable to all epidemics) the frequent atmospheric variations, especially so common on the shores of the Gulf of Finland. The relapsing fever (*fièvre récurrente*), which made its first appearance towards the end of last August at the rate of five to six cases daily, progressed rapidly. In November there were already no less than 500 cases of disease in the town Hospitals;

towards the end of January and at the commencement of February the epidemic had reached its height, as many as 150 persons being taken to the Hospital in one day, and if we include the cases of ordinary typhus and other severe diseases the number arose to 250 and even 300 per diem. We must, however, observe that this last number does not give the exact number of the sick, as for many days during the time requisite for preparing temporary Hospitals numbers of sick had to remain in their own domiciles. During the last week the number of cases of relapsing fever (*fièvre récurrente*) has considerably diminished, and the petechial typhus, the typhoid fever—to which the relapsing fever often turns in its second paroxysm—takes the place of the relapsing fever. At the present moment the average total admission into the town Hospitals is from 100 to 150 per diem, including the petechial typhus, or typhoid fever, and other severe maladies. As regards the symptoms, the relapsing fever (*fièvre récurrente*) has shown itself under two forms—a simple form and a bilious form. Premonitory symptoms are always observed; the persons attacked have a shivering fit, sometimes two attacks at a short interval, sometimes a continuous attack. When the attack is over the patient is much prostrated; he complains of headache, thirst, sickness (*mal au cœur*), and want of appetite; vomiting occurs at times; the patient is generally constipated; the prostration then increases, and he suffers extreme pain in the extremities; however, these latter symptoms might not appear or might diminish in a short time; they are neither permanent nor constant. Generally speaking this period of incubation is not of long duration; often after twenty-four hours only the disease displays itself in most distinct characters. The face has an altered appearance, the lines are depressed, the colour of the face red with some and of a gray yellow with others; is sometimes icterical; the skin is hot and dry, the head heavy and burning. If a thermometer is placed under the armpit of the patient it marks 30 deg., 40 deg., and 41 deg. C., and this temperature is nearly the same all over the body. The tongue is generally moist, never quite dry; red at the edges and point, it is furred at its base. In the greater number of cases respiration is perfectly free, while in others the patient has a slight cough without much expectoration. The abdomen is not much swollen, yet it is sensitive to touch, especially under pressure of the left hypochondrium. The liver is much larger than in a natural state, as it often extends as far as the navel, and completely occupies the left hypochondrial region. The spleen is constantly enlarged. The invalid does not eat, and even shows disgust for every species of food, but he has intense thirst; the bowels are loose, and the motions do not show anything extraordinary,—they are rather liquid than solid; the urine, passed without difficulty, is slightly acid, at times albuminous. The patient, much prostrated, is taken with giddiness, and cannot stand upright. The pulse is weak and slow; from 100 pulsations it reaches 130, at the rate of 140 pulsations per minute. Delirium very seldom occurs. The state which we have just described lasts four, seven, and even ten days; the patient then begins to perspire copiously, and that perspiration, accompanied by a most marked diminution of all the symptoms, continues sometimes from twelve to thirty-six hours; but the prostration remains the same, and the twitches of the muscles continue unabated. This state continues for many days, when suddenly cold ensues, followed by shivering fits, and they are followed by all the symptoms above mentioned, and torment the patient for many days more. Yet, generally, this second attack is not so violent or so long as the first, and the patient enters into a state of convalescence. The convalescence is very slow. Very often the patient has one or two relapses, apparently less violent, but leaving him in a most prostrate condition. In some rare cases death occurs in the first paroxysm—that is to say, before the second attack of shivering, consequent upon a cerebral or pulmonary hæmorrhage, or from acute meningitis, or from paralysis of the heart (Dr. Hermann, Aboukhoff Hospital). Later, the patient dies either from inflammation of the lungs, or rather from a stasis in the lungs, or from an abscess in the spleen or loins, flux from the bowels, or hydropsy. At the workmen's Hospital extensive phlegmons of the trunk and extremities have been observed, with suppuration of the inguinal glands, often resulting in death. Recently (as already previously observed) the relapsing fever at its second paroxysm has turned into typhus or typhoid fever. The second form of the malady —bilious relapsing fever—*La fièvre récurrente bilieuse*, may arise from the first just described; however, it shows itself at once. From the first day the patient is in an icterical state, he vomits bile, and has fearful headache. He becomes delirious, and remains in a prostrate state. This very dangerous condition does not always end in death, but convalescence is always slow. The autopsy has always shown that the seat of the malady is in the organs of the abdomen, especially in the spleen and liver, which are always greatly enlarged and completely changed; sometimes the kidneys are also affected by this inflammation; a catarrhal affection of the mucous membrane of the stomach and bowels is also observable, which sometimes reaches the mucous membrane of the biliary channels, and which occasion icterical phenomena during life. Moreover, in complicated cases the results are found of inflammation of the lungs, of suppurative pericarditis and of hæmorrhage into the tissue of the spleen, even with the rupture of that organ. Men are more subject to the malady than women. The workmen who are addicted to drink have been chiefly victims to it. As yet no treatment suitable to every case has been discovered; the Physician who turns his attention to the fever and to the state of the abdominal organs succeeds best. Mineral acids (acid elixir of Haller) and chlorinated preparations are mostly preferred. Symptomatic and palliative treatment suited to local complications always find their indication; also laxatives, resin oil, calomel, warm applications, opium, etc., according to circumstances. Sulphate of quinine, recommended by some, has not always been attended with good results. But its usefulness was chiefly admitted as a palliative to relieve pain and as a strengthening remedy during the period of convalescence, where it has at times been used with preparations of iron, and a nutritious diet, especially when anæmia had to be met with in the convalescence.'

"5. *Spread.*—If we take 500,000 as the approximate number of inhabitants, we have as a maximum during some weeks only of February 300 cases daily of relapsing fever, typhus and other maladies included. We add:—The number of admissions to the Hospitals in the last months of 1864 showed upon the admissions of the corresponding months of 1864 an increase of 30 to 40 per cent.; in January, 1865, it was 50 per cent. above those of 1864, and the number of admissions of February, 1865, exceeded that of 1864 by 100 per cent.

"6. *Mortality.*—It is not to relapsing fever that the greatest number of cases of death must be attributed, but to petechial typhus and typhoid fever. Thus, at the commencement of the epidemic, the relapsing fever showed the proportion of (1·20) one death on 20 sick in the Hospitals; in its greatest development it gave (1·12 and 10) one death on 12, or 10 sick and even less in some Hospitals. The petechial typhus always showed much more unfavourable proportions (1·5 and 1·4), one death out of five, or even four sick in some Hospitals. Generally, the number of deaths during the last six months of 1864 and January, 1865, exceeded that of the corresponding month of 1863 by *circa* 2,000. The relative mortality in the Hospitals had also greatly increased, especially during the first months of 1865. If, therefore, we compare the month of January, 1864, with the month of January, 1865, we find:—For the first (1·17) one death on 17 sick, and for the second (1·11) one death on 11 sick, comprising all violent and chronic diseases. It is evident, then, that if we only include the relapsing fever and typhus the proportion would be still more unfavourable.

"7. *Daily Mortality.*—The daily mortality from epidemic maladies in the Hospitals from typhus and relapsing fever has not reached the maximum of more than 60 per diem, and the average has been 25 to 30 per diem."

The Pritchard Case.—A few days ago we were enabled to state that the report of the Medical men on the chemical analysis on the remains of Mrs. Taylor, conducted here, would be received in Glasgow at the end of the week, and would be of a tenour to show that the deceased lady did not die a natural death. The report was sent to Glasgow on Thursday, and we understand that it ascribes the death of Mrs. Taylor, in common with that of Mrs. Pritchard, to the effects of antimony.—*Scotsman.*

Pharmaceutical Society of Great Britain.—Names of candidates who passed the examination, April 12, as pharmaceutical chemists:—Alfred Berridge, Leicester; Edwin Bing, Cambridge; Thomas Farnsworth, Codnor; William Hogarth, Preston; William Jarvis, New Brighton; Richard Morgan, Newton; John Yeoman, Stockport.

GENERAL MEDICAL COUNCIL.

WEDNESDAY, APRIL 12.

(EIGHTH DAY.)

THE Council met at 2 o'clock.

With reference to the decision of the Council yesterday to erase from the Register the name of John Carter Barrett, in consequence of his conviction for felony at Castlebar, County Mayo,

Dr. ALDERSON said that, although Barrett had been convicted, he was not sentenced, but was merely required to appear for judgment when called upon. It seemed hard to strike his name off the Register, and thus take a more penal step than the magistrates who convicted him.

Dr. WOOD rose to order. He said the question could not be reopened. The Council had exercised a judicial function under the advice of their Solicitor. If they now took the matter up again it would appear to the public, and very naturally, that the Council acted without due consideration.

Mr. ARNOTT said he had before expressed his regret that there was no opportunity allowed to the Council to reconsider their decisions. This was a case in which the disadvantage of the absence of that opportunity was apparent.

Dr. CORRIGAN said that if Dr. Alderson thought the Council had taken a wrong step he could give notice of a motion to rescind the resolution of yesterday.

The Council then resolved itself into a General Committee on Education, the President in the chair. The consideration of the report of the Select Committee on Education was resumed.

Clause 7, section 3 (Professional study), was considered. It was "That the several licensing bodies be requested to furnish a short statement of the mode in which their examinations are now conducted, whether by written, oral, or practical examination, and of the length of time a candidate is under examination in each or all of these ways."

Dr. STOKES moved that the clause be omitted.

Mr. SYME seconded the motion.

Dr. PARKES said that, much as he respected the opinions of Dr. Stokes and Mr. Syme, he must differ from them in this instance. The clause had been submitted to the licensing bodies, and several of them had said that they should have no objection to furnish the information when called on. The power to get the information was conferred on the Council by Clause 18 of the Medical Act. They were authorised to supervise the examinations, but seven sessions had passed without any step being taken. The examinations could not be supervised unless the Council knew how they were conducted. If they did not obtain the knowledge in the manner proposed by the clause they would have to obtain it by personal visitation. He could conceive of no opposition being offered to the motion unless it was on the part of those who disagreed with the supervision altogether. He therefore moved, "That Clause 7 be adopted." By adopting it, the Branch Councils would be able to question the examiners as to the system they pursued.

Dr. WOOD seconded the amendment of Dr. Parkes. He said that no man agreed with the supervision of examinations more fully than Mr. Syme, and he (Dr. Wood) believed that Mr. Syme, on further consideration, would not persist in the motion which he had seconded. If there was one function of the Council more clearly marked than another, it was that of the supervision of examinations. There were disputes about some of the powers of the Council, but there could be none about this. It was desirable to obtain uniformity not merely in the curricula of the various educating bodies, but also in the system of examination, and he believed the Legislature intended that they should secure that uniformity, and be furnished with the powers necessary for the purpose.

Mr. SYME said that his only objection to the clause was that it appeared to him unnecessary.

Dr. APJOHN supported the amendment.

Dr. CORRIGAN said that he did not agree with the suggestion of Dr. Parkes that the Branch Councils should supervise the examinations. The task would be an invidious one, and the system would be impracticable. The proper and most efficient way of supervising examinations was to make them public. There would not then be a question and answer which any one present might not send to the public journals.

Dr. EMBLETON said the Council were not only authorised by the Medical Act to obtain information on the points mentioned in the clause, but they would be very much in fault if they did not obtain it. None of the bodies in Schedule (A) would refuse to give it. The necessity for it was shown by the result of some of the examinations last year.

Dr. STOKES said that Dr. Parkes' remarks seemed to convey that those who did not approve of the clause withheld their approval because they were opposed to supervision. He (Dr. Stokes) disavowed on behalf of himself and fellow-examiners any such objection to supervision. As to uniformity in examinations, he believed it would be impossible to obtain it.

Dr. PARKES said that the object of the clause was not necessarily to obtain uniformity in examinations, but to ascertain whether the examinations were efficient. Uniformity might come afterwards.

The amendment was carried.

The Council then proceeded to Section 4 of the report—(Examinations).

Mr. SYME moved—"That Clause 1 be adopted." It was —"That the licensing boards be advised to encourage the periodical examination of students at their several classes."

Dr. WOOD seconded the motion.

Dr. PAGET thought that it dealt with a matter of detail, on which it was unadvisable for the Council to legislate.

Dr. WOOD said that this was not a matter of mere trivial detail, but an important and fundamental point. When he was a student at college, the only means of information with which he was privileged was the listening to lectures for about five days in the week. There were no measures taken to test whether the students understood the lectures. The consequence was that students neglected their studies until almost the end of their course, when they had to go through a tremendous course of cramming. The resolution would inflict no hardship upon the student, but, on the contrary, it would be a great boon. It would ensure his proper attention to his course, and thus save the tremendous effort which had to be made by negligent students as the examination approached.

Dr. AQUILLA SMITH said that the system of class examinations was adopted with benefit in some instances, but he believed that if the resolution were passed, the teachers would regard it as an undue interference with their system of instruction.

Dr. SHARPEY said he did not think there was much difference of opinion in the Council on the subject of the resolution. It did not propose to make the class examinations compulsory, but he believed that the sanction of the Council would have the effect of encouraging the teachers in pursuing the practice of periodical examinations in their classes.

Mr. COOPER said that the question was one for the teachers, and not for the licensing bodies.

Dr. PAGET said that he believed the competition among the many eminent teachers would be a sufficient guarantee that they would teach in the best possible way.

Dr. CORRIGAN opposed the motion. He said the licensing bodies were not teaching bodies, and they had no machinery for encouraging class examinations. There was only one efficient test by which a man could be properly admitted into the Profession, and that was a practical examination at the end of four years.

The PRESIDENT said that he considered the question one of detail, although it was a very important one. The Council had fixed on certain cardinal principles with reference to registration and education, and he entreated them not to occupy themselves with details which would delay more important business. Let them be true to the principles on which they had agreed, and they would then accomplish a large amount of good.

Dr. PAGET moved as an amendment, "That, while acknowledging the great educational value of the periodical class examination of students, the Council decline to issue advice or instruction on the subject."

Dr. THOMSON seconded the amendment. He thought that the Council, although they might approve strongly of class examinations, should decline to issue any regulation with reference to them.

Mr. SYME said he thought possibly that the amendment might have the effect of discouraging the class examinations.

The amendment was submitted to the meeting and negatived.

The original motion for the adoption of the clause was also negatived.

Dr. WOOD requested that the names should be taken.

The division was,—

For—Dr. Embleton, Dr. Andrew Wood, Dr. Fleming, Mr. Syme, Dr. Sharpey, Dr. Parkes, and Dr. Christison.

*

Against—Dr. Alderson, Mr. Arnott, Mr. Cooper, Dr. Acland, Dr. Paget, Dr. Thomson, Dr. A. Smith, Mr. Hargrave, Dr. Leet, Dr. Apjohn, Dr. Corrigan, and Dr. Stokes.

Did not vote—The President, Dr. Storrar, and Dr. Quain.

Absent—Mr. Rumsey.

Clause 2 was then considered. It was:—"That the final examinations of the Licensing Boards be so carried on as to be an efficient test of the practical acquaintance of candidates with the several branches of Medical knowledge, and especially with the practice of Medicine and Surgery."

Dr. Hargrave moved that the second clause be omitted.

Dr. Storrar seconded the motion. He said he considered the clause quite unnecessary, and that it would have no effect on the examiners.

Mr. Syme said he thought it an absurdity to expect that young men just entering on Professional practice would be sufficiently advanced to undergo a practical examination.

Dr. Wood said that he did not agree with Mr. Syme's opinion. It ought to be the object of an examination to test the candidate's practical skill. If the tests applied were to be worth anything, they ought to be directed to ascertaining that the young man was fit to go into practice. The necessity for a practical examination was shown by Dr. Parkes last year, when he stated that there was a great degree of laxity on the subject. He moved as an amendment that the clause be retained.

Dr. Parkes seconded the amendment.

On being put, the amendment was negatived.

The original motion was then carried.

Dr. Wood moved for the names of the division on the omission of the clause.

For—Dr. Acland, Dr. Embleton, Dr. Storrar, Mr. Syme, Dr. Thomson, Dr. A. Smith, Mr. Hargrave, Dr. Leet, Dr. Apjohn, Dr. Corrigan, Dr. Sharpey, and Dr. Stokes.

Against—Dr. Alderson, Mr. Arnott, Mr. Cooper, Dr. Paget, Dr. Andrew Wood, Dr. Fleming, and Dr. Parkes.

Not voting—The President, Dr. Quain, and Dr. Christison.

Absent—Mr. Rumsey.

Clause 3 was then read. It was as follows:—"That the Professional examination for any license be divided into two parts; the first embracing the primary or fundamental branches of Medicine; and the second the branches directly connected with the practice of Medicine and Surgery; that the former be not undergone till after the close of the Winter Session of the second year of Professional study, and the latter, or final examination, not till after the close of the Winter Session of the fourth year of such study."

Mr. Hargrave moved—"That as the Council has decided the important questions of registration, age for licence to practise and Professional study, the remaining recommendations on education be postponed to the next session."

This motion was not seconded.

Dr. Storrar proposed "That Clause No. 3 be adopted down to the word 'Surgery.'"

Dr. Aquilla Smith said he would second the motion with much pleasure, as he knew it to be consistent with what was practised in the schools of Ireland.

Dr. Fleming moved, as an amendment, "That the Professional examination for any licence be divided into two parts; the first embracing the primary or fundamental branches of Medicine; and the second the branches directly connected with the practice of Medicine and Surgery; that the former be not undergone till after the close of the Winter Session of the second year of Professional study, and the latter, or final examination, not till after the close of the prescribed period of Professional study."

Dr. Paget seconded the amendment. He said that the clause as altered by Dr. Storrar would allow the two examinations to take place in immediate succession. That was an evil which should be avoided.

Dr. Storrar, by permission of the Council, withdrew his motion.

Dr. Fleming's amendment then became the substantive motion.

Dr. Corrigan moved, as an amendment, "That Clause 3 stand with the addition of the words 'That, with the view of promoting the adequacy of Professional examinations, the final *vivâ voce* examination be public so far as admitting graduates or licentiates of the examining body.'" He said that they could not expect by the present mode of examining to ensure young men being proficient Practitioners. It was, however, the duty of the Council to attain that end if possible, and it should be their care to ensure that those to whom the lives of the community were to be entrusted should possess the requisite amount of knowledge to warrant them in being safely trusted. It was a fact that in Scotland the examinations were private, for some reason best known to the Scotch licensing bodies themselves. It had been urged that the diffidence of Scotchmen about appearing before the public was a reason why the examinations should be private. A large number of Irish students, however, for some reason went to Scotland to be examined. Therefore the objection would not apply as far as they were concerned. [A voice: "Only two went last year."] Then if that were so, he (Dr. Corrigan) never felt more proud of his country than when he heard that only two Irish candidates went to Scotland for examination last year. (Laughter.)

Clause 4 was "That the examination in Chemistry, Botany, and Natural History may be undergone at an earlier period."

Dr. Storrar proposed the adoption of the clause with the addition of the words "than the Professional examination."

Dr. Sharpey seconded the motion.

Dr. Acland said that he should like to see physics introduced.

Dr. Storrar explained that it was proposed to include physics in the preliminary examination. He should prefer it being included in the preliminary examination.

Dr. Apjohn moved, as an amendment, the examination in chemistry should be omitted. It was a subject which required a lengthened period of study.

The amendment was not seconded.

Dr. Acland moved, "That in the clause, as altered by Dr. Storrar, the word 'physics' should be added."

Dr. Storrar agreed to allow his resolution to be altered to meet the proposal of Dr. Acland, and

Dr. Acland withdrew his amendment.

Dr. Wood moved that chemistry should be omitted. It would be a very serious disadvantage to a student if he were to be encouraged in the notion that chemistry was a preliminary subject which might be omitted. It was not a preliminary, but a complemental subject to Medicine, and the student's acquaintance with it should be tested at the latest period. The amendment would read, "That the examination in Physics, Botany, and Natural History may be undergone at an earlier period than the first Professional examination."

Dr. Apjohn seconded the amendment. He did not think a student could pass a respectable examination in those important branches of chemistry which were connected with Medical science until after the second year of his Professional course.

Dr. Paget remarked that if students did not commence the study of chemistry until they became Medical students Dr. Wood's amendment would be important, but the fact was that chemistry was becoming a subject of general study, and youths were often fit for examination in it at an early age.

Dr. Thomson said that there was a large branch of chemistry which did not affect the science of Medicine, and teachers had often found a great difficulty in embracing the whole subject in the period allowed for its study. He believed that it would be an advantage if the examination in elementary chemistry took place at the earlier period. He saw no objection to the examination on applied chemistry taking place afterwards. Physiology was a subject in which two examinations took place.

Dr. Acland said that there were many youths who, before the commencement of their Professional course, obtained a larger amount of chemical knowledge than the average of Medical Practitioners possessed; and it would be a positive hardship to debar them from choosing the time at which they should be examined in that science. The clause was a permissive one, which should not be omitted.

Dr. Wood said that there might be a considerable amount of chemical knowledge possessed by a youth, although when he came to study the science in the applied form in which it should be studied by Medical men there would be many difficulties to be mastered.

The amendment for the omission of chemistry was then put and carried. It then became a substantive motion, in the following form:—"That the examination in Physics, Botany, and Natural History may be undergone at an earlier period than the first Professional examination."

Dr. Thomson moved as an amendment that the words "elementary chemistry" be added.

Dr. Paget seconded the amendment. He said he believed that if the Council imposed on the student the necessity of waiting till the end of the second year for his examination in

elementary chemistry it would be one of the greatest discouragements to the study of the science which could be imagined.

The amendment was negatived.

The substantive motion was then put and carried *nem. con.*

Dr. Wood, at this stage, moved that the Council resume. He said there were some very important reports which it was imperative to consider.

The motion was seconded by Dr. Embleton, and carried unanimously.

The Report of the Committee on General Education was read by the Registrar.

The report was received and ordered for entry on the Minutes.

The Report of the Committee on the Amendment of the Medical Act of 1858 was submitted by Dr. Wood, together with the draft of a proposed bill to be introduced into Parliament for the amendment of the Act. The Report also embraced a memorial to the Home Secretary, calling his attention to the provisions of the Amendment Bill, and requesting him to introduce it into Parliament.

Dr. Wood moved the adoption of the Report, and its entry on the minutes.

The motion was seconded and agreed to.

Dr. Wood stated that Mr. Waddington, of the Home Office, had intimated that the deputation could be received on Saturday, at one o'clock.

The Council re-resolved itself into a General Committee on Education.

Dr. Storrar moved the adoption of Clause 5, Section 4, of the Report of the Select Committee. It was—"That the Professional examinations be conducted both in writing and orally; and that they be practical in all branches in which they admit of being so."

Dr. Sharpey seconded the motion.

Dr. Corrigan moved the omission of the words "conducted both in writing and orally." His experience was not in favour of written examinations. He also proposed to add some words to the clause, making it read as follows:—"That the Professional examinations be practical in all branches in which they admit of being so; and that with the view of promoting the adequacy of Professional examinations the final *vivâ voce* examination be public so far as admitting graduates or Licentiates of the examining body."

Dr. Parkes said he believed that the nervousness to which some candidates were subject was very disadvantageous to oral examinations. He was aware that many important bodies conducted their examinations in that way; but he believed the students were placed at a disadvantage, while they would be able to undergo a written examination with great credit.

Mr. Arnott said he believed that oral examinations were the most efficient.

Dr. Corrigan withdrew that part of his amendment which proposed the omission of the words "conducted both in writing and orally."

Dr. Christison quoted statistics to show that the results of examinations in private and examinations in public by the Army Board were very nearly the same. There was a very small difference between the percentages of rejected candidates in both cases.

Dr. Corrigan said that there was a fallacy at the bottom of the army return. It might be that the lowest examining body might return the largest number of successful candidates, because their examination might cost less than that of higher bodies. The body which supplied most successful candidates to the Army Board rejected only 8 per cent. of its candidates. Young men who wanted admission to the army office would be likely to get their diploma where they could have it cheapest.

Dr. Paget said that the candidates who presented themselves to the Army Board did not present a fair average of Medical men, because the army was an unpopular sphere of service.

Dr. Wood said that the price of a diploma was not the test of the value of an examination. The proper test was the amount of previous education required by the body granting it.

The amendment was negatived, and the original motion was carried.

Clause 6 was then read. It was—"That the Professional examinations be held by the several licensing bodies, except in special cases, at stated periods, to be publicly notified."

Dr. Storrar moved its adoption.

Dr. Parkes seconded the motion, and it was unanimously agreed to.

Clause 7 was then read. It was as follows:—"That returns from the licensing bodies in Schedule (A) be made annually, on the 1st of January, and in the subjoined form, to the General Medical Council, stating the number and names of the candidates who have passed their first as well as their second examinations, and the number of those who have been rejected at the first and second examinations respectively; and that the Registrar forward a sufficient number of forms with a notice for their being returned in due time."

Form of Return of Examinations, and their Results.

Passed.				Rejected.	
1st Examination.		2nd Examination.		1st Examination.	2nd Examination.
No.	Name.	No.	Name.	No.	No.

Dr. Storrar moved that Clause 7 be adopted.

The motion was seconded by Dr. Sharpey, and carried unanimously.

It was resolved that the Council resume.

The proceedings then terminated.

THURSDAY, APRIL 13.

(NINTH DAY.)

The minutes of the last meeting were read and confirmed.

Dr. Andrew Wood moved that the Report of the Committee on the Amendment Acts be adopted. He said that though the Report appeared a long one, the Council had really decided on the gist of it. The Committee considered with the greatest care the subjects which were remitted to them for consideration. As to the qualifications which should be possessed by Medical men to entitle them to registration, the Report of the Committee stated:—"In reference to the amending of Sections xv. and xxxi., with the view of securing that all persons to be placed on the Register should have been duly educated, tested, and qualified in all branches of the Profession, whether Medical or Surgical, the Committee are of opinion that it is highly desirable that every Medical Practitioner should have a complete or double qualification. They see difficulties, however, in the way, for the present, of framing compulsory clauses which would secure that important object. They would, however, point out that by Section xix. of the Medical Act, which is a permissory section, powers have been provided by which any two or more of the licensing bodies may unite and co-operate in conducting examinations required for qualifications to be registered under the Act. Were this course carried out in London and in Dublin, as it has already been successfully carried out in Scotland, the Committee believe that in this way, without the necessity of compulsory legislation, the great object would be effected of combining and concentrating the licensing bodies, to the relief of the student, and the advantage of the Profession and the public." He was of opinion that all licensed Practitioners should be educated, tested, and qualified in all branches of the Profession, but there were many obstacles in the way of introducing any compulsory legislation on the subject. The object, however, could be attained by the co-operation between the different licensing bodies referred to in Clause 19 of the Act. With regard to the visitation of examinations, the Committee did not consider any change necessary. Section 18 of the Act provided that—"The several colleges and bodies in United Kingdom, mentioned in Schedule (A) to this Act, shall, from time to time, when required by the General Council, furnish such Council with such information as they may require, as to the courses of study and examinations to be gone through in order to obtain the respective qualifications mentioned in Schedule (A) to this Act, and the ages at which such courses of study and examination are required to be gone through, and such qualifications are conferred, and, generally, as to the requisites for obtaining such qualifications; and any member or members of the General Council, or any person or persons deputed for this purpose by such Council, or by any Branch Council, may attend and be present at such examinations." It had been proposed to amend the section

by adding to it a clause to the following effect:—"And may also inspect the written answers of the candidates, and report concerning the examinations and answers to the General Council; and to the persons deputed by the General Council as aforesaid, in such number as may be determined by the General Council, with the approval of one of Her Majesty's principal secretaries of state, there shall be paid such fees for services and such reasonable travelling expenses as shall from time to time be allowed by the General Council and approved by the Commissioners of Her Majesty's treasury; and the said payments shall be made out of the residue of the monies annually received for carrying this Act into execution, after defraying the expenses of the General Council and the Branch Councils, and, if necessary, out of further monies to be provided for the said purpose by vote of Parliament." On this subject the Report stated that the Committee did not consider this amendment either necessary or expedient. The Branch Councils had the power under the Act as at present to visit the examinations of the licensing bodies, or to depute any person or persons to do so; they had also the power, as the Committee were advised by Mr. Ouvry, to remunerate the visitors of the examinations from the funds contributed under the Act. The Committee considered that it would be inexpedient to go to Parliament to ask a supplementary money grant for the purpose. They trusted that ere long the expense of the meetings of the Council would be diminished, and that there would be sufficient funds to meet the expenses of visitation in any form that might be deemed necessary. With reference to increasing the penalties under the Act, the Committee believed that if the clause proposed in lieu of Section 40 proved effective, the present power and penalties would be found adequate. They did not approve of the registration of Licentiates in Dental Surgery, the consideration of which had been referred to them in consequence of the memorial addressed to the Council by the Dental-Surgeons. The Committee were of opinion that such registration would place another difficulty in the way of the public distinguishing Practitioners in specialties from fully qualified Practitioners. He (Dr. Wood) did not approve of the registration of special Practitioners, and he should like to see the Licentiates in Midwifery expunged from the Register. It had been said that Licentiates in Dental-Surgery might be put in a separate list in the Register. That suggestion seemed possible, but he would suggest to the Dental-Surgeons that they might obtain an Act of Parliament for themselves, and keep a distinct register. Perhaps that plan might be worthy of their adoption. The alteration in Clause 40 was a very important one. That part of the Act had altogether failed. It had been ruled in the courts of law that no person was liable to the penalty of that Section who did not falsely pretend to be registered under the Act when, in fact, he was not so registered. At present unqualified persons might adopt any Medical title with impunity, and the Section was inoperative. The alteration proposed in the draft bill would make it penal for unqualified persons to assume any Medical title whatever.

Dr. Embleton seconded the motion.

Dr. Corrigan moved "That the consideration of the Report on the proposed amendment of the Medical Act be postponed to the next meeting of this Council, inasmuch as a resolution of this Council of May 4, 1864, directed the attention of the Branch Councils only to clauses 20, 31, and 40, while in the amended bill now proposed for adoption amendments are introduced which have never previously come under the consideration of this Council, and no opportunity is afforded to the several licensing bodies to take those amendments into consideration. ("Oh, oh.") He said his resolution had been met with cries of "oh, oh," which, he supposed, arose from a belief that it would be possible to carry the bill during this sitting of Parliament. He believed that it would be quite impossible to carry it, because it contained amendments which the licensing bodies had never had submitted to them. The consequence would be that, as soon as the bill was introduced, the objecting licensing bodies would send representations to Sir George Grey, any one of which representations would be sufficient to stop the bill from passing during this session. He moved a resolution last year to the effect that it was inexpedient at so late a period of the session to go into the consideration of the amendment of the Act.

Dr. Wood moved, as an amendment, that the Council should fix an early day for the consideration of the subject during its next session.

That amendment was carried, and there was an understanding that the Council should meet this year previous to the commencement of the session of Parliament, in order that there might be an opportunity to submit the proposed alterations to the different licensing bodies before a bill was introduced.

The President said that there was no understanding that the Council should meet before the Parliamentary session commenced. He, as President, was responsible for the time of meeting, and he wished such an impression to be corrected. If such an understanding had taken place he should certainly have acted on it.

Dr. Corrigan said that some of the new clauses proposed in the draft bill drawn up by the Amendment Committee had never come before the Profession or the Council until the present time. He had always been an advocate for the amendment of the whole Act, but the Branch Councils were requested by the General Council last year to confine their attention to the amendment of sections 20, 31, and 40 of the Act. He was satisfied that many of the licensing bodies would strongly object to some of the amendments proposed by the Committee, and of which they had had no notice.

Dr. Aquilla Smith seconded the amendment.

The amendment was put to the vote. There were for it 3, and against it 13.

Dr. Quain moved "That the report of the Committee on the Amendment of the Medical Acts be considered clause by clause, except such clauses as have been already decided on by the Council."

Dr. Apjohn seconded the amendment.

The amendment was carried unanimously.

Dr. Wood moved the adoption of the preamble of the Amendment Bill, which was as follows:—"Whereas the Medical Act, 1858, has been found ineffectual to enable persons requiring Medical aid to ascertain who are qualified Practitioners, and it is desirable to amend the said Act in several respects, be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords spiritual and temporal and Commons in the present Parliament assembled, and by the authority of the same, as follows."

The motion was seconded and carried.

Dr. Wood moved that Clauses 1 and 2 of the Bill be adopted as follows:—"1. This Act may for all purposes be cited as 'The Medical Act Amendment Act, 1865.' 2. This Act shall take effect from the passing thereof."

Mr. Hargrave seconded the motion, and it was carried.

Dr. Wood moved the adoption of Clause No. 3:—"The following sections of the Medical Act, 1858, shall be and the same are hereby repealed—viz., Section 14 and Section 40; but without prejudice to any proceedings which may be pending under such section or any of them."

Dr. Parkes seconded the motion.

The motion was carried unanimously.

Dr. Wood moved the adoption of Clause 4, which was:—"It shall be the duty of the Registrars to keep their respective registers correct, in accordance with the provisions of this Act, and the orders and regulations of the General Council, and to erase the names of all registered persons who shall have died, or who, having ceased to practise, shall desire to have their names removed from the register, and from time to time to register all alterations in the addresses or qualifications of the persons registered under the Medical Act, 1858. The Registrars, in these respects, may act upon such evidence as may appear to them sufficient, subject to any rules or regulations which the General Council may make thereon. And for the purposes aforesaid, the Registrar may write a letter to any registered Medical Practitioner, addressed to him according to his registered address, to inquire whether he has ceased to practise or has changed his residence; and if the answer to such letter be that the person has ceased to practise and desires his name to be removed from the register, or if no answer be returned to such letter within the period of six months from the sending of the letter, it shall be lawful to erase the name of such person from the register. Provided always that any name which may be erased by the Registrars may be restored by the direction of the General Council. No person whose name has been erased from the register by order of the General Council or any Branch Council shall be re-registered, either on the original or any new qualification, except by the direction of the General Council or Branch Council, as the case may be."

Dr. Embleton seconded the resolution.

The President said that he thought the proposal to remove a name from the Register in case of no answer being returned

to the inquiry letter within six months a very arbitrary regulation. There were many circumstances which might lead to the loss of a letter, and it was desirable to make provision for that risk.

It was resolved to adopt the clause, with an alteration to secure the sending of two letters in the six months.

Clause 5, which had been previously adopted by the Council, was as follows:—"Any person practising Medicine or Surgery, or being engaged in the treatment of diseases or injuries, not being registered under this Act, who shall take or make use of any of the titles or designations enumerated in Schedule (A) to this Act, or that of Physician, Surgeon, Doctor, Professor of Medicine, Professor of Surgery, or any other title, name, or designation used by, or used to distinguish, duly qualified Practitioners in Medicine or Surgery, shall, upon a summary conviction, be liable to a penalty not exceeding £20 for each offence."

Dr. Wood moved the adoption of Clause 6, which was,—"That the words 'qualified to be' in the seventh section of the Medical Act, 1858, shall be, and the same are hereby repealed."

Dr. Wood said he would agree to withdraw Clause 7, which was,—"It shall, notwithstanding anything in the Medical Act, 1858, contained, be lawful for Her Majesty, by Charter, to grant to the Royal College of Surgeons of Edinburgh, the Royal College of Surgeons in Ireland, and the Faculty of Physicians and Surgeons of Glasgow, or any or either of them power to institute and hold examinations for the purpose of testing the fitness of persons to practise as Dentists who may be desirous of being so examined, and to grant certificates of such fitness."

Dr. Parkes seconded the omission of the clause.

The resolution was carried unanimously.

Dr. Wood moved, and Dr. Parkes seconded, the adoption of the first portion of the report down to, and inclusive of, the remarks with reference to section 40 of the Act.

The motion was agreed to.

On the motion of Dr. Wood, seconded by Dr. Apjohn, it was resolved that that portion of the report relating to section 48 be not adopted.

Dr. Wood moved that the remaining portion of the report be adopted.

Dr. Parkes seconded the motion.

Mr. Arnott moved as an amendment that that portion of the report relating to the registration of Dental Surgeons should be altered so as to provide for their enrolment in a separate list in the Medical Register. He thought that preferable to letting them go to Parliament for a distinct Act and a Register of their own. They ought to be under the regulations of the General Council.

Dr. Wood said he must oppose the amendment. The proposition to register Licentiates in Dental Surgery would complicate the Medical Act with a subject with which it was undesirable to encumber it.

Mr. Arnott's motion was not seconded.

Dr. Apjohn moved the omission of the paragraph relating to sections 15, 19, and 31.

Dr. Leet seconded the amendment, and on being submitted to the meeting it was negatived.

Dr. Quain moved, and Dr. Alderson seconded, the omission from the paragraph of the reference to Clause 19.

The amendment was put, and passed.

On its becoming a substantive motion,

Dr. Wood moved, as an amendment, "That the paragraph be adopted down to the words 'under the Act,'—namely:—'In reference to the amending of sections 15 and 31, with the view of securing that all persons to be placed on the register should have been duly educated, tested, and qualified in all branches of the Profession, whether Medical or Surgical, the committee are of opinion that it is highly desirable that every Medical Practitioner should have a complete or double qualification. They see difficulties, however, in the way, for the present, of framing compulsory clauses which would secure that important object. They would, however, point out that by section 19 of the Medical Act, which is a permissory section, powers have been provided by which any two or more of the Licensing Bodies may unite and co-operate in conducting examinations required for qualifications to be registered under the Act.'"

The motion was seconded and carried.

Dr. Quain moved that the following words of the paragraph be not adopted:—"Were this course carried out in London and in Dublin, as it has already been successfully carried out in Scotland, the Committee believe that in this way, without the necessity of compulsary legislation, the great object would be effected of combining and concentrating the Licensing Bodies, to the relief of the student, and the advantage of the Profession and the public."

Dr. Christison seconded the motion, and it was carried unanimously.

Dr. Wood moved the adoption of those portions of the report relating to Sections 18 and 40.

Dr. Embleton seconded the motion, and it was carried unanimously.

Mr. Arnott moved that the clause of the Report relating to the registration of Dental Surgeons be adopted in the following amended form:—"4. In regard to the question of the registration of Licentiates in Dental Surgery, the Committee having given that consideration to the memorial of the Dental-Surgeons to which it is justly entitled, are of opinion that it is inexpedient to place upon the *Medical Register* Dental Practitioners not otherwise qualified, holding as they do that that would constitute a further obstacle, in addition to those at present existing, to the securing that all persons whose names shall be inserted in the *Medical Register* shall be fully qualified to practise all branches of their Profession."

The motion was seconded and carried.

Dr. Corrigan, according to notice, moved—"That it would be advisable to have a clause inserted in the amended Bill, or in any Pharmacy Bill introduced by the Legislature, rendering it imperative on the apothecaries and compounding chemists of the United Kingdom to follow, in compounding prescriptions, the formularies of the British Pharmacopœia, unless otherwise specially directed by the prescriber, inasmuch as compounding indifferently from the formularies of four different Pharmacopœias is dangerous to the lives of the community." He said his reason for moving the resolution was, that before the publication of the British Pharmacopœia there were an English and an Irish Pharmacopœia both under the sanction of Acts of Parliament, and a Scotch Pharmacopœia not under Act of Parliament. When the British Pharmacopœia was published, the College of Physicians of Ireland decided that they would no longer take the supervision of chemists' shops. There were now four different Pharmacopœias from which medicines were compounded, and the question of compounding was in a very unsettled state. He had himself, as a prescriber, been the subject of some terror lest injury might result from the medicines being compounded from the wrong formula. In some instances, what was a minimum dose according to one Pharmacopœia was poison according to another. That was the case with tincture of aconite, five drops of which were a minimum dose under the British Pharmacopœia, while that quantity was a poison, or very nearly so, under the Irish formula. If death resulted through an error arising from such discrepancy, the fault would be traced up to its source, and the Council ought to be able to lay their hands on such a resolution as he had proposed to show that the crime did not rest with them.

Dr. Apjohn seconded the motion.

Dr. Leet said he agreed with the proposal.

Dr. Sharpey supported the proposal. He said that from inquiries he had made he had found that there had not been 1000 copies of the British Pharmacopœia sold in Ireland.

Dr. Christison said that he did not consider that the motion was necessary as far as Scotland was concerned. The practice there was to use the British Pharmacopœia. That was gradually displacing the others, and young men were now trained to its use.

Dr. Quain said that one effect of such an enactment as that proposed might be to poison persons by Act of Parliament, and a chemist might be compelled to put up what he knew to be a poisonous dose.

Mr. Cooper said that as far as his observation went the British Pharmacopœia was working its way, and that prescriptions were now dispensed from it unless there was a note to the effect that one of the other Pharmacopœias was to be used.

Dr. Corrigan said that his own personal experience was that the British Pharmacopœia was seldom used. He merely wished to call the attention of the Secretary of State to the subject in order that some legislation might take place on the subject.

The resolution was carried unanimously.

On the motion of Dr. Corrigan, it was resolved—"That a copy of the clause be forwarded to the Home Secretary."

Dr. Wood moved—"That the memorial contained in the Report of the Medical Acts Amendment Committee be

addressed to the Home Secretary by the President without delay."

Dr. Acland seconded the motion, and it was unanimously agreed to.

The following is a copy of the memorial :—

"General Medical Council, 13th April, 1865.

"Sir,—I am requested by the General Medical Council respectfully to solicit your attention to certain points on which it has been found, by experience, that the working of the Medical Act, 1858, has not been satisfactory, and to ask you to introduce a Bill in the present Session for the amendment of that Act.

"In order to place the matter before you in a practical form, the Council has caused the draft of a Bill to amend the Medical Act to be prepared, and such draft is transmitted herewith.

"The only amendment to which I need direct your special attention as involving an important change is that which affects the 40th section of the Act of 1858. It has been found, in practice, almost impossible to establish the false pretence, which is the offence punishable under that section, and accordingly ignorant pretenders, possessing no legal qualification to practise, and, assuming falsely Medical and Surgical titles, with impunity deceive the public, prey upon their credulity, and endanger their lives.

"The most effectual remedy for this state of things would be the absolute prohibition of practice by persons not possessing the qualifications mentioned in the Act of 1858; but as the Council considers that there might be difficulty in inducing Parliament to adopt so stringent a rule, the Council has framed a clause which it is hoped may meet the evil which the present existing Act has been found inadequate to suppress.

"The other suggested amendments do not require separate remark, but I am to ask that you will be good enough to receive a deputation from the Council, when the reasons on which the proposed amendments rest will be fully stated to you.

"As it is earnestly wished that the proposed Act should pass this Session, I am to urge that you will be pleased to appoint a time for receiving the proposed deputation at your earliest convenience.

"I have the honour to be, Sir,

"Your most obedient servant,

"George Burrows, M.D., President.

"The Right Hon. Sir Geo. Grey, Bart., G.C.B., M.P.,
Secretary of State for the Home Department."

Dr. Stokes moved, "That the report of the Committee on the Medical and Surgical Practice of Chemists and Druggists and the Pharmacy Bills be taken as read and entered on the minutes."

Dr. Wood moved, "That the report of the Medical Acts Amendment Committee, as now adjusted by the Council, be printed and inserted on the minutes."

Dr. Fleming seconded the motion.

Dr. Storrar said he had a notice of motion on the paper relative to allowing persons holding the degree of Bachelor of Surgery from any University of Great Britain to be registered for practice. He was anxious that the draft bill should not be forwarded until that matter was settled.

After some discussion, Dr. Storrar gave notice that he would bring on his motion at 2 o'clock on Saturday.

The resolution was carried unanimously.

It was moved by Dr. Sharpey, seconded by Dr. Aquilla Smith, and resolved, "That the report of the Finance Committee be received."

Dr. Embleton moved, "That a Committee be appointed to arrange and digest the recommendations as to education and examination agreed to during the past and present sessions by the Committee on Education."

The motion was seconded, and carried unanimously.

Dr. Quain moved, "That the following form a deputation to wait on the Secretary of State on Saturday to call his attention to the Bill for the Amendment of the Medical Act :—The President, Dr. Wood, Dr. Stokes, and Mr. Arnott."

Mr. Hargrave seconded the motion, and it was agreed to.

The Council then adjourned to Saturday.

SATURDAY, APRIL 15.

(tenth day.)

The Council re-assembled at the usual time.

The minutes of Thursday's meeting were read and confirmed.

The President said he thought the Council would be glad to know what took place with regard to the deputation in the morning. The deputation appointed, accompanied by the Registrar and the Solicitor, waited upon Mr. Waddington, the Under-Secretary of State for the Home Department, and had an interview with him. They had the satisfaction of finding that Mr. Waddington had given his close attention to the report of the Committee on the Amendment of the Medical Act, and was prepared to enter into the subject. They had the opportunity of explaining to him each particular change contemplated, and the result of the interview was most satisfactory. Mr. Waddington assured them that he would take the earliest opportunity of sending to Sir George Grey, who was out of town, a report of the deputation and the letter addressed to him by the President at the instance of the Council. On the whole, the deputation were very much satisfied and gratified with their interview with Mr. Waddington.

Dr. Storrar moved—"That Section 10 of Schedule (A) of the Medical Act be amended by the introduction of the words 'or Bachelor,' after the word 'Master,' in the first line." He said that the University of London had been desirous of putting Surgery on the same footing as Medicine, and had therefore established the degree of "Bachelor of Surgery" to correspond with "Bachelor of Medicine." He now asked the Council to give their sanction to the degree of Bachelor of Surgery. He believed the science of Surgery would have cause to regret the absence of such an academic distinction in Surgery. He could not conceive what reason could be urged against the sanction being given to this degree in Surgery, to give it an equivalency with the corresponding degree in Medicine.

Mr. Syme seconded the motion.

Mr. Arnott objected to the proposal. He said that the University of London was a great and very valuable machine for granting degrees, but it did not teach. The examinations were conducted by quite an independent body of examiners, who had had nothing to do with the teaching; but in Edinburgh, for instance, the examinations were conducted by the teachers themselves, and therefore the proposal would act unfairly to the great institutions of the metropolis, and of Oxford and Cambridge, where the examinations were not conducted by the teachers. The teachers in the Scotch schools would be able to confer the double qualification on their own pupils, and the clause would thus act detrimentally to such institutions as the University of London.

Mr. Hargrave said that the education at the University of London was a superficial one. He should therefore move as an amendment—"That the education of Bachelor of Surgery appears to this Council not sufficient to constitute a good Practitioner of Surgery, and consequently that degree should not be placed in the Register as a legal qualification to practise Surgery."

This amendment was not seconded.

Dr. Quain said that the University of London gave as rigid an examination as any institution in the Kingdom. That University had a perfect right by its Charter to grant the degree of Bachelor of Surgery, and all that was now asked was that they might be able to register it as a qualification to practise.

Dr. Wood said that the motion would apply to any University in the Kingdom which had the power of making a Bachelor of Surgery.

Dr. Quain said that the intention was that the Bachelor of Medicine might take the degree of Bachelor of Surgery. He believed the legalising the degree as a qualification to practise was a step which would produce general Practitioners of the highest class. If the amendment proposed were not made in the Medical Act, the University of London would be compelled to go to Parliament to legalise the degree of Bachelor of Surgery as a qualification to practise, for at present it was penal to practise under that degree.

Dr. Aquilla Smith recommended that the University of London should go to Parliament.

Dr. Christison said that the motion would not give to any University which was not empowered by charter to grant the degree of Bachelor of Surgery power to grant that degree.

Mr. Cooper, in reference to a remark made by Dr. Quain, wished to be informed whether the Apothecaries' Society of London had been deficient in its duty as regards testing the fitness of the present Practitioners. If a better class of Practitioners were to be obtained, it should be done by making the existing examinations more stringent. He should oppose any motion which would imply a degradation to the present class of general Practitioners.

Dr. Paget said that the legalising the Bachelorship of Surgery as a qualification to practise would create a competi-

tion between those licensing bodies granting the degree of Bachelor of Surgery and those which did not grant so low a degree in Surgery. Competition in general was a good thing for the public. That was the case with competition between teaching bodies, but competition between licensing bodies had quite an opposite effect. The proposal might operate in such a way as to lower the Surgical requirements of Practitioners.

Dr. Corrigan said that the charters of the Colleges of Surgeons were granted because Surgery was a branch very much neglected by Universities. And it was now found by the Universities that the sale of diplomas was profitable, and it was sought to extend the business by securing for the degree of Bachelor of Surgery a recognition as a qualification to practise.

Dr. Acland protested against such an assertion. Speaking for the University of Oxford, he could say that there was no such object sought.

Dr. Apjohn opposed the motion.

Dr. Quain moved, as an amendment, "That if the University of London possess the right by charter to confer the degree of Bachelor of Surgery, and seeks to register the same under the amended Medical Act, this Council can see no reason why such degree should not be registered."

The amendment was not seconded.

Dr. Storrar said that the fact of the registration of the degree of Bachelor of Surgery would not tend to lower the qualifications of Practitioners, if the University which granted the degree of Bachelor also granted the higher degree of Master of Surgery. If the qualification for the degree of Bachelor of Surgery was not high enough in some Universities others should not suffer on that account.

The motion was submitted to the meeting, and negatived.

At the request of Dr. Quain the names were taken down.

For the motion—Dr. Storrar, Mr. Syme, Dr. Sharpey, Dr. Quain, Dr. Christison, and Dr. Stokes.

Against the motion—Mr. Arnott, Mr. Cooper, Dr. Paget, Dr. Wood, Dr. Fleming, Dr. A. Smith, Mr. Hargrave, Dr. Apjohn, and Dr. Corrigan.

Did not vote—The President, Dr. Alderson, Dr. Acland, Dr. Embleton, and Dr. Leet.

The Report of the Pharmacopœia Committee was read by the Registrar. It was as follows:—"The Pharmacopœia Committee beg to report that, after much careful consideration, they requested Mr. Warrington, of the Apothecaries' Hall, and Dr. Redwood, of the Pharmaceutical Society, to undertake the preparation of the next edition of the Pharmacopœia, under the supervision of the Committee. The gentlemen named accepted the duty, and they are engaged actively in its performance. The Committee, in the first instance, prepared an outline of the subjects which seemed to them to require revision; and these subjects are made the basis of careful inquiries by Messrs. Warrington and Redwood, who have submitted, and will continue to submit, their reports thereon, together with such suggestions as they think proper to make for the consideration and decision of the Committee. The Committee have also received valuable assistance from Dr. Farre, appointed by the English Branch Council, and from Dr. Moore, appointed by the Irish Branch Council, to report on the improvement in the progress of Pharmacy; and they hope that the services of these gentlemen, as well as of Dr. Christison, may be continued. Taking the first edition of the Pharmacopœia as a basis, compiled, as it has been, with great labour and expense, the Committee hope that, without making any very extensive or fundamental changes, the next edition will be found acceptable to the Profession.—George Burrows, M.D., Chairman. April 3rd, 1865."

Dr. Quain moved its adoption. He said that there would be no longer two sizes of the work. It would be published of one uniform size.

Dr. Apjohn seconded the motion.

Dr. Wood asked when the next edition of the Pharmacopœia would be published. He also wished to know whether there would be a toxicological table in it, and whether the attention of Practitioners would be called definitively to the changes made.

Dr. Quain, in reply, said that the next edition would be published after the next ordinary meeting of the Council. It was proposed that there should not be any toxicological table, but that the doses of all remedies would be mentioned with each article. Every alteration to be made in the work would be mentioned.

Mr. Cooper said it was very important that the doses should be stated.

Dr. Corrigan said a proof of the Pharmacopœia should be placed in the hands of the Council a month before the work was to be published, in order that practical men might be able to examine it.

Mr. Syme said that great inconvenience and delay would be occasioned by allowing the Pharmacopœia to be castigated by the Council for a month before its publication.

Dr. Christison said that if the Committee were not to be trusted he for one should decline to act on it. The proper time for the members of the Council to make suggestions was not after the work was printed, but before.

Dr. Wood said it was very necessary that proofs of the work should be placed in the hands of the Council, as they were responsible for it. It was their wish not to pick holes in it, but to make it as complete as possible.

Dr. Corrigan moved, "That it is desirable to have a proof copy of the new Pharmacopœia in the hands of the General Medical Council at least one month before the meeting at which the opinion of the General Medical Council is to be given relative to its publication." The members of the Council could then immediately communicate with the Committee as to any alteration they thought desirable.

Dr. Christison said he had no objection to that course, provided the right were reserved to the Committee to adopt or reject the alterations as they thought fit.

Dr. Wood seconded the amendment.

Dr. Corrigan agreed to add to his amendment the words, "In order to afford to the members of the Council the opportunity of making such suggestions to the Committee as they may think desirable."

The motion and amendment were, by leave of the Council, put successively as independent motions, and were both carried.

On the motion of Dr. Quain, it was resolved that the Committee be authorised to enter into a contract for the printing of the work.

Dr. Quain moved, "That the sum ordered to be placed at the disposal of the Pharmacopœia Committee in May, 1864, be extended from £100 to £300."

The motion was seconded by Mr. Cooper, and unanimously agreed to.

The following report of the Committee on the subjects of General Education was read to the meeting by the Registrar:—"The Committee on the subjects of General Education having duly considered the subject remitted to them, resolve to recommend to the Council—That after the year 1867 the examinations in subjects of General Education be left entirely to the National Educational Bodies recognised by the Medical Council—the Council confining its regulations on General Education to publishing a list of the examinations which may from time to time be approved of by them, it being understood that no certificate which does not affirm the proficiency of the candidate in Latin, and also his knowledge of the elements of Geometry, and of the elements of Mechanics and Hydrostatics, be accepted."

Dr. Stokes said that the Council must be aware that the practice for teachers in Arts being themselves the examiners and the judges of what was required was a very objectionable one. In making that statement, he did not in any way impugn the abilities and talents of the different licensing bodies; but it was best that examinations should be conducted by those who confined themselves to examination. Great abuses had arisen under the system of examinations being conducted by the teachers, although of late years that a better state of things had prevailed. All honour was due to the Royal College of Surgeons of England for establishing an examination in Arts outside their own body. In the College of Surgeons of Ireland the examination in Arts was entirely suspended; and they granted licenses to men without ascertaining whether they could spell, or whether they were acquainted with the English grammar. The candidates who had passed their examination could then go down to the Apothecaries' Company of Ireland, who assisted to give a double qualification to persons who might not be able to spell.

Dr. Leet said that an examination in Arts was required by the Apothecaries' Company of Ireland.

Dr. Stokes said that the present standard of general education was too low. The Council should fix those subjects which it was desirable to include in the course of general education. He moved the adoption of the Report of the Committee.

Dr. Paget seconded the adoption of the Report. He believed the requirements in the Report were a considerable

advance upon the general education now required by the Council.

Dr. Wood said that the regulation of the general education of the Practitioner was one of the most important subjects which could come before the Council; but he was not prepared at so late a period of the Session to adopt so meagre a Report as that submitted. A very unnecessary slur had been cast on the general education examinations of the licensing bodies. The body which he represented established such an examination before there was one established by the University of Edinburgh. He asked whether there was any educational body which was content with such a standard of general education as that mentioned in the report.

Dr. Paget said there was.

Dr. Wood: A licensing body?

Dr. Paget: Yes.

Dr. Wood: Which is it?

Dr. Paget: I would rather not name it; but I can. It is an educational body.

Dr. Wood said that was an argument against taking the general education examination out of the hands of the licensing bodies who required a higher standard, and intrusting it to educational bodies who were content with so low a standard. He moved—"That, as at this late period of the Session it is impossible duly to consider the important question brought forward in the Report of the Committee on General Education, the consideration of that Report be delayed till the next Session."

Dr. Fleming seconded the amendment.

Dr. Corrigan said the Council were now in a difficulty with regard to general education, which he foresaw when they decided on the first day of the session that Clause 20 of the Act should have no alteration made in it. He believed that the matriculation examination of the Universities was not sufficient, and the licensing bodies ought themselves to conduct the examination in general education, as was done in the case of solicitors and barristers.

Mr. Hargrave said the College of Surgeons in Ireland had appointed a special mode for examinations in Arts, and that mode was always pursued. He considered that some important branches of knowledge were omitted from the subjects included in the report brought up from the General Education Committee.

Dr. Storrar said that he did not consider that at any University there should be a special Arts education leading up to any particular branch of science. Dr. Corrigan had said that in Ireland a special general examination was instituted for solicitors, and that the examining body did not rely on the general examinations of general educating bodies. In England quite a different course was adopted, and every encouragement was held out for raising the standard of general education before Professional study was entered on. He did not think the Committee had wished to cast a slur on the general examination of the licensing bodies, but they were only anxious that "Cæsar's wife should be beyond suspicion." Dr. Wood had said that the requirements laid down by the Committee were meagre; but it must be borne in mind that the Committee demanded all the other subjects included in the general examinations of the education bodies, and had mentioned those special subjects in the report, to make it clear that they must be on no account omitted.

Mr. Cooper stated that the Apothecaries' Society of London required that all applicants for examination should hold a degree in Arts or undergo an examination equal to that degree. He knew that that requirement was conscientiously carried out. He underwent his studies sixty years ago, and he believed that if he now had to undergo the examination required by the Society at the present time he should be rejected. (Laughter, and "Vote.")

Dr. Stokes, in reply, explained, as had been stated by Dr. Storrar, that it was meant by the Committee that the subjects mentioned in the report should be *plus* the subjects included in the Arts examinations of the general educational bodies.

The amendment was carried.

Dr. Embleton moved, and Dr. Wood seconded, "That the standing order be suspended, and that the Council sit till seven o'clock." The business of the session might probably be concluded by that hour.

The President expressed an opinion that there was more business remaining than could be done in an hour.

Dr. Acland thought that one hour extra would be valuable, even if the Council had to sit again on Monday.

The motion was lost.

The Executive Committee was then balloted for, four members being required in addition to the President. The four members elected were Mr. Arnott, Dr. Acland, Dr. Paget, and Dr. Sharpey.

The Council then adjourned.

MONDAY, APRIL 17.

(ELEVENTH DAY.)

The Council met at two o'clock.

Dr. Acland submitted the following Report of the Committee on the Pharmacy Bills:—

"*Report.*

"1. The Committee appointed on April 7, 1865, to report whether the Medical Council is charged under the Medical Act with any duty in relation to Medical and Surgical practice by chemists and druggists, and also to consider and report on the two Bills relating to pharmacy now before Parliament, report as follows:—

"'2. In 1864 the General Medical Council represented to Her Majesty's Government the necessity of regulating by statute the practice of pharmacy by chemists and druggists throughout the kingdom. The Committee are of opinion that this necessity continues as cogent as ever; and that the Council ought to encourage and support any approved measure for effecting such legislation.

"'3. Two Bills for the purpose have been introduced into the House of Commons during the present Session—one promoted by the Pharmaceutical Society, the other by chemists and druggists not belonging to that body. The Bill of the latter is confined to England and Wales; that of the former to Great Britain.

"'4. After carefully considering both Bills, the Committee are of opinion that the preferable mode of legislation is that which adopts the Pharmaceutical Society as a basis. They think the Bill promoted by the Society well fitted to attain various important objects, reasonable in its demands for powers and privileges, and liberal—perhaps even too much so—in its provisions for admitting into the Society other chemists and druggists now practising pharmacy.

"'5. The main objects of the Bill are to form a register of legally qualified pharmaceutic chemists; to prohibit the use of certain pharmaceutic titles by persons not on the register; to confine to those registered the privilege of executing the prescriptions of Medical Practitioners; but not to restrict the sale of medicines asked for in any other manner.

"'6. The Committee desire to bring before the Council certain defects which it appears to them necessary to correct before the Bill becomes law.

"'7. The Bill should be altered so as to apply to Ireland, as well as to England and Scotland. They are not aware that any state of things exists in Ireland to render the regulation of pharmacy by the State less necessary there than in Britain.

"'8. The Committee are of opinion that a clause should be inserted in any Pharmacy Bill, rendering it imperative on chemists and druggists to follow, in compounding prescriptions, the formularies of the British Pharmacopœia, unless otherwise directed by the prescriber.

"'9. The Committee consider that the promoters of the Bill, probably from a desire to disarm opposition, propose to admit, on too easy terms, into their Society, pharmaceutical chemists and druggists not now belonging to it. The proposal is to admit all who offer themselves for examination, or who produce a certificate from a qualified Medical Practitioner that they have been in the practice of dispensing medicines from the prescriptions of Medical men before January 1, 1866. The latter alternative implies a facility of entrance which will be apt to lead to abuse. The Committee recommend that no one should be admitted who was not in business prior to the passing of the Act, nor unless the certificate be signed on personal knowledge by two qualified Medical Practitioners.

"'10. The last important defect in the Bill which the Committee have to notice is that no adequate provision has been made towards preventing registered pharmaceutic chemists from converting themselves into unqualified Medical Practitioners.

"'11. Looking to the history of Medical practice in this country, the Committee see great danger to the interests of the public and of the Medical Profession from the body which will be constituted by the Bill, should it become an Act in its present shape. The General Medical Council, in carrying out the objects of the Medical Act, have raised, and, it is hoped, may further raise, the qualifications of legally-qualified Medical Practitioners. It is well known that many existing

chemists and druggists, both members of the Pharmaceutical Society and others, practise Medicine, although not qualified by law nor competent by education. To a limited extent this practice cannot be prevented. But the existence of it gives peculiar facilities and temptations to the pharmaceutic chemist to embark largely in irregular Medical practice as an unqualified Practitioner.

"'12. The Committee have considered whether the danger here indicated might not be averted by extending the jurisdiction of the General Medical Council, so as to include control over pharmaceutic chemists as well as over Practitioners in Medicine. But they believe such a plan to be, for the present at least, unadvisable and even impracticable.

"'13. By Clause 55 of the Medical Act, chemists and druggists are expressly exempted from the provisions of the Act, so far as the "selling, compounding, and dispensing medicines" is concerned. Nor is there any provision in the Act which gives the Medical Council any greater power to prevent chemists and druggists from practising Medicine than the Act enables the Council to exercise over all other unqualified persons. It is plain, therefore, that the Act did not contemplate the exercise by the Medical Council of any control over chemists and druggists; and the Committee consider that it would be unwise to seek to alter, in this respect, in any way the relations subsisting between the Medical Council and chemists and druggists.

"'14. The Committee have further considered whether the danger they have pointed out might be averted by some simple provision in the Pharmacy Bill. By Section 17 of the Bill of the Pharmaceutical Society, it is declared that—"Nothing in this Act contained shall extend, or be construed to extend, to lessen or prejudice, or in anywise to interfere with, any of the rights, privileges, and immunities heretofore vested in, and enjoyed by any duly-qualified Medical Practitioner." This clause sufficiently protects Medical Practitioners in such right of practising pharmacy as they have hitherto enjoyed, but it does not attempt to prevent pharmaceutic chemists from practising Medicine. Considering their peculiar temptations to practise it, however, some check seems desirable. The Committee suggest that this object may be attained, in some measure, were the following clause to be added to Section 17, viz., "or, to entitle any person registered under this Act to practise Medicine or Surgery, or any branch of Medicine or Surgery." The members of the pharmaceutic body would thus have constantly before them the sentiments of the Legislature as to the principles on which the Pharmacy Act was founded. The Committee have reason to believe that the Council of the present Pharmaceutical Society have every desire to discourage the practice of Medicine by its members. They, therefore, apprehend that no opposition would be made to the addition of such a clause.

"'15. The Committee recommend that the promoters of both Bills should be conferred with on behalf of the Medical Council, and that the above observations should be laid before the Secretary of State for the Home Department, the Chairman of the Select Committee, and the promoters of the two Bills.

"'Signed on behalf of the Committee,

"'HENRY W. ACLAND, *Chairman*.'"

Dr. WOOD said that the College of Surgeons of Edinburgh had the power to practise Anatomy, Surgery, and Pharmacy. He wished to know whether the Pharmacy Bill would override that power.

Dr. CHRISTISON said it certainly did not.

Dr. ACLAND moved that the Report be adopted.

The motion was seconded by Dr. PAGET.

Mr. RUMSEY said that he thought that the Committee had not been stringent enough as to the proposal in the bill for admitting into the Pharmaceutical Society chemists and druggists now practising pharmacy. The effect would be that a large number of ignorant persons would be admitted to the right to practise pharmacy. He considered such a measure would be a very dangerous one to the lives of the public. He believed that in neither of the bills relating to chemists and druggists, now before Parliament, there was any provision for admitting Government control over them.

Dr. ACLAND said that that was not the case.

Mr. RUMSEY read a series of resolutions which he intended to propose as emendations on the Report of the Committee on the Pharmacy Bills, but it being decided that the most convenient course of proceeding would be to deal with the Report clause by clause, Mr. Rumsey agreed to reserve his resolutions until the Council arrived at those portions of the Report to which the emendations referred. He said he could not help expressing his strong conviction that it would be almost impossible to get Government to pass a stringent measure for the purpose of restraining chemists and druggists from practising Medicine, unless Medical Practitioners were discouraged from practising pharmacy.

Dr. ACLAND moved, and Dr. PAGET seconded, the adoption of the first clause of the Report.

The motion was carried. Clauses 2 and 3 were also agreed to.

Dr. ACLAND then moved the adoption of the fourth clause.

Dr. PAGET seconded the motion.

Mr. RUMSEY moved as an amendment that the words after the word "privileges" be omitted.

Dr. CHRISTISON said he did not think there could be any material objection to the words.

Mr. SYME said that the words seemed to imply a general approval of the provision in question.

Dr. CORRIGAN suggested the insertion of the words "with the Pharmacy Act of 1852" after the words "Pharmaceutical Society."

After some discussion,

Dr. ACLAND agreed to embody the suggestions in his motion.

The clause was then passed in the following amended form:—"After carefully considering both Bills, the Committee are of opinion that the preferable mode of legislation is that which adopts the Pharmaceutical Society with the Pharmacy Act of 1852 as a basis. They think the Bill promoted by the Society well fitted to attain various important objects, and reasonable in its demands for powers and privileges."

The adoption of Clause 5 was moved by Dr. ACLAND, and seconded by Dr. PAGET.

Dr. WOOD objected to the clause. He said that in many parts of Scotland the only dispensers of medicines were the duly qualified Medical Practitioners.

The PRESIDENT said that the clause was merely a statement of the main objects of the Bill.

Dr. WOOD said that it was not the fact that one of the main objects of the Bill was to restrain the dispensing of medicines by qualified Medical men.

Dr. CORRIGAN proposed the insertion of the words "subject to the provision hereinafter named," after the words "Medical Practitioners."

Dr. AQUILLA SMITH seconded the amendment.

The amendment was put, and carried, and then became a substantive motion.

Dr. WOOD moved, that after the words "Medical Practitioners," the words "subject to the provision hereinafter contained, which preserves the rights and privileges of incorporations duly entitled to qualify for the practice of pharmacy, and of duly qualified Medical Practitioners generally."

Dr. LEET seconded the alteration.

The amendment was lost.

The substantive motion was then carried.

Dr. ACLAND moved the adoption of Clause 6.

The motion was seconded by Dr. PAGET, and carried.

Dr. ACLAND moved the adoption of Clause 7.

Dr. PAGET seconded the motion.

Dr. LEET said he was taken by surprise by the statement. He flattered himself that the state of things in Ireland with regard to Pharmacy was perfect. (Laughter.) Every provision contained in the Bill was carried out in Ireland. Those who practised Pharmacy were qualified Apothecaries, and, therefore, there could be no injury arising from their practising it. The control of Pharmacy lay with the Apothecaries' Company. They would oppose the provision for the Bill to apply to Ireland. He moved as an amendment "That the Bill should be so altered that the provision should not apply to Ireland."

Mr. SYME seconded the amendment.

Dr. CORRIGAN opposed the amendment. He said that one of his reasons for doing so was that the Apothecaries' Society of Ireland had abdicated its functions, and in their last prospectus they had stated that their license was a full qualification to practise Medicine. They required that no one should practise Medicine who had not passed their examination. That examination included subjects which it was unreasonable to expect an acquaintance with on the part of the dispensers of prescriptions.

Dr. HARGRAVE expressed surprise that Dr. Leet should have moved an amendment. The Act was very much required in Ireland.

The amendment was withdrawn.

Dr. CHRISTISON said that in order for a pharmaceutical

business to be properly carried on the principal should be in it as much as possible. That could not be if he were allowed to practise Medicine.

The motion was carried.

Dr. Acland moved the adoption of Clause 8 of the Report.

Dr. Paget seconded the motion, and it was carried unanimously.

Dr. Acland moved the adoption of Clause 9.

Dr. Paget seconded the motion.

Mr. Rumsey objected to the clause. He said that it would tend to authorise complicity between the inferior class of Medical Practitioners and certain chemists and druggists. He moved as an amendment that the following words should be substituted for the last sentence of the clause:—"The Committee are of opinion that more satisfactory evidence of qualification should be required."

Dr. Christison said that the Council ought to express to the promoters of the Bill what sort of evidence would be satisfactory to them.

Mr. Rumsey said that it was the place of the promoters of the Bill to suggest the kind of evidence which should be given.

Mr. Arnott said that, in his opinion, chemists and druggists should be admitted only under a proper examination.

Dr. Corrigan suggested that the clause should end at the words "passing of the Act."

Dr. Storrar said that unless there was something more than the mere title of "pharmaceutical chemist" to distinguish the first members of the Society from other chemists and druggists, there would not be a sufficient inducement to chemists now in business to pay a sum of money to undergo an examination for admission into the Society.

The amendment proposed by Mr. Rumsey was seconded by Mr. Hargrave, and carried.

Dr. Acland moved that Clause 10 of the Report be adopted.

Dr. Paget seconded the motion.

The motion was carried *nem. con.*

Dr. Acland moved the adoption of Clause 11. He called attention to the fact that by the Bill a qualified Medical Practitioner could not keep a chemist's shop. He did not see the reason for that restriction.

Dr. Paget seconded the motion.

Dr. Christison moved, "That after the words 'Medical Practitioner,' there should be inserted the words, 'but their labours will be in vain should the creation of a new race of unqualified Medical Practitioners be inadvertently encouraged by an Act of Parliament."

Dr. Wood seconded the amendment.

The clause as amended was passed.

Dr. Acland moved the adoption of Clause 12 of the Report.

Dr. Paget seconded the motion.

Mr. Rumsey moved, as an amendment, "That the last part of paragraph 12, from the words 'Medical Council,' be as follows: 'so as to include some control over chemists and druggists, with proper representation in the Council, securing thereby the consent of the Council to all educational measures suggested for persons who are to be publicly licensed as dispensers of medicine and of the prescriptions of Medical Practitioners. But after deliberation they believe their plans to be at present impracticable.'"

Mr. Hargrave seconded the amendment.

Dr. Aquilla Smith asked whether Mr. Rumsey implied that the Pharmaceutical Society should be represented at the Council.

Mr. Rumsey said he did not propose anything of the sort.

Dr. Aquilla Smith said the amendment seemed to contemplate it. As that was the case he should object to it.

Mr. Syme said he did not agree with the amendment.

Mr. Rumsey said he must adhere to the proposal he had made.

Mr. Arnott said he thought the amendment would do harm rather than good.

Dr. Acland said that when the Council was constituted seven years ago there seemed to be a disposition on the part of the Government to refer to the Council on all questions connected with Medical subjects. It was remarkable, however, that no question had been referred to them.

The amendment was then put to the meeting, and negatived.

Dr. Corrigan moved a further amendment. He said it was not desirable to tell the Government that any further control which they might feel disposed to commit to them was "unadvisable and impracticable." He, therefore, proposed that the last sentence of the clause should be, "But they are of opinion that such a plan is at present attended with difficulties."

Dr. Christison said that that was a very mild form of expression. They had never asked any good thing of the Legislature which was not attended with difficulties.

Dr. Apjohn seconded the amendment.

The amendment was carried, and then became a substantive motion.

Dr. Wood moved, as an amendment, that the whole clause be left out.

Mr. Cooper seconded the omission of the clause.

The amendment was lost.

The substantive motion was then carried *nem. con.*

Dr. Acland moved that Clause 13 of the report be adopted.

Dr. Paget seconded the motion.

Mr. Rumsey objected to the last sentence of the clause, on the ground that it referred to "relations subsisting between the Medical Council and chemists and druggists," while, in fact, no such relations existed. He therefore moved that the concluding sentence be as follows, instead of as at present standing, namely:—"And the Committee recommend that the Medical Council, and the Pharmaceutical Society, respectively, should use all reasonable means in their power to ensure competent skill in their own departments on the part of all persons included on their registers, and, as far as is consistent with the necessities of the public, to restrict each to that sphere for which they are qualified, and for which they have been licensed."

Dr. Leet seconded the amendment.

It was then submitted to the meeting and lost.

Dr. Aquilla Smith proposed the insertion of the words "on this occasion" after the word "otherwise" in the last sentence.

Mr. Cooper denied that there were relations subsisting between the Council and chemists and druggists.

Dr. Christison maintained that there were relations existing between them.

After some discussion the clause was placed in the following altered form:—"By Clause 55 of the Medical Act, chemists and druggists are expressly exempted from the provisions of the Act, so far as 'selling, compounding, and dispensing medicines' is concerned. Nor is there any provision in the Act which gives the Medical Council any greater power to prevent chemists and druggists from practising Medicine than the Act enables the Council to exercise over all other unqualified persons. It is plain, therefore, that the Act did not contemplate the exercise by the Medical Council of any control over chemists and druggists; and the Committee consider that it would be unwise to seek to alter the existing relations between the Medical Council and chemists and druggists."

Dr. Acland proposed that Clause 14 should be adopted.

Dr. Paget seconded the motion.

Mr. Rumsey said he agreed with the whole of the clause.

The clause was unanimously agreed to.

Mr. Rumsey then moved that the following addition be made to the report, after Clause 14:—"The Committee call attention to the fact that the Bill proposes to confer on the whole body of chemists and druggists the right of dispensing and selling medicines without any control on the part of the Government. The Medical Profession has not been so dealt with in the Medical Act. The Medical Council is properly restricted in its action by the Medical Corporations and Universities, and is also controlled by the Privy Council. They submit that the whole profession of pharmacy ought to be subjected to some control."

Mr. Hargrave seconded the motion.

Dr. Christison asked whether the clause proposed by Mr. Rumsey was to apply to pharmaceutical chemists only, or over the whole body of chemists and druggists?

Mr. Rumsey said he meant it to apply to all. He would insert the words "except such as is exercised by the Pharmacy Act over registered pharmaceutical chemists," after the word "Government," if that would secure Dr. Christison's support.

Dr. Christison said he should be most willing to accede to the clause with that alteration.

The additional clause, as altered, was agreed to unanimously.

The last clause of the Report was then adopted with the omission of the words "and the promoters of the two Bills" at the end of the clause.

It was agreed that the Report as amended be entered on the minutes.

Dr. Embleton moved the adoption of the following Report of the Committee on returns received from the bodies in Schedule (A) and the registers of Medical students.

"*Report.*

"The Committee on the Returns from the Bodies in Schedule (A), according to the Recommendation 7, Section iv. of the Report of the Select Committee on Education, May 5, 1864 (previously Recommendation 23, 1862), and on the Register of Medical Students, present the following tables, carefully deduced from the Returns placed before them.

"It will be observed in the table of the Register of Students that no Return has been received from the Registrar of the Branch Council for Scotland.

"The number of students admitted to Professional study before having passed a Preliminary Examination in Arts is now considerably less than in previous years, being 105 out of a total of 1315 students registered in England and Ireland.

"D. EMBLETON, Chairman."

Form of Return according to the Recommendation 7, Sect. 4, of the Report of the Select Committee on Education, May 5, 1864 (previously Recommendation No. 23) of the General Medical Council, 1862.

Licensing Bodies.	Passed.		Rejected.	
	1st Exam. Number.	2nd Exam. Number.	1st Exam. Number.	2nd Exam. Number.
R. Coll. Phys. London	63	67	8	11
R. Coll. Surg. England	408	429	107	59
Soc. Apothecaries, London	273	277	44	19
University of Oxford	4	4	3	—
,, Cambridge	3	4	—	—
,, London(a)	33	26	12	1
R. Coll. Phys. Edinburgh	149	224	18	24
R. Coll. Surg. Edinburgh	115	147	29	20
Fac. Phys. Surg. Glasgow	17	105	1	20
University of Aberdeen	(1st) 42 (2nd) 35	(3rd) 47	(1st) 2 (2nd) 8	(3rd) 11
,, Edinburgh	149	93	41	11
,, Glasgow	41	79	7	9
,, St. Andrew's	—	10	—	—
K. Q. Coll. Phys. Ireland	—	60	—	9
R. Coll. Surg. Ireland	130	113	20	18
Apothecaries' Hall, Ireland	17	28	4	10
University of Dublin	12	25	4	5
	1491	1738	308	227

Register of Students, 1864-5.

	Licensing Bodies.	No. of Students who have passed Prelim. Exam. before commencing Prof. study.	Exceptions and Observations.	Totals.
England.	Royal Coll. Phys. London	142	1 exempted by special commission of the Coll. Ex. at Bedford School, 1859	143
	Royal Coll. Surg. England	366	56 exempted as they had begun Professional Study before Oct. 1, 1861	422
	Apothecaries' Soc. London	331	37 exempted having begun Prof. study before Jan. 1, 1860; 10 do. having begun apprenticeship before Jan. 1, 1860 (2 of these passed Prel. Examination in Jan. 1865).	378
	University of Oxford	No return.		
	,, Cambridge	12		12
	,, Durham	55		55
	,, London	50		50
		956	104	1060
Scotland.	Royal Coll. Phys. Edinburgh Royal Coll. Surg. Edinburgh Faculty of Physicians and Surgeons, Glasgow University of Edinburgh ,, Aberdeen ,, Glasgow ,, St. Andrew's	No returns.		
Ireland.	King and Queen's College of Physicians, Ireland Royal Coll. Surg. Ireland Apothecaries' Hall, Ireland University of Dublin Queen's University, Ireland	254	1 exempted having been placed on the Register by especial resolution of the Royal Coll. Surg. Ireland	255
		1210	105	1315

Mr. HARGRAVE seconded the motion, and it was agreed to.

Dr. SHARPEY moved the adoption of the following Report of the Finance Committee:—

"*Report.*

"The Finance Committee beg leave to present, in the table subjoined, a statement of the estimated and actual income and expenditure of the year 1864; also an estimate of the income from ordinary sources and the ordinary expenditure, as far as the Committee are able to judge, for the year 1865.

"A statement of the receipts and disbursements on account of the British Pharmacopœia since the date of the account presented last year is given up to January 5, 1865.

"With reference to the audit of the accounts of the General Council, it appears that the Executive Committee has from its first appointment been charged with the duty of examining these accounts, and that the appointment of auditors, ordered by the General Council by resolution passed on May 7, 1864, on the recommendation of the Finance Committee, is unnecessary. Accordingly the Finance Committee now recommend that the said resolution be rescinded; but the Committee are of opinion that it should be recommended to the Branch Council of England to appoint auditors of their annual accounts, in conformity with the practice followed by the Branch Councils of Scotland and Ireland.

	Estimated Income for the Year 1864.		Actual Income for the Year 1864.		Estimated Income for the Year 1865.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Fees received by—						
Branch Council for England	2600 0 0		2750 5 0		2650 0 0	
,, ,, Scotland	650 0 0		827 10 0		750 0 0	
,, ,, Ireland	650 0 0		942 15 0		800 0 0	
		3900 0 0		4520 10 0		4200 0 0
Dividends received by—						
Branch Council for England	610 0 0		612 18 9		610 0 0	
,, ,, Scotland	60 0 0		77 18 8		60 0 0	
,, ,, Ireland	69 0 0		70 6 4		66 0 0	
		739 0 0		761 3 9		736 0 0
Sale of Registers		310 0 0		315 16 6		310 0 0
		£4949 0 0		£5597 10 3		£5246 0 0

	Estimated Expenditure for the Year 1864.		Actual Expenditure for the Year 1864.		Estimated Expenditure for the Year 1865.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Expenses of—						
General Council		3350 0 0		4317 3 6		3700 0 0
Branch Council for England	720 0 0		716 7 8½		720 0 0	
,, ,, Scotland	270 0 0		286 14 5		280 0 0	
,, ,, Ireland	300 0 0		336 16 2		330 0 0	
		1290 0 0		1339 18 3½		1330 0 0
		4640 0 0	Total Expenditure	5657 1 9½		4930 0 0
Balance in favour of Medical Council		309 0 0	Total Income	5597 10 3	Balance in favour of Medical Council	216 0 0
		£4949 0 0	Excess of Expenditure over Income	£59 11 6½		£5246 0 0

(a) By the Regulation of University, candidates are allowed, under certain conditions, to postpone their examination in Physiology until the first M.B. Examination of a subsequent year.

British Pharmacopœia Statement.

Charge.	£	s.	d.	Discharge.	£	s.	d.
To amount paid on account of the British Pharmacopœia (see Report of Finance Committee, May 3, 1864)	6329	6	6	By Receipts for Sale of the Pharmacopœia to May 3, 1864	5022	14	0
,, Deduct Balance returned by Dr. Garrod, as Secretary of the Pharmacopœia Committee	100	0	1	,, Balance due on account of publishing the British Pharmacopœia	1206	12	5
	£6229	6	5		£6229	6	5

Account from May 3, 1864, to January 5, 1865.

1864, May 3. Charge.	£	s.	d.	Discharge.	£	s.	d.
To Balance due on account of publishing the British Pharmacopœia	1206	12	5	By Reduction of Cost of Binding, charged in account May 3, 1864	221	13	7
,, Messrs. Spottiswoode, for Extra Claim	75	0	0	,, Sale of 722 copies 8vo Edition to Jan. 5, 1865	250	5	0
,, Dr. Garrod, for Extra Services	50	0	0	,, ,, 1300 ,, 32mo ,, ,, ,,	282	12	6
,, Mr. Bell, ditto	30	0	0		754	11	1
,, Mr. Roope, ditto	20	0	0	Balance due on account of publishing the British Pharmacopœia	723	0	7
,, Mr. Warrington, for Experiments	20	0	0				
,, Advertisements, Stationery, Packing Cases, Carriage of Parcels, Porterage, etc., to Jan. 5, 1865	75	19	3				
	£1477	11	8		£1477	11	8

Note.

The number sold of the 8vo Edition is	12,837			The number sold of the 32mo Edition is	4,030		
The number given to Members of Council, Pharmacopœia Committee, Stationers' Hall, British Museum, etc.	60			The number given to Members of Council, Pharmacopœia Committee, Stationers' Hall, British Museum, etc.	53		
	12,897				4,083		
Stock on hand	103			Stock on hand	10,917		
	13,000				15,000		

William Sharpey, Chairman.

He remarked that there was a deficiency of £59 11s. 6½d. in the income of last year; but that need not be regarded with any alarm, because there was an outlay of about £600 last year which might be regarded as extra expenses which would not be likely to occur again, and the actual income of last year was considerably in advance of the estimate for the year.

Dr. Storrar seconded the adoption of the report.

Dr. Wood said that he believed the actual expenditure of next year would be very much in excess of the estimated expenditure, because a system of trial visitations has been agreed on.

Dr. Sharpey moved, "That the resolution adopted on the 7th of May, 1864, directing that two members of the Executive Committee be annually appointed to audit the accounts of the Council, be rescinded, and that the standing order, Sect. vi., No. 14, founded thereon, be repealed."

Dr. Storrar seconded the motion, and it was carried unanimously.

Dr. Paget moved, "That it be delegated to the Executive Committee, in case of the death or incapacity from illness of the Registrar, when the General Council is not in session, to appoint a person to perform temporarily the duties of Registrar." He said the sole object of the motion was to save the expense of a meeting of the General Council in case of the event referred to—one which, he was sure, they would very much deplore.

The motion was seconded by Mr. Arnott, and carried unanimously.

Dr. Corrigan, according to notice, brought before the Council the correspondence between the War Office and King and Queen's College of Physicians, relating to insertion of Medical titles in the *Army List*, with resolution referring thereto of General Medical Council of May 6th, 1864. He said he had caused copies of the correspondence to be sent to all the members of the Council. It had come to the knowledge of the King and Queen's College of Physicians, Ireland, that the Surgeons and Assistant-Surgeons of the army who had obtained degrees in Medicine from any University had M.D. appended to their names in the *Army List*, while those who had obtained diplomas from a College of Physicians had no Medical affix to their names. Some correspondence had taken place between the College of Physicians, Ireland, and the Director-General of the Army Medical Department. On May 6, 1864, he (Dr. Corrigan) brought the subject before the Medical Council, and the following resolution was passed:—"That it is the opinion of the General Medical Council that it would not be advisable to insert the letters 'Phys.;' but that it is the opinion of the General Medical Council that the several Medical qualification which Army Surgeons possess, as in the Medical Register, might be entered after their names in the *Army List*." On July 29, 1864, the following letter was received by the Registrar of the College of Physicians:—

"29th July, 1864.

"Sir,—I am directed by the Secretary of State for War to acknowledge the receipt of your letter of the 14th March last, in which, on behalf of the President and Fellows of King and Queen's College of Physicians in Ireland, you renew the recommendation that the word 'Physician' should be inserted in the 'Army List' after the names of such army Surgeons as may possess the qualification of that College.

"In reply, I am to acquaint you that Earl de Grey, having consulted the General Medical Council, finds that the opinion of that body is not favourable to the proposal; and his Lordship, after fully considering the subject, does not think it desirable to make any change in the existing practice.

"I have the honour to be, Sir, your obedient servant,

"L. Atthill, Esq., M.D." "Douglas Galton."

He (Dr. Corrigan) should therefore now move—"That the correspondence, as now submitted, between the Director-General of the Army Medical Department, the Secretary of State for War, the General Medical Council, and the King and Queen's College of Physicians in Ireland, be inserted in the Minutes, and that the Registrar be requested to write to the Secretary of State for War, enclosing a printed copy of the above, and explaining to his Lordship that the General Medical Council are of opinion, for the reasons stated in the correspondence mentioned above, that initials, indicating the several Medical qualifications which Army Surgeons possess, should be inserted after their names without distinction or preference to one degree or license over another, each Surgeon, when he possesses more than one Medical qualification, having, however, only one Medical qualification appended to his name."

Dr. Apjohn seconded the motion.

On being submitted to the meeting the motion was carried unanimously.

It was resolved that the standing order be suspended, and that the Council sit till seven o'clock.

Dr. Corrigan then moved—"That a letter be addressed to the Director-General of the Army Medical Department, requesting that he would direct the future returns from the Army Service to have columns attached similar to those in the Navy return, specifying in similar detail the number of candidates, and the heads under which the candidate failed to answer."

The motion was seconded by Dr. Apjohn, and carried unanimously.

Dr. Acland moved—"That a Committee of not more than five, and the President, be appointed to consider and report to the Council what are the means best calculated to expedite the business of the General Council; and what are the several objects on which the funds of the Council may, consistently with the spirit of the Medical Act, be expended."

Dr. Stokes seconded the motion.

After a short discussion, the motion was negatived.

Dr. Embleton moved—"That the Report of the Committee appointed to arrange and digest the recommendations as to education and examination agreed to during the present Session by the General Committee on Education to be con-

sidered be adopted, and that the recommendations therein embodied be printed, under the direction of the Executive Committee, in a separate form, circulated among the members of the Council, and sent to each of the licensing bodies."

The motion was seconded by Dr. LEET, and carried.

Dr. CORRIGAN moved, "That this Council in recommending in their resolution of April 6, 1865, the visitation of examinations by the Branch Councils, or members of such Councils deputed by them, did not contemplate payment for such duties."

Dr. APJOHN seconded the motion.

The Council divided, and the motion was carried by 7 against 4.

Dr. ANDREW WOOD moved, "That the powers and duties delegated to the Executive Committee in accordance with Sect. ix. of the Medical Act (see Standing Orders, Sect. vi.), shall be vested in the Committee until the next meeting of the General Medical Council; and that, in addition, it be delegated to them to communicate with the Government in order to carry out the views of the Council in regard to the bill for amending the Medical Acts."

Dr. EMBLETON seconded the motion.

The following amendment was moved by Dr. APJOHN, and seconded by Dr. CORRIGAN:—"That the words 'in order to carry out the views of the Council,' be omitted, and the following sentence added to the foregoing resolution: 'it being understood, however, that no concession shall be made by the Committee inconsistent with the amended Bill proposed by the amended Council.'"

The amendment was carried, and having been put as a substantive motion, was also carried.

Dr. CORRIGAN moved—"That a third volume be published, without delay, of the proceedings of the past and present meetings of the General Medical Council, with full index attached."

The motion was seconded by Dr. APJOHN, and agreed to.

Votes of thanks were cordially passed to Dr. Sharpey and Dr. Quain, Treasurers, to the Royal College of Physicians for the use of their premises, to Dr. Andrew Wood for his valuable services as Chairman of the Business Committee, and to the President for his courteous and efficient services.

The Session then terminated.

The following were the communications received from the Directors-General of the Army and Navy Medical Departments, relative to the examinations of candidates for Medical commissions:—

"Army Medical Department, 20th June, 1864.

"Sir,—In acknowledging the receipt of your letter, dated 27th ultimo, conveying the request of the General Council of Medical Registration to be furnished annually with information on the following points, viz.:—

"'(*a*) The total number of candidates for Medical commissions who have presented themselves for examination;'

"'(*b*) The number of those who passed and of those who did not pass the examinations of the Board, distinguishing the number of successful and unsuccessful candidates under the respective heads of the several licensing bodies mentioned in Schedule (A) to the Medical Act, and specifying their qualifications, Medical and Surgical, and whether they had failed in Medicine or Surgery;'

"'(*c*) The general nature and scope of the examination conducted by the Board, together with a list of the questions proposed by the examiners;'

"I have the honour to inform you, in reply, that Lord de Grey has been pleased to accede to the wish of the General Council, and I shall be obliged by your signifying from what date the information is required.

"I have the honour to be, Sir,

"Your most obedient humble Servant,

"(Signed) "J. B. GIBSON, Director-General.

"F. Hawkins, Esq., Registrar,

"General Council of Medical Education,

"32, Soho-square, W."

"Army Medical Department, 23rd February, 1865.

"Sir,—With reference to your letters dated 27th May and 24th June last, the former communicating a resolution passed at a late Session of the General Council of Medical Education, that certain information should be furnished by this Department annually, in regard to the number of candidates who have presented themselves for examination, and specifying certain points on which the Council request to be informed, I have the honour to forward a statement on the subject, with a list of the questions proposed by the Examiners, and to observe, in regard to the general nature and scope of the examination, that the enclosed copy of the regulations for the admission of candidates into the Medical Department of Her Majesty's army (section 5, page 8), (b) will probably supply the information which the Council are desirous to obtain.

"I have the honour to be, Sir,

"Your most obedient humble Servant,

"(Signed) J. B. GIBSON, Director-General.

"Fras. Hawkins, Registrar,

"General Council of Medical Education.

"32, Soho-square."

Statement of the Degrees, Diplomas, and Licences of the Candidates for Commissions in the Medical Department of the Army, who during the year 1864 have presented themselves for Examination, showing the number that passed and did not pass, also distinguishing the Qualifications, both Medical and Surgical, under the heads of the several Licensing Bodies, and specifying whether the Candidates failed in Medicine or Surgery.

Names of Licensing Bodies.	Total Qualifications.	No. passed.	Failed.	Unsuccessful.				Remarks.
				In Medicine.	In Surgery.	Failed in Medicine and Surgery.	Failed in Anatomy.	
Royal College of Physicians, London	2	2	..	..	..	..	..	CANDIDATES.
Royal College of Physicians, Edinburgh	27	17	10	4	3	1	2	Successful . 120
King and Queen's College of Physicians, Ireland	30	21	9	3	3	2	1	Failed . . 31
Royal College of Surgeons, England	44	33	11	3	3	3	2	Total . 151
Royal College of Surgeons, Edinburgh	27	23	4	2	..	..	..	
Faculty of Physicians and Surgeons, Glasgow	2	2	..	..	..	..	..	
Royal College of Surgeons, Ireland	61	47	14	6	4	3	..	
Society of Apothecaries, London	21	15	6	1	1	2	..	
Apothecaries' Hall, Dublin	1	1	..	..	..	..	..	
Doctor of Medicine, University of Edinburgh	16	14	2	2	..	..	..	
Doctor of Medicine, Queen's University Ireland	18	17	1	1	..	1	..	
Doctor of Medicine, University of Dublin	..	..	..	..	..	..	..	DIPLOMAS AND DEGREES.
Bachelor of Medicine ditto	9	8	1	..	..	..	..	Successful . 241
Master of Surgery ditto	2	1	1	1	1	1	..	Failed . . 65
License of Medicine ditto	1	..	1	..	..	..	..	
Doctor of Medicine, St. Andrew's	8	7	1	1	1	..	..	Total . 306
Doctor of Medicine, University of Aberdeen	5	4	1	..	..	..	..	
Bachelor of Medicine ditto	10	10	..	..	..	..	..	
Master of Surgery ditto	14	13	1	..	1	1	1	
Doctor of Medicine, University of Glasgow	6	5	1	1	..	..	..	
Master of Surgery ditto	2	1	1	..	..	..	1	
Total	306	241	65	23	1	16	12	

(b) *Subjects of Examination.*—On producing the foregoing qualifications the candidate will be examined by the Examining Board in the following subjects:—Anatomy and Physiology; Surgery; Medicine, including Therapeutics; the Diseases of Women and Children; Chemistry and Pharmacy; and a practical knowledge of drugs. (The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of Surgical apparatus, and the examination of Medical and Surgical patients at the bedside.) The eligibility of each candidate for the Army Medical Service will be determined by the result of the examinations in these subjects only. Candidates who desire it will be examined in Comparative Anatomy, Zoology, and Botany, with special reference to Materia Medica; and the number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the examination by candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to

Table showing the Qualifications, according to Schedule (A), of the Different Candidates who were Examined for Medical Commissions in the Royal Navy in 1864, *with the Results of the Examinations.*

No.	Lic. R. Coll. Phys. Lond.	Lic. R. Coll. Phys. Edin.	Lic. K.Q.C. Phys. Irel.	Mem. R. Coll. Surg. Eng.	Lic. R. Coll. Surg. Edin.	Lic. F. Phys. Surg. Glasg.	Lic. R. Coll. Surg. Irel.	Lic. Soc. Apoth. Lond.	Lic. Apoth. Hall, Dubl.	M.B. Univ. Durh.	M.D. Univ. Edin.	M.B. Univ. Aberd.	M.D. Univ. Aberd.	Mast. Surg. Univ. Aberd.	M.D. Univ. St. And.	M.D. Q. Univ. Irel.	Passed or Rejected.	Remarks.
1	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	Rejected	Deficient in Anatomy, Surgery, and Practice of Medicine.
2	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	Passed	Surgery and Practice of Medicine only fair; otherwise good.
3	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..		Found to be physically unfit.
4	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	Passed	A good examination in all branches.
5	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	Rejected	Ignorant of Anatomy.
6	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	Passed	Anatomy, Surgery, and Practice of Medicine only fair; other branches good.
7	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	Do.	A good examination in all branches.
8	..	..	..	1	..	..	..	1	..	..	..	..	1	1	..	..	Do.	Practice of Medicine only fair; other branches good.
9	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	Do.	A good examination in all branches.
10	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	Do.	Ditto, ditto.
11	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	Do.	Anatomy and Surgery good; Practice of Medicine and other branches only fair.
12	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	Do.	Anatomy and Practice of Medicine and all other branches, except Surgery, good; Surgery only fair.
13	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	Rejected	Utterly ignorant of the Latin language.
14	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	Passed	Anatomy and Practice of Medicine good; Surgery fair only; other branches fair and indifferent.
15	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	Do.	A good examination in all branches.
16	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	Rejected	For the 3rd time. Anatomy and Surgery bad.
17	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	Do.	For the 2nd time. Ditto, ditto.
18	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	Do.	Utterly ignorant of the Latin language.
19	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	Passed	A good examination in all branches.
20	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	Do.	Anatomy and Surgery good; Practice of Medicine and other branches only fair.
21	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	Rejected / Passed	1st Examination. Anatomy only fair; Surgery very bad. 2nd Examination. Surgery and other branches were fair.
22	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	Rejected	Anatomy and Surgery indifferent.
23	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	Do.	Ignorant of Latin and Anatomy.
24	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	Do.	Utterly ignorant of the Latin language.
25	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	Passed	Anatomy good; Surgery only fair; Practice of Medicine indifferent; other branches fair.
26	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	Do.	Anatomy, Surgery, and Practice of Medicine good; other branches fair.
27	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	Do.	Anatomy and Surgery only fair; Practice of Medicine good; other branches fair.
28	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	Rejected	Anatomy bad; Surgery and Practice of Medicine indifferent.
29	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	Passed	Anatomy good; Surgery and Practice of Medicine fair; other branches fair.
30	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	Rejected	Anatomy indifferent; Surgery bad.
31	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	Do.	Utterly ignorant of the Latin language.
32	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	Passed	Anatomy indifferent; Surgery, Practice of Medicine, and other branches only fair.
33	..	1	..	..	1	..	..	..	1	..	..	..	..	..	..	..	Rejected	Anatomy only fair; Surgery bad; Practice of Medicine indifferent.
34	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	Passed	Anatomy and Practice of Medicine good; Surgery only fair; other branches fair.
35	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	Do.	Anatomy good; Surgery fair; Practice of Medicine indifferent; other branches fair.
36	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	Rejected / Passed	1st Examination. Anatomy and Surgery bad. 1865, 2nd Examination. Passed a good examination in all branches.
37	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	Passed	Anatomy Surgery, and Practice of Medicine good; other branches fair.
38	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	Rejected	Latin and Anatomy bad.
39	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	Do.	Anatomy indifferent; Surgery only fair; other branches and Latin bad.
40	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	Do.	Anatomy indifferent; Surgery bad; and other branches bad.
41	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	Passed	2nd Examination. Anatomy, Surgery, Materia Medica, and Botany good; other branches fair.
42	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	Rejected	Latin, Anatomy, and Surgery bad.
43	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	Passed	A good examination in all branches.
44	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	Do.	Anatomy and Practice of Medicine good; Surgery only fair; other branches fair.
45	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	Rejected	Latin and Anatomy and Surgery indifferent; Materia Medica bad.
46	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	Passed	A good examination in all branches.
47	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	Do.	A good examination in all branches, excepting Practice of Medicine, which was only fair; Latin indifferent.
48	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	Rejected	Utterly ignorant of the Latin language.

Note.—Several of the Candidates possessed qualifications which are not included in Schedule (A).

"Admiralty, W.C., 13th March, 1865.

"Sir,—With reference to your letter of the 27th of May last, I have the honour to forward, for the information of the General Council of Medical Education and Registration of the United Kingdom, a Report from the Board of Examiners on the examinations of candidates for Medical commissions in the Royal Navy during the year 1864.

"I have the honour to be, Sir,

"Your very humble Servant,

"(Signed) A. Bryson, Director-General.

"Dr. F. Hawkins, Registrar of the General Council
"Medical Education and Registration of the
"United Kingdom, 32, Soho-square."

their knowledge of these branches of science. The subjects for this part of the examination will be taken from the following books:—(1) "Animal Kingdom," by W. S. Dallas, F.L.S; (2) "Outlines of the Structure and Functions of the Animal Kingdom," by Rymer Jones; or "Cours Elémentaire d'Histoire Naturelle," par Milne Edwards; (3) Lindley's "School Botany;" Lindley's "Medical and Economic Botany;" Henfrey's "Elementary Course of Botany." Candidates who desire it may also be examined in the Elements of Physics and in Physical Geography. The following books are recommended for this purpose:—(1) "Elements of Natural Philosophy," by Golding Bird and C. Brooks; (2) "Physical Geography," by Mrs. Sommerville.

"Admiralty, Somerset House, 6th March, 1865.

"Sir,—We have the honour to submit, for the information of the General Council of Medical Education and Registration of the United Kingdom, the following Report on the examinations of candidates for Medical commissions in the Royal Navy during the year 1864:—

"1. The total number of candidates who presented themselves for examination during the year was forty-nine; of these twenty-one were rejected, having failed to satisfy us as to their Professional knowledge, and one was found to be physically unfit for the service.

"2. The accompanying table supplies the information required by the Medical Council with reference to the qualifications of the candidates, and the points on which they were chiefly deficient.

"3. The examination is *vivâ voce*, but each candidate is furnished with a paper containing a question or questions upon subjects of a Professional nature, to which he is expected to reply in writing; and previous to the oral examination, he is required to translate a paragraph from a Latin author.

"4. In its scope the examination embraces all the ordinary subjects of Professional study—viz., Anatomy, Surgery, Practice of Medicine, Midwifery, Materia Medica, Chemistry, and Botany.

"5. Being a *vivâ voce* examination, and the questions being left to the judgment of each individual examiner, it is not possible to furnish a return of those actually proposed, but appended hereto is a list of the subjects on which the candidates have at different times been examined, and which, put in the interrogative form, gives a fair idea of the general character of the questions. The Council is, doubtless, fully aware that in such examinations the same question requires to be put in a variety of forms, to meet the various comprehensions to which they are addressed.

"6. We regret to have to report that in a very large number of cases indeed the candidates displayed a lamentable ignorance of Latin; some were scarcely able to translate the Pharmacopœia, and but few possessed a useful knowledge of the language. From the nature of the excuse most frequently made by them, it appears to us that very many had acquired only a sufficient acquaintance with the language to enable them to pass the preliminary examination of other Boards, and that they had then thrown it aside as altogether useless.

"7. We have also to regret that so important a branch of Professional education as Operative Surgery on the dead body should so rarely enter into the curriculum of study of those who come before us; and we desire to express a strong opinion that no Surgical diploma should be attainable, without satisfactory evidence being produced that the principal operations in Surgery had been performed on the dead body under a qualified teacher.

"We have the honour to be, Sir,

"Your very humble Servants,

"E. Hilditch, M.D., Inspector-General,

"J. W. Salmon, Deputy Inspector-General,

"Alex. E. Mackay, M.D., Deputy Inspector-General.

"Dr. Bryson, F.R.S., &c., &c., &c., Director-General."

The Brighton Review.—The only serious casualty that occurred during the day was one which happened to Joseph Lambert, of Poplar, gunner in the Tower Hamlets Artillery. He was acting with the men of the 1st Middlesex Artillery, when, in trying to clear the wheel of an ordinary carriage which was passing close to the cannon, he fell and one of the wheels of the gun passed over his thigh, not breaking, but bruising it very badly. The poor fellow was at once conveyed in one of the Netley ambulances from the field to the temporary hospital fitted up in case of accidents at the review, where he was attended to by Brigade-Surgeon Burrows, of the 1st Sussex Artillery, assisted by the Doctor of the Civil Service Corps. This little Hospital is very neat and airy. It contains four beds, an operating table, and all the appliances necessary in Surgical cases of emergency. In addition there were four accident beds provided at Bevendean Farm, and a ward to accommodate thirty or forty cases was secured in the Industrial Schools. Brigade-Surgeon Burrows had charge of these arrangements, which were altogether exclusive of those in the general Hospital of the town. Two of the men of the Carbineers had falls from their horses. One soon recovered from the shock he received in falling, and was able to mount again. The horse trampled on the knee of the other soldier and hurt it, but even in this case the injury is believed not to be a serious one.

FOREIGN CORRESPONDENCE.

GERMANY.

Berlin, April 9.

As epidemic cerebro-spinal meningitis continues to be one of the most prominent subjects of the day, I begin with mentioning the symptoms and post-mortem appearances of one of the cases observed by Dr. Frentzel in the barracks of the Alexander Regiment, and which will be sufficient to prove that this disease is totally different from typhus, with which it has by some recent writers been confounded. J. M., aged 20, previously in good health, had rigors one night, and complained of headache. He vomited a mucous liquid once. In the morning he was almost unconscious, and did not answer questions. The head was drawn backwards, the muscles of the neck very rigid, and slight pressure on the nape of the neck, especially near the vertebræ, made him scream. The abdominal muscles were also rigid, and pressure on the parietes was painful. The patient lay on the side or on the stomach, but not on the back. Mouth firmly closed, considerable force being necessary to open it in order to see the tongue. Roseola over the whole surface of the body; but this disappeared the next day. Chest healthy; no tumour of the spleen; pulse 75 in the morning—100 in the evening; temperature 103·6; number of inspirations, 30; pulse next morning, 132—in the evening, 92. On the third day, the pupils appeared very much contracted, and did not act against light. The patient, who had been delirious during part of the previous day and night, became now very quiet and comatose. There was opisthotonus, and great sensitiveness of the back. On the fourth day, there appeared inflammation of the orbit, prominence of the eyeball, and œdema of the conjunctiva. The next day there was a bloody motion and bleeding from the nose. On the morning of the sixth day death ensued. The autopsy was made thirty-three hours after death, the temperature being then 55°. Livid spots along the back and the extremities; muscles of the back very dark. The dura mater of the spinal cord generally pale; the veins considerably filled on its posterior surface. It had a yellowish colour in the lower parts of the lumbar portion; and the pia here contained a considerable quantity of fluid, pale, yellow pus. The quantity of pus in the pia diminished towards the upper part of the spine. In the cervical region there was no pus at all. About the seventh cervical vertebra the veins were more filled than usual. Purulent infiltration extended below on both sides, from the cord to the posterior roots of nerves, which in their course in the vertebral canal were completely enveloped by pus. On the *anterior* surface of the spinal cord the internal aspect of the dura was normal. In the lumbar portion of the pia there was considerable purulent infiltration; in the dorsal portion this was only seen in a few places; the cervical portion was normal. Cervical portion of the cord normal; in dorsal portion the white matter was rather moist; at the posterior horns pretty extensive injection of blood-vessels; the grey matter of lumbar portion was extensively reddened. *Skull* large; top rather thin; diploe full of blood; dura hyperæmic; numerous soft coagula in sinus longitudinalis; inner surface of dura dry; pia rather dry on the gyri, while the large veins in the sulci are filled with a great deal of dark blood; pia there being œdematous, and infiltrated with pus. Pus most considerable on the left side close to the median line, but also on the right side, especially in the anterior portions. Pacchionian granulations likewise filled with pus. Extensive purulent infiltration on the basis cerebri, more especially at the infundibulum and the anterior portion of the pons. Both optic tracts thickly covered with pus; posteriorly the pus follows the course of the basilar artery; is very thick on the vermis inferior of cerebellum. Lateral ventricles rather wide, contain a yellowish turbid liquid. Velum choroides thickened, contains a yellow mass which cannot be separated, but is in the tissue itself. Brain matter very flabby; vessels of white matter congested. Grey matter dark and extensively reddened. Near the left corpus striatum, at the nucleus lentiformis, numerous extravasations of blood. Fourth ventricle wide. Between the lower surface of the pons and the aqueduct of Sylvius a fissure filled with fresh blood. Extensive purulent infiltration of left orbita, but no changes in periosteum, muscles, or retina. Sinuses at the base of the brain contain much dark and nearly coagulated blood. The appearances in the other organs did not show anything worth mentioning.

Latest advices from St. Petersburg mention that the epidemic of recurrent or relapsing fever continues, and that three different forms of it may now be distinguished. The worst form is "the cyanotic," which speedily ends in death like asphyctic cholera, but has only been observed in about a dozen cases. The "simple form" has been described in my last letter; the third form is the "bilious" one. In this there is icterus from the commencement, vomiting of bile, delirium, and great prostration. Pulse and temperature fall below the standard, the tongue gets dry, there is a collapsus faciei, and other ominous symptoms; yet the patients often recover, although convalescence is very protracted. Large doses of quinine, which were given at first, have now been abandoned, as it seems that the patients get on better without such medication.

(To be continued.)

OBITUARY.

DR. EDWIN E. DAY.

Last week we announced the death of this amiable young Physician, in his 30th year, after a short, but painful illness. He was the only son of Mr. Day, who for many years enjoyed an extensive practice at Acton, in Middlesex, and was educated first in the School of King's College, and afterwards, at the proper age, in the Medical School of that Institution, where he gained the gold medal for general proficiency in Professional knowledge, as well as the special prizes given at King's College for correct conduct and religious knowledge. After passing the Hall and College, he succeeded his father as general Practitioner at Acton; but soon found that this place afforded no sufficient scope for his ambition or his activity. So he removed to London, determined to try his fortune as a Physician-Accoucheur, and obtained first an obstetric appointment at King's College Hospital, and then one or more of those dreary hopeless opportunities of drudgery, unpaid and unthanked, in the shape of the Physicianship to the Farringdon, and to the St. George's and St. James's Dispensaries. Thus his time and strength were expended in the study of disease amongst the destitute or dissolute poor, and in acquiring the experience and popularity which might have been hoped to bear fruit hereafter. He also worked hard at obstetric investigations, contributed several papers to the *Transactions* of the Obstetrical Society, and was engaged to read a paper at the Medical Society of London, almost on the day of his death. But his constitution was little adapted for such toil in the murky atmosphere of out-patient rooms. Stout and muscularly strong though he were, there was often a languor and air of relaxation and debility about him, and, as he said on his death-bed, he never fancied that he possessed the same energy as other men of his age, and always had a presentiment that he should not live to be thirty. At last, on March 23, after assisting at the post-mortem examination of some puerperal cases in King's College Hospital, he took to his bed with erysipelas of the head and face. This disappeared in a very few days, and was succeeded by acute rheumatism; and this induced pericarditis, to which he succumbed on April 7, after many days of obstinate, but hopeless struggle for breath. Throughout his illness there was the most marked depression of mind and body, and utter absence of all relish for nourishment; but the intellect was marvellously acute; the sufferer noticed every minute circumstance in his own case, and well knew its bearing on his chances of recovery; and he exhibited the most manly fortitude, and met the great change impending over him with the resignation and devotion of a true Christian. He was buried in the family vault at Acton, amidst the tears of the whole poor population, to whom he had endeared himself by his patient and considerate kindness whilst he was in practice there. Dr. Day, if he had been content with the hard work and narrow income of a country Practitioner in a not very wealthy neighbourhood, might have lived to a good age in pure air. As it is, he is one of a class of little-heeded martyrs to foul air and gratuitous attendance on the poor. The officious philanthropists who get up Dispensaries give their annual guinea; the Medical officers too often give their lives.

Dr. William Frederick Mackenzie, whose early death we announced last week, was born in New South Wales. He received his Professional education at University College School and Hospital, where he distinguished himself greatly as a student, and finally received the honour of being elected Fellow and Member of Council of the College. He was a member of the University of London, and took honours at the M.D. examination, 1841, obtaining the gold medal for Medicine, and a certificate of special proficiency in Medicine. In 1855 he joined the Royal College of Physicians, London. He was fellow of the Royal Medical and Chirurgical Society, and succeeded the late Dr. Babington as Physician to the Queen Charlotte's Hospital; he also held several other, but minor, obstetrical appointments. His literary labours, though not numerous, were full of value and practical importance. In his Lettsomian lectures at the Medical Society of London he contributed largely to the "pathology and treatment of phlegmasia dolens," a subject which he continued to work and take great interest in. To the Obstetrical Society he sent several important papers, and to the Medical and Chirurgical Society one of much interest, "On the Action of Galvanism upon the Gravid Uterus, and its Remedial Powers in Obstetric Practice." Dr. Mackenzie began in general practice at Bayswater. Continuing a practice already there established, he rapidly obtained a larger and larger influential connection, and became as much liked by his patients as by his friends. He had the great misfortune to lose his wife about two years since, and it may be said with truth never recovered the affliction. His illness was of short duration, lasting only a week or ten days, and the proximate cause of death seems to have been disease of the kidneys. Dr. Mackenzie was in his 49th year, and has left, besides a large circle of friends to mourn his loss, an only surviving son, who is now at the Wellington College.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Court of Examiners on April 13, and when eligible will be admitted to the pass examination:—

George Lucas, W. W. Inglis, F. Rainbow, F. W. Smith, and A. C. Maybury, students of St. Thomas's Hospital; James Rawlings, W. P. Boyle, J. W. Morris, J. P. Cheetham, and S. K. Watson, of Guy's Hospital; Joseph Oakman, Walter Moore, W. C. Watson, and R. C. Brookes, of the Westminster Hospital; J. W. Melson, George Chapman, Frederick Hopkins, and M. H. Wright, of Birmingham; Edward Nettleship, R. H. Robinson, and E. H. Seccombe, of King's College; W. J. Tattersall, H. C. Upton, and E. C. Maxwell, of St. Bartholomew's Hospital; J. W. Pinder and Charles Wills, of the Middlesex Hospital; George Hails and S. K. Powell, of Newcastle; and Timothy Lewis, of University College.

Out of the 107 candidates who offered themselves only twelve were rejected.

The following gentlemen passed on the 18th inst., viz.:—

George Roots, C. J. W. Meadows, G. S. Elliston, J. R. Stocker, H. K. King, Charles Sangster, J. W. Cooke, and Henry Moon, students of Guy's Hospital; W. H. Ellis, E. J. Leverton, Isaac Coulbank, M. L. Heelas, and C. D. Batt, of St. Bartholomew's Hospital; William Bonney, J. C. Bailey, J. H. Casson, and Hugh Ferguson, of the Middlesex Hospital: George Mannings, Walter Smith, and A. A. Napper, of King's College; John Sykes, T. E. Scatchard and Edmund Robinson, of Leeds; R. E. Ash and C. E. Howard, of St. Mary's Hospital; T. R. Loy and Edgcumbe Cornish, of University College; Arthur Hill, Westminster Hospital; J. W. Booth, St. Thomas's Hospital; and M. S. McDonnell, of Hull.

The following gentlemen passed on the 19th inst., viz.:—

Arthur Humphry, P. D. Hopgood, John Tremearne, R. H. Coombs Frank Ewbank, and J. M. Dixon, Students of St. Bartholomew's Hospital; S. J. Truman, W. G. Palmer, T. A. Buck, F. A. Thomas, and Douglas Wills, of Guy's Hospital; G. H. R. Dabbs, Denis Daly, R. L. Wilcox, W. H. Mills, and G. H. Snape, of King's College; S. S. White, J. A. Hayden, and George Aircy, of Charing-cross Hospital; W. P. Pindor and R. M. Pryce, of University College; Thomas Horder and R. F. Hay, of the London Hospital; F. B. Farley and J. E. Schön, of the Middlesex Hospital; T. J. Quicke and M. W. Chambers, of the Westminster Hospital; John Ockenden, of St. Mary's Hospital; William Makinson, of Manchester; Moses Taylor, of Birmingham; and Edward Malins, of Edinburgh.

The following gentlemen passed on the 20th inst., viz.:—

Arthur Goodwin, G. F. Trotter, W. F. Thurston, and W. H. Rawlings, students of Guy's Hospital; C. M. Heim, Herbert Tibbits, W. J. Garrett, and Edmund Exell, of St. Bartholomew's Hospital; E. C. Ring, P. H. Mules, and Robert Anderson, of St. George's Hospital; G. M. Lowe, Robert Thorburn, and Alexander Steven, of Edinburgh; Joseph Ludlam and J. W. Langmore, of University College; W. W. Smith, of the Middlesex Hospital; J. W. Booth, of St. Thomas's Hospital; J. W. Allin, of Charing-cross Hospital; T. E. Bowkett, of the London Hospital; J. L. Cooke, of Birmingham; H. M. Fothergill, of Newcastle; R. A. Mowell, of Liverpool; Alexander Paterson, of Aberdeen; and A. J. Farr, of Bristol.

It appears that out of the 105 candidates who offered themselves for examination no less than 20 were referred back to their studies.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, April 13, 1865 :—

Henry Hargreaves Birtwell, Blackburn; Archibald Megget, Scarborough; Henry Nelson Edwards, 1, Finsbury-square.

As Assistants :—

Charles Henry Barrett, Bristol; Christopher Emmott, Gray's-inn-road.

The following gentlemen, also on the same day, passed their first Examination :—

Edward James Leverton, St. Bartholomew's Hospital; Henry Cecil Smith, Guy's Hospital; Philip Henry Mule, St. George's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ARMSTRONG, JOHN CHRISTOPHER, M.R.C.S., has been elected Surgeon to the Gravesend and Milton Infirmary and Dispensary.

BENNETT, GEORGE J., M.R.C.S. Eng., has been appointed Surgeon to the 1st Newcastle-upon-Tyne Artillery Volunteers, and Honorary Surgeon to the Gateshead Dispensary.

CLEMENTS, GEORGE, M.R.C.S. Eng., has been appointed Physicians' Assistant to the Royal Manchester Infirmary.

HOWES, FRANK, M.R.C.S. Eng., has been elected Resident Medical Officer to the Eastern Dispensary, Bath.

DEATHS.

HARVEY, HENRY OFFLEY, M.R.C.S. Eng., Assistant-Surgeon 1st battalion 21st Fusiliers, at Anglesea Barracks, Portsmouth, recently, aged 29.

KEBBELL, MARK, M.R.C.S. Eng., at Wellington, New Zealand, on February 3, aged 38.

MARRIOTT, WILLIAM M., M.R.C.S. Eng., at Kibworth House, Leicester, on April 12, aged 67.

SHARPE, GEORGE G., M.D., at Epsom, Surrey, on April 18, aged 86, formerly of Peckham and Stamford.

ODONTOGRAPHIC SOCIETY OF PENNSYLVANIA. — On February 7 Professor Thomas H. Huxley, F.R.S., F.L.S., was elected an honorary member, and Charles James Fox, M.R.C.S., L.D.S., a corresponding member of this Society.

THE BRITON MEDICAL AND GENERAL LIFE ASSOCIATION. —The eleventh annual Report of this Association states that the proposals for new assurances have been 3280 in number, amount proposed £818,888. Of these 212 for £49,540 have been absolutely declined, 390 for £91,188 have not been carried into effect, and 224 for £56,275 were in course of progress at the close of the year. The remaining 2454 have been completed, and that number of policies issued, assuring £621,885, and producing in new annual premiums the sum of £20,060 14s. 3d. Four annuities have been granted, and £650 received as the purchase-money for the same. The directors further report that the gross income of the Association has increased to the sum of £124,091 7s. 4d., and that after the payment of all outgoings the balance of income over expenditure for the year is £30,560 10s. 10d. The assets of the Association now amount to £247,593 8s. 3d., or within a trifle of a quarter of a million of money. Dr. Sieveking's name is now added to the list of directors.

THE RUSSIAN PESTILENCE.—The annexed general order regarding the Russian pestilence has been transmitted to the Customs' collectors of the various ports of the United Kingdom :—

"Custom House, London, April 5.

"Sir,—I am desired by the Board to transmit for your Government the accompanying copy of a letter from Mr. Helps, Clerk of the Council, dated the 4th inst., relative to the pestilence which is alleged to prevail in certain parts of Russia, and I am to direct you to instruct the proper officers at your port, in the event of the arrival from any port in the Baltic of a vessel in which there is any case of cholera, small-pox, typhus or typhoid fever, or in which any disease whatever is extensively prevalent, forthwith to report the circumstance to you, and you are immediately to communicate the same to the local authorities, in order that they may take such measures as they see fit for the protection of the public health within their jurisdiction, observing, however, the greatest discretion in the mode of conveying the information, in order that no avoidable alarm may be created, and reporting your proceedings to the Board.

"With regard to vessels arriving with plague or yellow fever on board, you are to be guided by the orders already issued in respect to placing such vessels under the restraint of quarantine.

"I am, Sir, your obedient servant,

"The Collector, ——." "GEO. DICKINS.

"Counell Office, Whitehall, April 4.

"Sir,—I am directed by the Lords of the Counell to transmit to you, for the information of the Commissioners of Customs, the enclosed copy of the correspondence which has taken place between the Foreign Office and this department relative to the pestilence which is said to prevail in certain parts of Russia, and I am directed by their Lordships to request that you will move the Commissioners to give such instructions to their officers at the various ports in the United Kingdom as will insure the exercise of the utmost possible vigilance in the examination of all vessels arriving from any of the ports in the Baltic.

"I am, Sir, your obedient servant,

"The Secretary, Customs." "ARTHUR HELPS.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

In consequence of the large amount of space occupied by the proceedings of the Medical Council, we are obliged to postpone our Hospital Reports, Reports of Societies, Reviews of Books, and several Original Communications and Letters, until next week.

We regret that we are again compelled to defer our notice of the Second Annual Report of the Coroner of the Central Division of Middlesex.

Mr. R. Griffin.—The circular has not been received.

M.D., R.N., Plymouth.—As a member of the College, you will not be required to pay an additional fee on undergoing the examination for full Surgeon. You could attend next week.

GRIFFIN TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscriptions have been further received on behalf of the above fund :—Richard Grimbly, Esq., Banbury, £1; Richd. Mallam, Esq., Banbury, 5s.; Jeremiah McGreal, Esq., Banbury, 5s.; and Thos. Elkington, Esq., Southam, 10s., per Richard Grimbly, Esq., Banbury. Richard Wilding, Esq., Church Stretton, 5s. 3d. Amount previously announced, £123 6s. Received at *Lancet* Office, £9 9s.

I am, &c.

ROBERT FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, April 20.

COMMUNICATIONS have been received from—

DR. SAMUEL WILKS; BRITON LIFE ASSOCIATION; APOTHECARIES' HALL; MR. RICHARD GRIFFIN; MEDICUS; M. A. B.; M.R.C.S. Eng.; PHARMACEUTICAL SOCIETY; HARVEIAN SOCIETY OF LONDON; DR. FOTHERBY; ADVICE GRATIS; DR. ROBERT FOWLER; MR. CHARLES J. FOX; MR. THOMAS P. SKINNER; MR. B. B. ORRIDGE; ETHNOLOGICAL SOCIETY OF LONDON; MR. S. WHITFORD; DR. T. MASSIE HARDING; MR. GEORGE CLEMENTS; MR. J. S. BRAZIER; ROYAL INSTITUTION; DR. C. KIDD; DR. JOSEPH BULLAR; MR. FURNEAUX JORDAN; J. E.; ONENESS; MEDICAL SOCIETY OF LONDON; MR. JOHN NUNN.

BOOKS RECEIVED.

De la Guérison des Fièvres intermittentes et Larvées. Par N. Brault et E. Peneau. Bourges. 1864.

*** This tract has been written to celebrate the virtues of powdered cuttle-fish bones and oyster shells in the cure of intermittent fevers. The learned authors tell us that already the list of substances to which similar properties have been assigned would almost fill a volume, but that practically it may be compressed into two—quinine and arsenic. Now, of these, the first is too dear, the second too dangerous; but sepia bones and oyster shells may be substituted, with certain success, for both. We congratulate the authors on their discovery, and recommend them to continue their investigations into the virtues of animal remains. The human skull had formerly medicinal virtues assigned to it when it was obtained from a churchyard under certain conditions, and here is an epitome of the curative powers of bones from Adams's "Paulus Ægnieta," which we commend as suggestive to Messrs. Brault and Peneau :—"The ankle-bone of a sow when burnt is said to cure flatulence and tormina. And some cure epilepsy and arthritis by giving burnt bones to drink. And burnt ankle-bone of an ox is said to fasten loose teeth; but if drunk with honey, it removes round worms, and with oxymel it reduces the spleen, and when rubbed in relieves leuce. It is also an aphrodisiac," etc., etc.

Statistical Tables of the Patients under Treatment in the Wards of St. Bartholomew's Hospital during 1864. By G. Edwards, M.D., and A. Willett, F.R.C.S. Lond. Adlard. 1865.

*** Of the 6096 patients admitted, 169 contracted other diseases in the Hospital,—viz., 7 measles, 7 scarlatina, 19 typhus, 1 typhoid, 40 erysipelas, 44 cellular inflammation or pyæmia, 1 diphtheria, 9 rheumatism, 19 phagædena, 6 gangrene, 1 tetanus, 15 delirium tremens. Of the typhus, 7 patients and 2 *nurses* recovered; 5 patients and 3 nurses died. These tables contain every particular to be expected or desired in such a work.

Lectures on Nursing. By Dr. J. C. Lory Marsh, M.D. Second Edition. London: W. Kent and Co.

*** A cheap shilling's-worth to any woman beginning the practice of nursing.

Heat Considered as a Means of Motion. By John Tyndall, F.R.S. London: Longman and Co.

*** A second edition of the well-known "Lectures," more formally written and divided into chapters. The author's latest researches on Radiant Heat are added, and that part which relates to vital phenomena is newly written.

A Manual of Physiology, including Physiological Anatomy. By W. B. Carpenter, M.D. Fourth Edition. London: John Churchill and Sons. 1865.

*** The number of pages and of woodcuts is largely increased in this edition. The author gives in his adhesion to Professor Beale's views of nutrition, as lately published in these columns, except in so far as regards the denial of vitality to the "formed material."

Edinburgh Medical Journal. No. 118. April. Edinburgh: Oliver and Boyd.

*** Several interesting articles,—*e.g.*, by Dr. Rutherford Haldane on Uræmic Convulsions, Dr. Arthur Mitchell on Consanguineous Marriages, and Mr. Thomson, of Perth, on the Dietary of Scottish Agricultural Labourers. He takes a coarse mechanical version of the views of Dr. E. Smith, and believes that the Scottish labourer's oatmeal diet is better than that of the English labourer. It may be so on paper, but, if it be so, it is odd that the Scotsman should be so ready to change it when he gets the chance.

Annual Report of the Manchester and Salford Association for the Year 1864.

Report of the Health of Liverpool during the Year 1864. By W. S. Trench, M.D.

*** These reports on Manchester and Liverpool are admirable documents, and shall be noticed in another page.

The Watch-Tower. No. 1. London: 158, Fleet-street.

*** The first number of a monthly religious shilling magazine. It contains some sensible things,—*e.g.*, we have marked with approbation what one writer says about the necessity of manly exercise for clergymen, and on the odiousness of eccentricity in women; upon the whole, the thing seems flat, and has a strong smack of the Lock Hospital about it. The first article is by Mr. Capel Molyneux, Chaplain to that institution.

The Day of Rest. No. 1.

*** A weekly penny magazine. Why it should be called the "Day of Rest" we know not: but, at any rate, it contains a jolly tale called "My First Patient," and if people read such things on Sundays, under parsonable authority, things must have taken a jolly turn with the parsons, and we hope they will put a little fun into their sermons.

Observations on Medical Education. By R. Quain. London: Walton and Maberly.

*** Is too purely in the interest of the Royal College of Surgeons; otherwise gives a very able account of past and present state of Medical education, and shall be noticed more at length.

Autobiography of the late Sir Benjamin C. Brodie, Bart. London: Longman and Co. Pp. 187.

*** No better present can be imagined for any boy entering any profession.

The Westminster Review. April. London: Trübner and Co.

*** Contains a very useful exposition of M. Auguste Comte's Philosophy.

A Dictionary of Chemistry. By H. Watts, B.A., F.C.S. Part XXV. London: Longman and Co.

*** Completes letter M, with index to vol. iii.

The Journal of Mental Science. April. London: John Churchill and Sons.

*** Contains many able and unusually vigorous articles,—*e.g.*, one on G. Victor Townley and one on Dr. Barclay's "Medical Errors."

The Glasgow Medical Journal. April. Glasgow: W. Mackenzie.

*** Dr. C. G. Ritchie, of London, has some valuable Obstetric Reports, and Dr. Buchanan some good observations on Vaccinal Syphilis, and on Complication of Syphilis with Scabies.

Suggestions for an Institution for Trained Nurses in Connection with the Infirmary at Salisbury. By John Roberts, M.D. Salisbury: Brown and Co.

*** Valuable and incontrovertible as these suggestions are, why do not the Salisbury people carry them out?

On a New Mode of Treating Cases of Vesico-Vaginal Fistula. By A. Meadows, M.D., etc.

*** From the Obstetrical *Transactions*. The author does not believe in the necessity of absolute rest after the operation; but the title leads one to expect more than one finds in the paper.

The Personal Responsibility of the Insane. By James T. Duncan, M.D. Dublin: Fannin and Co.

The Quarterly Journal of Science. No. 6. April, 1865. London: John Churchill and Sons.

*** A good article on Microscopic Spectrum Analysis Applied to Blood Stains, and another on Prehistoric Records, which is very interesting.

The Veterinary Review. April, 1865. Edinburgh: W. P. Nimmo.

*** Contains a good deal that is interesting to Medical men,—as the questions of diseases of cows, and of *goitre* in foals as a sign of constitutional debility.

The Geological Magazine. April, 1865. London: Longman and Co.

*** An interesting number, in which we are glad to see the names of a rising race of Lankesters and Carpenters as contributors.

The British Journal of Dental Science. March, 1865. London: John Churchill and Sons.

Stammering and Stuttering, their Nature and Treatment. By James Hunt. Sixth Edition. London: Longman and Co.

The British and Foreign Medico-Chirurgical Review. No. 70. April. London: John Churchill and Sons.

On the Method of the Study of the Mind. By H. Maudsley, M.D. London: John Churchill and Sons.

Annual Report of the Cumberland and Westmoreland Lunatic Asylum for the Year 1864.

Homes without Hands. Part 16. By the Rev. Hy. Wood, M.A. London: Longman and Co.

Revelations of Quacks and Quackery. By "Detector." Reprinted from the *Medical Circular*.

A Brief Sketch of the Past and Present Condition of the Bengal Medical Service. By a Surgeon of the Bengal Army. Calcutta: *Englishman* Press. 1865. Pamphlet.

On Primary Cancer of the Brain. By G. Mackenzie Bacon, M.D. London: John Churchill and Sons. Pamphlet.

A Critical Inquiry regarding Superfœtation, with Cases. By George Lindsay Bonnar, M.D. London: John Churchill and Sons. Pamphlet.

Report of the Wilts County Asylum, Devizes, 1864.

Report of the Norfolk Lunatic Asylum, 1864.

Report of the Northampton Lunatic Asylum, 1864.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 15, 1865.

BIRTHS.

Births of Boys, 1036; Girls, 937; Total, 1973.
Average of 10 corresponding weeks, 1855-64, 1885·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	800	733	1533
Average of the ten years 1855-64	658·8	625·0	1283·8
Average corrected to increased population..	..	..	1412
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	2	5	4	3	12	9	5
North ..	618,210	8	2	11	5	17	21	4
Central ..	378,058	1	3	4	3	24	14	3
East ..	571,158	..	1	5	1	28	17	1
South ..	773,175	3	5	9	1	11	11	5
Total ..	2,803,989	14	16	33	13	92	72	18

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·963 in.
Mean temperature	52·4
Highest point of thermometer	72
Lowest point of thermometer	37·4
Mean dew-point temperature	43·5
General direction of wind	Variable.
Whole amount of rain in the week	0·15 in.

APPOINTMENTS FOR THE WEEK.

April 22. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m. Royal Free Hospital, 1½ p.m.

24. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

Medical Society of London, 8½ p.m. Morell Mackenzie, M.D., "Dysphagia: its Varieties and Treatment." Arthur Leared, M.D., "On Disguised Disease of the Heart."

25. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Ethnological Society of London, 8 p.m. Rev. Jas. Brodie, "Observations on the Peculiarities of National Pronunciation as a Means of Tracing the Origin and History of Nations."

Royal Medical and Chirurgical Society, 8½ p.m. Dr. T. Laycock, "On the Influence of Nerve-centres on Dropsies and Dropsical Effusions."

Royal Institution, 4 p.m. Professor Frankland, F.R.S., "On Organic Chemistry."

26. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

27. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Royal Institution, 8 p.m. Professor Frankland, F.R.S., "On Organic Chemistry."

28. *Friday.*

Operations, Westminster Ophthalmic 1½ p.m.

Royal Institution, 3 p.m. Professor Lyon Playfair, F.R.S., "On the Diet of Man, etc."

ORIGINAL LECTURES.

LECTURES ON CHEMICAL AND MECHANICAL DISEASES AND THEIR RELATIONSHIP.

By H. BENCE JONES, A.M., M.D., F.R.S.

Lecture V.

DISEASES OF SUBOXIDATION.—ON GOUT.

(Continued from page 408.)

On the Symptoms of Gout.

The blood when loaded with urates varies every moment in the quantity of these crystals which it contains, and in its power of keeping them in solution; moreover, every moment by diffusion some of the urates pass with the nutriment and oxygen into the textures. The oxidation in the blood and textures may balance the supply or fresh formation, and no accumulations or congestions may occur until some Medical or Surgical accident—that is, some sprain or injury, some cold or other accident, as, for example, even an apoplectic attack—happens to determine the flow of blood or nutriment to any one part more than the rest; then and there gouty deposit and inflammation will be set up.

When no accident is the immediate cause, some ordinary occurrence may be sufficient to give rise to the gouty inflammation—thus a long walk, a tight shoe, a full meal, a strong dose of medicine, a fright, will determine the commencement of the local action, which may be of any degree of mildness or intensity. Thus it may be limited to a continuous feeling of burning and tenderness in the feet, or even to a few passing twinges in the great toe or heel, that may last only a few minutes; or it may fall upon one joint after another and produce an amount of suffering and general fever with a degree of redness and heat, and ultimately of swelling of the surface, that may surpass the products of any ordinary inflammation.

When the effusion which constitutes most of the swelling takes place from the vessels the tension in the capillaries is relieved, and the violent action becomes less.

Usually, the gout, like an abscess, fixes on one spot, and there remains until the whole attack is over; but as in pyæmia abscesses may occur in any number outside the bloodvessels as in the joints, so also when urates in excess are in the blood and textures they may set up congestion and combustion in any part, either successively or simultaneously, according to the amount of urates that diffuses into any part.

The pain arises from increased sensibility of the nerves, produced by the increased flow of blood from the oxidising action which is going on in and around the painful nerve; and this increased action is fed by the increased flow of blood in every part where complete obstruction does not occur; so that the pain is the best measure of the local symptoms. The general symptoms will vary with the age, sex, constitution, temperature, idiosyncrasies, and unsoundness of the patient. The same amount of urate poison in the blood and textures will in different persons produce totally different effects, and these will vary in the same person according as the combustion is slow or rapid; in other words, according as the attack is chronic or acute.

There is nothing in the general or local symptoms that can enable the eye to tell that any inflammation is certainly gouty; any other inflammation in the same parts will at first have precisely the same local and general symptoms, though the history of the attack will generally, though not always, lead to the truth. Thus secondary inflammations from traumatic or idiopathic pyæmia may be easily mistaken for gout.

Rheumatic inflammation so closely resembles gouty inflammation in all its local and general phenomena that no positive differentiation between the two diseases can be made, except in the *materies morborum*. The rheumatic poison has not yet been insulated; that it differs from uric acid in its solubility, and probably in its volatility, is shown by its not forming calculi, not depositing itself visibly on the joints, escaping by the skin and giving rise to local symptoms when the secretion of the skin is checked by cold and wet. In the analysis of sweat, as yet only one acid that at all approaches to uric acid in composition is known—sudoric or hydrotic acid ($C_{10}H_8NO_{13}HO$?). It may be that this is the rheumatic poison, and that an excess of it in the blood causes the rheumatic diathesis, and its local oxidation a rheumatic attack. But whatever the acid, there is no reason why the rheumatic and gouty acids should not coexist in the same blood, causing a rheumatic-gouty diathesis; nor why a local oxidation of both acids should not take place at the same time in the same part, constituting an attack of rheumatic gout. Certainly there is no positive proof as yet that this happens, but animal chemistry is still very young, and will speak much plainer on this and many other subjects when grown up. Meanwhile, the rheumatic poison exists as surely as the scarlet fever poison, and a skilful chemist may at any moment insulate both.

The local symptoms and the general symptoms of gout, rheumatism, and rheumatic gout closely resemble those of an ordinary inflammation, but there is a very important difference in that these specific inflammations are set up and modified in their course by the presence of specific substances in the textures that take part in the peroxidation. Hence, as soon as these substances are destroyed by oxidation in any part, or generally, the symptoms disappear from that part or from the body, and are transferred to another place or entirely subside. Thus the rate of transference is a measure of the intensity of the local action and of the amount of poison in the textures. In the severest attacks a few hours finds the seat of the inflammation changed, whilst in a very slight attack one joint may be slightly affected for months continuously.

There is another great difference between ordinary inflammation and rheumatic or gouty inflammations in these specific inflammations; pus comparatively rarely forms, while an excess of fibrin in rheumatism, perhaps even more than in gout, exudes wherever local action is taking place. How far this deposition of fibrin is connected with the peculiar oxidation of rheumatic and gouty inflammation, animal chemistry has to determine; certain it is that only in the weakest and most debilitated constitutions, in those in whom the actions of nutrition and oxidation are most imperfectly carried on, does pus in any quantity form either in the gouty or in the rheumatic inflammation.

The history and the causes of the attack usually furnish the means of determining the nature of the inflammation, but ultimately animal chemistry will tell with perfect certainty whether gout, rheumatism, rheumatic gout, or some other modified combustion is going on in the blood and textures. Even now Dr. Garrod has shown how from a few drops of serum obtained from a blister, uric acid, by its insolubility in dilute acid, may be proved to be present or absent; and who can foresee what new methods of quantitative or qualitative analysis of urates or sudorates may be discovered?

Professor Stokes by spectrum analysis can trace the oxidation or deoxidation of the blood globules, and we are beginning to recognise differences in the chemical composition of the sun and the fixed stars, and to determine the chemical and physical constitution of the nebulæ; whilst, by the same means, even the twelve-millionth of a grain of lithium can be detected in distilled water, and the sixth-millionth part of a grain in the urine.

On the Complications and Consequences of Gout.

As the gouty diathesis arises from urate of soda in the serum and serous fluid which passes out of the blood into every cell, so in every vascular as well as non-vascular texture urates may accumulate and set up an exaggerated process of oxidation so as to cause more or less severe inflammation. In the vascular textures the accumulation of urates is very unlikely to occur, and when it does happen, rapid circulation quickly causes an oxidation which removes the urates and restores the part to a healthy state.

An excess of urates while passing through the capillaries of the kidney is liable, like silver or other metallic poison, to be caught in the texture of the kidney, and to set up parenchymatous nephritis, which causes permanent organic disease.

Many of the complications of gout arise from some functional or structural disease to which the patient is liable, independently of the imperfect combustion of the urates in the tissues and blood. If any function or structure be wrong, the disturbance produced in the system by the local oxidation of the urates will, in some cases, increase the previous wrong action, and thus complicate the attack of gout.

Still, in other cases the counter-irritation, derivation, and purification of the blood and textures from urates by oxidation do remedy previous disorders, but there is a reverse truth which frequently makes itself evident in the increased suffering and weakness produced by an attack of gout accompanying or following some other disease. So that an attack of gout instead of being always a cure, is sometimes an aggravation of other ailments.

A gentleman about 70 years of age was entirely deprived by an apopletic attack of the use of his right side. Two days after the stroke the most violent gout came on in his right foot. The violent pain in the foot caused constant involuntary motion of the limb, over which he had no control. The paralytic state of the limb had no influence over the progress of the attack of gout, but the involuntary motion increased the suffering from the gout fearfully, but did not hinder his ultimate recovery.

A gentleman, 73 years of age, was under treatment for irritable bladder, dependent on chronic inflammation of the prostate; he had been confined to the house for some days by frequency and pain in voiding water, when violent gout came first in one foot, and when this subsided quite as severe an attack came in the other foot, disabling him for three weeks. Throughout the attack the irritability was even worse than before the gouty attack, and after the gout ceased there was no immediate improvement in the state of the bladder.

A gouty gentleman had for some months complained of pain in his head when he coughed, or sneezed, or shook his head, and without any cause he had become deaf. This lasted for two months, and was attributed to latent gout. He caught a very severe cold, which confined him to his bedroom, and the third or fourth evening he suddenly became comatose. He could not be roused to take his medicine or his food, and he passed his water under him. Active counter-irritation was used to the neck and extremities, and in the morning violent gout came in one foot, and he lost his head symptoms entirely. The gout was most intense in every joint of the body, and it was more than a month before he could move. When he began to drive out, he again began to complain of his headache when the road was rough; this increased, and in three or four days he again became very heavy, and before a week was over he died perfectly comatose, the attempt to bring out the gout again entirely failing.

The great mechanical consequence of gout is the loss of voluntary motion from the joints becoming fixed. The progress is from the toes and fingers through every joint to the jaws. I have seen a patient unable to stand for sixteen years —unable to move either hand or arm except to the slight degree that enabled him to sign his name somehow; unable to open his mouth except for very small morsels of food; unable to turn his head in any direction—a recumbent statue, with moving eyes, and heart, and diaphragm, sloughing from the constant pressure which he was unable to remove, while never-ending pain wore down the system until it was unable to resist a complication of disease.

(To be continued.)

ORIGINAL COMMUNICATIONS.

A DEFENCE OF "HUNTER ON THE VENEREAL DISEASE."

By SAMUEL WILKS, M.D.

I HAVE perused with considerable interest your valuable articles on syphilography, and agree with nearly all you say on that important subject, but I confess to some feeling of regret to see the name of Hunter so little venerated by you. You show, indeed, good reason why many of his doctrines cannot be received at the present day; and being so well acquainted with the subject, you are in a good position to refute them, but I think that an opinion expressed dictatorially by yourself is very apt to carry more weight with it than you intend, and thus the memory of one of the greatest men who ever adorned our Profession suffers unintentionally in your hands. You say that "John Hunter's celebrated treatise on the venereal disease, published in 1786, was the most mischievous book that ever was written; that no book ever printed contains such unwarranted deductions, and further that you cannot define modern syphilography better than by saying that it signifies the total refutation of Hunter's doctrines." In these conclusions I must humbly beg to disagree, for I consider that more will be found, both in doctrine and practice, in Hunter's treatise in accordance with the most advanced modern views than in any other work which has been written before or since his time, excepting those of a very recent period. I consider, indeed, that the very errors into which he is supposed to have fallen, and the extraordinary doctrines which he is said to have advanced, are indications of his having regarded the subject in a much more comprehensive and scientific spirit than all other writers of subsequent times. I candidly own to a reverence for the name of Hunter which would compel me to weigh more carefully his utterances than those of any other man, and I confess also to a prejudice in his favour on the subject of venereal disease, before I had studied his writings, from the fact of my old master, Mr. Aston Key, having always been ready to defend Hunter against charges of erroneous doctrine, which were constantly being made by those who were really strangers to his writings. Thus, in a short paper on syphilis written in the Guy's Hospital Reports by Mr. Key in 1840, this Surgeon says that much was laid to his charge of which he is wholly innocent. The excessive and indiscriminate use of mercury in all sores thought to be syphilitic as recorded and practised by Surgeons in the school of Hunter has no authority in the precepts of that great master of our art. His doctrine was considered as antiquated and his treatment mischievous; the erroneous views prevail because Hunter is not studied, the crude notions held by Hunter's contemporaries, and adopted by their immediate successors, unfortunately led to a practice prejudicial to Mr. Hunter's character as a pathologist. I believe Mr. Key was earnestly protesting against the excessive mercurial treatment which was erroneously charged on Hunter, rather than advocating his doctrines of venereal disease, which were not so well understood five-and-twenty years ago as at the present time.

Although, therefore, I may differ from you in respect to Hunter's merits, I trust you will allow me to occupy a space in your journal, in order to state some of the reasons which I have for concluding that this eminent man was in possession of the great truth which more recent writers are now upholding—the specific nature of the venereal disease and its resemblance to other constitutional maladies. I shall do little more than quote from his writings, and trust that younger members will read the original for themselves, as at the present day I am sorry to say our students almost ignore Hunter and his works.

For a proper understanding of his doctrines, however, I may just remark, in a few words, that the subject of venereal disease seems to have been for many centuries in an utter state of confusion, owing to the associating together all sexual diseases, including local sores, locally contaminating affections and sores containing within them a virus which was capable of infecting the whole system, or, as Carmichael says, "the syphilitic disorder which was imported at the end of the 15th century was confounded with all kinds of venereal diseases, and to the disgrace of our Profession (with two or three splendid exceptions) have continued from that day to the present, more than three centuries, to be confounded with it by the general body of Practitioners." It has remained for men still living to show, that a disease which affected the whole constitution, and had its analogies in the exanthemata, was a malady *sui generis*, not necessarily originating in the sexual organs, and, therefore, one to be absolutely separated from other diseases having their seat in those parts. Modern observations show that the virus may be introduced into any part of the system, but more usually on the genital organs, from these being the parts which are brought closest in contact, and that the virus is apt to locate itself in the most convenient lurking places; that the poison begins after some days to work in the system, and then the spot of introduction puts on peculiar characters; that afterwards febrile symptoms arise with cutaneous rashes, and subsequently all parts of the body are liable to be affected in a peculiar way from the deposition of a syphilitic lymph.

Now, I may ask, what writer has ever regarded the subject in a manner so near the truth as John Hunter? Indeed, I venture to think that his opening chapters would adorn any of the works on syphilis which have been written since his day. "Every infectious disease has its peculiar manner of being caught, and among mankind there is generally something peculiar in the way of life, or some attending circumstance, which exposes them at one time or other to contract such diseases, and which, if avoided, would prevent their propagation. The itch, for instance, is generally caught by a species of civility—the shaking of hands; therefore, the hand is the part most commonly first affected, and as the venereal infection is generally caught by the connexion between the sexes, the parts of generation commonly suffer first. From this circumstance people do not suspect the disease when the symptoms are anywhere else, whilst they always suspect it in every complaint of those parts. In the lower class of people one as naturally thinks of the itch when there is an eruption

between the fingers as in young men of the venereal disease whose genitals are affected; but as every secreting surface, whether cuticle or not cuticle, is liable to be infected by the venereal poison when it is applied to it, it is possible for many other parts besides the genitals to receive this disease. Therefore, it appears in the anus, mouth, nose, eyes, ears, and, it has been said in the nipples of women who suckle children affected by it in their mouths, which children have been affected in their birth from the diseased parts of the mother. The venereal poison is capable of affecting the human body in two different ways; locally, that is, in those parts only to which it is first applied; and constitutionally, that is, in consequence of the absorption of the venereal pus which affects parts while diffused in the circulation. When the matter has got into the constitution and is circulating with the blood, it there irritates to action. There are produced from that irritation many local diseases, as blotches on the skin, ulcers on the tonsils, thickening of the periosteum and bones."

Hunter, in the passage just quoted, takes a correct view of syphilis as a specific constitutional disease. The same is seen in numerous other parts of his treatise, and is obvious, from the fact of his separating his chapters on chancre and on lues venerea. "The venereal disease arising from a poison which as it is produced by disease, and is again capable of producing a similar disease, I call a morbid poison, to distinguish it from other poisons, as animal, vegetable, and mineral. Those which are capable of affecting the body locally and constitutionally, I call compound. The venereal poison, when applied to the human body, possesses a power of propagating or multiplying itself, and as it acts both locally and constitutionally, it is a compound morbid poison." The following also shows that Hunter looked upon the disease as a constitutional one, and only accidentally produced through the introduction of a poison by the genital organs:—"If the disease had taken place in any other part of the body than the organs of generation, it might never have probably gone further than the first person in whom it arose; but being seated in the parts of generation, where the only natural connexion takes place between one human body and another (except between mother and child), it was a most favourable situation for being propagated." If all the readers of Hunter had duly weighed the following quotations and understood his propositions, much error would have been avoided; and if all subsequent writers had been content to copy him, it would have been better, both for doctrine and practice:—"I have been speaking of the effect of the poison when applied to a secreting surface and without a cuticle. I now explain its effects when covered with a cuticle. I may be here allowed to remark that the penis, the common seat of chancre, is, like every other part of the body, liable to diseases of the ulcerative kind, and if attention is not paid to cleanliness, we have often excoriations or superficial ulcers; from that cause, also, these parts, when once they have suffered from the venereal disease, are very liable to ulcerate anew. Since, then, this part is not exempted from the common diseases of the body, and as every disease in this part is suspected to be venereal, great attention is to be paid in forming our judgment of ulcers here." "The poison much more readily contaminates if it is applied to a fresh wound than to an ulcer, in this resembling the inoculation of the small-pox. Whether there are any other parts of the skin or any other parts of the body more susceptible of this irritation than others, in consequence of local irritation, is not yet ascertained. It is generally caught on the parts of generation in consequence of a connexion between the sexes, but any part of the body may be affected by the application of venereal matter, especially if the cuticle is thin." So far from syphilis being a necessarily *venereal* disease, Hunter saw that this character was accidental, as also was the part most likely to be affected. "It is more liable to affect the penis from the configuration of the parts, and thus a favourite seat is between the angle and glans near the frænum, not from any peculiar tendency in those parts to catch the disease, but from allowing venereal matter to lie undisturbed in the chinks, by which it has time to irritate and inflame the parts; but as venereal matter is more easily rubbed off from prominent parts by everything that touches it, it is a reason why they so often escape." Can any passage proclaim in a clearer light the immeasurable superiority of Hunter over those who were treating the local sore as the main disease, and which he clearly shows is a mere accidental part of the complaint?

I will quote another passage in order to show how well Hunter understood the nature of the complaint, and yet how very strangely his successors have misunderstood him. "The lues venerea, I have already observed, arises in consequence of the poisonous matter being absorbed and carried into the common circulation. This form, which I have called the *constitutional*, would appear to be much more complicated both in the different ways in which it may be caught, etc. It generally arises from local complaints before taken notice of, the matter being absorbed and carried into the constitution. It may be taken in by simple application, by being applied to common ulcers, also by wounds." He goes on to say that the poison may get into the system, although exceptionally, without any evidence of local disease, or by a mere discharge, which he styles gonorrhœa.

It is true that Hunter did not believe in the contagious nature of venereal disease, but in this nearly every subsequent author of any eminence has agreed with him, and it has remained for quite a recent period to see the doctrines of contagion advocated. There is, however, a vast difference between those who simply ignore the doctrine of contagion or never think of it at all, and men like Hunter, who discard it only after much thought and many experiments. The vastly comprehensive mind of Hunter could not fail to see that if syphilis was a constitutional disease, and had its analogies in small-pox (to which he refers), that the fluids and secretions of the body affected would also be contaminated. He pursued the subject to its natural consequences, and according to the more advanced opinions of the few he fell into error. His experiments were founded on right reason, and yet for this he has been called speculative, and said to have wandered from his usual practical teachings. Then, again, Hunter in regarding the disease as a constitutional one, was necessarily alive to the fact that all the tissues of the body might be affected. It is true that others had previously come to the same conclusion; but in comparing Hunter with most of those writers who have followed him, a wide difference is seen between the man who brought the matter under consideration, and those who either ignored the occurrence of internal syphilitic affections, or had never thought of the possibility of such conditions. Hunter certainly was not aware of the extent to which the syphilitic virus might contaminate the tissues, but he said, with modesty, that, as far as he knew, the internal organs were not affected. "It would appear that some parts of the body are much less susceptible of the *lues venerea* than others and not only so, but many parts, so far as we know, are not susceptible of it at all. For we have not yet had every part of the body affected; we have not seen the brain affected, the heart, stomach, liver, kidneys, nor other viscera, although such cases are described by authors. The lungs have been believed to have been affected with the venereal disease, both from circumstances preceding the complaint, and from the complaint itself being cured by mercury." Hunter, therefore, being alive to the fact that the whole system might be affected (though he was ignorant of the diseases produced thereby), clearly shows his right appreciation of the nature of the affection. He also saw that various ill-consequences might arise. "The venereal disease often becomes the immediate cause of other disorders, by calling forth latent tendencies to action. If the venereal disease attack the lungs, although that disposition may be corrected, consumption may ensue."

Another reason for concluding that Hunter entertained a correct view of the nature of syphilis is the fact that he spoke of it in connexion with small-pox and other exanthemata, and argued the question of the possibility of syphilis occurring twice in the same person. As is well known, he inoculated his patient with fresh matter, and drew his conclusions. At the present day most conflicting opinions are held with respect to the subject; but Hunter's mind had already penetrated it.

With reference to the so-called Hunterian chancre, I find many Medical men holding the opinion that Hunter described all chancres as of the indurated kind, but I think this is not correct. The fact, however, of his dwelling upon the induration is another evidence of his appreciation of the true character of syphilis, and illustrates his wonderful powers of observation:—"If the glans be affected, generally a small pimple appears full of matter, without much hardness or seeming inflammation, and with very little tumefaction; but if on the prepuce, a more considerable inflammation than the former soon follows." In speaking of the frænum and prepuce, he says:—"Thickening comes on, which at first, and while of the true venereal kind, is very circumscribed, not diffusing itself gradually and imperceptibly with the surrounding parts, but terminating rather abruptly. Its base is hard, and the edges a little prominent;" and in another place he says:—"A chancre has commonly a thickened base, and although the

common inflammation spreads further, yet the specific inflammation is confined to this base." Let me ask whether the most advanced syphilographer uses other terms than the thickening of common inflammation, and that due to a specific cause?

I will now say a few words with reference to the subject for which, more than any other, Hunter has been condemned, and on account of which his treatise has been by many laid aside as worthless: I mean his association of gonorrhœa and syphilis. I believe all now admit that these two diseases should be regarded as distinct, but it is scarcely remembered that difficulties often exist of which casual observers are not aware, and that at the present day almost every Surgeon of eminence must admit that he witnesses cases of the kind which led Hunter into error; and even more than this, there are some who hold Hunter's doctrine as the true one; that the syphilitic sore as applied to different surfaces will produce a local sore or a discharge. Hunter's doctrine was as follows:—"The gonorrhœa always proceeds from a secreting surface, and the chancre is formed on a non-secreting surface. By secreting surface, I mean all passages for extraneous matters, including ducts of glands, and by non-secreting, the skin, to which I may add a third kind of surface, leading from one to the other, as the glans penis, inside of lips, pudendum, which surfaces may be affected in both ways. To produce the chancre the venereal matter may be applied in three different ways: the first and most certain is by a wound into which it may be introduced; the second by applying the matter to a surface with a cuticle, and the thinner that is, it allows the matter to come more readily to the cutis; and the third is by applying the matter to a common sore already formed. A specific inflammation is produced, and the matter produced is of the same nature as the matter applied."

I will not argue as to the correctness of these doctrines; but why should they be regarded of so extraordinary a nature when any Surgeon can inform you that he had seen constitutional syphilis without any trace of sore, and that when there has been a history of gonorrhœa he assumes that a chancre has existed in the urethra? I say every Surgeon of experience sees such cases, and, ridiculing Hunter's theory, assumes another. Some Surgeons also might be asked what they mean by such terms as gonorrhœal iritis, etc. It is very remarkable that one of the latest writers, Dr. Hammond, of New York, has laid down certain laws respecting the infection of syphilis, and which, it will be seen, is a revival of Hunter's exploded doctrines. He says, "that the virus of an infecting chancre deposited on a secreting mucous membrane may give rise to an inflammation of that surface attended with a muco-purulent discharge without a chancre being necessarily formed unless an abrasion exists; that the affection is a syphilitic gonorrhœa; that it is followed by constitutional symptoms, and is contagious; that the virus of a soft, non-infecting chancre, when deposited on a secreting mucous surface upon which there is no abrasion, generally gives rise to a muco-purulent discharge without the necessary production of a chancre; that the discharge is contagious, but is not followed by specific constitutional symptoms; that the matter of each of these forms of gonorrhœa gives rise to its own peculiar form of chancre, but longer contact is necessary than when direct from a chancre. Muco-purulent discharges arising from other causes are not contagious and not possessed of specific characteristics." It may be remembered, also, that Wallace spoke of catarrhal syphilis, an inflammation of the mucous membranes of the genital organs arising from the application of venereal poison, but he would not attribute all urethral discharges to this poison.

Hunter believed that the virus might be introduced through the skin, through a mucous secreting surface, or through a wound, or through a sore. Should there be a simple sore on the genital organs, as the soft sore of the present day, and this should be inoculated with a syphilitic virus, we have the *chancre mixte* of Rollet. Thus are Hunter's doctrines revived.

In referring to the treatment, Hunter's great idea of the introduction of a poison into the system through the chancre is still manifest, for, he says, "the simplest plan is to destroy or to extirpate it, whereby it is reduced to the state of the common sore or wound, and heals up as such." Again, "if the chancre be destroyed almost immediately upon its appearance we may reasonably suppose there has not been time for absorption." If Hunter did not here discriminate between hard and soft, or infecting and non-infecting chancres, it may be asked who can do so at the present day at a very early period of their occurrence; but it is clear that he had two ends in view, to alter the character of the sore and to prevent the virus entering the system—a subject not now much further advanced than in Hunter's day.

Now, with reference to the treatment by mercury and Hunter's theories regarding the operation of this medicine. Herein will be found, according to my opinion, the most powerful argument of all in favour of the correctness of the views of this great man, and yet perhaps no part of his treatise has been so much condemned as that bearing upon treatment, both because it has been assumed that Hunter was an advocate for the indiscriminate use of mercury, and also because here will be found some remarkable theories which his commentators have denounced as speculative or unintelligible. I apprehend, however, that these very doctrines show his deep insight into the nature of the disease, and which most of his successors had failed to perceive. Let me for a moment allude to the prevailing opinion at the present day with reference to the influence of mercury in venereal disease. It seems to be this, that the disease is dependent upon a poison on the system, and that therefore time is necessary for it to wear itself out; that its progress is assisted by eliminative medicines, but that mercury itself will not cure; whether it shortens the whole duration of the disease is a question *sub judice*. Most writers at the present day seem of the opinion that it will cure or modify certain existing symptoms or effects of the disease; but since these return it has not got rid of the cause itself. The drug will not arrest or cure the disease, but it will for a time cure its effects. To use the words of Welbank, "Mercury antagonises the influence excited by the syphilitic virus, but is no specific antidote to the virus itself, which must be gradually modified or eliminated by the system at large;" or, according to Ricord, "Le mercure fait disparaitre les manifestations actuelles; il ne neutralize pas la diathèse." Hunter clearly saw the difference between destroying the cause, or the virus, and the effects, although in his time, and for a long period since, his expressions "disposition" and "action" seemed to be misunderstood. His theory, so far from being speculative, was founded on correct and close observation. "I have asserted that what will cure an action will not cure a disposition; if so, we should push our medicine no further than the cure of the visible effects of the poison, and allow whatever parts may be contaminated to come into action afterwards." The mercurialists have condemned Hunter for thus recommending the advent of symptoms before treatment, and yet at the present time some of the most eminent in our Profession are advocating similar principles. Hunter did not fail to perceive the beneficial effects of mercury in removing many of the symptoms of the disease, and thus he called it a specific, a term which has been in constant use when an unknown but decided action has been witnessed. "Mercury in lues venerea is the great specific, and hardly anything else is to be depended on. It is necessary that we should always consider well the effects of this medicine, etc." This is not stronger language than is used by some of the most eminent and judicious men of the present day. He approved, probably erroneously, of the early exhibition of the remedy, in order to prevent the manifestation of the disease, clearly showing, as before said, Hunter's true notion of its character. "The remedy should be given for some time after the chancre has healed, in order to hinder the venereal disposition from forming. The quantity should be given in such a way as to affect the mouth slightly." The last sentence is sufficient evidence to show that those who believe Hunter's practice was to produce pints of saliva in order to eliminate the disease, can never have read his book. Hunter was quite alive to its indiscriminate use and to the vulgar prejudice against it, as well as knowing there were those amongst his brethren who would join in the outcry against the remedy for the sake of pandering to popular opinion. Hunter was too high-minded and independent for this. "Nothing can show more the ungrateful or unsettled mind of man than his treatment of this medicine. If there is such a thing as a specific, mercury is one for the venereal disease in two of its forms (indurated chancre and constitutional syphilis), yet mankind are in pursuit of other specifics. The prejudices against it are supported by the public, who have in their mind a dread of this medicine, arising from the want of knowledge of our predecessors in administering it, and many of the present age who also are equally ignorant, take advantage of this weakness."

He goes on to say that mercury is a much more efficacious, manageable, and safe medicine than it was formerly thought to be, and he mentions how inunction is preferable where the intestines are irritable, and remarks how "mercury acts on all

parts of the machine, cures those which are diseased, affecting little those which are sound." Now, I look upon this as a capital piece of therapeutical observation, and applies also to the action of iodide of potassium and other remedies; for it seems to be the fact that a medicine like mercury requires to be given for a considerable length of time in order to produce a degeneration of the tissues, but that previous to this event it acts merely on the new and low formed material, and causes its disintegration and removal. Hunter says in another place "mercury in general seldom or never does any injury to the constitution; it should seem only to act for the time, and to leave the constitution in a healthy state."

Hunter allowed his patients to live well while taking a mercurial course. It may be here remarked that some years ago, as in the early days of Sir A. Cooper, all venereal diseases were treated by mercurials; and thus I have heard it stated that it was Hunter's practice to give these remedies in gonorrhœa. But here again his treatise cannot have been read, for he says, "I have observed that mercury has no more effect in curing the gonorrhœa than any other medicine."

Although Hunter uses the term specific for the peculiar action of mercury on the syphilitic disease, yet, as before said, he certainly does not mean that it is antidotal to the poison, as some have regarded his opinion, but rather that it removes the effects only, or, as he puts it, the medicine does not destroy the disposition, but only the action. If there were any doubt about his meaning, the cases which he gives in illustration would decide the question, as, for instance, a man in the year 1781 had a chancre, and being treated by mercury he soon got well. Three months afterwards he had febrile symptoms, with copper-coloured eruption, pains in bones, etc. He rubbed in mercury, and again got well. After some months he had affections of the eyes, with sore throat. He gave mercury, and was again cured. "Let us consider," says Hunter, "how far this case corresponds with the opinion of the action being easier of cure than the disposition. The first action—that is, the chancres—were perfectly cured by the quantity of mercury he took at first, for they never recurred; but the venereal matter had produced the disposition in the constitution which was not cured by the same quantity of mercury, for blotches appeared three months after; but all the parts that had taken on the disposition at that time and had not then come into action were cured by the second course of mercury; and the other parts which had not yet taken on the action went on with the disposition till the influenza (which happened eleven months after) brought them into action. The first class of pocky appearances were perfectly cured by the second course of mercury as the local had been cured by the first; for they never re-appeared, not even with the second. The second set of pocky symptoms, we have showed, appeared to be perfectly cured by the third course of mercury. How far there may be a third set of pocky symptoms to come forth time can only tell." Although, therefore, Hunter said that mercury was a specific for the venereal disease, he intended merely that the symptoms disappeared under its use; but it did not eradicate the poison from the system, for in another place he says "It is probable that mercury can cure the action only, and not the disposition."

Once more, as showing how Hunter's idea corresponded with that now held by many:—"In the cure of chancre we have two points in view, the cure of the chancre and the prevention of the contamination of the habit. The first by mercury applied either locally or internally through the circulation. The second object, to prevent the constitution from contamination, is obtained by shortening the duration of the chancre, which shortens the time of absorption." This doctrine, which was once considered illogical, is now held by some of the most practical Surgeons, as well as by the leading pathologists; the one will endeavour to show that the secondary symptoms are more severe in proportion to the duration of the hard chancre, and Virchow and his school maintain that a poison is being generated at the spot, and is thus being continually diffused through the system. In reference to these views Hunter says,—"This is not speculative, but the result of experience, and the destruction of chancres confirm it." Instead of ignoring Hunter, it would have been as well if his practice had been followed, and, if found correct, a blessing to mankind would have resulted.

I must not occupy your space further, having, I believe, sufficiently justified Hunter against the imputations of those who have never read his treatise. To those who know his works well and choose to differ I have nothing to say; indeed, my object in sending you these remarks is not to prove Hunter right or to advance any opinion of my own, but merely to show that this great Surgeon was in accord with many of the most advanced opinions of the present day. At this I am not surprised, for the subject of venereal disease is one which requires very careful observation, coupled with great judgment and prolonged study, and therefore admirably suited for the mind of Hunter, and, on the other hand, a subject which would never be understood by many of his successors, who, although admirable Surgeons, had devoted all their energies to a practical skill in their art.

11, St. Thomas's-street, Southwark.

HOLIDAY NOTES ON SOME CONTINENTAL SPAS.

(Second Series.)

BAGNERES-DE-LUCHON.

By HERMANN WEBER, M.D., F.R.C.P.,
Physician to the German Hospital.

(Continued from page 249.)

The *physiological action* of the sulphuretted springs of Luchon is that of the waters characterised by the predominance of sulphuret of sodium (a) Their *curative action* is, according to the authors, based on their especial power of promoting the renewal,—the building up of the tissue. Bordeu has expressed this by the term "remontement général de l'organisme;" and this "remontement,' or "building up," is effected by the excitation of the oxygenation of the blood, of the capillary circulation, and of the interstitial nutrition. Although this assumption cannot be called proved, yet it deserves to be mentioned and to be weighed.

The *morbid conditions* which are favourably influenced have all in common the character of being *chronic*, which in itself implies a lowered state of nutrition; the revival of the morbid process, and the re-establishment of a more acute action, seem to be the usual effect of the waters and the way to the cure; thus, chronic cutaneous eruptions are frequently observed at first to spread, neuralgic pains become often more violent, chronic catarrh of the bronchi is said to become acute.

Although all the sulphuretted sources of Luchon resemble each other in their action, yet some are found to be much more efficacious in the removal of certain pathological conditions than others seemingly of a similar composition. The fact above mentioned, that the different sources show great differences with regard to their stability and to their products of decomposition, may, in part, explain this apparent discrepancy. The sources "Ferras," "Blanche," and "la Reine" are, according to Lambron, especially adapted to the treatment of herpetic eruptions, while the sources "Richard" and "d'Etigny" possess greater power in rheumatic affections. The water of some "buvettes," or drinking fountains, as "Ferras," is more easily digested, and is, therefore, particularly suitable in the beginning of the course, and in cases of gastralgia; while that of others, as of the buvette "Prè, No. 1," is most frequently prescribed in scrofulous cases and in affections of the respiratory organs.

The morbid conditions for which Bagnères-de-Luchon is most frequently resorted to are,—*diseases of the skin*, *scrofulous affections*, *rheumatism and its allied diseases*, *affections of the fauces and respiratory organs*, and *secondary syphilis and mercurialism*.

Diseases of the skin furnish a considerable contingent to the list of patients at Luchon; and it cannot be denied that many of them are cured there with more certainty than at most of the non-sulphuretted Spas; but not all kinds of skin diseases are influenced in the same manner. The *dry affections* are in general less modified by the waters than those attended with a moist eruption; *psoriasis* and *lepra*, excepting the recent cases, are rarely cured by the waters alone; *ichthyosis* (non-congenita) is said to be improved; some cases of *lupus* are likewise enumerated among the cures. Fontan and Lambron have seen also improvement in recent cases of *tubercular leprosy*. *Pityriasis versicolor* yields but slowly to the baths. *Acne* is, in general, cured. *Prurigo* and *lichen* are mentioned by Lambron as easily conquered, "nos eaux triomphent de prurigo et du lichen," (l.c. p. 561); but I am afraid that this triumph is in some cases not a permanent one: such is, at all events, my own experience in several obstinate cases of this affection, while in others I have seen a ready and permanent cure

(a) Conf. this journal, p. 170. 1865.

effected at various sulphuretted baths. In some instances I have witnessed a more permanent result from the baths of Leuk (Loeche) and Sehinznach, in Switzerland, where the patients remain several hours in the water, and through this contract the *poussée*, leading to a thorough modification of the nutrition of the skin. Among the *moist* cutaneous affections, *eezema* is the one most frequently observed at Luchon. Lambron says: "l'eczema ne resiste pas à nos eaux, quelque invéterée qu'elle soit" (l.e. p. 561); he demands, however, in inveterate eases a long-continued use of the waters, and a renewal of the visit during several successive summers. For the greater number of eczematous patients I can confirm this assertion, but I have also met with some, fortunately rare exeeptions, cases of general chronic eezema, in which various sulphuretted waters, Luchon amongst them, and also some other baths were tried in vain; the visit to Luchon was, it is true, not repeated in these cases, but only for this reason, that the patients did not think themselves sufficiently benefited by their first trial. All of us know the troublesome character of general ehronie eczema in children, who often scratch themselves with a peevish violenee, as if tearing their flesh with their nails were the greatest of luxuries to them; but in the aged this affeetion is sometimes even more tedious, and, if I may judge from my limited experience, more obstinate. The cases alluded to as having resisted the influence of the sulphuretted Spas relate to old people. The *pustular* (impetiginous) eruptions yield in general more easily.

Some dermatologists have divided the cutaneous diseases, aecording to the constitutional conditions on which they are based, into scrofulides, arthritides, herpetides, syphilides, etc. It would obviously lead me too far if I were to enter into this subject, but I cannot omit saying a few words regarding the term "*herpetism*," which is constantly used by the Physicians of the Pyrenean spas. Fontan ("Recherches sur les eaux minérales," etc., 1853,) and others signify by this term a peculiar condition, the existenee of a virus in the blood, or of a eonstitutional transmissible vice, which manifests itself by various morbid phenomena, especially cutaneous eruptions, but also by bronchial catarrh, gastralgia, neuralgia, piles, ete. Noël Gueneau de Mussy ("Traité de l'angine glanduleuse," 1857) brings the "angine glandulense" in intimate connexion with this "herpetism." All the morbid conditions based on herpetism, however different their manifestations may be, are considered as especially suitable for the treatment at Luchon.

The *serofulous* and *lymphatie* affections furnish almost as large a number of patients as the skin diseases, and the Pyrenean Physicians regard them as one of their principal specialities. Scrofulous eruptions, glandular enlargements, cutaneous ulcers, chronic inflammation and thickening of the eyelids, rhachitis, caries of bones, and many allied affections, are often sent to Luchon. Many of the patients thus affected are greatly benefited; but I do not consider this as a sufficient proof of the *speeial influenee of sulphur on serofula*. I am rather inclined to think that the united influence of the hygienie conditions (especially the mountain air) and of the hydro-thermal treatment on the nutrition forms the principal eause of the improvement. The torpid and lymphatic constitutions derive the greatest benefit, and scrofulous complaints, when occurring in such constitutions, are likewise most favourably modified. Most of the characteristic scrofulous affections, however, as glandular enlargements and white swellings, gain, as far as my experience goes, more advantage from the mineral waters rich in chlorides, and especially where these are combined with bromides and iodides, as the *Adelheidoquelle*, near Tölz, in Bavaria; *Creuznaeh* and *Oeynhausen*, in Prussia; *Nauheim*, in Hesse-Cassel; *Hall*, in Austria; *Aehselmannstein*, near Reichenhall, in Bavaria, and many others.

Rheumatism, in all its forms and localisations, is often treated at Luchon, and with much success; but I am inclined to ascribe this beneficial influence less to the *sulphurous* than to the *hydro-thermal* elements of the treatment. At all events, the same success may be witnessed at Aix-les-Bains, where the sulphurous elements are only slightly represented, while those of the hydrotherapia thermalis are remarkably well developed.(b) They are principally the more atonic forms of rheumatism which are to be recommended to the Pyrenean spas, while the more irritable constitutions may be sent with greater safety to the so-called "*indifferent thermal springs*" as *Gastein*, near Salzburg; *Wildbad*, in Wurtemberg; *Teplitz*, in Bohemia; *Ragatz*, in Switzerland, and similar spas. The chronic rheumatic affections of the joints attended with enlargement and solid deposits derive more benefit from the thermal springs rich in chlorides as *Aix-la-Chapelle* or *Wiesbaden*, the latter especially, if there is some serofulous taint in the constitution.

Gout, in its genuine form, is not claimed by the Doctors at Luchon as curable by their sources.

Affections of the Respiratory Organs.—Persons affected with *ehronie eatarrh of the bronehi* derive, mostly, great benefit from the use of the Luchon waters, and from sulphuretted waters in general; the latter seem, indeed, *especially* applicable to such cases, and more so by the aetion of the sulphur than by an aecessory agent. Some patients, however, derive much greater advantages than others, and amongst the former are partieularly those with hæmorrhoidal tendency. I have mentioned already before the "*angine glanduleuse*," the chronic eatarrh of the mucous follicles of the pharynx and larynx (clergyman's sore-throat, follicular disease of the pharyngo-laryngeal membrane) as a class of complaints especially amenable to the treatment at the sulphurous spas. It is in these cases where the local douches with the pulverised water are employed, while in the affections of the bronchial mucous membrane, and the pulmonary tissue itself, the aspiration of the gases emanating from the warm springs ("humage") is preferred. The relation of the sulphuretted waters to *pulmonary tubereles* I will consider under "Eaux Bonnes," which is, at present, the place of predilection for consumptive people, although Cauterets and Luchon, too, have many adherers.

The subject of *Surgieal affeetions*, as old gunshot wounds, stiffness, and contraction from luxation or fracture, sequestred bones, etc., I will defer to the account of Barèges, which enjoys an unsurpassed reputation for its healing powers in these eonditions.

Cases of *paralysis* are often sent to Luchon, but I cannot find that it has any particular claim in this respect by virtue of its sulphurous elements. In cerebral paralysis, where there is the slightest tendency to congestion, it may do harm, and the same must be said of paraplegia from myelitis; in rheumatic paralysis, in paraplegia of traumatic origin, if caused either by concussion alone or by an affection of the spinal periosteum or of the membranes, great benefit may be derived from Luchon, from Barèges, and other Pyrenean spas; but this benefit is owing, not to the sulphurous, but to the thermal elements, and is obtained to the same degree at Aix-les-Bains and other merely thermal spas. The same remark is applicable to those rarer cases of paralysis from exhaustion.

Anæmia, ehlorosis, and *gastralgia in anæmie subjeets* figure likewise in the list of diseases treated at Luchon; but it is quite certain that most of the patients thus affected would derive more benefit from chalybeate springs. There are, however, exceptional cases in which iron is not borne under any shape or in any combination whatever. In such cases great benefit is derived from sulphuretted spas, especially those of an elevated situation, as Luchon.

Much has been written on the use of the sulphuretted waters in *syphilitie affeetions*, by Bordeu, Anglada, Fontan, Vidal, Astrié, James, Wetzlar, Reumont, Pigot, Lambron, and others. These waters cannot be called anti-syphilitie but yet they are often of great use in the treatment of syphilitic affections. Thus it frequently happens that patients cannot take the specific remedies administered in the usual manner; they soon lose their appetite, are inclined to diarrhœa, become the subjects of mental depression, ete.; while the same patients, when under the influence of the sulphuretted thermal treatment, bear the energetic administration of mercury as well internally as externally, and at the same time improve rapidly in health; it is exceedingly rare that the gums become affected, and if so it is but in a slight degree; the only symptom which has been occasionally mentioned to me is the appearance of superficial sores on the tongue and gums, which, by touching with caustic, easily disappeared. Patients with the *eombined mereurial and syphilitie* cachexia improve likewise rapidly at the sulphuretted spas. Experience seems in this respect to strengthen Astrié's view ("De la Médication Thermale Sulfureuse Appliquée," Thèse, de Paris), that the sulphites and hyposulphites of soda formed in the body from the sulphurets prevent the formation of the insoluble combination of mercury and albumen, and dissolve it where it has been formed; and that they, in addition, accelerate the removal of the mercurial combinations by stimulating the organs of secretion. Great advantage is, besides, derived in those most tedious cases of *syphilis eombined with serofula*. Thus, the thermal sulphuretted waters,

(b) Conf., *Med. Times and Gazette*, 1861, vol. ii., pp. 550 and 576.

although not strictly anti-syphilitic, are yet of great service in many cases of secondary syphilis and its complications. Finally, they are used as means of diagnosis in doubtful cases. It often happens that it is impossible to say with certainty whether a person formerly affected with syphilis is perfectly cured; in such cases a course of the sulphuretted waters will, if there be any latent syphilis, bring to light the most indubitable symptoms, while the non-appearance of such symptoms forms almost a certificate of cure. Observations of this kind have been made, however, not only by Medical men practising at sulphurous and sulphuretted spas,—as Luchon, Barège, Aix-la-Chapelle, and Aix-les-Bains—but also by those of non-sulphurous spas, as by Dr. Loretan, at Loëche (Leukerbad).

With regard to the manner in which the waters of Luchon are used, it may be said that the external application is of more importance than the internal use, although the latter, too, is prescribed in many cases. The principal apparatus in use have been mentioned above; the separate bath, the douche, and the piscine are the most frequently used. The temperature of the separate baths is, in general, about 95° F., but it is, according to the effect desired, occasionally lowered or increased; the usual duration of the bath is between twenty minutes and an hour. The temperature of the grand douche varies from 106° F. to 113° F.; the duration is between ten and twenty minutes. The temperature of the small piscines is about 95° F., that of the large piscine, or swimming basin, varies from 89° F. to 92° F. The piscines are especially valuable where the movement of the whole body, or of certain portions of the body, is to be encouraged, as in rheumatism, stiffness of joints, muscular atrophy, paraplegia, general debility, etc. There are patients who object to the baths in the piscines, but the principal objection, that contagious diseases may be contracted in them, is perfectly unfounded, as such an occurrence never has been observed. Another objection, that the water of the piscines is less clean than that of separate baths, is likewise much exaggerated, as the water is several times every day renewed, and as persons affected with diseases of the skin attended with discharge are not admitted. A third objection, on account of delicacy, is not very reasonable, as at Luchon the sexes are separated, and as, in addition, every bather has a kind of bathing dress.

The quantity of water taken internally varies from half-a-glass to four glasses, containing rather less than nine ounces (250 grms.). If the quantity does not exceed one glass it may be taken either before, or during, or after the bath; if it amounts to two glasses, the first is usually taken before, the second after the bath; if more than two are taken, the remainder is, in general, distributed over the other part of the day. In many instances the mineral water is mixed with milk, or various syrups, or occasionally also with other remedies.

The duration of the course of treatment varies from three to six weeks, and this period is sometimes advantageously divided into two parts with a shorter or longer interval between them.

No visitor at Luchon ought to use the waters without the advice of a Medical man of the place, otherwise he may not derive the benefit which he expects. Drs. Lambron, Barrié, Fontan, and Pégot are well known by their scientific researches, but there are, besides, several other Medical men of good reputation.

The hotels and lodging-houses at Luchon offer very fair accommodation—better, perhaps, than those of any other place in the Pyrenees. The hotel which is nearest to the thermal establishment, and which enjoys the finest view, is the Hotel Bonnemaison (M. Vidal); other good houses are the Hotel d'Angleterre (M. Seveilhac), the Hotel des Bains (Madame Merans), the Hotels du Parc, des Princes, and Sacarron. The prices are moderate—*i.e.*, for rooms, from 2 to 6 francs per day; for board—*i.e.*, two full meals at table d'hôte, at 10 a.m. and 5 or 6 p.m., 5 francs per day. There is a large number of good guides, who let small horses well adapted for mountain excursions. The season is from June until October, but the best time is in July, August, and the first half of September.

(To be continued.)

Dr. Barnes has resigned his appointment of Obstetric Physician to the London Hospital. Dr. Barnes has been for some time Obstetric Physician and Lecturer on Midwifery at St. Thomas's Hospital. There is therefore a vacancy for an Obstetric Physician at the London Hospital.

OBSERVATIONS ON THE VALUE OF THE METHOD OF SLINGING FOR WOUNDS OF THE LOWER LIMBS, ESPECIALLY FOR STUMPS AFTER AMPUTATION.

By BOWATER J. VERNON, F.R.C.S.

Assistant-Demonstrator, late House-Surgeon to St. Bartholomew's Hospital

The plan of treating fractures of the bones of the lower extremity by swinging or slinging them has been carried out in the accident wards of St. Bartholomew's and other Hospitals for many years; and in all the ordinary forms of such injury greater comfort with security could hardly be desired than are so obtained. So satisfactory have been the results of the practice, that it is remarkable that its employment should not have been long since extended to the management of many other varieties of wounds or injuries. From personal observations I can affirm that it may be most advantageously employed in many such cases, and with great gain in cases of ulcers of all kinds which are to be found represented in our Surgical wards. Its use is not limited to these, however, and I wish to show how it has rendered most valuable services in the dressing of stumps after amputation.

So far as I can ascertain, Mr. Edlin, a former House-Surgeon of Mr. Paget, was the first to sling a stump; his first case was one of amputation immediately above the ankle-joint of a man. The apparatus he employed was simply a back splint made of iron slung beneath a cradle by leathern straps; in short, the swing apparatus (called Salter's) in daily use for fractures; the upstanding footpiece was, however, removed from the back splint, being no longer required. The ease and comfort which the patient derived from this would have of themselves been amply sufficient to justify further trials, and a repetition of the plan in one or two similar cases only served to strengthen Mr. Edlin's opinion of its advantages.

On succeeding to the care of Mr. Paget's wards, and with that gentleman's approval, I worked out and extended Mr. Edlin's method; so that, with hardly an exception, nearly every case of amputation through the lower extremity, and they were not a few, was treated with some modification of this plan of slinging.

A more correct appreciation of the changes which occur in a wound undergoing repair, and especially those in stumps, has led to greater care being taken to ensure that exact adaptation of parts by moderate pressure, and to the avoidance of the excessive and unnecessary pressure so generally applied to them by older Surgeons. In addition to careful and accurate bandaging, some kind of splint has been often employed, and in Mr. Paget's wards is almost invariably used, for a well-adjusted splint not only serves as a great protection to the stump, but very materially diminishes its tendency to jump and twitch, as well as serving as a foundation for any necessary bandages or compresses.

A stump after amputations through the leg can generally be very well slung upon the apparatus first employed by Mr. Edlin, and for cases of Syme's or Pirogoff's amputation through the ankle, a modification of his plan has in my hands succeeded admirably.

If it be necessary to maintain steady support when union of soft parts is desired, very much more advisable would be its maintenance when we wished to unite two bony surfaces, as in the case of Pirogoff's amputation through the os calcis.

In order, then, to apply support to the apex of such a stump, the end of the ordinary back iron splint may be turned up like the point of an oriental shoe, and this being carefully padded, the most exact and uniform pressure may be brought to bear upon the opposed bony surfaces; in several cases this has been so satisfactory that one could not but suppose that the surfaces of bone had united by first intention, or at all events with the least possible amount of effusion having taken place between them, and in stumps such as this the advantages of neutralising the irregular twitchings of important muscles must be sufficiently obvious.

Experience showed, however, that there were several objections to be urged against the universal use of such a splint and cradle. They were very well suited to the well-formed limb of a labourer, who had lost his foot from accident, but were not so well adapted to an emaciated limb, or to the much smaller limb of a young girl, where the foot had been destroyed by disease; for the cradle is a large one, and in winter interferes much with a patient's warmth and general comfort. After various attempts to remedy these defects, I substituted a light wooden splint for the heavy iron one, and

a simple linen sling for the cradle and straps, slinging the limb to the smallest cradle I could find.

The sling consisted of a piece of stout linen—an old sheet is always at hand—which, if simply passed under the limb below the knee, and then tied over the cradle, would suspend the limb well enough; but it requires care, to prevent the limb being fretted and made uneasy by wrinkles and uneven pressure, and besides would be soon worse than useless from soaking up discharges, or inducing them to run up the limb. To avoid this latter trouble, the sling must be covered with gutta percha tissue; and by a very simple contrivance it can be made to hang perfectly smoothly and without wrinkles. The two ends may be tacked down so as to form a broad hem; through each of these is passed a small piece of wood, corresponding to the breadth of the sling; and the whole is completed by a piece of india-rubber cord, which is fastened to the centre of each of these pieces of wood, and is then passed over the centre bar of a small cradle. The stump is lightly and carefully fastened to a smoothly-padded splint, and may then be slung in a position most comfortable to the patient and most suitable for drainage and free escape of discharges; a height of a few inches from the bed will generally be the most comfortable position; a greater elevation would interfere with the escape of discharges. By an arrangement of this sort very much handling when the stump is dressed is entirely dispensed with, the stump can be washed and looked at without disturbance, and the limited motion is just enough to allow the patient to shift his own position without fear and trouble; moreover, it serves as a great safeguard if the stump should twitch or jump during sleep. In two cases of delirium tremens after amputation a simple sling of this kind was a perfect protection to the stump when tossed about, thus obviating the troubles likely to be induced by the application of tight straps to the limb above.

The splint had better be rather broader than the stump, so that its edges entirely prevent any undue pressure from the sling itself when tightened by the weight of the limb. Stumps made immediately below the knee cannot be fixed to a straight splint; the knee is always in such cases more or less flexed, and consequently an iron splint with a hinge joint is the best for such a case; but such stumps always seem to support themselves so well over the edge of a pillow that I am not sure whether a sling would entail a greater degree of comfort, while in one such case I certainly found its application less simple than in other cases.

To stumps made from the thigh it is not possible, nor would it be desirable, to allow so much motion; but still this linen sling may be used with great comfort and advantage in their management. In Mr. Paget's wards such stumps are always fixed upon a thin, flexible wooden splint, and then they can as readily and easily rest in the sling as on the pillow usually employed. The sling here is rather to support and bear the weight of the stump than to permit its movement. Its use here is in the increased facilities for dressing; and a more important gain than this, the assistance it affords to nurses when changing soiled linen, etc. In several cases where, from the rotation of the stump outwards, the direction of the wound has become vertical, the sling has maintained most valuable lateral pressure.

I very speedily found out that there were some stumps which you cannot make comfortable in a sling. However, this is the case in many fractures of the leg. Often patients cannot bear the swinging of the broken limb, though they could give no better reason for it than that it was not comfortable; but on the other hand, patients have very generally expressed the relief which such a position has afforded them.

Very many cases of chronic ulceration of the lower extremities which so often occupy our Surgical beds require little else for their cure or relief than a well-chosen and carefully-maintained position. In the majority of cases there can be no question that the constant elevation of the foot is the position required. Now, simple as it may seem, this is not always such an easy matter to attain, and, when attained, is not always the most comfortable for the patient.

A linen sling such as I have described, if made considerably larger, so as to support the heel thoroughly, will be found a most simple and yet effectual remedy for some of these cases.

As all will allow that during the repair of injuries the most perfect rest of body and mind are to be secured if possible, I need offer no apology for occupying your space with what seems a small matter, as I am convinced that by such a plan of dressing wounds, patients have derived very much comfort and relief of pain.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

DRY GANGRENE OF THE FEET AND LOWER THIRD OF BOTH LEGS FOLLOWING TYPHUS.

(Under the care of Mr. PAGET.)

Mary R., aged 6, was transferred from the London Fever Hospital to one of Mr. Paget's wards on October 31, of last year. She was the child of very poor parents, and had just had a very severe attack of typhus. In the state of extreme prostration to which she had been reduced during the acute period of the fever, dry gangrene of the feet and the lower third of both legs had taken place; the tip of the nose also was dry and withered, and some bed sores had formed over the sacrum. No extension of the gangrene occurred after her admission; spontaneous separation soon commenced, and proceeded with such rapidity that it was complete, excepting the bones, at the end of five weeks from the first appearance of the gangrene. The healthy soft parts became retracted from the mortified tissues, leaving the bones quite bare, and of a dead white colour for about an inch. The simple operation of sawing through the bones on a level with the granulating surface above was now performed by Mr. Paget.

After the removal of the feet the patient progressed favourably for a few days, but she ultimately died of exhaustion depending chiefly on the rapid extension of the bed sores before referred to. No post-mortem examination of the body was allowed.

The activity of the vital processes in early life is so great that gangrenous affections are seldom met with in children as the result of a simple failure of nutrition. In instances in which sloughing does occur, the parts destroyed are usually those that are involved in the morbid local action which accompanies some specific disease; for example, it is under such circumstances that sloughing of the cheek occurs in cancrum oris, or of Peyer's glands in typhoid fever. Here tissues lose their vitality through the operation of a single cause acting directly as a local poison. In the case just related the gangrene which ensued was not produced in this way; it was more allied in its causes to that which is met with in older people. The tissues perished because the conditions necessary for their support were not fulfilled. When attacked with typhus the patient was enfeebled by having lived in very poor circumstances for some time previously, so that the nutrition of the body must have been reduced below its healthy standard. In consequence of the diminished force of the circulation which took place as the fever advanced, the parts at a distance from the heart were left without their ordinary supply of blood, and that which they did receive was rendered inappropriate for their maintenance by the presence of the fever poison.

Mortification under similar circumstances is not infrequently observed during the extreme depression and exhaustion into which patients fall towards the end of severe attacks of fever. Dr. Murchison (a) records cases of a parallel kind; and Dr. Daniell (b) states that it is not all uncommon in negroes who are in the last stage of the adynamic fevers of the African coast for death and decomposition to extend gradually upwards from the extremities to the trunk, so that the former may be in a state of absolute putrescence before the circulation and respiration have been brought to a stand.

In a clinical lecture on the above case Mr. Paget made a passing allusion to instances occasionally met with in which, in consequence of impaired nutrition, the vitality of some parts of the body is habitually so low that they can scarcely be said to be living tissues, although they do not absolutely mortify; and in illustration of this class of cases he mentioned that he had recently had a man under his care, suffering from emphysema and heart disease, in whom the forefinger of one hand had remained dusky, half-livid, insensible, and cold at the end for some weeks, and, what was remarkable, for the whole period during which the finger had remained in this state no growth of the nail had occurred. Mr. Paget was unable to state the subsequent course of the case, as the man had passed from under his observation.

(a) Treatise on Continued Fevers.
(b) Lectures on Life and Death. W. S. Savory.

At a recent meeting of the Pathological Society, Mr. Partridge related a case of gangrene of the penis following fever. In reference to this subject, Dr. Murchison said that gangrene of the penis had been not an uncommon sequela of the present epidemic of typhus. In some of the cases there had been gangrene of the nose as well.

KING'S COLLEGE HOSPITAL.

CASE OF GLANDERS—DEATH—AUTOPSY—CLINICAL REMARKS.

(Under the care of Dr. JOHNSON.)

For the notes of this case we are indebted to Mr. Kelly.

In reference to the following case, Dr. Johnson remarked that from the first the nature of the disease was unquestionable. There was a distinct history of exposure to the poison of glanders, and the symptoms were very characteristic of that form of disease which is called "farcy," there having been no discharge from the nose except for a brief period at the commencement of the illness. There was no evidence as to the channel by which the poison entered the system, but it was remarkable that symptoms of constitutional disturbance preceded the occurrence of the local swellings and suppuration. It would appear, therefore, that the poison entered the blood, possibly with the inspired air, and that the successive abscesses were a result of this blood poisoning.

Dr. Johnson remarked that the odour of the matter discharged from the abscesses was quite *sui generis*, and would alone suffice for the diagnosis of the disease. It was as peculiar and characteristic as the odour of typhus, or small-pox, or gangrene of the lung, or the odour of the breath in cases of extreme uræmia.

John H., aged 47, a groom, admitted, under the care of Dr. Johnson, in No. 5 Ward, November 27, 1864. No serious illness before the present attack. Of moderately temperate habits. States that before admission he had been working in some stables where the horses had been affected with glanders, and two of these had been under his own care. About a fortnight before admission he felt rheumatic pains in his joints; he also had shiverings, was feverish, low, and nervous. A week after the appearance of these symptoms he noticed a swelling on the outer and upper part of the right forearm, which at first was accompanied by a little pain. At the same time there was a thin, watery, very fœtid discharge from his nose. Condy's fluid was injected up the nostrils, by which means the discharge ceased, and there was no recurrence of it.

On admission, his state was as follows:—A thin, pale man, with an anxious expression of countenance. A swelling was noticed on the right forearm, as before mentioned. There was no wound on the arm, nor any cracks in the skin, nor were there any inflamed lymphatics leading to the swelling.

An incision was made into the abscess, when a considerable quantity of thin, greenish-yellow pus escaped, No discharge was noticed coming from the nose. Skin cool; temperature in axilla 98·5°; pulse 64; tongue coated, brown, and dry.

On November 28 another swelling was noticed in the centre of the left anterior tibial region, which, being opened, a good deal of pus escaped. Face more anxious-looking. Tongue coated; thirsty; appetite bad. Although he could answer questions rationally, he seemed to care but little for what was going on around him. Urine pale, clear, abundant, no albumen. Ordered—℞. Tinct. ferri. mur., ♏xx.; quinæ sulph., gr.ij.; spir. chloroform., ♏x.; aquæ ad, ℥j., ter die. sum. Beef-tea and two chops; brandy 9 oz.

29th.—A third abscess was opened in the centre of the anterior tibial region of right leg, symmetrical with the last one; some pus escaped; all the abscesses were poulticed, and discharge freely. Pulse 60, feeble; tongue furred, brown, dry; bowels open.

December 3.—A peculiar smell was noticed about the patient; a fourth abscess was opened about the upper and outer part of right leg. There seemed to be more prostration; he could take his food pretty well, and felt no pain anywhere. Pulse 54, weak. To omit the iron. Addi haustui, pot. chlorat gr. x.; acid hydroch. dil. ♏x.

6th.—A fifth abscess was opened on the outer part of the left forearm in a position exactly similar to the one which first appeared on the right arm. Pulse 60, small; tongue browner, dry; bowels open.

9th.—A firm swelling was noticed on the outer and middle part of left upper arm, but no fluctuation could be detected.

12th.—There seemed some improvement; no more abscesses had formed; tongue cleaner and moister; expression of face more natural; appetite pretty good; pulse 72, stronger. The formation of the abscesses has at no time been attended with pain; they discharge freely.

23rd.—Tongue was brown again and dry. The abscesses had nearly healed and no fresh ones had formed; the swelling on the left upper arm had subsided.

28th.—Face wears an oppressed look; is haggard, rather sallow, and has a vacant stare; has become deaf; takes but little notice of anything; at times he mutters to himself incoherently; sleeps badly. Pulse 114, feeble; tongue red and glazed. The right knee is swollen, red, and painful, and fluctuation may be felt; the right ankle is also inflamed and swollen; an opening being made on the outer side a thin bloody fluid came away; the dorsum of right foot is œdematous; the left ankle was likewise swollen, and on an opening being made on the outer side some pus escaped. Brandy 12 oz.

January 2.—His aspect is dull and stupid; he can no longer feed himself; passes everything under him; has a general trembling in all his limbs; is delirious at times; quite deaf; has no discharge from his ears or nose; does not seem to suffer any pain. On the dorsal surface of both wrists is a red blush rapidly extending. The left knee is red and inflamed. On the left side of the face just outside and below the orbit may be noticed a small pustule—the first and only one that appeared during the illness. He is much emaciated, and the smell is more characteristic. Pulse 120, irregular.

January 4.—No alteration in the symptoms, but he is weaker. He sank gradually and died at 1 p.m.

January 8.—Autopsy Ninety-Eight Hours After Death.—Body much emaciated; sallow. On the left side of the face was a pustule, but no more were noticed. Right knee joint full of pus, but the cartilages were quite healthy. Left knee joint, no pus; no affection of the cartilages; right ankle, diffused abscess over, but not within the joint. Left ankle joint not affected. Lungs much congested at their bases, engorged with serum; several tubercular masses were found scattered about, not softened, varying in size from a pea to a small nut. Some old adhesions were found on the walls of the thorax. Heart healthy; right side full. Kidneys, 13½ ozs. the two; slightly fatty, otherwise healthy. Liver, 5 lbs.; fatty. Spleen 11 ozs.; apparently healthy.

WINDSOR ROYAL INFIRMARY.

TETANUS FOLLOWING AMPUTATION OF THE MIDDLE FINGER OF THE RIGHT HAND FOR GUNSHOT WOUND.

(Under the care of Mr. E. PEARL.)

[Reported by Mr. BRICKWELL, House-Surgeon.]

Cases of recovery from tetanus have always a great interest. They are so few, however, and the treatment adopted has been so various, that it is difficult to arrive at any conclusions as to which is the best plan of medication. In the following case the drug most continuously given was aconite; but chloroform was frequently given also.

P. F., a chimney-sweep, aged 18. This man came to the Infirmary on June 26, 1864, having a few hours previously sustained a gunshot wound of the right hand, which had smashed the middle finger, the charge of small shot having apparently passed completely through the finger near the metacarpal end of the first phalanx. The limb was amputated by Mr. Pearl, and all seemed to be going on comfortably till July 14, when the patient complained of great stiffness of his lower jaw, with inability to open it; stated that he felt this stiffness on July 12, two days previously, but thinking it only a slight cold, he did not think it worth while to mention it.

July 14.—With difficulty opens the jaw to the extent of half an inch. There is a slight stiffness about the articulation. No rigidity of the muscles of the neck or of the abdomen; no pain in the legs. Ordered calomel, gr. iv.; pulv. jalapiæ, gr. xv., statim; sp. æth. sulph. co., ♏x.; tct. cannabis indicæ, ♏v.; mist. camph., ℥i., 4tis horis. Broth diet.

15th.—Passed a restless night. Powder has not acted. Stiffness of the jaw continues. No rigidity of muscles of neck or abdomen. Has had no tetanic spasms. Repeat the powder and mixture.

16th.—Much the same. Some rigidity of the muscles of the abdomen. Slight tetanic convulsions of the muscles of the abdomen. Complains of his belly feeling so very hard, and refers to the umbilical region as the seat of pain. Enema terebinthinæ, statim.

17th.—Lying on his back; countenance anxious; thin sweating profusely. Pulse 86, small, compressible. 9 p.m.—The vapour of forty minims of chloroform inhaled, followed by twenty more, relieve the pain and spasms, and he falls into a quiet sleep.

18th.—Had several severe spasms early this morning, causing opisthotonos. 9 p.m.—Spasms very violent; has just been thrown out of bed, and is standing upright by the bedside in great agony. The vapour of one drachm of chloroform to be inhaled; to take at once two ounces of brandy in some warm water; one grain of opium every four hours. Urine drawn off by a catheter, as he passed none during the day.

19th.—Had some dozes during the intervals of severe spasms. Facies Hippocratica well marked. Tongue covered with a thick creamy fur, moist. Pulse 100, small and thready. Pulv. opii, gr. ij. every hour; brandy one ounce every hour. 3 p.m.—Applied ice in a flannel bag to the whole length of the spine for two hours. He complained greatly of the cold, and of a pricking sensation in the skin, and stated that he felt comfort from the application. Drew off three-quarters of a pint of turbid urine. 9 p.m.—Chloroform vapour one drachm; enemata terebinthinæ, statim; brandy, one ounce every hour; opium, two grains every hour.

20th, 8 a.m.—Symptoms much the same; passed the catheter, and drew off half a pint of turbid urine having the characteristic odour consequent on taking turpentine. Chloroform vapour one drachm; brandy one ounce every hour. 12 Noon.—Tr. aconite (Fleming's), ♏iij., every four hours. 3 p.m.—Tr. aconite, ♏iij., every hour.

21st, 3 a.m.—Has taken the tr. of aconite every hour, making in all thirty-nine minims in sixteen hours. He now complains of burning pain in his chest and throat, tingling in his fingers and hands, but no numbness of the tongue. He is very thirsty, and sweats profusely. Intermit the tr. aconite. Says he still has the spasms, but that "they are of no consequence now to what they have been." No action of the bowels; no urine has passed. 8 a.m.—Recommence the tr. aconite, ♏iij., omni horâ. 5 p.m.—Chloroform vapour two drachms, sent him to sleep. 7 p.m.—Tingling and numbness of fingers has returned.—Discontinue the aconite. 9·30.—Numbness and tingling of fingers has gone off. Recommence the aconite, ♏iij., every hour. No action of the bowels; says he feels better; spasms very short, though frequent; has passed water freely. 12 midnight.—Spasms have returned violently. Chloroform vapour, one drachm, sent him to sleep.

22nd.—Says he feels better; breathes easier; spasms much less severe; has had four hours' good sleep; has passed urine naturally; but the bowels have not acted. Ate two eggs for breakfast. Says his tongue is all in blisters. Continued the aconite till twelve o'clock, when it was discontinued on account of the numbness and tingling of the fingers. 12 noon.—Chloroform vapour, two drachms. 2 p.m.—Has had some comfortable sleep. The spasms have left the right side of the abdomen, which is lax and soft, the left muscles being still rigid. Recommence tr. aconite, ♏iij., every hour. 7 p.m.—Omit the aconite. 8 p.m.—Spasms very severe again. Chloroform vapour, one drachm and a-half, relieved him. 9 p.m.—Chloroform vapour, two drachms; croton oil, gtt.ij., statim; half a pint of beer. 11 p.m.—A simple enema caused violent spasms; brought away a former injection, a little feculent matter, and much flatus. Chloroform vapour, two drachms, sent him into a quiet doze.

23rd.—Two drachms of chloroform inhaled every two hours from 12 midnight till 6 a.m., when he had a copious watery stool, and passed urine freely. 6.30.—Two drops of croton oil in pil. 9 a.m.—To recommence the aconite every hour. 10.—Has severe spasms; put him freely under chloroform, and dressed his hand. The wound looks well and healthy. Slept from this time till 5 p.m. Asks to be allowed to suck a raw egg, which was granted. Olei crotonis, gtt. ij., statim. Says he cannot take the aconite, as it makes him so sick. From 9 p.m. to 10 a.m. July 24 administered chloroform vapour in quantities of two drachms every two hours, as the spasms were severe and continuous, and chloroform appears to be the only immediate relief to his sufferings.

24th.—The spasms have much abated in severity; he has had some good sleep, and expresses himself as tolerably comfortable; at 1 o'clock he is able to sit up and eat some custard pudding, which he says he enjoys. Has drank freely of ginger beer, which he asks for, and has taken beef tea. 9·30 p.m.—Has passed a quiet day; has been tolerably free from spasms till the present time, when he states that he has some rather severe attacks. Chloroform vapour two drachms.

25th, 3 a.m.—Pain returned very intensely. Chloroform vapour. 8.30 a.m.—Has been in great pain at times since 3 o'clock; sitting up propped up by pillows; face pale, expressive of suffering; skin cool and moist; thirst great; appetite bad; no further treatment at present. 1 p.m.—Has felt very severe pain through his stomach to his back; has not had many spasms, and they have been of slight duration; tried the recumbent posture for him, but found the spasms return with such intensity as to necessitate his being propped up again. 10 p.m.—Says he feels very comfortable; has taken some sheeps'-feet broth which he asked for. Morphia gr. ij., divide into three pills, and give him one every four hours.

26th, 8 a.m.—Sleeping comfortably; had a very comfortable night; had no spasms sufficiently severe to cause him to move; bowels have not acted. 10 p.m.—Has taken food well to-day; countenance cheerful; skin cool and soft; pulse, good volume, soft and compressible, 84; abdomen, soft, tolerant. To repeat the morphia.

27th.—Sitting up in bed, propped up by pillows; has passed a comfortable night, and has had some good sleeps; countenance cheerful and free from expression of suffering; skin cool and moist; appetite good; no great thirst; has no spasms beyond a slight hiccough; can move his legs and open his jaw to the extent of an inch and a half. Croton oil one minim in pil.

28th.—Passed a comfortable night without taking morphia; had a natural and abundant stool last night; can open his jaws and protrude his tongue better; is obliged to be propped up in bed, as the spasms come on if he lies down.

29th.—Did not sleep well last night, though he took two doses of the morphia containing two-thirds of a grain in each; Skin cool and soft; countenance cheerful; appetite very good; no great thirst; has had no action of his bowels. Haust sennæ co. ℥jss., statim; middle diet.

30th.—Going on well; slight spasmodic action of muscles of abdomen occasionally.

Was discharged cured on August 25.

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Medical Times and Gazette.

SATURDAY, APRIL 29.

THE LONDON COLLEGE OF PHYSICIANS AND THE PUBLIC SERVICES.

The desire for combination and centralisation, so common in our day, has not been without its effect upon the London College of Physicians. The College has been aiming of late years at occupying a position in the Medical world more in accordance with its dignity, reputation, and authority as the principal Medical corporation. It has aspired to occupy the first, the leading position, as the federal head and representative of all branches of Medical science. The history of the College during the last few years has been marked by a more ambitious, as well as a wiser spirit of progress, and this policy has tended to increase the reputation of the College, and to elevate the character of the Medical Profession. Quite recently, however, a retrograde movement has taken place. Some of the Fellows of the College seem to have acted, on the evening of the 21st inst., as if they had been determined to stultify themselves by one of the most illogical and short-

sighted proceedings imaginable—a proceeding which, in our opinion, will do grievous injury to the reputation of the College—will tend to bring it into ridicule as a corporate body—as it must inevitably exercise a disastrous influence upon the Army and Naval Medical Services. The unfortunate members of those services will have cause to exclaim "Save us from our friends!"

Our readers can only be too well aware of the grievous and universal discontent reigning in the Medical services. Journals, Professional and lay, have teemed with complaints. Medical Universities, colleges, and associations have represented to the authorities the lamentable state of our Profession in the public services. The army has been studiously avoided of late years by all good men, and the Medical Profession in 1865 holds exactly the same very low estimate of the army which the Royal Commission in 1857 declared to be universal among the men forming the councils of the most eminent Medical and Surgical bodies in this country. When the notoriety of the evils had rendered the matter a scandal, the London College of Physicians could scarcely remain mute and inactive without belying the spirit and character of its modern course of conduct and without being false to its reputation and position. It was naturally jealous of this position as the principal and central Professional body, and it was desirous of being in the van of those who were advocating an honourable cause instead of appearing far off in the rear as the victory was being gained by others. The London College aspired to this, no doubt; but it has grounded itself and made total shipwreck of the cause it desired to serve by a want of heart and moral courage to follow the road of its own conclusions or to push these to their legitimate extent. Before the unfortunate appearance of the numerous third-class candidates, it was well known that the authorities were on the eve of accepting the necessities of their position and of yielding to the public pressure put upon them. The accession of candidates, however, securely fixed the time-honoured and unvarying policy of the Horse Guards towards our Profession. When it was known that the Royal College of Physicians had appointed a committee of able and disinterested men to inquire into the condition of the Army and Navy Medical officers, the Profession was gratified at the spirit of the step which the College had taken, and it anxiously awaited the results. The committee was composed of six of the Fellows—viz., the Senior Censor, Dr. Gavin Milroy, Dr. Sibson, Dr. A. P. Stewart, Dr. Armstrong, and Dr. Markham.

The Committee spent several months in the investigation. After a considerable amount of work, of the most onerous and laborious kind—after a very patient, conscientious, and searching inquiry—that Committee had collected such an array of *facts*, and obtained such full and authentic information on the subject as fully to have convinced themselves of the solid foundation on which the grievances rested.

The Committee prepared its Report, casting aside all considerations about the small pecuniary advantages, the insufficiently progressive nature of the pay, the length and nature of the Medical officers' services, and the fifty other minor grievances which, in the aggregate, make the Army so intolerable to the highly educated and independent Medical man. The Committee mainly confined itself to the question of the status of the Medical officer and the treatment accorded to him by the Horse Guards. The tortuous and vacillating policy of the Horse Guards was traced—the breaches of faith and the abrogation of Royal Warrants were clearly and exactly indicated; the inferior, unsettled, and ambiguous, and, therefore, unfair and difficult, position of the Army Medical officer, both in his relations to his brother officers and in the special performance of his duties, was pointed out, and it was declared that the Medical officer had to beg or fight for that which ought naturally to fall to him as a right, and which does naturally fall to every other soldier as a right. Of course, if the truth had to be told, the Report could hardly abound in fulsome flattery of H.R.H. the Duke of Cambridge, and we dare say it did not.

This report was to have been discussed on the 21st. We say was to have been, for no semblance of discussion in reality took place. A glance at the Fellows then present made it perfectly plain that many came *to vote only*. Horse Guards and Court influence had penetrated Pall Mall. The *old* College, not the *young* College, was represented. Again and again the Committee challenged the Fellows to indicate any inaccuracy in their Report. Without any real reason being assigned, the College decided upon rejecting the Report of their own Committee. The Fellows, who had not already thoroughly made up their minds how to vote, were swayed by the voices of those who were utterly and entirely ignorant of the subject, prejudiced, or, what was worse, by the voices of those who were interested only in protecting the tender sensibilities of the Horse Guards from being wounded. Of course it was open to the London College of Physicians to have shut its eyes to the injuries under which the Medical Departments were labouring, and never to have entered upon this inquiry at all. The College might have acted upon the selfish precept expressed by one Fellow, that the condition of the Army Doctors was nothing to the College of Physicians. It might have shirked the thing altogether; but it was bound by every consideration for its own reputation, if not by a feeling of common courtesy towards its own Committee, to have pursued the matter to the end. We have no patience to record the nonsense which was talked by one Fellow, who could speak of the Medical services from his experience in them some forty years ago. Surely this was ignorance as enthusiastic as it was lamentable. A Fellow whose connection with the army must have led him to know of the universal discontent prevailing in the Medical Department, however ignorant he might be, from any personal experience, of the actual working of the Department, could not venture to contradict a single statement in the Report. Sympathy was certainly expressed by the Fellows as to the condition of the Army and Navy Medical officers, and much fear was entertained lest the acts of the College should injure their cause; but the Director-General himself could not have guarded the sensibilities of the Duke more jealously than did many Fellows of the London College of Physicians.

It could not be said that the *form or wording* of the Report was the cause of its rejection. The Committee voluntcered any amount of alteration so long as the bare statement of facts remained.

If the matter be allowed to rest here it will be a disgrace to the College. It only remains for us as journalists to say that the Committee did its duty most fearlessly, most conscientiously. Each member of it spoke out his opinion with a sincerity and frankness deserving of all praise, particularly as, in some instances, this was done at considerable personal risk. They pressed on the College facts which could not be gainsaid; but prejudice, fear, or listlessness would appear to have been all powerful.

THE CORONER'S COURT AND DR. LANKESTER'S SECOND REPORT.

Dr. Lankester, the "Medical" Coroner for Central Middlesex, is making the most of his office. It is no sinecure, and he clearly doesn't mean that it shall be; in fact, by having undertaken to give an annual account of his proceedings, he has taken the step of all others best calculated to keep himself alert, and at the same time to adapt his Court to the necessities and circumstances of the day in which we live. We have heard a great deal from the Registrar-General about "avoidable deaths;" but it is only a small section of the scientific world, for the most part, that trouble themselves with what the Registrar-General says or thinks. Dr. Lankester, however, can compel the masses to attend to this

*

subject. Every inquest he holds is a practical lecture, and because practical more likely to be heeded by the class of persons who for the most part constitute coroners' juries. The doctrine taught, whether sanitary or ethical, comes home to the intelligence of the uneducated, and the repetition of the lesson must in time succeed in fixing it in the mind. From the inquest-room it goes to the public-house parlour, and there it is talked over, and into the shops, and there it is gossiped about, and into the family, and there the wife learns it. Can it be believed that such a work carried on earnestly and conscientiously, as Dr. Lankester carries it on, shall fail in producing some impression upon those ranks in society which it is most important to reach, and which it is otherwise so difficult to reach? If other coroners would take the same advanced views of their office and of their public rights, and take as much advantage of their *independence*, we should soon see some improvement in various matters affecting the public well-being.

We have used the word "independence;" for after all it is this thorough freedom of the coroner to hold an inquest when and where he will, on whomsoever he pleases, and of the jury to append to their verdict any expression of opinion they think proper, and all this without the liability to have their proceedings overhauled or controlled by any superior court, that constitutes the great value of this ancient institution. "Independence!" yes; and Dr. Lankester shows that he means to be independent. He has had a little tiff with the St. Pancras Vestry, because he thought proper to appoint his own summoning officer in that parish; but Mr. Lush and Mr. Welsby, whose opinion was sought by the Vestry, gave it against these gentlemen. The coroner may employ the most active officer he can find to do his bidding and gather information, and neither Vestry nor any other body of men can quote precedent against him. The coroner can innovate if he pleases, and where he thinks he may do so to the public advantage he does it. And it would be in the worst taste if any opposition should meet him from the Profession of which he is so distinguished a member. And yet a remark in the report (a) before us indicates a leaning towards innovation in regard to the relation of the Profession towards himself. We can quite understand the delicacy of Dr. Lankester's position. Raised to his present post on the shoulders of his Medical brethren, it would appear a most ungracious and ungrateful proceeding in him to turn round upon them after two years' time and tell them to their faces that they are, as a body, unfit to assist in the investigations carried on by his court. Nor, in fact, does he say so. What he does say is this, and we believe he says all he means:—

"A certain number of cases come before the coroner's court in which it is impossible to arrive at any conclusion as to what may be the cause of death. This sometimes arises from the inability of the Medical man, even after an accurate post-mortem examination, to say what may have caused death. There is, however, a great difference in Medical men in this respect, some hesitating between a variety of causes and placing the jury in a position of doubt, while others very readily adopt prevailing opinions as to the causes of death. . . . . I should be glad if it could be arranged that all post-mortem examinations (the incomplete and unsatisfactory method of performing which Dr. Lankester chiefly complains of) could be made by some one or more gentlemen who had made this subject an especial study, and who, by devoting their whole time to it, would be able to draw up reports which would form not only a valuable contribution to pathology, but would render more satisfactory the conclusions of the coroner's court with regard to the cause of death."

We quite agree with him. We wish that some such arrangement could be come to. We think it might be come to if Dr. Lankester expressed his views more fully upon the subject. We think some such arrangement would tend to the public benefit, and that it would tend to reduce very much those miserable exhibitions in our higher courts of law which bring our Profession into disrepute and show us to the public in a light neither amiable nor dignified. Depend upon it, also, the mass of the Practitioners of Medicine in Dr. Lankester's district need be no losers pecuniarily by the adoption of some plan such as is hinted at. It is to be recollected that, although Medical evidence cannot usually be dispensed with at inquests, the coroner is not bound to order a post-mortem examination at all unless he thinks proper, and has reasonable ground for believing that it will throw light upon his inquiry. Let this thing be thought over, and neither hastily taken up nor hastily rejected.

The subjects which provoked most discussion at the meeting of the Public Health Department of the Social Science Association when this second report was read were the questions of inquests on persons dying in workhouses, the mortality amongst infants where mothers have gone out as wet-nurses, and infanticide. As to the first of these, we quite agree with Dr. Lankester in the following remarks:—"As the coroner's inquiry is no doubt a great protection to those who die in prisons and lunatic asylums, it is, I think, a question well worthy of consideration, in view of the helpless condition of the great majority of the inhabitants of workhouses, as to whether the coroner's inquest should not be held in all cases on persons dying in workhouses; or, at least, that all certificates of death be submitted to the coroner before interment is allowed." Some recent events will give force to this remark. Where there is workhouse neglect, it is not usually the Medical man who is in fault, and an inquiry in suspicious cases will be for the benefit of the Profession in every way. It will have the effect of showing poor-law guardians that they are not following the course of popular feeling by grinding down the poor to save sixpences out of the rates. On the second of the subjects referred to, we again quote Dr. Lankester. "On looking at the ages of persons in which these inquests have been held (inquests in which the verdict has been death from "natural causes"), it will be seen that nearly half the cases were persons above forty years of age, while nearly half the remainder are cases of children under one year of age. From the facts elicited in these inquiries there is too much reason to fear that old persons and children, especially illegitimate children, are neglected; and the circumstance that a coroner's jury is summoned to inquire into the cause of death indicates either suspicion of ill-treatment, or the entire absence of Medical attendance at the time of death. In a large number of these cases the jury feel it necessary to add that the death had been accelerated by want of proper food, nursing, or Medical attendance. In the cases of children under one year, such a verdict implies blame, but not of such a nature as to warrant committing persons for manslaughter. Thus, a frequent cause of death amongst illegitimate children is the want of proper food. The mother leaves her offspring in the charge of a nurse, and sells the food destined for her own child to that of another. There is here no crime, but there is undoubtedly immorality somewhere in this kind of destruction of infant life. The law may not interfere with the right of persons to sell or buy human milk, but where a human being suffers as the result, the moral right may be fairly open to question." Every one knows that prosecutor, judge, and jury all try to avoid a verdict of wilful murder in cases of infanticide, and how the law assists them by calling for proof of actual birth and entire separation from the mother. Dr. Lankester does not suggest any method of meeting this practical difficulty in the administration of the law and in checking a practice as immoral as criminal. But there is one fact to which he directs attention, namely, "that, in inquiries into the cause of the death of illegitimate children, the putative father of the child very seldom contributes to its support." Is this worth following up as a basis for legislation?

(a) "The Second Annual Report of the Coroner for the Central District of Middlesex," by Edwin Lankester, M.D. 1858.

THE WEEK.

CONSTANCE EMILIE KENT.

The case of this unhappy young woman will raise all those questions of the difference between voluntary and involuntary crime, between wilful wickedness and irresistible impulse, which have furnished such battle-fields in the case of Townley and others. "Was it this woman's fault, or her parents' that she was born"—not blind,—but endowed with strange moral perversity? Such is the first question that arises. For, as some persons without merit of their own may be born with the grace of a placid amiable temper, so others with various degrees of malignant propensity, which are no original demerit of theirs. What we conceive human beings to be responsible for is, the degree to which they resist, aided by the lights of reason, conscience, and religion, those evil propensities which exist in greater or less degree in us all; and the danger at present is, that the doctrine of human responsibility, without which society would not be safe for a moment, shall give way to the doctrine of "irresistible impulses." There is, we believe, no doubt that the earliest family surroundings of this unhappy girl were most unfortunate, and that her early childhood was marked by strange propensity to acts of malice, for the mere pleasure of annoying other persons gratuitously. It is said that when a child, on a visit at a friend's house, she has been known to hide a dressing-case, for the mere purpose of giving annoyance; and that other evidence of inherent maliciousness exist abundantly. We earnestly hope that no more women will be hanged in England; but for all that, the doctrine that children of any age must not give way to naughty tempers must be vindicated.

THE SIBERIAN PLAGUE.

In the report of the proceedings of the Swedish Society of Physicians for the 2nd of August last, published in the "Supplement" to the *Hygiea* for 1864, the following discussion appears with reference to the above disease:—

"Hr. Huss gave, from communications received through the Foreign Department of the Royal College of Health, some information respecting the so-called Siberian plague. This disease, resembling the pustula maligna, or *milz-brand*, (a) which, under the name of tara-plague, has long been endemic on the banks of the Irtish, attacks both animals and men. In several governments the disease has, during the course of this summer, as well as in many previous summers, occurred with a decidedly epidemic character, which has this year (1864) been particularly violent. Dr. S. Ssposobin, District Physician to the Government of Novgorod, who has himself had the care of a great number of persons attacked with the disease, describes the following diagnostic signs of the various forms of the affection:—

"1. The first sign of the disease is a pustule, which causes violent itching, and, when scratched, breaks, leaving in its place a discoloured ulcer with swollen edges; the ulcer extends and the swelling increases for from two to ten days, accompanied with general indisposition, headache, and præcordial pains.

"2. Without being preceded by any pustule or spot, a swelling appears, usually on the neck, face, or eyelids. Together with general indisposition this gradually increases, and, unless Medical aid be obtained, death occurs from the first to the third day.

"3. Without any external sign, general debility, violent pain in the epigastrium, anxiety, and difficulty of breathing come on. With these symptoms, death ensues, after extreme suffering and incessant vomiting, lasting for from twelve to twenty-four hours.

"The treatment adopted by the above-named Physician consists in the external use of caustic potash, fuming muriatic acid, or the actual cautery, the sore being diligently fomented with compresses soaked in camphorated oil. Two grains of calomel are at the same time administered every hour. If eight powders be taken without effect, the dose should be doubled. This simple mode of treatment is most highly recommended by the proposer.

"Hr. Fr. Lundberg considered that the epidemic—at least, its first two forms, the ulcerative and the œdematous or erysipelatous — were completely identical with milz-brand. But as to the third form, its symptoms differed somewhat from those usually occurring in cases of anthrax, which latter might nevertheless probably be placed to the account of the now prevailing epidemic. That severe epidemics of milz-brand have long prevailed in Russia and Finland is most clearly seen from the essays published on the subject by Haartman, between the years 1754 and 1783, in which that writer states that a number of men were attacked by the cattle distemper. Virchow speaks of milz-brand fever without external pustules occurring in consequence of the internal deposition of the matter of anthrax. For many years the disease has in summer been quite common in Northern Russia, both in horses and cattle, and for the last three years it has appeared epidemically around St. Petersburg, among both animals and men. In the latter it almost always occurs on uncovered parts of the body, as on the face and hands, first with a red spot, afterwards with a pimple, which passes into a pustule, with hardened surroundings. The pustule becomes an actual anthrax, and at the same time the internal symptoms make their appearance. That a volatile miasm diffused through the atmosphere causes the disease to attack not only persons occupied about cattle, but also others, cannot be denied; nevertheless, immediate contact must be looked upon as its most general source, and hence is easily explained the rapid spread of the disease among those who live under the same roof with cattle. Hr. Lundberg also briefly recapitulated the various form of the disease and the pathologico-anatomical changes it exhibits in domestic animals."

(a) A fatal distemper of cattle, accompanied with gangrenous destruction of the spleen.

NURSES WANTED.

Under this title the *Cornhill Magazine* for the present month contains a very interesting article, drawing attention to the opening there is just now for properly qualified nurses. It appears that the various institutions in the metropolis which undertake to train nurses for the sick cannot meet the demands that are made upon them. We have heard the sad tale of the dressmakers and needlewomen till we are heartsick and almost in despair. We have tried to find employment for women in printing and lithography, and other occupations which have hitherto been reserved for men, but with very doubtful success. Here, however, is a branch of industry for which women are pre-eminently suited—where they are not brought into competition with the opposite sex—where work is abundant and well-paid—offering the advantages of an active and varied life, not without interest and excitement; and yet, strange to say, the supply falls far short of the demand. In fact, the demand for trained nurses both at home and in the colonies is almost unlimited, and will afford an outlet for women for many years to come. Surely this state of things only requires to be made known, and the demand will soon be supplied. What are wanted are young women of good character, who will put themselves, either wholly or for a time, under the direction of one of the institutions to which we have referred, in order that they may be instructed in the art of nursing at one of our large Hospitals. We commend the paper on this subject in the *Cornhill Magazine* to the attention of our readers. It is an admirable effort to make known to the public the importance of skilful nursing, and the excellent opening that is here offered for the employment of women. As Medical men, we are especially interested in seeing that the country is supplied with properly qualified nurses.

FROM ABROAD. — PROFESSOR VIRCHOW AND THE VIENNA UNIVERSITY—LAW IN RELATION TO MEDICAL ASSISTANTS IN FRANCE — PREPARATION AND PROPERTIES OF ESÉRINE—IMPROVEMENTS AT THE PARIS MATERNITÉ.

The celebration of the 500th anniversary of the foundation of the Vienna University is to be one of the grand events of the present summer in Germany. Unfortunately, discord has arisen between the Government, the students, and some of

the Professors, with respect to the day on which the celebration is to take place, it being feared that the one originally intended would give rise to political reminiscences of an unpleasant character to the reigning powers; and the probability is that the completeness of the event will be much marred by the numerous abstensions which will take place on the day determined upon by the authorities. Another curious *contretemps* has occurred, which shows that a considerable amount of wrongheadedness prevails at the head-quarters of the University. It having been determined to confer the honorary Doctor's diploma upon various celebrated Professors, a committee of the Medical Faculty has presented to the Consistorium of the University a list of no less than twenty-two names as candidates for the honour. Among these are the names of Dubois-Reymond, Helmholtz, v. Graefe, Frerichs, Langenbeck, Middledorpf, Donders, Scanzoni, Pettenkofer, Purkinje, Weber, and others of lesser note. Whoever peruses the list must be at once struck with the absence of a name which most will think ought to have headed it—that of Virchow, and would be puzzled to account for the omission. Incredible as this may seem, the omission has been intentional, and for the most trivial reason. It seems that at the Scientific Congress at Stettin, in 1863, when the subject of trichiniasis, then exciting much attention, was under discussion, in answer to an observation that the trichina had never been detected in Austria, Virchow was reported to have replied that this arose from their not knowing how to look for it there. This seemingly harmless criticism—the fact of having made which even Virchow publicly denied—gave mortal offence, and, coupled with the recollection that the Berlin Professor had more than once previously expressed himself disrespectfully of the pragmatic Vienna school, his liberal tendencies being also, we suspect, distasteful to some of its magnates, led to this petty insult being offered to him on an occasion when the claims of his scientific reputation ought to have been paramount. It is supposed that the Consistorium will interfere, and save the University from stultifying itself in the eyes of the whole scientific world.

It has been recently decided in one of our county courts that a Medical Practitioner cannot recover for services rendered by his unregistered Medical Assistant. It seems that the law bears very much harder upon him in France, where he is liable to a fine, if informed against, if he employs a pupil or an assistant unfurnished with a diploma to visit his patients. A Dr. X., of Voulx, had permitted a Medical student to visit his patients on several occasions. M. Hoste, an *Officier de Santé*, practising in the same locality, conceiving his interests to be thus interfered with, summoned the Medical student before the tribunal of Fontainebleau for practising illegally. He was condemned in a fine of 36 francs, his employer, Dr. X., being declared civilly responsible. On appeal, this judgment has just been confirmed by the *Cour Impériale*. This was a particularly hard case, for the student in question had passed all his examinations, and was preparing his thesis for the diploma, and had been nominated *interne* by *concours*. His qualifications, in fact, were far superior to those of an *Officier de Santé*, who, by a strange inconsistency of the law, may, if he choose, usurp the title of Doctor with impunity.

M. Vée brought under the notice of the Paris Medico-Chirurgical Society the new alkaloid *esérine* extracted from the Calabar bean, the properties of which he has been investigating with M. Leven. *Esérine* is a solid, crystallised substance, possessing a very slight bitter taste, slightly soluble in water, but very soluble in alcohol, chloroform, and the acids. To obtain it, the alcoholic extract of the bean is heated with water acidulated by tartaric acid. This solution is supersaturated with bicarbonate of soda, and agitated with ether, which is allowed to evaporate. It may not crystallise at first, in which case it must be re-dissolved in acidulated water, precipitated by acetate of lead and filtered. An excess of soda is to be added, and agitation with ether repeated. When this alkaloid is dissolved in exactly the necessary quantity of a diluted acid and introduced under the skin, it produces all the symptoms of poisoning by the Calabar bean. The absorption of one or two milligrammes by the guinea-pig, and three to five milligrammes by the rabbit, suffices to cause death. At the autopsy, the nervous centres are found in a normal condition, the lungs being exsanguineous and the heart flaccid. In about half the animals killed by it, an absence of contraction of the pupils has been noted. This was especially observed in a guinea-pig rapidly poisoned by placing a concentrated solution on the globe of the eye. Yet, whenever a diluted solution (*e.g.*, $\frac{1}{1000}$) of *esérine* is dropped between the eyelids, whether in man or animals, contraction of the pupils is observed. This substance has been administered in certain nervous affections, such as contraction of the limbs, etc.; but the trials have as yet been too few to report upon.

The discussions on Hospital hygiene which have of late been carried on so actively in Paris have borne some good fruit in a reform of the condition of that terrible pest-house the Paris *Maternité*. According to the *Moniteur*, this has undergone a thorough reorganisation, the number of beds being considerably diminished and the amount of space per bed correspondingly increased. The lying-in wards have been subdivided, so that each shall contain but six beds, effectual ventilation and warmth being secured by means of windows and open chimneys in place of stoves. The subdivisions of the wards are alternately evacuated, and kept for a time under constant and active ventilation, while all foul linen is immediately removed, and water-closets on the English plan have been constructed. The wards of the infirmary have undergone corresponding improvement, only from two to four patients being placed in each. All direct communication between the lying-in wards and the infirmary has been cut off, the pupils and Medical attendants not being allowed to re-enter the lying-in wards after having visited the Infirmary or being present at an autopsy. Eventually, it is intended to construct a detached Infirmary in the garden. In consequence of the suppression of several beds by the above arrangements, a lying-in Hospital, constructed upon entirely new principles, has just been erected in the garden of the Cochin Hospital. That great benefit will result from these judicious reforms, tardy though their adoption has been, we doubt not.

"LICENSED ASSISTANTS, OR A LOWER GRADE OF MEDICAL MEN?"

(*From a Correspondent.*)

We have opposed, and shall continue to do so, the counter practice of chemists and druggists. Still there is no doubt that this supplies a public want; it does for the public what the old apothecaries, with their open shops, used to do. But the old apothecary is improved, literally, off the face of the earth. He deserves a better name and higher rank, and has got both. The question is moving in many minds as to how the prevalent want shall be supplied; how shall we get a race of men, able to treat petty illnesses—walking illnesses, as they may be called—and content with the profit they may get on the few pence or shillings they may charge for their medicine? Shall they be *pharmaceutists* or a new grade of *apotheeary*, analogous to *the class of licensed Assistants* which the Apothecaries' Act created? If the public acted with common sense they would no more go to such men than they would go to a law stationer or discarded attorney's clerk for legal advice, for it is too much, with human nature as it is, to expect such men to give up a case frankly when it becomes too deep for them. Still if the public *will* have such a class of Practitioners, it is well to look out ahead, and see who or what they should be. On this topic the following remarks from an intelligent and acute observer of Medical men and things deserve attention. If the truth must be said, it is not the pharmaceutist who apes the Practitioner so much as it is the unqualified Practitioner who apes the pharmaceutist:—

"Persons who have passed the examinations of the Pharma-

ceutical Society (as a rule) wish only for the legitimate exercise of their calling; almost without an exception the 'prescribing' druggist turns out to have been an unqualified assistant to a general Practitioner.

"But as regards the employment of unqualified men by general Practitioners, what is to be done? It is no use to blink the question, for, in reality, it is becoming a very serious one. Year by year the difficulty of procuring legally qualified men becomes greater. Opportunities offer in the public services, in the colonies, in the great ship companies, and wherever our language is spoken, for energetic young Medical men. Salaries have been doubled in twenty years, yet men get scarcer. Education for the Profession is longer and more expensive, and Practitioners are in a manner forced to get dispensers, whom they teach to attend midwifery, and visit on emergency. These men either ultimately become legally qualified to practice, or enter into business as chemists, and import into their shops what they learned in Surgeries. And this is by no means an easy matter to see a remedy for. If qualified assistants are scarce, what is the Practitioner to do? yet if he educates an unqualified person he begets a prescribing druggist.

"Would a more extensively authorised assistants' examination by Apothecaries' Hall mitigate the difficulty?"

"Of one thing I am perfectly sure, that the more you investigate the matter the more assured you will be that the educated pharmaceutist hates prescribing, and recommends the Doctor—those who have been in some measure trained in Surgeries engender the difficulty.

"The person alluded to in the memorial of Mr. Milner, of Hereford, to the Medical Council is rather an unqualified Medical man than a chemist, and the latter name is merely assumed for convenience."

REVIEWS.

De l'Ataxie Locomotrice et en particulier de la Maladie Appelée Ataxie Locomotrice Progressine. Par le Docteur Paul Topinard, Interne des Hôpitaux. Ouvrage Couronné par l'Académie Impériale de Médecine. (Prix Civrieux, 1864.) Paris: Baillière et Fil. 1864. Pp. 575.

This work obtained last year the Civrieux prize awarded by the Académie de Médecine. It is based upon 252 observations, of which 43 are original. They are thus divided:—136 relate to progressive locomotive ataxia, 70 to a variety of morbid conditions accompanied by locomotive ataxia, and 46 are cases where indeed there was no ataxia, but which are directly connected with the subject of the essay. The essay is divided into two parts. In the first the condition of locomotive ataxia is regarded as belonging to the domain of general pathology, or a symptom to be traced out among the principal groups of diseases. The second part treats of a particular kind of locomotive ataxia, and is the direct reply to the question proposed by the Academy—namely, "to give the history of progressive locomotive ataxia." Two extracts, which sum up the first and second parts of the essay respectively, will give our readers a better idea of the contents and scope of the work than any summary of it that we could draw up.

"Locomotive ataxia, in the sense that attaches to the term at the present time—that is to say, synonymously with disorder of locomotion and equilibrium, compatible with perfect integrity of the muscular force and different from trembling, from chorea, and from convulsions—is a symptom, like paralysis or anæsthesia, common to a host of diseases. We have met with it in order of frequency thus: In affections reputed chronic myelitis, about 150 times; in diseases of the cerebellum, 24 times; in hysteria, 7 times; in alcoholism, 6 or 7 times; in syphilis, 4 times; in worms, 3 times; in general paralysis, twice; in old cerebral apoplexy, old medullary apoplexy, cerebral softening, tumours of the peduncles of the brain, lead poisoning, mercurial poisoning and consecutively to scarlatinous angina, each once; and finally in rheumatism generally; in the total, 53 times at least in diseases other than chronic myelitis, against three times the number in the latter disease. It appears under three forms; one evidently of cephalic origin, consisting in unusual impulsions; another, also of encephalic origin, or perhaps arising in the medulla oblongata, and characterised by a simple disturbance of the sense of equilibrium; the third, or common form, of special origin, consisting in a defect of co-ordination, the anatomical cause of which is an alteration of the posterior columns of the cord."—P. 122.

The following are the general conclusions which M. Topinard arrives at with respect to "progressive locomotive ataxia:"—

"3. Progressive locomotive ataxia has been included in Germany among the numerous species of *tabes dorsalis*, and even described with sufficient accuracy by Hufeland, Steinthal, Wunderlich, and Romberg. In England, Todd has marked out one of its forms with precision. M. Duchenne, in France, has given the most complete clinical description of it up to that period (1858). 4. Progressive locomotive ataxia is a morbid variety detached from the group of affections known as chronic myelitis. The precise information we possess upon it, its frequency in practice, the importance of its anatomical lesion, the combination of its two fundamental clinical characters,—namely, primary functional disturbance of the cranial nerves, and ulterior locomotive ataxia—authorise its being named and described separately. 5. The anatomical lesions occupy—1st, the periphery of the cranial nerves; 2nd, the posterior columns of the spinal cord through a great part of their length; 3rd, the posterior roots of the spinal nerves; 4th, exceptionally, the nerves of the limbs; it is an atrophy of the nervous tubules, with hypertrophy of the intermediate elements; it represents the advanced stage of a morbid phase which up to now has escaped our recognition and our formulæ. 6. Progressive locomotive ataxia has its origin often with the other affections passing under the name of chronic myelitis. Sometimes it touches upon general paralysis. Two of its modes of termination are insanity and paralysis. In close relation with it is a malady the history of which is yet to be written, in which grey degeneration attacks the brain, the cranial nerves, the anterior columns more than, or as well as, the posterior columns, without locomotive ataxia forming any part of its symptoms. The word 'entity' is thus inapplicable to progressive locomotive ataxia. 7. The primary cause which engenders progressive locomotive ataxia operates upon the whole of the nervous system, with a preference for the medulla, just as calcareous degeneration affects the whole of the vascular system, with a preference for the valves of the heart. In making progressive ataxia a disease of the cord, we imitate those Physicians who, in the latter instance, recognise mainly an affection of the heart. 8. Progressive locomotive ataxia presents itself under three forms: the first, complete or general, in which the disturbances of the cranial nerves show themselves some years before those of the limbs, or at the same time with them; the second, damaging, or paraplegic, in which there is merely deficiency. (Sometimes the ophthalmoscope or the autopsy unsuspectedly demonstrate their existence); the third, cerebral, characterised by superadded cerebral symptoms. 9. The progress of the disease is not fatally progressive; it exhibits stationary conditions of long duration, and even some spontaneous retrogressions. The spinal symptoms are generally severe at the outset, and more or less apparent in the four limbs. The third or advanced period has for its principal symptom an alteration in muscular power. Up to the present time there exists no instance of a recovery from an unquestionable progressive locomotive ataxia. Death succeeds by an intercurrent disease. 10. The Physician can give relief, can suspend the progress of the malady or ameliorate it. He will have thus an active part to play; in the first place he will judge from the indications, and will rest, according to the individual upon hygienic treatment, upon tonics, hydrotherapeia, sulphurous baths, mineral waters, revulsions to the spine, etc., each one of which appropriately used will give him some success. In the last place, he will seek assistance from empirical agents,—that is, in fault of anything better, from nitrate of silver. Progressive locomotive ataxia rejects an uniform treatment, and up to the present time possesses no one specific remedy. 11. The locomotive ataxia in this form of disease does not coincide necessarily with an integrity of the motive power. It is dependent neither upon muscular debility, nor upon cutaneous anæsthesia, nor upon muscular anæsthesia, nor upon mixed anæsthesia. 12. The muscles are endowed with two kinds of sensibility; the one general, appreciable by means of electricity, pinching, or the bistoury when they are the seat of inflammation, etc.; the other, special (or sensorial)—the sense of muscular activity. The perception of passive movement, the knowledge of position as well as sensibility to pressure, depend upon a complex sensibility, in which all the tissues of the limb concur. 13. Walking, in the physiological condition, is subordinate, like respiration, to two influences; the one, which commands—periodical; the other, which executes and co-ordinates. The former is the will, the latter is the reflex power of the spinal

cord. Locomotive ataxia is produced whenever the reflex power is altered or diminished. 14. Locomotive ataxia, properly speaking, is marked by a truly characteristic physiognomy only in the lower limbs. Its effects in the upper limbs approach those which determine in them trembling, incomplete paralysis, and cutaneous anæsthesia. The reason is, that the reflex or co-ordinating power, of which locomotive ataxia is the functional disturbance, is physiologically less developed in the brachial than in the lumbar portion of the spinal marrow."—P. 536.

Preservation of Dead Animals from Putrefaction.

(1) *Alla R. Accedemia delle Scienze de Torino Relazione.* Di Paolo Gorini, sui lavori da lui eseguiti per la Conservazione delle Sostanze Animali. Milano. 1864. Pp. 33.

Report to the Royal Academy of Sciences of Turin on the Works of Paul Gorini on the Preparation of Animal Substances. Milan. 1864. Pp. 33.

(2) *Sui Preparati Cadaverici.* Di Paolo Gorini. Rapporto Approvato della R. Accademia delle Scienze de Torino. Pp. 16. 8c. 1864.

Paul Gorini's Preparation of Dead Bodies. Report approved by the Royal Academy of Sciences of Turin. Pp. 16. 1864.

The author of the above work (1) is a professor of natural philosophy in Lodi, near Turin, who for the last twenty-two years "has patiently laboured at the preparation of animal substances." His object was to find a method (1) of hardening animal substances; (2) of indefinitely preserving dead animals for cabinets of natural history, or embalming the bodies of the human race; (3) preservation of subjects used for dissection indefinitely; (4) preservation of anatomical preparations; (5) preservation of butchers' meat without change. The author informs us that he can preserve meat in a state fit for food for several months; and with regard to the embalming of the human body, it appears that M. Dubois, of Amiens, said, in 1847, "I must say that I first of all consulted M. Gannal concerning the process of embalming of M. Gorini. M. Gannal had informed me that the preparations made by M. Gorini were of a marvellous beauty! I admit that I had been astonished to hear M. Gannal praise thus a method not his own;.but M. Gannal made no difficulty in confessing with sincerity that M. Gorini not being able to compete with him because of time and expense he was not at all afraid to praise his preparations;" and M. Poiseulle, who reported on M. Gorini's preparation to the Academy in 1847, said: "Amongst the preparations which he (M. Gorini) has shown us, some imitate the most beautiful works in wax, although they are really parts of the human body. According to the author, volume of the part is preserved by his process, and even the expression appears scarcely altered. The skin does not peel off. The eyelids are so well preserved that they can completely cover the aperture of the eyes; the lips remain tinged and completely cover the mouth; the nose is not pinched, and in general the expression remains unaltered, like life in death.

As to the preservation of subjects for dissection, it is important in warm climates, such as Italy, and in warm weather in this country, when we often see many subjects rendered unfit for dissection in a short time. In 1864, in the month of July, it appears that a report was made to the Academy of Physical Sciences of Turin on the subject of Professor Gorini's method of keeping dead bodies from putrefaction. He had stated,—

1. That by his method there could be preserved for the space of about six months bodies in such a state of softness and freshness as to be able to serve as subjects for dissection; and that dissections which were undertaken even two or three months after the process might easily be carried on for two months, no putrefaction being to be apprehended, and all cadaveric odour and danger of dissection wounds being at the same time removed.

2. That these same subjects, when this time has gone by (six months), commence to become hard and turn into mummies, and at the end of another couple of months they finish by drying up and becoming exceedingly hard; and from that time, for an indeterminate number of years, by means of prolonged immersions for some weeks in water, the softness and roundness of forms may be restored, so as to resemble fresh subjects, and to serve again for dissection.

3. That this process has the power of hardening the bodies with so slight an alteration of form as that the personal identity can readily be maintained.

The following is a part of the conclusions come to by the Commissioners of the Academy, held in December, 1864, in Turin:—

"After having verified that in M. Gorini's method no incision of the vessels takes place, nor any cutting into the bodies, it was also found that no injections into the intestines were used, as had been supposed. Your Commissioners have to declare that by means of the process of Signore Gorini may be obtained the preservation of bodies intact for a time which may be called indefinite. These bodies remain for some months in a state of natural softness, more or less inodorous, according to the condition in which they were when prepared. As long as this state lasts they are always fit for dissection; at the end of this time, in place of passing into putrid fermentation, they dry up, or, as others would say, turn into mummies; but they are able always, even after long and complete dessication, to resume again their primitive softness by prolonged immersion in a bath of water. Thus softened, they are of use again, as before, for dissection, excluding always the brain, the eyes, and the fine microscopic tissues. The viscera of the two cavities, thoracic and abdominal, are preserved in a marvellous manner. The nerves, the muscles, and the vessels can be perfectly dissected out, even to their finest ramifications. The odour which is given forth from the bodies thus softened, when prepared at fit seasons, is a mixture of that of rancid fat and of macerated epidermis—disagreeable, it is true, but not strong. The subjects which have been dissected for some time may again be plunged into water, whence they may again be taken after a long time, even in summer. . . . Knives and other instruments are not injured by these subjects more than by unprepared subjects. The process of M. Gorini will also be useful for the preservation of bodies in Medico-legal inquiries."

"The effective summing up of all the advantages of this process which we have just enumerated depends strictly on the material conditions of execution of the process. These are not known. Signor Gorini keeps them a secret, and our delicacy hinders us from insisting that this should be revealed. We thus have limited ourselves to some questions which it was our duty to make, and here we note down the answers obtained, not without adding that the well-known character of Signor Gorini dissipates all doubts relative to their credibility. Signor Gorini has assured us (1) that for the simple preservation of subjects for dissection only one day is required; (2) that the cost of this operation is small, and for each subject would not exceed five francs (= four shillings); (3) that different substances may be used for the purpose, the novelty being in the operative procedure; (4) that, for the reduction to the state of mummies, preserving the colour and forms of the body, the substances used for the operation are particular ones, and that the operation is simple, but long, requiring daily supervision of the dissective process.

"Your Commissioners conclude by expressing the wish that Professor Gorini may be induced to render public his discovery, certain, as they are, that this will render great advantage to science, and the more so when it is remembered that no discovery is perfect at its birth, and that the discovery of Professor Gorini given forth to the public will not be long in becoming perfected.

"S. Berruti. A. Sobrero.
"G. Moleshott. F. De Filippi."

A Ward Manual; or, Index of Surgical Diseases and Injuries. By T. W. Nunn. London: Hardwicke. Pp. 79.

This appears to be intended as a catalogue of diseases to be filled up by the student as he sees specimens of the various diseases indicated, so that he may know which of the multiform varieties of diseases he has had opportunities of seeing, and which he has not. There is at the end a short account of inflammation and other constitutional diseases, compiled with care from standard authors, although we must except the account of syphilis, which is meagre and confused. The author gives as the character of *tertiary* syphilis, what is truly the essence of all syphilis, and misses a good opportunity of conveying the germs of a good modern syphilography to his readers.

The Benefits of Sanitary Reform, as shown at Salisbury in Nine Years' Experience thereof. By A. B. Middleton. London: Simpkin, Marshall, and Co. One shilling.

A thoroughly scholarly, well-written, interesting, and most unbiassed account of one of the best sanitary experiments of

the century. We have read few pamphlets which more show the author's power of looking at all sides of a question, and of exercising a sound judgment. The facts he gives as to the effects of the sewage on the trout in the Avon bear out Mr. Chadwick's doctrine; and his opinions on the relative claims of filth, poverty, and those unknown quantities which we call "epidemic" as factors of pestilence, meet with our heartiest commendation.

London Meteorological Diagram, showing the Daily Elements throughout the Year 1864. By C. O. F. Cator, M.A. London: Edward Stanford, 6, Charing-cross.

This very elaborate sheet shows as clearly as possible, by means of a coloured diagram, every element of the meteorology of London during every day of 1864. The maximum and minimum and daily mean of barometer, thermometer, wind, rain, weekly mortality, moon's phases, etc. All these, too, are *London* elements, not *Greenwich*, for the Greenwich mean of temperature is nearly 1·5 degree below the London. This diagram is so well done, so clear, and gives all epidemiologists and sanitarians such a mass of information of the most desirable sort that we hope it will be largely bought and imitated; and for this latter purpose we see that blank sheets are prepared by Messrs. Stanford at half-a-crown a piece.

The Applications of Geology to the Arts and Manufactures. By Professor D. T. Ansted, M.A. London: Hardwicke, 192, Piccadilly. 1865. Pp. 300.

This is an expanded edition of the Cantor Lectures delivered by Professor Ansted at the Society of Arts in 1864-5. These lectures commemorate a benefaction from the late Dr. Cantor, of the East India Medical Service, and are intended to illustrate various applications of science to the arts. In the volume before us, Professor Ansted shows who may be benefited by a scientific knowledge of geology, and how. Agriculture, water supply, sands, clays, cements, concrete, stone, Fuller's earth, salt, bitumen, iron stone, coal, and metallic veins, are all considered in turn, and thus a book is formed, every page of which shows some useful or interesting fact.

A Dictionary of Science, Literature, and Art. Part I. Edited by W. T. Brande, D.C.L., and the Rev. G. W. Cox. London: Longman and Co. 1864.

This is the first number of what promises to be a most useful addition to our libraries. It is to comprise the "definitions and derivations of the scientific terms in general use; to enter into the history and descriptions of the scientific principles of nearly every branch of human knowledge;" and is proposed to be completed in twelve monthly parts at 5s. Amongst the contributors to those articles which will more especially interest our readers are—Professor R. Owen and C. Carter Blake, on Biology; Lindley and Moore, on Botany; Brande, Frankland, and Attfield, on Chemistry; Ansted and Bristow, on Geology and Mineralogy.

The Pritchard Case.—Dr. Pritchard was on Friday examined by Sheriff Sir Archibald Alison at the North Prison, Glasgow, with reference to the death of his mother-in-law, Mrs. Taylor. The prisoner declared that he was neither directly nor indirectly accessory to the death of Mrs. Taylor, but declined to make any further statement on the subject. He was subsequently committed for trial on the additional charge of poisoning Mrs. Taylor. We believe that it is considered not impossible that the trial of Dr. Pritchard may begin on Monday, May 8, before the High Court of Justiciary here.—*Scotsman.*—It is only common justice to the accused to refrain from all assumption as to his innocence or guilt until the evidence in the case has been placed before a jury. We think that the tone of many of the paragraphs which have appeared in the Scottish newspapers in reference to the case has been most objectionable. Nearly everything which has appeared has been written under the supposition of the prisoner's guilt. It must be remembered that the possession of antimony is really worth nothing as evidence when the accused person is a Medical Practitioner, and even the discovery of antimony in the tissues of the deceased may lose much of its significance when the full history of the cases are known.

FOREIGN AND PROVINCIAL CORRESPONDENCE.

GERMANY.

(Continued from page 430.)

Berlin, April 9.

One of the most successful clinical teachers of this University is Professor Traube, who is also well known by his original researches on fever, animal temperature, and diseases of the chest. He has been connected with this University for nearly twenty years, and had lately the gratification of receiving the honorary title of "Privy Councillor of Medicine"—an incident which is worth recording, in so far as it is, to my knowledge, the first similar distinction ever bestowed by Government upon a Jew. Professor Traube is at present in Italy recruiting his health, which has severely suffered in consequence of the very great assiduity with which he has devoted himself to his work, both in Hospital and private practice, and in the physiological laboratory. A few notes from his lectures on the diagnosis of chest diseases may be of interest to your readers, and I will to-day only allude to "what the inspection of the thorax tells us," and the diagnostic value of certain sputa.

As regards the abnormal shape of the thorax observed in certain affections of the chest, Professor Traube distinguishes the increased and diminished volume of the thorax. Where there is increased volume we may have (a) the *emphysematous* thorax; in this the sternum is curved like an arch, and the anterior sides of both halves of the thorax have a similar shape. The bulging commences generally in the second or third intercostal space. The lower parts of the thorax are only altered where emphysema is exceedingly severe. The upper ends of the ribs are elevated, and the angle which they form with the cartilages approaches a straight line. In such persons certain muscles of the neck, such as the sterno-cleido-mastoids, the scaleni and trapezii are generally hypertrophied. The dorsal part of the vertebral column is strongly curved. This form of thorax, with hypertrophy of the muscles mentioned, is observed in persons who have suffered from dyspnœa, and who have been forced to make frequent inspirations. In young people we occasionally notice a variety of this form of thorax; its upper part is abnormally prominent, while from that point where the sixth and seventh rib join with their cartilages there is considerable flattening. The cause of this form is generally bronchitis during infant life.

Another form of thorax, with increased volume, is (b) the *ectatic* thorax, which is produced by pressure from within outwards, either by gas or by liquid within the chest. In this form the anterior wall of the thorax is strongly prominent, although not so strongly as in the emphysematous form; a second prominence is seen from the sixth to the twelfth rib. The intercostal spaces are filled up and enlarged, and if the pressure is severe they may even bulge outwards. Simultaneous with this form is bulging of the diaphragm into the abdomen, and displacement of the heart. If the right half of the thorax is ectatic, the heart is displaced towards the left side, and *vice versâ*.

A third form of thorax with increased volume is the conical form, which is caused by tumours or liquid in the cavity of the abdomen. In this form the periphery of the lower margin of the ribs is increased.

There are also different forms of thorax with diminished volume of the same. The most common form of this kind is the *paralytic* thorax, which is just the reverse of the emphysematous one. The anterior surface forms a straight plane; the sternum may also form a straight line, and there is a peculiar position of the shoulders and collar-bones. A line drawn from the neck to the shoulders is very much inclined towards the horizon, while in the normal thorax it is straight; and the same is the case with the collar-bones. The shoulders are therefore lower than usual, so that the neck appears longer. The angle which the ribs form with their cartilages is somewhat considerable. The upper intercostal spaces are considerably dilated; the lower ones are much narrowed. This is probably owing to the muscles which elevate the thorax having lost their tone. This so-called "phthisic habitus" is not always produced by tubercular disease of the lungs, but persons with such a thorax are predisposed to tuberculisation of the lungs. Another form of thorax is that which is due to pleuritic effusions; that half of

the thorax which is affected is smaller in every respect. In consequence of the shortening of the longitudinal diameter, the corresponding shoulder is lower. The lateral wall of the chest is concave, the shoulder-blade of the same side is further apart from the back, and the spine is curved, its convexity looking towards the healthy side.

The normal type of inspiration is the costo-abdominal one. The movements of the ribs are much less considerable than those of the abdomen, the latter being only caused by contraction of the diaphragm. In observing the movements of the thorax it is of importance to notice which muscles participate in the motion. The muscles of respiration are, according to Professor Traube, of a threefold kind—viz., (a) one constant muscle of respiration—viz., the diaphragm; (b) accessory muscles of respiration, which take part in the act of breathing, but are not essential; these are the scaleni, the levatores costarum, the internal and external intercostals, and the cartilaginei; and finally (c) accidental muscles of respiration, which only come into play where there is a considerable impediment to breathing. These are the sterno-cleido-mastoids, the trapezii, the pectorales minores and the levatores alæ narium. Under ordinary circumstances the ribs are only slightly moved in males, while in females there is a very distinct elevation of the upper ribs. True abdominal breathing is observed where the spinal cord below the exit of the phrenic nerves is diseased. True costal type is seen, on the other hand, where there is pain in deep breathing, most frequently in pleurisy, and also where the lower portion of the lungs has been consolidated. For expiration no muscular force is necessary, as the lungs, in consequence of their inherent elasticity, continually tend to contract as soon as they have been expanded by extraneous forces.

Sputa of a greenish colour are, although not very frequent, yet not rare, and have always attracted much attention in consequence of their striking appearance. Hitherto their origin and significance have been believed to be always of the same kind, but from some curious cases lately observed by Prof. Traube it appears that we must distinguish at least two varieties which, as regards their causes and their import, are entirely different. Greenish sputa are found where there is a complication of icterus with an affection of the respiratory organs. They have been chiefly noticed in what is called bilious pneumonia. It is generally believed that the sputum owes its colour in this instance to an admixture of bile-pigment, and there can be no doubt that cholepyrrhine is, under the influence of atmospheric oxygen, changed into biliverdine. Prof. Traube has, however, observed that not only in bilious pneumonia, but also in ordinary bronchitis with mucous expectoration, the sputa may be of a green colour, if there is a complication with icterus. On the other hand, greenish sputa may be observed where there is no trace of icterus; and they are, then, the product of pneumonia with a stealthy and protracted course. In the latter class of cases we must distinguish three different conditions: (a) the ordinary croupous pneumonia, where the affection does not terminate by a crisis, but where, while the fever slowly disappears, resolution is still possible; (b) in cases of croupous pneumonia, with termination in abscess; (c) in the commencement of "cheesy pneumonia," with a sub-acute course, whether complicated with tuberculosis or not. In these last-mentioned cases the green colour of the sputa does not depend upon bile-pigment, but upon a green colouring matter which must proceed from a peculiar alteration of hæmatine. M. Andral has asserted that the peculiar varieties in the colour of sputa observed in pneumonia are due to the quantity of hæmatine contained in them, so that the lighter shades, such as the rusty, or the lemon-coloured sputum, would be produced by a very small quantity of blood mixed with the sputum. Professor Traube has, however, shown by a series of experiments that if a solution of gum or albumen is mixed with blood, the deepness of the colour varies according to the quantity of blood added, but remains always blood-red, and never assumes a different tint. From this it seems obvious that the peculiar shades in the colour of sputa in pneumonia must have a different cause. There is no doubt that they have a certain connection with the number of blood-corpuscles contained in them, for we may, by the aid of the microscope, always discover blood-corpuscles in such sputa, and they are the more numerous the richer the colour of the sputum. Now, it seems reasonable to suppose that, in the mass of the sputum, the hæmatine will gradually leave the blood-corpuscles, and become dissolved in the liquid, where, under the influence of atmospheric oxygen, it gradually passes through the same changes of colour which we observe where blood has been effused into the cutis (for instance, in a "bad black eye"). The blood-red spots which appear at first in consequence of contusions are, as everybody is aware, gradually changed into a rusty, lemon, and greenish colour before they finally disappear. Having regard to these facts, we are justified in explaining the grass-green colour of sputa in pneumonia with a stealthy course, by assuming the presence of a colouring-matter, which is the last oxidation product of hæmatine. With this view of the matter, it is easy to answer the question why, in acute croupous pneumonia without icterus, there is never a green sputum. It is because the sputum containing hæmatine is, in this instance, expectorated before the latter could pass through all the metamorphoses of the pigment. Green sputa are, therefore, of considerable importance both for diagnosis and prognosis, being mostly of ominous import.

IRELAND.

Dublin, April 11.

At the last meeting of the Surgical Society of Ireland, Dr. Fleming brought under consideration the subject of the endoscopic examination of the urethra and bladder, and took the opportunity of exhibiting the endoscope. He wished it to be understood that he confined his investigation to the clinical objects of the instrument, and had used the form of the latter recommended by its advocate, M. Desormeaux. Dr. Cruise, who was the first to bring forward the instrument in Dublin, made and contemplated improvements which, no doubt, would, in his hands, be found most useful. The fluid used for the lamp on this occasion by Dr. Fleming was gazogene, as recommended by M. Desormeaux, the light flame of it being, as stated by the French writer, best suited for the special illumination required. Dr. Fleming showed the usual endoscopic instruments and described the mode of their application, particularly noticing the endoscopic speculum for the examination of the urethra in its several portions, and the endoscopic catheter for the exploration of the interior of the bladder, which he suggested might be termed the "fenestrated catheter." He did not enter more fully into the subject on this occasion, as his experience was necessarily too limited to justify the expression of any decided opinion respecting the value of the instrument. He had, however, learned sufficient to convince him of the necessity for its study as an additional aid in the diagnosis of the most intricate and painful diseases to which man is liable. In the living subject he could satisfy himself as to the appearances of the lining membrane of the urethra and of the bladder, and in the dead he was enabled to recognise the outlines and the colour of foreign substances introduced into the latter.

Dr. Cruise, whose improvements of the endoscope are alluded to in the foregoing communication by Dr. Fleming, and whose demonstration of the instrument before the Medical Society of the King and Queen's College of Physicians was noticed in the number of your journal for March 25 (p. 323), has been good enough to afford me an opportunity of inspecting his endoscope, and of comparing it with that of Desormeaux. As to the superiority of the former, there can be no second opinion; the illumination in Dr. Cruise's instrument excels that in Desormeaux's as much as daylight does twilight. The illuminating power which Dr. Cruise uses is the light evolved from the *thin edge* of the flat flame of a petroleum lamp. In order to obtain the utmost steadiness and intensity of light, Dr. Cruise employs a tall draught chimney and dissolves a large proportion of camphor in the petroleum. The disadvantages of this light are its great heat and small size, rendering peculiar ventilating and adjusting arrangements necessary. The heat is avoided by encasing the lantern of the instrument in thin mahogany, and by having a constant draught of cold air traversing it. The adjusting arrangements are as follow:—The lens which condenses the light upon the inclined mirror placed at the top of the exploring tube, is mounted on a doubly-shifting stage, having an up and down and a right and left movement. By this arrangement the proper position can be obtained in a moment.

The light is magnificent; in fact, so bright that the observer cannot look *directly* at it for even one minute without the eye being dazzled and unfitted for use for some time. By its aid the endoscope is rendered a perfect success.

I have thought it well to take the opportunity afforded me in noticing Dr. Fleming's communication, to bring more distinctly before your readers than has heretofore been done, the details of the most important of Dr. Cruise's improvements.

GENERAL CORRESPONDENCE.

CERTIFICATES IN LUNACY.—FORM OF GUARANTEE.

LETTER FROM DR. JOSEPH BULLAR.

[To the Editor of the Medical Times and Gazette.]

SIR,—May I request you to give publicity to the inclosed? It is a form of guarantee drawn by an experienced barrister against the possible consequences of signing a lunacy certificate. It should be signed by as many of the relatives who can be induced to do it—(in a recent case where I used it there was no difficulty in obtaining the signatures of the wife and two brothers and two sisters),—and it should be witnessed by two witnesses, and sent within a fortnight to Somerset House to be stamped. The stamp is sixpence.

Some of your readers may agree with me that where the risk is so considerable it is wise to take every precaution, and may like to keep a copy of this by them for these emergencies.

I am, &c. JOSEPH BULLAR, M.D.,
Physician to the Royal South
Southampton, April 18. Hants Infirmary.

"*To Dr. ——, and Dr. ——.*

"Gentlemen,—We, the undersigned, having requested you to sign a certificate for the admission into a lunatic asylum of Mr. ——, of ——, whom we believe to be a person of unsound mind who ought to be confined in an asylum for lunatics, do hereby in consideration of your so signing the same, and permitting the same to be used at our request, agree and undertake as follows:—

"First, to guarantee and save harmless you and each of you against all costs, damages, and expenses of you or either of you, and all claims and demands against you or either of you by reason of or touching your signing the same certificate or permitting the same to be used; and

"Secondly, that you and each of you shall be completely indemnified by us against all the consequences of you and each of you so signing the same and permitting the same to be used.

Thirdly, we undertake to defend at our own cost any action, suit, or other proceeding against you or either of you touching or relating to that certificate, or to the use thereof, or to the confinement and treatment of the said lunatic by reason thereof. As witness our hands, this day of , 186 ."

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 11.

Dr. ALDERSON, President.

A PAPER, by HERMANN WEBER, M.D., F.R.C.P., was read

ON SOME FORMS OF DELIRIUM OR ACUTE INSANITY DURING THE DECLINE OF ACUTE DISEASES, ESPECIALLY THE DELIRIUM OF COLLAPSE.

Dr. Hermann Weber prefaced his paper by the remark that he did not intend to treat on the usual delirium arising during the increase and acme of acute diseases, but on a form which occurred occasionally after the crisis, or towards the termination of such diseases, and which was attended with the phenomena of collapse, a form which he was inclined to designate as the "delirium of collapse," and which resembled much more the mental derangement usually termed insanity than the common delirium. After having alluded to the literature of the subject, he described seven cases, which in reality were equal to nine, as in two of them there were two separate attacks of disease; and he remarkedthat the delirium occurred when the pyrexia and the other active symptoms had already much abated; that in all there was a feeble, mostly frequent, and sometimes irregular pulse; that in the majority the face and extremities were more or less cold, and the skin in profuse perspiration. The delirium was characterised by the suddenness of the outbreak, which almost always occurred on waking, and more frequently in the early morning. The delusions were in the majority of cases of fixed nature, and the subjects of a gloomy kind, repeatedly traceable to the occupation of the mind just before the commencement of the illness. There were hallucinations of the senses, especially of hearing, but occasionally also of sight. The duration of the mental derangement varied from eight to forty-eight hours. The condition of the brain and nervous system appeared to be allied to anæmia; and to be connected with that peculiar shock not rarely experienced by the whole system during the decline, but sometimes also at the time of the crisis of acute diseases, and significantly termed "collapse." The writer alluded also to the occasional but more rare occurrence of transitory mental derangement, different from the common febrile delirium, during the increase of acute diseases, which might be similar to the derangement in the cases before the Society, and farther to the mental aberrations occurring during the advanced convalescence. He maintained, however, that not all the mental disturbances observable during the decline of acute diseases were of one and the same nature; and considered also the peculiar delirium or insanity arising during, and at the decline of, rheumatic fever as different from the delirium here described as the delirium of collapse. Regarding the treatment, Dr. H. Weber thought that rest and the use of stimulants externally and internally, according to the degree of the collapse and the concomitant circumstances, would probably in the majority of cases suffice, but that opiates, which in this condition seemed to be well borne, even in large doses, appeared to accelerate the recovery.

The PRESIDENT observed that the paper of Dr. Weber presented many points of interest and embraced a large range of diseases, as measles, scarlet fever, typhoid fever, and rheumatism, in which the Author described the peculiar delirium as coming on after protracted illness. They had all seen this form of delirium in protracted cases of typhoid fever in young persons, especially after a continued use of stimulants, sometimes excited or set up apparently by most trivial circumstances. In his own experience he had generally seen the best effects from slight counter-irritants, to relieve what may be reasonably attributed to temporary congestion of the brain or its membranes; for it is well known that after delirium in typhoid fever, in fatal cases, no appreciable lesion is ever found. He had seen the symptoms described by the Author of the paper in long-continued cases of rheumatism complicated with pericarditis, when there was found after death extensive effusion in the pericardium; but he confessed that in those cases he always looked upon the maniacal symptoms as of fatal character.

Dr. SANKEY said that, having been connected with the Fever Hospital for nine years, and having afterwards for nine years studied insanity, he would offer a few remarks on the paper. He had seen cases exactly like those described by the author. The delirium occurred after waking, and was more of the character of acute melancholia, and was attended by apprehensions. He had known both illusions and delusions, and related a case in point. He agreed with the author that collapse was the chief element in causing the delirium. The cases were, he believed, rare, as, after having had under observation 8000 cases of fever, he believed he had only seen twenty or thirty cases. Without referring to his notes, he could not say whether it occurred more frequently after typhus or typhoid. He had treated his cases by stimulants, and the delirium had generally passed off; but in one case it did not, and the patient was sent to a lunatic asylum. His subsequent experience had not been so clear. Although many cases of insanity had been attributed to fever, yet the ignorance of the patient's friends prevented certainty on that point. He could not say, therefore, in his experience that any case had become a permanent one. The patient whose case he had just alluded to was well again in a month.

Dr. FULLER thought that such cases were not unfrequently met with, and said that he had seen four or five during the last few years. A girl one day, when convalescent, became "raving mad," but soon recovered under the influence of stimulants. In another, the symptoms continued for some time, and the patient was sent to Hanwell, but recovered in six weeks. He thought that he saw at least one or two cases a-year. He objected to the term delirium of collapse. It is true the delirium occurs in a state when the patient is most exhausted, but he had not found that it occurred in those specially exhausted, but, on the contrary, in those who had gone through the disease pretty well.

Dr. WEBSTER had listened to the paper with great pleasure.

He asked if there had been any history of previous insanity, or of any hereditary tendency. He believed that such cases occurred from collapse after fever, and similar cases followed want of food and exposure. One of the commonest symptoms in illness after shipwreck was delirium or temporary insanity. He agreed with the Author, that the delirium was due to physical exhaustion, and also that it was to be best treated by opiates. Dr. Webster then remarked on the delirium attending convalescence from bronchitis and pneumonia.

Dr. Goodfellow considered that the delirium in the cases related by the Author was allied to delirium tremens. He had seen after typhoid fever a transitory delirium, like that of delirium tremens; after typhus a more permanent delirium. Many other circumstances might give rise to similar delirium —want of rest, extreme anxiety, etc. In all the delirium was due to debility, and resembled the delirium of delirium e potu.

Dr. Wood was disposed to agree with Dr. Fuller, that the cases were not so very rare. No doubt the cause was physical exhaustion, the form of delirium being given by the patient's peculiar idiosyncrasy. His experience as regards treatment coincided with the Author's—viz., that by opium. Stimulants were obviously important, too; but opium was to be chiefly relied on.

Dr. A. P. Stewart said such cases were rarely found after typhoid; more frequently after typhus. He had not seen a case in which the delirium became permanent; but such cases occurred. He would have liked to have heard from the Author details as to the sleep of the patients during the earlier part of the disease. As the opium treatment had been so successful, he was led to think that there must have been wakefulness before. He agreed with Dr. Goodfellow that the delirium was allied to delirium tremens, and that it might occur from many circumstances preventing sleep. Dr. Stewart then instanced the case of Hugh Miller as one of insanity due to long-continued mental labour. He wished also to know the temperature of the external air, as it had a remarkable effect on mental health. The many cases of insanity which occurred during the retreat from Moscow showed the great influence of alteration of temperature in producing insanity.

Dr. Horace Dobell asked if difference in treatment of fevers, which were followed by delirium oftener in the experience of some than others, might not account for the difference in frequency in the practice of different speakers.

Dr. Goodfellow said that his remarks applied to various diseases, and not to cases of fever only.

Dr. Wynn Williams said that he had seen a similar kind of delirium in women who had nursed their children too long. He had also seen several cases occurring after the subsidence of typhoid fever. He had treated them successfully, not by opiates, but by blisters to the nape of the neck.

Mr. Gant remarked as follows:—"I would ask the able Physicians present whether the delirium in the cases described can be regarded as the effect of either 'collapse' or 'anæmia?' This question is essentially important, it having reference to the pathological condition, of which the delirium was the most prominent symptom, and to which it was immediately due—a question, in fact, as to the pathology of the cases themselves, and determining their affinity to other cases in which delirium is present. That the delirium was not due to the collapse in these cases, would appear from the well-known fact that no delirium is ever present in the collapsed stage of cholera, which might be said to be the very type of collapse. Nor, again, was it due to the anæmia; for, in cases of extreme hæmorrhage, delirium is, generally, if not invariably absent. Surveying the history of the cases observed, the pathological condition which would appear to have been the *immediate* cause of the delirium was 'cardiac syncope,' or simply failure of the heart's action, more or less prolonged."

Dr. Weber, in replying to Dr. Webster's remarks, stated that he had not discovered any hereditary predisposition to insanity in his patients; he did, however, not think that this point could decide whether their mental aberration ought to be regarded as acute insanity or delirium, but agreed with Dr. Wood that there was no real difference between delirium and insanity; he thought that neither the duration of the mental aberration, nor the presence or absence of fever, nor the nature of the delusions, warranted our drawing a line of demarcation. He was unable to give exact answers to Dr. Stewart, but, as far as he could remember, the patients had not been altogether deprived of sleep before the outbreak of the delirium; they had, however, manifested that degree of sleeplessness peculiar to most febrile diseases, especially the febrile exanthemata. He was also not aware that any remarkable change of the external temperature had been concomitant with the outbreak of the delirium. In reference to Dr. Goodfellow's observations, he acknowledged that there were points of resemblance between the delirium described and the delirium tremens, although alcoholic beverages had been taken by none of his patients to an immoderate degree; but as in delirium tremens the removal of the accustomed stimulus (by accident, or by nausea, and dislike to it) caused, or, at all events, preceded the commencement of the delirium, so in these cases the sudden diminution of the stimulus of the blood, though the diminished power of the heart, appeared to him a most important cause. The feeble and often irregular pulse, the cold, pale face and extremities, and the profuse perspiration pointed in that direction, as also the facts that the delirium almost always broke out immediately after waking, and in the early morning—viz., at the time when in the decline of acute diseases the remissions were strongest, the temperature of the blood and the action of the heart at the lowest: when, therefore, the difference between the previously much increased and then much diminished power of the heart were greatest. Mr. Gant's objection to the view that collapse had given rise to delirium, the author thought, might be due to the double sense in which the word collapse was used; while Mr. Gant seemed to apply it to that state of loss or depression of power which might be caused by the action of a poison on the system, or of excessive secretions, as in cholera, he (Dr. Weber), in his paper, understood by it that peculiar shock frequently observed during and after the crisis of acute diseases, which often was very slight and almost imperceptible, like a transitory chilliness, or a rigor, or a feeling of faintness and anxiety, with more than usual perspiration, which was, however, in some cases, accompanied by all the phenomena of serious prostration, causing the greatest alarm to the patient himself, as well as to those around him. It would be desirable to find different terms for these different conditions.

THE PATHOLOGICAL SOCIETY.

Tuesday, April 2.

Dr. Peacock, President.

Dr. Crisp exhibited several morbid specimens, casts in wax, and drawings to illustrate the various forms of

TUBERCLE, ITS SEAT AND ORIGIN IN THE LOWER ANIMALS.

Dr. Crisp said that he had never found tubercle in an invertebrate animal; but in fishes he had seen tumours that had some resemblance to tuberculous deposit in the higher vertebrata. One great peculiarity in the lung tubercle in birds and mammals was the general absence of cavities, and the large amount of earthy matter in many orders, especially in the ruminants. Another important fact which he had before mentioned was the comparative infrequency of tubercle in the purely animal feeders. The lungs, spleen, kidneys, and a portion of the peritoneum of a gruet monkey were shown, all of them studded with tubercles; those on the peritoneum were very vascular, about the size of a millet seed, and connected with a small branch of an artery. A portion of the lung of a Bactrian camel which Dr. Crisp had recently dissected was also exhibited. It consisted chiefly of nodules, varying in size from a pea to that of a nut, and both lungs were throughout affected with these tubercles, which contained a large amount of earthy matter. The bronchial glands were much enlarged, and they contained so much earthy material that, on drying, they were seen to be hard and stone-like. It was well known that the blood of the camelidæ was of an eliptical form, unlike that of all other mammals; but the blood of this animal, although the spleen and liver were sound, contained a very large number of white corpuscles, which were round and about three times the short diameter of the red discs. Some glands of a peculiar character in the colon, cæcum, and ileum of this animal not before described were also exhibited. In both the animals above named, the liver was sound, and hence the prolongation of life under such an amount of lesion of pulmonary structure, the liver evidently taking on a part of the office of the lungs. When both liver and lungs were extensively diseased, life was soon extinguished. The camel and the monkey had been in a travelling menagerie, where limited space, unnatural food, and a vitiated atmosphere would all tend to occasion the lesions enumerated. Tubercle in wild animals (excepting rabbits in unhealthy localities) was rarely or never met with.

Dr. Wale Hicks showed a specimen of

OPEN FORAMEN OVALE.

A boy, 2½ years old, died of croup after a few days' illness. The foramen was widely open, and the pulmonary valves were thickened. The boy had never been ill before the croup, and the only noticeable symptom he had had was blueness of the hands occasionally when he was cold. The dimensions of the orifice at the pulmonary artery were below the average at the patient's age, according to the observations given in the President's book.

The President said the case was interesting as regards the absence of cyanosis. Under ordinary circumstances there must at all times have been admixture of venous and arterial blood, and yet the cyanosis was only occasionally noticed. This was doubtless to be explained by the circumstances that, though the pulmonary valves were thickened, the orifice was large and the ventricle powerful, and therefore probably there had been but little actual obstruction to the circulation.

Mr. Norton exhibited a specimen of

MALIGNANT DISEASE OF LARYNX.

The subject of this disease was an out-patient of St. Mary's Hospital, under the care of Dr. Sieveking. For five months he suffered from severe cough, constant secretion of sputa, hoarse whistling, prolonged inspiration, frequent paroxysms of urgent dyspnœa; pulmonary sounds perfectly normal. By the aid of the laryngoscope a tumour was seen on the left side of the epiglottis, but the cords were not visible owing to the glottis being filled with muco-purulent sputa. The post-mortem verified the laryngoscopic examination. Malignant disease occupied the left side of the larynx, extending from the epiglottis downwards between the left cord and the left ala of the thyroid cartilage. The diseased mass under the microscope presented a comparatively small amount of fibrous stroma, the chief part consisting of cells of the most variable form, some containing several nuclei.

Mr. Holmes asked if the possibility of relief by tracheotomy had been entertained?

Mr. Norton said that the patient had not been seen either by himself or by Dr. Sieveking in a paroxysm of dyspnœa. He seemed to be sinking from cancer.

In reply to the President, Mr. Norton said that no cancer had been found in other parts of the body.

Dr. Gibb remarked that Mr. Pemberton had stated to him that no well authenticated case of cancer of the larynx was recorded in which there was no cancer in other parts of the body. He (Dr. Gibb) however had recorded several cases in which cancer appeared to have begun in the larynx, and to have then affected other parts of the body secondarily. It was well, he considered, to disabuse the Professional mind of the belief that cancer of the larynx was always secondary, or tracheotomy might be usefully performed in some cases.

The President suggested that drawings of the specimens should be made, as, although primary cancer of the larynx did occur, it was undoubtedly rare.

Dr. Murchison showed a specimen of

HYDATID CYST OPENING INTO THE BILE DUCT.

The patient had jaundice and colic, and then a discharge of hydatids from the bowels. He continued to pass them for from ten to fourteen days. He gradually recovered, and got to business again. He felt well, except that he had pain in his abdomen. One night pain and vomiting came on suddenly, and he died of peritonitis.

Dr. Murchison then showed

A SPLEEN FROM A PATIENT WHO HAD DIED OF TYPHOID FEVER.

There had been, he remarked, much discussion as to the so-called typhoid matter in enteric fever. It was said to have been found in the larynx and in the spleen. No doubt ulceration of the larynx occurred in typhoid fever, but he had never found any deposit in it. It was also quite exceptional to find any deposit in the spleen, and it appeared to him that it was more of the nature of embolism. In the specimen exhibited were two wedge-shaped masses, the result, Dr. Murchison believed, of embolism.

Dr. Thomas Ballard showed a specimen of

DISEASED KIDNEY.

The patient had had pus in his urine, and had suffered from incontinence of urine. There had been an abscess in the left loin, which, at the autopsy, was found to communicate with the kidney. There was also a communication with the rectum. The kidney was much disorganised.

The President supposed the specimen was one of strumous pyelitis.

In reply to Dr. Hillier, Dr. Ballard said that he had not been able to make a complete examination, but no tubercle was found in other parts of the body, so far as he had been able to investigate.

Mr. Spencer Wells exhibited a

SEMI-SOLID OVARIAN TUMOUR,

which weighed thirty-seven pounds after four pounds of fluid had drained out of it, and which he had removed entire the day before from a woman, 30 years of age, in the Samaritan Hospital. It was non-adherent, but as it contained no large cysts, a long incision was required—the longest, Mr. Wells said, he had ever made. It extended twenty inches in the distended integument; but when united and the skin had contracted it only measured thirteen inches. The patient rallied well at first, but sank exhausted twenty-seven hours after the operation. The tumour consisted of an immense number of very small cysts, many of them being filled with fibrine in different stages of fatty change. The operation would have been done some months earlier, but the patient then suffered from effusion into the left pleura and also into the peritoneal cavity. The ascitic fluid was twice removed by tapping, the pleural fluid was absorbed, the general health improved, and then the operation was done, though with very little hope of success, on account of the still weakly state of the patient and the large size of the solid tumour.

Mr. Spencer Wells also showed a

FATTY TUMOUR FROM THE RECTO-VAGINAL SEPTUM,

or from the recti-ischiatic fossa, which had completely closed the vagina in a young lady. It was lobulated, and weighed two pounds when removed. There was no difficulty in the operation. The specimen was shown to make known a very cheap and efficient mode of preserving morbid preparations. It was simply placed on a sheet of glass, a little ammonia placed beside it on blotting-paper, and then a glass shade was put on and sealed round the edges with a little lard. This specimen had been so preserved nearly two years, and it retained its original appearance almost as well as a wax model. Mr. Wells said that chloroform was said to be as good a preservative as ammonia, and if so it might answer better, as it would not saponify fat.

NEW INVENTIONS, INSTITUTIONS, ETC.

GENERAL NURSING INSTITUTE.

We can mention with thorough approbation the General Nursing Institute, whose head-quarters are at 5, Henrietta-street, Covent-garden. The management appears to be in able and respectable hands, and we believe that Medical Practitioners can on emergencies obtain nurses promptly, who will do their duty well.

SALT'S NEW UMBILICAL TRUSS.

We must give the description of this instrument in the words of its inventor:—

"The umbilical truss consists of two main parts—the pad and the encircling belt.

"The belt is made of soft and flexible rubber web, which exerts its compressing power on the pad.

"In this pad lies the chief novelty of the invention. It consists of a circular disc, or plate, into which is fastened, by machine work, a facing of soft leather (as are the pads of the patent orthonemic trusses exhibited to the Royal Medico-Chirurgical Society, November 5, 1864), backed up, for solidity, by thick paper. To give softness and flexibility to the pad, a rubber cup is inserted, having a spiral spring coiled within it, which causes the pad to follow the bowel in its return, and to retain it securely within the abdomen.

"The belt is attached to the pad by means of a pair of clasps, which, by a novel application, are made to clip the web by compression, without stitching, thus reducing the cost and complication of the apparatus. The ends of these clasps fit into a series of holes in the pads, which are cut in a semi-circular form on the outer side, to admit of the belt moving without displacing the pad.

"The chief advantages of these belts are :—

"1. Their greater simplicity, lightness, and facility of application.

"2. The perfect immoveability of the pads when once placed in position over the hernial opening.

"3. The exquisite roundness and smoothness of the edges of the pad, which renders them perfectly incapable of rubbing or abrasing the skin."

Certainly nothing can exceed the finish of the truss which has been sent us as a specimen, and we commend it to the attention of our Surgical brethren. Mr. Salt is already favourably known for his well-devised and comfortable abdominal belts.

DOMESTIC HOT AIR BATHS.

Any one who is passing by North Audley-street would do well to call at No. 20, and examine the various ingenious baths for the application of heated air to the whole body, or to any part of it. They consist of a double layer of sheet metal, with water between, which can be raised to any given temperature by means of a lamp; and are adapted for the whole body, or for face, arm, leg, etc. The bath for the entire body is, in fact, a portable Turkish bath, which takes up the room of an old-fashioned easy-chair, and may be used in any dressing-room. We suspect that these baths are less liable to abuse or mischief than the well-known popular lamp bath, and that they are good remedies in gouty and rheumatic cases, etc.

We understand that they can be obtained on hire as well as on purchase, and that they are patented by Dr. Robertson, a retired member of our Profession.

MEDICAL NEWS.

University of Aberdeen.—At the late Medical Graduation term, the following candidates, after the usual Examinations, received Degrees in Medicine and Surgery :—

THE DEGREE OF M.D.

Edward Batt, M.R.C.S.E. and L.S.A., Oxfordshire
John Tasker Evans, M.R.C.S., Hertford
James Farquharson, Edinburgh
George Findlay, A.M., Keith
James E. Fowler, A.M., Aberdeenshire
Jas. Thos. Gage, Aberdeen
Alfred O. Jones, M.R.C.S. and L.M., London
William C. Lucey, M.R.C.S., L.S.A., and L.M., Surrey
Edwin B. Muskett, Norfolk
Thomas Seccombe, F.R.C.S.E., Plymouth
Joseph B. Siddall, M.R.C.S.E. and L.S.A., Derbyshire
Edward Sutcliff, M.R.C.S. and L.R.C.P.L., Surrey
James Taylor, Banffshire
Martindale C. Ward, M.R.C.S.E., M. and L.S.A., and L.M., London.

THE DEGREE OF M.B.

William S. Birnie, New Pitsligo
William Center, A.M., Aberdeen
Anthony C. Colborne, L.R.C.P., L.S.A., London
John Dawson, M.R.C.S. and L.S.A., Norfolk
William Duncan, Aberdeen
Alex. Gibb Grant, Aberdeen
George Garvin, Colombo, Ceylon
David A. Kerr, Aberdeen
George King, Aberdeen
John Macpherson, Huntly
Robert M. Milne, Dunnottar
Thomas Milne, Aberdeenshire
Alexander G. Mitchell, A.M., Rayne
John Murray, M.R.C.S. Eng., Aberdeen
Alexander Ogston, Aberdeen
Samuel Rowe, M.R.C.S.E., London
Charles E. Saunders, M.R.C.S., London
John Simpson, Kintore
Francis Snaith, M.R.C.S. and L.S.A., Lincolnshire.

THE DEGREE OF M.C.

William Center	John Macpherson
Anthony C. Colborne	Robert M. Milne
John Dawson	Thomas Milne
William Duncan	Alexander G. Mitchell
John Tasker Evans	John Murray
George Findlay	Edwin B. Muskett
James Fowler	Alexander Ogston
James Thomas Gage	Joseph B. Siddall
George Garvin	John Simpson
Alex. Gibb Grant	Francis Snaith
Alfred O. Jones	Charles E. Saunders
David A. Kerr	Edward Sutcliff
George King	Martindale C. Ward.
William C. Lucey	

Of the before-mentioned candidates,

William Center	George King
Anthony C. Colborne	Alex. Ogston
John Tasker Evans	Joseph B. Siddall
James Thos. Gage	Edward Sutcliff

and Martindale C. Ward

received their Degrees in Medicine and Surgery, with highest Academical honours.

James Elsmie Fowler | Edwin B. Muskett
and Charles E. Saunders

received their Degrees in Medicine, with Academical honours, and

William Duncan

his Degree in Surgery, with Academical honours.

At the same time,

Alfred Swaine Lethbridge and
Frederick John Wadd

were certified as having passed all the Examinations, and are entitled to receive Degrees on their attaining the necessary age.

And the following were declared to have passed part of their Examinations :—

William S. Aitken	Alex. R. Gray
George H. Anderson	John Thos. Hughes
Alexr. Cameron	Charles Maclean
John M. Campbell	William Macrae
John Carless	Alexr. C. Reid
Jas. C. G. Carmichael	James Rodger
Jas. Allan Coutts	John Shives
William W. Galloway	Alexr. B. Strahan
Benjamin Graham	Hercules S. Traill
Wm. R. Gordon	David Young
Charles D. Grant	

The next Professional Examination for Degrees in Medicine commences on Monday, July 24, 1865.

Royal College of Physicians of London.—At a General Meeting of the Fellows, held on Friday, April 21, 1865, the following gentlemen, having undergone the necessary Examination, and satisfied the College of their proficiency in the Science and Practice of Medicine, Surgery, and Midwifery, were duly admitted to practise Physic as Licentiates of the College :—

James Byers Thomas, Palamcotta, India; James Jones, 88, St. John-street, Clerkenwell; Franklin Gould, 26, Charlotte-street, Bedford-square; Ernest Rudolph Gotthard Groth, M.D. Berlin, 12, Sutherland-terrace, Brixton; Edwin Burrell, Westley, Bury St. Edmunds; John Spencer Ferris, 62, Great Russell-street; Henry Cripps Lawrence, 4, Palace-road, Kingston-on-Thames; Edward Septimus Earle, 22, Queen Anne-street; Joseph Frederick Eyeley, Llanymynech; Thomas Sheldon Foster, Carnarvon; Newton Greenwood, Penryn, Cornwall; Robert Lamb, 162, Caledonian-road.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 25th inst. :—

Alfred Courtnay Baillie Melhado, Bayswater; Alexander M'Ivor Tindall, Falsegrave, near Scarborough; Paul Quick Karkeek, Pentreve, Truro; George Jones, L.S.A., Loughborough-road, Brixton; and Francis Bateman, Canterbury, students of St. Bartholomew's Hospital. John Gill, Weston-under-Redcastle, Salop; Howard David Reynolds, Haverfordwest; Jabez Thomas, Swansea; and Henry Whiting, Southend, Essex, of Guy's Hospital. George Arthur Brown, L.S.A., Welshpool, Montgomery; John Oakley, Shrewshury; Franklin Gould, B.A. and L.R.C.P. Lond., Charlotte-street, Bedford-square; and Richard Murhall Hickman, Leaton, near Shrewshury, of King's College. Richard Ley, South Molton, Devon; Rees Llewellyn, Maesgwyn, Breconshire; and Edward Seymour Wright, March, Cambridgeshire, of the London Hospital. Charles George Firman, L.F.P. and S. and L.M. Glasgow, Wivenhoe; John Swindale, L.S.A., Appledore, Devon; and Alfred Jones, Chepstow, of the Middlesex Hospital. John Stuckey, L.S.A., Langport, Somerset, and George Washington Evans, Streatley, near Reading, of University College. Henry John Foulds, Derby, and Thomas Stretch Dowse, Bradford-on-Avon, of the Charing-cross Hospital; and James Algernon Temple, M.D. M'Gill Univ., Quebec, Lower Canada.

Admitted on the 26th :—

Henry Rundle, Plymouth; Josiah Oake Adams, Plymouth; John Thomas Laugley, Monmouth; Richard Avery Rix, Beccles, Suffolk; Henry Cripps Rogers, Newport Pagnell; Frederick Robertson Hayward, Halesworth and Chas. Arthur Brigstocke, Carmarthen, students of St. Bartholomew's Hospital. John Henry Gray, Poplar; Wm. Wiles, Wootton-under-Edge and Edward Monro Spooner, L.S.A., Blandford, of the London Hospital. Francis John Grose, Bengal; George Outhwaite Spencer, Notting-hill; and Henry Clothier, Haselmere, of University College. Thomas Edward Gaggs Bywater, Knottingley; James Bailey Peacock, Leeds; and Joseph Westmorland, Leeds, of the Leeds School. Edward England Phillips, Bath, and James Wells, Nailsworth, of the Bristol School; Jonas Richard Leake, Upper Norwood, Guy's Hospital; Richard Morgan Williams Merthyr Tydvil, Middlesex Hospital; John Harrington Wright, Woolwich King's College; and James Kieran Hyland, Dublin.

At the same meeting of the Court,

Edward Brereton Broster, of H.M. Dockyard, Woolwich, and Thomas Leaman Bickford, of H.M.S. *Fisgard*, Woolwich,

passed their Examinations for Naval Surgeons. These gentlemen had previously been admitted members of the College, their diplomas bearing date respectively June 15, 1855, and March 19, 1858.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, April 20, 1865 :—

David Leslie, 69, Warwick-street, Pimlico; John Wickham Legg, Alverstoke, Hampshire; Joseph Hainsworth, Leeds; George Covey, Basingstoke; John Thomas Jaeques, Birstall, near Leicester.

The following gentlemen, also on the same day, passed their first Examination :—

Samuel John Truman, Guy's Hospital; George Longbotham, Newcastle-on-Tyne.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

PUZEY, CHAUNCY, L.R.C.P. Lond., has been appointed Junior House-Surgeon to the Liverpool Royal Infirmary.

SOPER, WILLIAM, M.R.C.S. Eng., has been appointed Surgeon to the Jews' Hospital, Lower Norwood.

DEATHS.

ALLEYNE, JAMES H., M.D. Edin., at 27, Gloucester-place, Hyde-park, on April 21, aged 67, late Colonial Surgeon of British Guiana.

BOOTH, SAMUEL, jun., M.D. St. And., M.R.C.S. Eng., at No. 11, The Crescent, Salford, Manchester, on April 15, aged 27, Surgeon to the 56th Lancashire Rifle Volunteers.

DAVIES, JOHN EDWARD, M.R.C.S. Eng., of Manor-street, Clapham, at Hastings, on April 13, aged 37.

OVEREND, WILSON, F.R.C.S. Eng., J.P., D.L., at Sharrow Head, Sheffield, on April 22, aged 58.

WELCHMAN, EDWARD, M.R.C.S. Eng., at Southam, Warwickshire, on April 17, aged 51.

THE KING OF THE BELGIANS.—Dr. Jenner has been in attendance on the King of the Belgians, at Brussels, in conjunction with Drs. Koepel and Wimmer.

CHARING-CROSS HOSPITAL.—The friends of this institution will be glad to hear that the late Major-General Sir Charles Hopkinson, of King-street, St. James's, has bequeathed £500 to the funds of the charity, and has also made the novel bequest of £50 to his Surgeon, on condition that before his body is placed in the coffin it be opened by his Medical friend.

JOSELAND *v.* THE GREAT WESTERN COMPANY. — In this case, which obtained an unenviable notoriety from the number of eminent Medical men who appeared as witnesses on each side, and gave strongly opposed testimony, the Railway Company moved in the Court of Queen's Bench on April 22 for a rule to diminish the damages (£6000) as excessive, and as not supported by the evidence. The Court, however, were of opinion that there were no sufficient grounds on which they could disturb the verdict, it being eminently, they deemed, a case for determination by the jury upon the whole of the evidence. Rule refused.

DEATH FROM HAMBURGH SPIRIT.— On Monday, April 24, Mr. W. J. Payne, the Deputy-Coroner of the City and Southwark, held an inquest at the Vestry-room in Horsleydown on the body of John West, late a labourer at Fenning's Wharf, who came by his death in the following manner :— Daniel Crummings stated that he was employed at Fenning's Wharf, and that on Friday last deceased came to him and asked if a "drop" could be got out of some casks which they both supposed contained brandy or wine. They both had a "suck at the monkey," as it was called, and while the witness was somewhat burnt in the inside by what he took, the other man died in a few hours. Mr. Arkless, the Custom House gauger, said the spirit in the cask sucked by deceased was pure Hamburgh spirit 66·8 over proof, and was, in fact, "liquid fire." It was shown by the evidence of Mr. Lacey, a Surgeon, that death was caused by the collapse arising after taking an acrid poison, and a verdict to this effect was returned.

CAUSES OF MORTALITY IN WAR.—Dr. Chenu, Physician of the French army, has just published and presented to the Imperial Academy of Medicine a large 4to volume, containing a report of the Medical service of the army during the war in the Crimea, from 1854 to 1856. It appears from this work that the number of men killed in battle was 10,240; and of wounded, 34,606. Of this last number about 100 died in the Hospitals in Turkey. But that was not the whole of the losses; we must take into account those who died of cold, cholera, typhus, scurvy, &c., and Dr. Chenu gives the following table of the losses experienced by the French army in the East from the 1st of April, 1854, to the 31st of December, 1857, for many soldiers died after their return to France in consequence of wounds received or diseases contracted in the Crimea :—Killed on the field of battle or missing, 10,240; lost in the Sémillante, 702; died of various diseases and cholera before the battle of Alma, 8084; died of cold, apoplexy, &c., before Sebastopol, 4342; died in field and general Hospitals to the 31st December, 1857, 72,247; total, 95,615. The effective force sent by France to the East was only 309,264 men; consequently about one-third of them perished. It is to be remarked that as the number actually killed in battle or dead from wounds does not exceed 20,000, according to Dr. Chenu, disease alone carried off about 74,000 men, or one-fourth of the army. Dr. Chenu attributes these enormous losses by disease to the feeble constitutions of a portion of the contingent. He says that many conscripts, totally unable to bear the fatigues of a campaign, are declared fit for service; but they no sooner join the army than they have to be sent to the Hospitals.

THE WATER SUPPLY OF CARLISLE.—In the course of a very able and eloquent lecture on water, delivered by Dr. Wheatley, at the Mechanics' Institute of Carlisle, he gave the following account of the water supply of that town, the cause of its impurities, and the effect which he believed it exerted in the production of endemic disease :—So far as our country was concerned, Carlisle stood well. As a general rule, speaking of the present supply of water to the town, the lecturer considered the wells not fit to be drawn from in consequence of the hardness of the water, and the impurities which must necessarily have percolated into them from the increasing population and sewerage, and the increasing pollution of the soil by gas and other offensive things. As to the supply from the water works, he had it on the authority of Mr. Gordon, the city surveyor (to whom he was indebted for much information), that the average supply was thirty-three gallons per head per day. The next consideration was as to quality; and another question as to the continuousness of that supply. Being drawn from a large river, there was no fear of its not being continuous, but only so far as a single reservoir could make it so. The present elevation of that reservoir did not allow the water to be available either in the case of fire or for machinery operations. The average level to which the water rose in Carlisle was about the first floor of the Bush Hotel, and as considerable pressure was required for the purpose of moving machinery, it was not available for that. As to its quality, the water of the river Eden, taken at the place at which it entered the pipes at the engine-house, and in the ordinary state of the stream, was of fair average quality. Water taken from the reservoir contained considerable organic impurity, and the water from the supply pipes in the town delivered to the inhabitants, contained about one-third more of organic impurity. At least, this was the state of the water when examined a fortnight or three weeks ago. A short time before that, and since, the water had been slightly better than it was when he examined it. What was the cause of this anomaly? It was easily explained. Having no sedimentary reservoirs, the Eden water during a flood, being charged with all sorts of impurities which were held in suspension, was pumped into the reservoir, there to settle down, so that it was no wonder that after two or three floods a considerable deposit of mud in the reservoir was the result. The consequence was that all subsequent supplies of clean water to the reservoir became contaminated by the decomposition of the slime and filth which had been allowed to accumulate at the bottom of the basin; passing thence into the mains, with very imperfect filtration (if any), it received its next charge of impurity from the faulty system of distribution. The chief cause of that was the use of what were called "blind pipes"—pipes closed at the end, and not allowing the water to circulate. The water consequently stagnated at the end of those pipes, and deposited its impurities, which in the course of time accumulated, the result being extra contamination of the water supplied to houses through the doubtful medium—a blind pipe. It would be fresh in the recollection of all what an awful and fatal endemic of typhus there was last year in Annetwell-street and the neighbourhood; he (Dr. Wheatley) was of opinion—and he appealed to the axioms of Dr. Parkes—that that visitation was solely caused by the bad supply of water. Indeed, the general spread of disease in Carlisle of late years, arising from blood poisons, had been too palpable to require any further comment.

Mercurialised Collodion in Herpes Zona.—M. Devergie, although by no means recommending abortive means in zona in general, thinks that in certain cases, as where it attacks the scalp, face, or neck in the young, giving rise to symptoms much resembling those of a severe cerebral affection, and in the zona of aged persons, when deep and very painful ulcers are apt to follow the bullæ, giving rise to great nervous irritation, such means are desirable, and recommends an application formed of elastic collodion, 30 grammes, bichloride of mercury, half a gramme. By this a brilliant pellicle is formed over each group of bullæ, and in less than twenty-four hours all the unpleasant symptoms disappear, and the local inflammation is completely subdued. If the affection has already lasted some time, the application will have to be repeated daily for a few days. It is to be remarked that the pains which are usually consecutive to zona are by this means either entirely prevented or much alleviated. In place, too, of ulcers following the bullæ, there are dry eschars, which on becoming detached leave a clean cicatrix.—*Bull. de Therapeutique*, July 15.

Absinthe Drinkers.—Drinking *absinthe* seems to have acquired amongst certain classes in France and Switzerland almost as extensive a prevalence as gin-drinking among ourselves, while its effects are still more deleterious. M. Decaisne, as the result of an investigation into these, comes to the following conclusions:—1. Absinthe in equal doses, and at the same degree of concentration as brandy, exerts more marked and more mischievous effects upon the economy; 2. It induces intoxication much more rapidly, and the conditions known as chronic and acute *alcoholism* are much more easily developed. It must, however, be remembered that the alcohol in absinthe is generally very concentrated; 3. The effects of absinthe upon the nervous system are generally more marked than those produced by brandy, and they resemble those of a narcotico-acid poison; 4. One of the great dangers of absinthe arises from the adulterations it is the subject of; 5. Absinthe of good quality and in moderate quantity (as a glass or two a day) is not exempt from danger, and always produces, in a longer or shorter period, and according to individual aptitudes, more or less sensible disorders in the economy, and especially in the digestive organs.—*Comptes Rendus*, August 1.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Next week we hope to publish Dr. Lyon Playfair's lecture on the food of man in its relation to his useful work, delivered at the Royal Institution on the 28th inst.

Portsea.—Apply to Dr. Lane, Sudbrook-park, Petersham, Surrey.

Charon shall be answered in our next.

ustitia.—We think that the person receiving the honorarium should offer half of it to his partner.

Park Hall, Notts.—Our obituary notices are strictly confined to members of the Medical Profession.

Mr. Chadwick on Defence against Epidemic Visitations.—Mr. Edwin Chadwick has been delivering an admirable address at Salisbury on this subject. We shall give some account of it next week.

M.D., R.N., Portsmouth.—The examination at the R.C.S. on promotion is thoroughly practical, but requires some preparation; for at a meeting of the Court of Examiners on the 26th inst., two Members of the College were sent back for three months. The Secretary will let you know when there will be another meeting.

A Subscriber.—1. Yes. 2. We believe so, provided the Practitioner is registered and dispenses his own medicines, but on this point you had better write to the Secretary of the Court of Examiners, Apothecaries' Hall. 3. Yes, because a pupil cannot register until he has passed his preliminary examination. The Medical Council require four years' Medical education, dating from the first registration.

Chemists and Druggists Bill.—Amendments proposed to be inserted in the No. 1 Bill by the Metropolitan Counties Branch of the British Medical Association. To Clause 17, which saves the rights of Medical Practitioners, it is proposed to add:—

"And it shall not be lawful for any person registered under this Act to prescribe for any patient, or undertake the treatment of disease, or in any way assume to act as a Medical Practitioner, and every chemist and druggist so offending shall, upon a summary conviction, forfeit or pay a sum not exceeding £10."

As Clause 19 insert the following:—

"No patent, quack, or other medicine shall be sold, unless a sworn certificate of its composition be lodged with the Registrar appointed under this Act, and a copy thereof be open for inspection in the shop or place in which such medicine is sold, and any person or proprietor of a shop selling any secret remedy shall, on summary conviction for each such offence, be liable to a penalty not exceeding £20."

Importance of India-rubber to Medical Men.—There is scarcely one department of practical Medicine or Surgery, or chemistry, that has not derived benefit by the improvements in the manufacture of india-rubber which have taken place of late years. The ovariotomist twists an india-rubber letter band across the needles with which he has transfixed the edges of the wound, and thus has material for an easy twisted suture. Instead of the old seton, a fine india-rubber tape is inserted that is almost indestructible by putrefaction. M. Chassaignaic's Drainage Tube provides an exit for discharges from carious bone, and saves abscess and, possibly, need of excision of joints. India-rubber syringes of small price supply apparatus most desirable in every case of disease of internal cavity; for eye douches, ear syringes, urethral, vaginal, and rectal injections. Weak or displaced parts are kept up by india-rubber pessaries, springs to trusses, and elastic belts and stockings. India-rubber air and water pads are available for Surgical pressure in the modern cure of aneurism; and hot or cold water or ice in india-rubber bags serve for modifying the temperature of any part of the body in rheumatism, gout, inflammation, etc. Simple india-rubber tubes take the place of troublesome *lutes* for the air-tight junction of chemical apparatus: and the estimate of the alcoholic strengths of wine at the Custom-house in glass stills with india-rubber caps made the Chancellor of the Exchequer's wine duties possible. Consciences are elastic enough already, and most stomachs need no vulcanisation to enlarge their powers of distension; but many a Medical man wishes he could give a little india-rubber quality to the heart and lungs of the asthmatic, and certainly to the purse-strings of most patients after recovery. We therefore say a devout R.I.P. to the late Thomas Hancock, of Stoke Newington, the father of the india-rubber manufacture, who has enabled so many a fellow-creature to die at ease on a soft india-rubber mattrass. When 73 he published a work entitled "The Origin and Progress of the India-rubber Manufactures." The late Mr. Brockedon always spoke of him as having done service to science and art, especially in the matter of elastic moulds for bas-reliefs; and he himself always recurred with pleasure to his having had the honour to produce a raised type in rubber for blind readers. Between the years 1820 and 1847 he took out fourteen patents, one of which, "Vulcanisation," underwent the severest trial by writ of *scire facias*, but resulted in a verdict for Mr. Hancock. They were all worked by his firm, and led to a considerable accession of wealth to the patentee. Mr. Hancock was never married, but had adopted the seven daughters and two sons of his late brother John Hancock. He was a great admirer of rose-trees, and in his grounds were several hundred, which he pruned, grafted, and cultivated, and in which he took especial delight. May he now enjoy the gardens of Paradise!

The Russian Epidemic.—The following letter has appeared in the *Vienna Medical News*. It is dated St. Petersburg, April 9:—

"The conduct of Government in this emergency is really unpardonable. Instead of allowing the inhabitants of this city to learn anything about the nature and progress of the prevailing epidemic, they are systematically cut off from the sick as well as from all news relating to the sickness. Exactly the same way the Physicians are treated. Unless a Doctor happens to be employed by the police or the military, he is, in the eyes of this Government, a mere ignoramus. He has no admission to the Hospitals, nor, in fact, any opportunity for studying the disease. No sooner is a case reported to the authorities, than the poor are carried off to the Hospitals, and the wealthy forced to employ a Doctor provided by Government. You will not wonder, then, at my being unable to give you anything but a very general and rather indefinite account. From the provinces we get no news whatever, the papers being strictly forbidden to mention as much as the name of the Siberian plague. Government won't hear of a plague, and so there is none. Foreign papers, we hear, are full of Russian news; but though all of them are freely admitted, and may be seen easily enough in this capital, we are none the wiser for reading them, at least on this particular head. Whole columns are effaced with printer's ink, and nothing but a few lines left in a readable state, provided they contain a *dementi*. As to ascertaining anything about the plague through the medium of the many foreign Physicians sent here, this is a hope which, if it was ever entertained, will be soon enough exploded in your part of the world. These gentlemen have been received with open arms, and in course of time will return home decorated with orders, and perhaps also be requited with a remuneration for the time they have been here;—but that is all. They are shown over the Hospitals at a double quick pace. They are mostly admitted to one wing only, where a few slight cases have been collected expressly for the inspection of the foreign gentlemen; and when a vast number of compliments have been paid them by Doctors and attendants, luncheon is announced, and a good deal is consumed at the expense of the Hospital, though not without its monetary advantages to the Doctor *du jour*. His metropolitan studies being thus at an end, the foreign Doctor is then, officially of course, sent on to the provinces. Of course all these gentlemen have written long letters home. Anybody may write letters in Russia, but the worst is they so seldom reach their destination."

Medical and Surgical.

To the Editor of the Medical Times and Gazette.

Sir,—In the proceedings of the Medical Council it is reported that Mr. Arnott said, "It should be borne in mind that it was impossible to define what was a Medical case and what a Surgical. There were some broad cases, no doubt, that could be easily distinguished, but there were others of a mixed character in which the distinction could not be drawn; and if it was impossible for Medical men to draw the distinction, how could it be expected that a lawyer or a jury should do so? Any man might practice Surgery and Medicine, whether with a diploma or not; he was simply prohibited from taking certain names and designations, and had no power to recover his charges at law."

In case of a prosecution under the Apothecaries' Act, how is one to prove a Medical case? If any of your readers will be kind enough to define a Medical case I shall esteem it a favour. I am, &c.

Rugby, April 25. An Old Subscriber.

Midwifery Hieroglyphics.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—If any of your correspondents would favour me with an answer to the following question, I shall be much obliged:—Some midwifery Practitioners in entering cases of childbirth in their ledger, after the name of the patient, etc., put the letters B.D., D.B., or D.D. What do these letters usually mean? I am, &c. Jas. M.

Palpitation in Pregnancy.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Can any of your readers inform me of an effective remedy for excessive palpitation of the heart, accompanied with occasional fainting fits, during pregnancy? I have tried opium and belladonna plasters to the part, and administered valerian, musk, ether, etc., with only partial relief, the pain and palpitation recurring again and again upon the slightest emotion. I am, &c.

April 14. Medicus.

Dr. Davies' Treatment of Rheumatic Fever.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you be good enough to inform me, through your "Answers to Correspondents," what sized blisters Dr. Davies uses in his treatment of acute rheumatism? Does he envelope the whole of the affected joint in a blister, or is a small one only applied to the part? What length of time are the blisters kept on? Does it never happen that the patient's strength is greatly exhausted by the profuse discharge and irritation which must be occasioned by such a multitude of blisters?

Middlesborough, April 17. I am, &c. J. E.

*** The blisters are applied around the limbs, above, and not upon, but in close proximity to, the inflamed joints. Their width varies, of course, with the joints affected, being usually two or three inches wide when placed above the knees. They are applied until vesicles are well formed and the elimination of the serum (with, as Dr. Davies thinks, the contained rheumatic virus) is fully established. Linseed meal poultices are kept on the discharging surfaces for some hours, for the promotion of the same object. Dr. Davies tells us, that with the experience derived from the treatment of nearly sixty cases on his plan, he has no reason to fear the production of any untoward symptom beyond occasional strangury—a condition which readily yields to henbane—that exhaustion never follows the establishment of these large discharging surfaces, but that, on the contrary, the elimination of the *materies morbi* by the blister treatment rapidly reduces the abnormal heat of the body, quiets the pulse, produces an almost immediate abatement of all the febrile symptoms, and that in the majority of cases where the plan has been fully, decisively, and early adopted, it leads to a speedy convalescence of the patient. In the last instance recorded in this journal the patient was utterly disabled from acute rheumatism on the (Friday) night of his admission. The blisters were at once applied, and the man was perfectly free from pain on Sunday, and was able to walk down the ward on Monday. A chop and Bass's ale were given on Tuesday, and he was discharged sound in every respect within fourteen days from the day of his entering the London Hospital.

We shall be happy to publish a brief report of cases treated by J. E. on this plan.

Poor-law Medical Relief.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—At a meeting of a majority of the Poor-law Medical officers of the Weymouth Union, held at my house this day, the following letter it was agreed should be sent to the guardians of this Union, for which you will oblige me by finding space, as it may act as a guide for the great body of Poor-law Medical officers. I am, &c.

12, Royal-terrace, Weymouth, April 24. Richard Griffin.

"To the Board of Guardians of the Weymouth Union.

"Gentlemen,—In consequence of the Poor-law Board having issued a circular letter to you and all other Boards of Guardians throughout England and Wales, relative to the supply of cod-liver oil, quinine, and other expensive medicines for the poor, we have felt it our duty to you, as your Medical officers, to hold a meeting on the subject, in order that we may, if possible, assist you in arriving at a right decision on the questions involved, as they are purely Medical, and are with difficulty understood, excepting by Medical men.

"We think it right to premise our remarks by stating that the recommendation of the Select Committee on Poor-law Relief was made for the benefit of the poor, as it was felt that, owing to the expensive nature of many drugs, the Poor-law Medical officers could not afford to purchase them out of the very low salaries now paid to them, and, as a consequence, the poor have been but inadequately supplied with them; if, therefore, the guardians should carry out the recommendation of the Select Committee, the present Medical officers must not be expected to contribute from their salaries towards the extra expense, but they will most readily assist you towards obtaining them in the most economical manner.

"With regard to cod-liver oil, we have no suggestion to offer on the recommendation of the Poor-law Board further than to inform you that it may be purchased at prices varying from 8s. to 30s. per gallon, according to quality, some of the cheaper kinds being very nauseous to the taste; at about 20s. per gallon a very good quality ought to be obtained. We would advise your purchasing it done up in 4-ounce and 6-ounce bottles; in that state it may be given out to the sick poor, either at the workhouse, as named by the Poor-law Board, or direct from a druggist, if purchased in Weymouth, or a certain number of bottles may be given to those Medical officers residing in the county for their delivery to the poor.

"With regard to quinine and other expensive medicines, we feel a difficulty in advising you as to the best course to be pursued, as several drugs frequently enter into the composition of one bottle of medicine, some very expensive and others of but slight cost; for instance, quinine is rarely given alone, although it may form the most important ingredient in the mixture. Opium in its various forms, sarsaparilla, iodide of potassium, and the ethers are all expensive medicines, but are seldom given by themselves. Under these circumstances, you must either place confidence in your Medical officers, and allow them to charge extra for these medicines, or else you will allow your officers to order them from the druggists. We beg further to recommend that leeches should also be found by the guardians, as they are frequently of great importance in the treatment of diseases, but from their expensive nature they cannot be found by the Medical officers to any very great extent.

"We have the honour to be, Gentlemen,

"Your most obedient servants,

"Weymouth, April 24, 1865." "———.

The "Glasgow Morning Journal" on Dr. Pritchard's Awful Position.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Had it not been for the *Medical Times and Gazette* giving publicity, April 8, to an article which appeared in the *Glasgow Morning Journal*, the Profession would have been in almost entire ignorance of the following statements:—

"There can be no doubt, however, after what we have learnt, that for several weeks past Dr. Pritchard was really in possession of tartarised antimony, and this, moreover, in *unusually large* quantities, purchased by himself at the establishment of a respectable wholesale druggist in town. We believe we are within the mark in stating *that not less than two ounces* of this medicine was thus procured by him within the space of two months. Another somewhat striking circumstance is that a few days before the death of Mrs. Taylor he was supplied from the same warehouse with a goodly quantity of Fleming's tincture of aconite, a medicine possessed of virulently poisonous qualities when administered incautiously. It is quite true that both of the drugs mentioned are largely used in the healing art, but it is not easy to *guess at first sight what need any Surgeon in private practice should have for great quantities of them, more especially of tartar emetic.* A very free use of antimony as an outward application might, perhaps, partially explain the necessity of purchases so *unusually large, but we are led to understand that any such practice has been of late years almost completely laid aside by Medical Practitioners who keep pace with the Pharmaceutical improvements* of the day, as we may reasonably assume Dr. Pritchard to have done. A grave question, then, must now arise as to what has become of the powerful poisons which the accused is known to have bought."

Now, sir, it would be impossible for me to find words to express my feelings on reading the above quotation, but I would ask any unprejudiced member of the Profession whether two ounces of tartarised antimony is not an unusually small quantity for a general Practitioner to order of his wholesale druggist. I would also draw attention to the words, "goodly quantity of Fleming's tincture of aconite" How much does a "goodly quantity" mean? Then, again, we are informed that "the ointment of tartarised antimony has been of late years almost completely laid aside by Medical Practitioners." I can only state that I am one of the new school of Medicine, and frequently prescribe the ointment of tartarised antimony for sciatica, rheumatism, etc. Moreover, the ointment still occupies a place in the new Pharmacopœia. And lastly, tartarised antimony is not so powerful a poison as above stated, and every Medical man knows how readily it may be detected after death.

If false statements or undue prejudices are permitted to go forth to the world when life and death are suspended in the balance, one can only tremble for the consequences. I could say more, but will not trespass upon your valuable pages: trusting, however, that the article which appeared in the *Glasgow Morning Journal* will not operate against the accused. Suspicion, however strong, should be left in the hands of judge and jury, and not be magnified by the pen of a non-Medical writer.

The italics in the above quotation have been introduced by myself.

I am, &c. A Lover of Justice.

Army Medical Appointments.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Much has latterly been said and written on the subject of gazetting Medical officers to corps. On both sides many arguments have been advanced; but the "abolitionists," if I may be allowed the term, are most unquestionably increasing their ranks, at the expense of those who advocate the regimental system. I don't think that out of India it is generally known that the second Assistant-Surgeon can be removed from his regiment and detained for further service in India at the will and pleasure of the Inspector-General of Hospitals. There are instances enough on record now of this iniquitous system to have established it as a principle. It was done in Bombay with an Assistant-Surgeon of the 64th, in Bengal with an Assistant-Surgeon of the 8th Hussars, and in Madras with Assistant-Surgeons of the 74th and 66th Regiments. These are instances of especial hardship, and furnish a very strong argument in favour of a Medical Staff Corps. I don't think it at all hard that officers of the Medical Department should have to pay mess and band donations and subscriptions. On the contrary, I would have them do so; but the donation should be given to their own mess and band fund, and their subscription to the mess and band funds of the corps with which they may be doing duty.

A Horse Guards' order of August 27, 1864, provides in part for the expense consequent upon the transfer of Assistant-Surgeons, "should it not be at their own request;" but they do not consider the expense attendant upon the change of uniform, the sacrifice of the old, the expense of providing the new kit. In one of the removals it must have been a fearful expense, that from the Highland regiment to the artillery; and I believe that officer was appointed to the Horse Artillery. I have as yet said nothing of the disappointment it must have been to those officers who at the very last moment were informed that they would not be allowed to accompany their respective regiments home, the "exigencies of the service" requiring them to remain in India. How many of them at the time of appointment to their corps imagined that they would be thus treated on the departure of their corps from India? Surely no Medical officer with these facts before him would now ask for a regiment. I like my regiment very much; but I would rather be a staff Assistant-Surgeon doing duty with it. Regimental Medical officers are quite as directly under the control of the Medical authorities, and so we ought to be. In time of war, indeed, it is necessary that the Medical officers of the expedition should be under the absolute control or orders of the senior Medical officers of the force; and in time of peace I cannot conceive what advantage is gained by being made regimental. It cannot be denied that it is a pecuniary loss to the Department, and I don't think any advocate for the present system has yet shown that it is an advantage to the service. I know that these sentiments are entertained by my colleagues in the regiment, and by nine out of ten of the officers of the Department with whom I have talked on the subject. If you deem this letter worthy of communication, I trust you will devote a portion of your valuable space to its publication. I am, &c.

India, March, 1865. Oneness.

THE DIRTY QUACKS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I enclose an advertisement cut out from a paper which came into my hands after having already circulated through several respectable families; and I imagine that my eyes were not the only ones which fell accidentally upon the unusually filthy and abominable advertisement of the so-called Dr. Hammond.

Is he possessed of the qualifications mentioned by him? if so, why should not the Colleges erase his name? and if not, could not the Medical Council or Registration Society do something more than they appear to be doing for the sake of public decency? I am, &c.

April 12, 1865. M.R.C.S. Eng.

(From the *Suffolk Mercury*, April 1, 1865.)

"MEDICAL AID (BY LETTER OR PERSONALLY) BY

"DR. HAMMOND (of the Lock Hospital; Member of the College of Physicians and Surgeons) on all those Diseases which embitter and shorten the duration of human life. He offers Hints whereby Manly Vigour and all the attributes of Perfect Manhood can be secured. The Married Life Rendered Happy, and the cause of all domestic discord removed. Those who desire to Marry restored to Health, Beauty, Grace, and Elegance. Also on 'The Arrest, Cure, and Isolation of Nervous, Physical, and Sexual Debility, Spermatorrhœa, Nocturnal and Diurnal Losses, Painful Dreams, Wasting of the Organs of Generation, Impotence, Sterility, and all Diseases of Indiscretion.' The Author's chief aim is to mitigate human suffering, and in proof of the efficacy of the Author's theory, he will advise Invalids how to Cure themselves, by calling on him; and that others who cannot attend personally are advised to enclose 6 stamps for The Self-Curative Manual, which will enable sufferers to effect a speedy and Private Cure without Dangerous and Abortive so-called Remedies.—All Letters to be prepaid and addressed DR. HAMMOND, No. 11, Charlotte-street, Bedford-square, London.

"By the same Author, beautifully illustrated, 100 pages (table of contents sent with above Manual), the

"MYSTERIES OF LOVE, COURTSHIP, AND MARRIAGE.

"Their Social, Moral, and Physical Relations; addressed to both Sexes; with Advice and Hints in Choosing a Husband or Wife. Together with an Inquiry into the Cause of Unhappy and Unfertile Unions; how to Ensure Fruitful and Happy Marriages, and the Restoration of Suspended or Lost Privileges; with 'Every-day Scenes,' or Life Sketches of the Single, the Married, and the Widowed; being Figments of Facts, Physiology, and Philosophy."

PROFESSOR PETE (UNIVERSITY, PESTH) ON THE NATURE AND USE OF WINE, SPIRITS, AND ALCOHOLISED WINES.

In the last number of his periodical, *Tandesadi* ("Medical Adviser"), Professor Pete has a few observations on the above subject, which may not be out of place in the *Medical Times and Gazette*.

Pure wine—that is, the pure juice of the grape—possesses, through its simple fermentation alone, a sufficient degree of natural alcoholic strength to render it a wholesome, mild stimulant, and a sufficiently potent dietetic means for the physical and moral restoration of man. Distilled spirits, on the contrary, and, in some degree, also alcoholised (fortified) wines, may answer medicinal purposes, and act beneficially as a remedy in certain abnormal conditions of the human system, but are too powerful stimulants to be dietetic. They are to be compared in this respect to our common mineral household salt,—an indispensable condiment in small doses, a remedy in larger quantities, and a poison if in excess.

The natural alcohol inherent in wine is widely different in every respect from that alcohol which is artificially introduced into wine; the mixture will always remain a mechanical, and not a chemical one,—that is, this alcohol will remain hanging as a foreign body in the wine. Chemistry will prove this. For if you submit pure wine—be it ever so strong—to slow distillation, you will obtain as a first product, water, then alcohol, then water again. On the contrary, if you carefully distil mixed (alcoholised, fortified wines), the first drops will be alcohol; this is the alcohol that had been mixed into the wine, then water, then again alcohol,—the natural alcohol of the wine—and, lastly, water.

Pure wine assists digestion and the formation of blood; it promotes the nourishment and invigorates the system; distilled spirits, whether taken alone or mixed in wine, hinder the formation of blood and the nourishment, because they paralyse and benumb, with the whole nervous system, those nerves which are the instruments to nutrition.

We need not go out of our own country (Hungary) to find striking illustrations of the above truth. Compare the healthy looks and appearance of the rural population in our wine-growing districts,—Tokay, Somló, or in our plains (pusztas) the ancestral habitation of the true wine-drinking Magyar race—with the sallow complexion, hollow checks, and sickly appearance of the spirit-imbibing Sclavonians and Wallachians in the Carpathian mountains.

There is still another remarkably distinguishing peculiarity to be noted: distilled spirits, as well as alcoholised wines, will be the more intoxicating the higher the degree of their alcoholic strength; the intoxicating effect of pure wine, on the contrary, does not depend on its strength. Wine drinkers know very well that young, coarse wines will sooner set the head turning old than matured, although chemically much stronger, wines. Roussillon, of 12 or 14 degrees alcoholic strength, will sooner intoxicate than Lafite of 18 or 20 degrees, or Tokay of 23 degrees.

Alcoholised wines—Port and Sherry—are rare in Hungary, and indulged in only by the upper ten thousand. Is it not a strange coincidence that he gout is also at home only in the palaces of our rich? (we call the gout the ailment of the wealthy) and is not the more general prevalence of gout in England to be partly ascribed to the greater consumption of distilled alcohol taken either by itself, or in the shape of sherry and port?

COMMUNICATIONS have been received from—

Mr. ROBERT BAKER; Dr. HANDFIELD JONES; Dr. BENCE JONES; Messrs. T. NUNN and SONS; Mr. T. APPLEBY STEPHENSON; Dr. JOHN WHITMORE; APOTHECARIES' HALL; CHARON; Mr. R. GRIFFIN; ROYAL COLLEGE OF PHYSICIANS; JAS. M.; Dr. DONKIN; ROYAL INSTITUTION; HARVEIAN SOCIETY; WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON; A SUBSCRIBER; OBSTETRICAL SOCIETY OF LONDON; Dr. LYON PLAYFAIR; Dr. ARTHUR GARRINGTON; AN OLD SUBSCRIBER; JUSTITIA; Dr. FOTHERBY; AN ARMY SURGEON; MEDICAL SOCIETY OF LONDON; Dr. J. BRAXTON HICKS; HARVEIAN SOCIETY OF LONDON.

BOOKS RECEIVED.

Practical Chemistry. By Stevenson Macadam, Ph.D. W. and R. Chambers.
*** A cheap book for beginners in chemical analysis.

The Surgery of the Rectum: being the Lettsomian Lectures on Surgery delivered before the Medical Society of London. By Henry Smith, F.R.C.S. London: John Churchill and Sons.

The Ophthalmic Review: a Quarterly Journal of Ophthalmic Surgery and Science. April. London: R. Hardwicke.

The Report of the Committee of Visitors of the Devon County Lunatic Asylum, 1864.

The Report of the Public Hospital, Kingston, Jamaica, for the Year 1864.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 22, 1865.

BIRTHS.

Births of Boys, 1076; Girls, 1058; Total, 2134.
Average of 10 corresponding weeks, 1855-64, 1868·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	739	757	1497
Average of the ten years 1855-64	617·7	593·4	1211·1
Average corrected to increased population..	..	..	1332
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	2	5	3	2	6	6	5
North ..	618,210	6	..	7	2	17	20	6
Central ..	378,058	1	1	5	1	23	9	4
East ..	571,158	1	1	9	1	24	10	3
South ..	773,175	3	8	5	2	10	20	8
Total ..	2,803,989	13	15	29	8	89	65	26

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·930 in.
Mean temperature	56·0
Highest point of thermometer	76·7
Lowest point of thermometer	39·1
Mean dew-point temperature	48·4
General direction of wind	N.N.E.
Whole amount of rain in the week	0·13 in.

APPOINTMENTS FOR THE WEEK.

April 29. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m. Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 4 p.m. Prof. Bain, "On the Physical Accompaniments of Mind."

May 1. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

ROYAL INSTITUTION, 2 p.m. Annual Meeting.

2. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

ANTHROPOLOGICAL SOCIETY OF LONDON, 8 p.m. Meeting.

PATHOLOGICAL SOCIETY, 8 p.m. Meeting.

ROYAL INSTITUTION, 4 p.m. Professor Frankland, F.R.S., "On Organic Chemistry."

3. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

HUNTERIAN SOCIETY (Council, 7½ p.m.), 8 p.m. Meeting.

OBSTETRICAL SOCIETY OF LONDON, 8 p.m. Dr. Barnes, "On Dysmenorrhœa, Menorrhagia, and Sterility, and the Relief of these Affections by Division or Dilatation of the Cervix Uteri." H. W. Sharpin, Esq., "Case of Ovariotomy."

4. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

HARVEIAN SOCIETY OF LONDON (Special Meeting of Council, 7½ p.m.), 8 p.m. Dr. Sisson, "On the Remedies for Dropsy."

ROYAL INSTITUTION, 4 p.m. Professor Frankland, F.R.S., "On Organic Chemistry."

5. Friday.

Operations, Westminster Ophthalmic 1½ p.m.

ROYAL INSTITUTION, 8 p.m. Professor Fawcett, "On Wealth, and those who Produce it."

WESTERN MEDICAL AND SURGICAL SOCIETY, 8 p.m. Mr. C. Hunter, "On the Progress of the Hypodermic Treatment." Nomination of Officers for the next Session."

ORIGINAL LECTURES.

ON

THE FOOD OF MAN IN RELATION TO HIS USEFUL WORK.

By LYON PLAYFAIR, C.B., LL.D., F.R.S.,
Professor of Chemistry in the University of Edinburgh; Vice-President of the Royal Society, Edinburgh; Vice-President, and formerly President, of the Chemical Society, London, etc.

DELIVERED AT THE ROYAL SOCIETY, EDINBURGH, APRIL 3, 1865, AND ROYAL INSTITUTION, LONDON, APRIL 28, 1865.

1. THE great generalisation of Liebig, that food contains two chief classes of organic ingredients,—one class consisting of nitrogenous substances which give the plastic materials for the formation of tissues, while the other class contains the amylaceous and saccharine bodies destined to support the heat of the animal body—has met with general acceptance, notwithstanding the objections entertained by some physiologists to the general terms of the division. They state that the nitrogenous aliments may also support animal heat, as well as fulfil their special function of forming the tissues. But the distinguished author of the classification admitted this fact in his first work,(a) when he pointed out that the carnivora must waste their tissues in the support of animal heat. The recent experiments of Bischof and Voit,(b) and of Pettenkofer and Voit,(c) in feeding animals on flesh from which all fat had been removed, completely prove that nitrogenous substances can act as heat-givers as well as flesh-formers. But the converse of the classification is not true, for we have not the slightest evidence to show that alimentary bodies free from nitrogen can build up any organ of the body. It is known that a small quantity of fat is always present in healthy tissue, but it may be wholly removed by ether without injury to the organic structure. The same experiments which proved that flesh-formers might, when necessary, act vicariously as heat-givers, have also proved that the nutrition of carnivora may be effected without the supply of fat or any other non-nitrogenous body.

2. The chief object of this lecture is to examine the function of nitrogenous ingredients of food as a magazine of force for the production of dynamical effects in the animal. The consideration of the animal body as a machine, and of the food in the light of fuel supplied to it, has already engaged the attention of philosophers. Rumford,(d) Joule,(e) Mayer,(f) Helmholtz,(g) Dumas,(h) Hirn,(i) Fick,(k) and Carpenter (l) have published their views on this important subject; but all of them, so far as I know their writings, have looked upon food in its aggregate, applying their calculations to the total carbon and hydrogen contained in it, without discussing the influence exerted by its separate constituents in the production of force.

3. The Rev. Dr. Haughton, of Dublin, has been an exception in this respect. He has endeavoured to find in the urine the representative of the mental, vital, and mechanical work of the human body, and gives the following equations (m):—

Opus Mechanicum, or 150 lbs. raised one mile	= 136·5 grains of urea.
Opus Mentale, or five hours of study	= 217·0 „ „
Opus Vitale	= 297·0 „ „

He then draws the conclusion that in manual or routine bodily labour, men are sufficiently well fed when they receive as much food as will discharge 400 grains of urea daily (the product of 2·8 oz. of flesh-formers), of which 300 grains are spent in vital work, and 100 grains (the product of less than three-fourths of an ounce of flesh-formers) in mechanical work. But when the work is of a higher order, Haughton states that a better quality of food must be supplied, sufficient to allow a discharge of 533 grains of urea daily, of which 300 grains are spent as before in vital work, and 233 grains in the mental and mechanical work necessary to keep the body in health.

4. If we are to understand these numbers of Haughton as being true exponents of the quantity of tissues necessary to be transformed for the production of force, the latter can readily be calculated and compared with that necessary to effect the work. Urea can only be an exponent of work, inasmuch as it shows us the quantity of tissue which has become oxidised in its production, and thus enables us to express the amount of energy stored up in that tissue, and in the oxygen which transformed it. Now, as 136·5 grains of urea are said to be equal to 150 lbs. weight raised to the height of one mile, we ought to find at least this amount of potential energy in the 405 grains of tissue from which the urea must have been derived, and in the oxygen required to convert it into this diamine. After deducting the hydrogen which may be supposed to have already met with oxygen in the tissues, we have available for transformation—

190·6 grains of carbon.
12·5 „ hydrogen.
5·1 „ sulphur.

These numbers, by the usual formula, would give 498·8 lbs. of water raised 1° F., and this, converted into its mechanical equivalent by the co-efficient 772, represents 385,073 lbs. raised to the height of one foot. This, then, represents the total potential energy, while the actual work realised by the man is more than double this amount, or is 792,000 foot-pounds. It is clear, then, that Haughton cannot have meant the equations given by him in the mathematical sense of equality, but only in the general sense of representation. In fact, in a further paper (n) he points out that the combustion of the carbon and hydrogen of the proteine compounds can only account for 54 per cent. (misprinted 34 per cent.) of the work ascribed to the urea. Hence we are obliged to class Haughton with the other writers, who consider that the transformation of the nitrogenous tissues is insufficient to account for the dynamical movements of the body.

5. In discussing this subject anew, I divide the work performed in the body as follows:—

1. Mental work.
2. Calorific work.
3. Internal dynamical work.
4. External „ „
5. Digestive or assimilative work.

With the two first divisions we have little to do in the present lecture; with the three last divisions we shall be fully occupied.

6. It will be convenient to proceed in the following order:—

DIVISION I.

A. To ascertain the amount of food necessary for mere subsistence without exercise.

B. To determine the amount of food required for complete heath, with a moderate exercise of from five to seven miles daily.

C. To fix the amount of food suited for active work, such as is represented by a man walking twenty miles daily continuously.

D. To find the amount of food consumed by labourers with very arduous occupations, such as navvies engaged on railways.

Having ascertained these preliminary facts, which are altogether independent of theory, we shall then be in a position to proceed to

DIVISION II.

A. To discuss whether there be sufficient potential energy in the nitrogenous tissues, or of the food representing them, and in the oxygen required for their transformation, to account for the dynamical actions within or without the body.

B. To consider whether the fatty and amylaceous or saccharine ingredients of food are employed in this mechanical work.

Having discussed these points, we should then be in a position to proceed to

DIVISION III.

A. To inquire whether the secretions of urea and uric acid *per vesicam* are sufficient representatives of labour performed.

B. To consider what is represented by the nitrogenous materials secreted *per anum*.

(a) Animal Chemistry, p. 120.
(b) *Die Gesetze der Ernährung des Fleischfressers*, p. 56, *et seq.*
(c) *Ann. der Ch. und Phar. Supp. Bd.*, 1863, p. 361, *et seq.*
(d) Rumford's Essays, vol. ii., p. 488.
(e) Joule and Scoresby, *Phil. Mag.*, 1846, p. 454.
(f) Mayer, *Die organische Bewegung in ihrem Zusammenhang mit dem Stoffwechsel*, 1845.
(g) Helmholtz, Lectures at Royal Institution (Lect. vi.), 1864.
(h) Dumas, as quoted by Matteucci, Phy. Phen. of Living Beings, p. 325.
(i) Hirn, Théorie Mécanique de la Chaleur, p. 34.
(k) Fick's Physiologie des Menschen, p. 291.
(l) Carpenter's *Jour. of Science*, 1864, p. 266.
(m) Haughton on Healthy Urine of Man, p. 32.

(n) Haughton on Diabetes Mellitus, p. 30.

Division I.

Food Required under different Conditions of Work.

7. In determining the amount of food required for mere subsistence, we ascertain, at least approximatively, that necessary for internal dynamical work. By that we mean such work as is carried on within the man independently of the will, and in the direction of which he is an unconscious agent. The heart beats, the blood circulates, the lungs play, the diaphragm acts, the intestines exert their peristaltic motion, by an inner directive movement. In the exercise of these motions a certain amount of force is expended, but it is ultimately converted into heat, and aids the *opus calorificum*, which is chiefly produced by the combustion of the non-nitrogenous parts of food.

In looking for a purely subsisting diet, we naturally turn to the experience of Hospitals having convalescent patients unable still to take exercise. The following is the dietetic value in ounces of the "common diet with bread" employed at the Infirmary in Edinburgh(o).

Flesh-formers	2·06 oz.
Fat	0·58 ,,
Starch	11·33 ,,
Starch equivalent of heat-givers	12·69 ,,
Mineral matter	0·35 ,,

In this diet the amount of carbon in the flesh-formers is 1·08 oz., and in the heat-givers 5·57, or together 6·58 oz. This amount of carbon fairly represents that required to keep up the vital actions, for Dr. E. Smith (p) found, in his own case, that 6 oz. of carbon were exhaled by him during one day's starvation, and Ranke,(q) in a three days' trial, found 6·4 oz. every twenty-four hours. We may therefore assume that 6·5 oz. of carbon are required to support the life of an adult man without exercise. In the following table are some recorded instances of deficient dietaries, although in some of the cases they were only defective because work was expected from the persons living upon them. They are, therefore, generally sufficient for mere subsistence during rest, but insufficient for the performance of labour.

An examination of the information furnished by this table will justify the conclusion, that though 2 oz. of flesh-formers, 0·5 oz. of fat, 12 oz. of starch and sugar, containing a total amount of 6½ oz. of carbon, will suffice for a man to support the internal dynamical motions and other vital necessities of his body when he is at complete rest, they are not compatible with a moderate amount of exercise; so that, even in the condition of low health without activity, 2·5 oz. of flesh-formers, 1 oz. of fat, 12 oz. of starch, and 0·5 oz. of mineral matter are necessary. This diet contains 7·44 oz. of carbon.

Table I.—Subsistence and Low Dietaries.

Dietaries.	Flesh-formers.	Fat.	Starch, etc.	Starch, etc.	Carbon.
Contractors' insufficient prison diet, Bengal (r)	2·05	0·73	17·84	19·58	9·585
Dundee prison diet, treacle substituted for milk, 50 per cent. of prisoners lost weight (s)	2·87	0·87	13·41	15·41	8·168
Needlewomen in London (t)	1·90	1·04	10·29	12·74	6·392
"Common diet," Edinburgh Infirmary (u)	2·06	0·58	11·33	12·69	6·585
Average diet during cotton famine in Lancashire, 1862(v)	2·72	..	..	..	9·540
Diet of the prisoners in Libby prison, Confederate States(w)	2·41	0·98	5·62	8·01	4·546
Mean subsistence diet	2·33	0·84	11·69	13·68	7·469

8. We have now to get a mean dietetic value for the food of an adult man in active health, but without hard labour. The dietaries of soldiers during peace offer us a large experience. I have recalculated the following table, which was published formerly by me in a less complete form,(x) taking bread as containing 37 per cent. of water.(y) The data for the calculations have been obtained from the sources quoted below.

Table II.—Dietaries of Soldiers during Peace.

	Mean Dietetic Value. oz.
Weight of solid food	51·0
Flesh-formers	4·215
Fat	1·847
Starch, sugar, cellulose, etc.	18·690
Starch equivalent of heat-givers	22·059
Mineral matter	0·714
C Carbon in flesh-formers	2·267
C′ Carbon in heat-givers	9·720
Total carbon, C + C′	11·987
Ratio of C : C′ C : C′ : : 1 : x	4·290
Ratio of flesh-formers to starch equivalents	5·237

The mean of this table may fairly be taken as representing the value of food required to keep adult men in good health. Army Surgeons state that the diet of our own soldiers, which does not differ widely from the mean, is not sufficient for recruits during their drills, though the sergeants fatten upon it. As the average value is also nearly the same as that of middle class diets,(z) we may safely assume it to be a correct expression of the diet of men who live well and take moderate exercise, of from five to seven miles daily.

9. Before we discuss the dietetic value of food required for men engaged in labour, we must define what we understand by a full day's work. We take such work, when performed continuously throughout the year, with rest on Sundays, to be represented by a daily walk of twenty miles. The experience of postmen in rural districts shows that more than this amount of work cannot be executed without the man breaking down. As the co-efficient of traction is nearly $\frac{1}{20}$th the weight of a man's body, the work which a standard man of 150 lbs. has to perform is 792,000 foot-pounds. That this is a full estimate will be apparent from the following table (a) of the work of a man under different conditions:—

Kind of Labour.	Amount of Work in ft. Tons.	Authority.
Pedestrians	353	Haughton.
Pile-driving	312	Coulomb.
,,	352	Lamande.
Turning a winch	374	Coulomb.
Porters carrying goods and returning unloaded	325	,,
Porters always loaded	303	,,
Porters carrying wood up stairs, descending unloaded	381	,,
Paviours at work	352	Haughton.
Prisoners at shot drill	310	,,

Mean, 340·2 tons = 105,605 metre kilogrammes.

The mean of this table gives 762,048 foot-pounds. A man's labour differs within a tolerably wide range, according to the manner in which it is exerted, for while it may not exceed 480,000 foot-pounds in hammering, it may reach to 1,500,000 foot-pounds when pushing or pulling horizontally.(b) Hence the amount of 792,000 foot-pounds taken for a day's work, may be considered a full, though not an excessive amount.

This estimate receives further support when we examine the work performed by soldiers in war. In Sherman's famous march from Atlanta to Savannah, twelve miles daily were accomplished. In war, the Prussian army walks fourteen miles daily, resting every fourth day. In our Indian marches, twelve miles daily, with the same rest, is the rate of work allowed to the troops. Hence, if we take full war work as represented by fourteen miles' daily continuous marching, the soldiers being laden with 60 lbs. weight of accoutrements,(c) we have a full estimate of labour work. This is found by the following equation—

$$\left[\frac{150+60}{20}\right] \times 73{,}920 = 776{,}160 \text{ foot-pounds.}$$

The weight of the man and of his accoutrements, divided by the co-efficient of traction, and multiplied by the number of feet traversed, thus leads us to a result rather less than that found for the pedestrian. The following table gives the

(o) The ounce used in this lecture is always 437·5 grains, or 28·35 grammes, the gramme being taken at 15·43 grains.
(p) Smith, *Trans. Roy. Soc.*, vol. cxlix., p. 681.
(q) Ranke, Müller's *Archiv.*, 1862, S. 342.
(r) Report of Twenty-four Pergunnahs, 1847.
(s) Christison, *Edin. Journ. Med. Soc.*, May, 1852.
(t) Rep. of Med. Officer of Privy Council, 1862.
(u) Diet Tables of Edinburgh Infirmary, 1865.
(v) Rep. Med. Off. Privy Council, 1863, p. 322.
(w) Report of American Sanitary Commission, 1865.
(x) *Good Words*, January, 1865.
(y) Lawes and Gilbert, *Chem. Soc. Journ.*, x., 54.
(z) *Good Words*, February, 1865.
(a) Haughton on a New Theory of Muscular Action, p. 16.
(b) Ranken, Applied Mechanics, p. 610.
(c) Parkes, Hygiène, p. 369.

dietetic value for soldiers engaged in the arduous duties of war :—

Table III.—Dietaries of Soldiers During War.

	Mean of War Diet.
	oz.
Weight of solid food	46·0
Flesh-formers	5·41
Fat	2·41
Starch, sugar, etc.	17·92
Starch equivalent	23·48
Mineral matter	0·68
C carbon in flesh-formers	2·90
C′ carbon in heat-givers	9·81
Total carbon, C + C′	12·71
Ratio C : C′ : : 1 : x	3·37
Ratio of flesh-formers to starch equivalent	4·35

Hence it will be observed that about 5·5 oz. of flesh-formers, and 23½ oz. of the starch equivalent of heat-givers, are required by the soldier to enable him to withstand the fatigues of war.

10. We possess in the English army a corps of soldiers who are labourers even during peace. I allude to the Royal Engineers, who, while in the depôt at Chatham, are actively occupied either in constructing field works, or in pursuing their avocations as artisans, from which class they are all selected. Desirous to obtain the dietaries of these men, I applied to Colonel Collinson, R.E., the second in command at Chatham, and he, with the consent of Colonel Harness, instituted a careful inquiry into the actual amount of food consumed by 495 men for twelve consecutive days. Quartermaster Conolly took an active part in the inquiry, and the captains of each of the companies became responsible for the accuracy of the returns, which were made with all the detail and care to be expected from this highly scientific corps. These returns were then reduced to their dietetic value by myself, so that we may consider them as affording the most complete evidence which we possess of the requirements of food for labouring men during a fair but not an excessive amount of work in twenty-four hours.

Table IV.—Dietaries of the Royal Engineers from January 1 to 12, 1865.

	Mean of all Returns.
Number of men giving returns	495
Weight of solid food	oz. 66·97
Flesh-formers	,, 5·08
Fat	,, 2·91
Starch, sugar, etc.	,, 22·22
Starch equivalent	,, 29·38
Mineral matter	,, 0·93
C carbon in flesh-formers	,, 2·730
C′ carbon in heat-givers	,, 12·113
Total Carbon, C + C′	,, 14·844
Ratio C : C′ : : 1 : : 1 : x	,, 4·45
Ratio of flesh-formers to starch equivalent	,, 5·82

There are several points of interest shown by these reductions. The working soldier finds it necessary to take about five ounces of flesh-formers daily. The only notable exception is in the case of a detachment of the 38th Company, stationed at the South Kensington Museum. This exception furnishes a ready explanation, for although these soldiers are even better paid than those at Chatham, their work is of a less laborious character, being chiefly that of draughtsmen, photographers, etc; with this work they do not require a larger quantity of flesh-formers than is consumed by soldiers of the line, and accordingly we find that their diet sinks to this level.(d) Omitting this exceptional case, we find a singular uniformity in the starch equivalent of heat-givers. It is higher than that of soldiers engaged in war, but this is doubtless due to the ease with which potatoes are obtained in garrison, and to their being always in considerable quantity in the diet.

11. We do not possess many well-recorded instances of labourers' diets, by actual weight and measure. The approximative returns obtained by Dr. E. Smith, in his report to the Privy Council on the diet of the working classes, are valuable for what they profess to be as giving us an insight into the mode of living of artisans; but they can scarcely be considered as presenting us with data of weight and measure, ascertained with any further degree of precision than could be obtained by conversation with working people. I append a few instances of working dietaries, which have been determined by actual weights of the food consumed :—

Table V.—Examples of Labourers' Dietaries.

Class of Labourer.	Flesh-formers	Fat.	Starch, Sugar, etc.	Starch equivalent.	Carbon.
English sailor (fresh meat)(e)	5·00	2·57	14·39	20·40	11·05
French sailor(f)	5·74	1·32	23·60	26·70	14·58
English navvy (Crimea)(g)	5·73	3·27	13·21	21·06	11·46
,, ,, (Rouen Railway(h)	6·84	3·82	27·81	37·08	18·96
Hard-worked weavers(i)	5·33	1·53	21·89	25·42	13·76
Fully-fed tailors(k)	4·63	1·37	18·47	21·64	11·74
Blacksmiths(l)	6·20	2·50	23·50	29·50	15·69
Mean working diet	5·64	2·34	20·41	25·97	13·89

I have not quoted in this table the well-known allowances of 910 lbs. oatmeal given annually to our Scotch agricultural labourers on the bothy system, and 60 oz. of milk daily. This diet equals 8¾ oz. of flesh-formers, 4·5 oz. of fat, and nearly 27½ oz. starch. I attach little importance to this, because it is well known that the labourer sells nearly a quarter of the oatmeal to buy spirits and other luxuries. A man training for prize fighting, (m) and who walked seventeen miles daily for exercise, was found to eat weekly 269 oz. of mutton, without bones, 14 oz. of bread (only 2 oz. daily at dinner), and 170 oz. of ale. The food of this prize-fighter had therefore the following dietetic value :—

Flesh-formers	9·8 oz.
Fat	3·1 ,,
Starch	3·27 ,,
Starch equivalent	10·70 ,,

This result, however, is certainly not an average case, although interesting as showing the conditions employed in training a man to the extreme of muscular activity.

12. From the preceding data we propose to take the following general averages in our calculations :—

	Subsistence Diet.	Diet in Quietude.	Diet of Adult in Full Health.	Diet of Active Labourers.	Diet of Hard-worked Labourers
	oz.	oz.	oz.	oz.	oz.
Flesh-formers	2·0	2·5	4·2	5·5	6·5
Fat	0·5	1·0	1·8	2·5	2·5
Starch	12·0	12·0	18·7	20·0	20·0
Starch equivalent	13·2	14·4	22·0	26·0	26·0
Carbon	6·7	7·4	11·9	13·7	14·3

(To be continued.)

(d) For this return I am indebted to Captain Donelly, R.E., Inspector of Science to the Department of Science and Art.

ORIGINAL COMMUNICATIONS.

ON A

SIMPLE METHOD OF TREATING CERTAIN KINDS OF EPILEPSY, DEMENTIA, AND OTHER CHRONIC HEAD-AFFECTIONS.

By THOMAS LAYCOCK, M.D., etc.,

Professor of the Practice of Medicine and of Clinical Medicine, and Lecturer on Medical Psychology and Mental Diseases in the University of Edinburgh.

The prescription of errhines and sternutatories has almost wholly ceased, although they are occasionally referred to by writers. Valleix mentions the breathing of ammonia as being sometimes useful in epileptic fits, but systematic writers in general on epilepsy recommend all kinds of derivants and counter-irritants except these. Professor Hasse, indeed, notices them, but only to say that they are more likely to be hurtful than useful. The current doctrine, that epilepsy is due to "excitement of the brain" or reflex irritability of the medulla oblongata, is obviously opposed to the notion that irritants to the nostrils can be of service.

(e) Advantages of Entering British Navy. Bradbury and Evans. 1854.

(f) Payen, Substances Alimentaries, p. 322.

(g) Dietary to Navvies Employed in Making the Railroad in the Crimea (Letheby), *Soc. Arts Journ.*, 1863.

(h) Gasparin, Cours d'Agriculture.

(i) Dr. E. Smith, *Phil. Trans.*, vol. 151, p. 747, *et seq.*

(k) *Idem.*

(l) Food consumed by a blacksmith; mean of two days.

(m) Percy on Fæces.

Nor is it generally known or even suspected that various chronic cerebral affections may be relieved and sometimes cured by this method of treatment. And yet it was anciently very popular. The *pulvis asari compositus* of a former Pharmacopœia was the last of various formulæ long abandoned, which were thus commonly used in both mediæval and archaic medicine. The Greeks distinguished the irritants that caused a flow of mucus (errhines), in accordance with an ancient humoral theory of phlegm, from those which excited sneezing or sternutatories. Both kinds were prescribed in cephalæa, amaurosis, lethargy, vertigo, epilepsy, and other head-affections.

Some years ago, when reflecting upon the probable cause of epilepsy, and more particularly of the sensorial and mental symptoms as distinguished from the convulsive and motor, I was led to the conclusion that stimulants to the nostrils would be found useful in a certain class of cases in warding off the attack, in shortening the duration of the comatose condition, and in diminishing the susceptibility to returns. I was enabled, through the kind assistance of my friend, Dr. James Saidler, now resident superintendent of the private asylum at Gilmour House, Liberton, near Edinburgh, to try the effects of various such stimulants on insane epileptics at that time under his care in the Millholme Asylum, Musselburgh. Subsequently I extended the theory to cases of headache, loss of memory, hallucinations, and the like, in which I had reason to think the circulation and state of nutrition of the encephalon was disordered. I now put together some rough notes of the results of treatment of these affections specially with the hope that the Physicians and Assistant-Physicians of asylums may be induced to try the method of stimulation or counter-irritation of the nostrils in this numerous class of cases, and report results in a more complete and satisfactory manner than I am able to do.

1. Epilepsies and Epileptic Seizures.

The pathology of epilepsy and epileptic seizures is so obscure, and the entire class of diseases have such varied relations to sleep and its morbid states, as well as to almost every form of morbid mental condition, that a few brief remarks on the theory which led me to make the trials described, may serve to facilitate the selection of the kind of case in which the plan of treatment may be reasonably attempted. We know well that there are exciting causes of epilepsy, which can be removed or obviated, and the disease thus cured. There are also known predisposing causes, which are necessary to the action of the exciting causes, and which can be obviated. But the proximate cause, or that condition of the brain which immediately precedes the fit, and without which neither predisposing nor exciting causes can take effect, is still unknown. Now, as this is the disease, it is clear that until we know its true nature, we cannot reasonably attempt a rational prevention and cure of epilepsy. To determine this proximate cause, let us select the primary, essential, and pathognomic mental condition for consideration. We know that in the typical epilepsy this consists in the instantaneous and total abolition of consciousness, upon which abolition convulsions of a particular kind supervene, and then coma upon these. If there be no precedent abolition of consciousness the convulsions are not strictly epileptic. What, then, is that condition of the brain in which total and instantaneous abolition of consciousness occurs? It can only be such a state suddenly induced as renders continuous consciousness impossible. Now, we know that for continued consciousness two things are needed; namely—first, a proper circulation of blood through the encephalon; secondly, a proper transformation of the cerebral tissues, so that the vital functions of that tissue, in so far as they minister to consciousness, may go on. I write thus generally of the encephalon, or the whole contents of the cranium, to avoid all anatomical theories as to the special seat of consciousness, and of the functions of particular portions of it, and which, in fact, have little practical bearing on the points in question.

Granted these two propositions as to consciousness, we may conclude *that the proximate cause of an epileptic paroxysm is a sudden cessation of the circulation through the encephalon, or some portion of it, and of the proper metamorphosis of the cerebral or encephalic tissue*, in so far as it is the seat of consciousness. Consequently, if we could obviate these conditions we arrest or limit the fit.

These propositions apply to the typical fit exclusively; there are, however, epileptic seizures in which the abolition of consciousness is not instantaneous, but preceded by disorders of the consciousness, such as vertigo, headache, aura, hallucinations, delusions and illusions, delirium, and even mania. There are, moreover, imperfect fits, in which there is no convulsive condition, or in which those disorders of the consciousness which are premonitory of a complete paroxysm constitute the only phenomena. We can explain these, however, on the same principles by assuming that the morbid encephalic changes, which, in the complete fit, are too rapid and instantaneous to give time for these morbid mental states to be expressed or fixed on the memory, come on more slowly in the fit with premonitory sensorial symptoms ending in unconsciousness and convulsions. In the imperfect fit the changes do not pass on to the abolition of consciousness; and before the paroxysm is complete there is a return to healthy or normal action. So that *the various kinds of epilepsies differ in this, that their phenomena are dependent upon different degrees of intensity of a common proximate cause.*

There are, however, differences in individuals as to the particular kinds of premonitory symptoms and as to the particular results of the convulsions. In one there may be visual hallucinations; in another, auditory; in a third, maniacal delirium; in another, irritable temper; and one may bite the tongue, and another may not; and a third may be convulsed on one side only. But these differences do not interfere with the practical application of the principles I have laid down. If we assume (as we must if we would theorise at all) that these individual differences are due to anatomical differences, arising either in a special predisposition to take on morbid action situate in a particular portion of the encephalon or from the action of exciting causes, specially operative on such portions, then it follows *that all the premonitory symptoms and the symptoms of the minor and incomplete epileptic paroxysms, however varied, are due to the same proximate cause as those of the typical fit.* The functional activity being more imperfect locally than generally in the encephalon, it follows that the exciting causes of the epileptic fit will act primarily, or predominately, or exclusively on them to the special and local derangement of the circulative and nutrient activity, and the manifestation of special symptoms differing according to the portion of the encephalon involved.

Starting from these propositions as to the proximate and predisposing causes of epilepsy and epileptiform seizures, let us next inquire how the circulation and the tissue-changes within the encephalon are disordered? In the typical fit the disorder occurs instantaneously; the exciting cause must therefore act instantaneously. Now, if we look to the sudden occurrence of other nervous symptoms with which, in respect to the suddenness, we can compare the seizure,—such as palsy, sneezing, or spasms—we can conclude that it is due to the sudden excitation or injury of a regulating nerve-centre. Applying this to epilepsy, we can conclude that the same thing happens at the seizure, and it consequently follows that there is a regulating centre for the circulation and nutrition of the encephalon, and for the particular ganglionic centres of which it is made up; or, to put the proposition in another form, just as there are ganglionic centres for maintaining and regulating muscular nutrition and metamorphosis, and combining groups of muscles in action, so also there are centres for maintaining and regulating encephalic nutrition and metamorphosis, and combining the various subordinate centres into that unity of action which correlates or corresponds with the unity of consciousness. When these functions fail as to the whole encephalon, then there is abolition of consciousness; when as to particular portions only, then there is disorder of the senses, perceptions, and intellect;—so that if we would prevent a fit of epilepsy, or abate hallucinations, delirium, and other mental disorders, we must act directly on these hypothetical centres of regulation, so as to to prevent defect of their functions, or cause it to cease.

But the question next arises, which is that centre, if there be one? so that anatomy and physiology and experience may teach us how to act upon it.

My researches upon this point have led me to the conclusion that the cerebellum is the chief regulating centre, but that the cerebellum, acting as such, is itself acted upon, and regulated by impressions reaching it from two wholly different sources,—namely, inferiorly from the medulla oblongata, or great spinal centre proper of the body, and superiorly from the encephalic centres of emotion, perception, and thought. I simply state the hypothesis, however, because a detailed exposition of the facts which support it would involve the whole question of cerebral physiology, and because, for pathological reasons, the cerebellum and medulla oblongata are now con-

sidered by pathologists to be the seat of epilepsy. Starting, then, from these physiological, anatomical, and pathological conclusions, what means (we ask) can be made available for removing the morbid conditions of those centres upon which epilepsies and epileptiform seizures depend?

Analogy, fortunately, can be our guide in the inquiry, either with or without the aid of the hypothesis. In sleep we witness a condition more or less like that dependent on the proximate cause of epilepsy. There is a more or less sudden abolition of consciousness, with premonitory delirium in the form of dreaming, and in morbid states of the brain with premonitory vertigo and other sensations, ending at last in a physiological palsy or paresis. In sleep, too, we know that there is at least a slowing of the circulation and an arrest of brain-metamorphosis, so that force-materials may accumulate. Dreaming is also the analogue of insane delusion, and in syncope, whether from pain, or emotion, or loss of blood, there is a sudden loss of consciousness, with at least a slowing of the cerebral circulation. The class of means, therefore, which serve best to rouse from deep sleep, or syncope, or dreaming, would be most available in preventing the epileptic seizure altogether, in abating the premonitory symptoms, and in shortening the duration of the comatose state. Now, although impressions through the cerebral nerves of sense may be effectual in rousing from sleep and syncope, yet the most simple and most certain are those means which are excitants of the medulla oblongata through the afferent nerves of the respiratory system, and more particularly the nasal branches of the fifth pair. In short, I was led to the conclusion that irritants applied to the nostrils would be the best means of exciting the activity of the medulla oblongata, and, through it, of the cerebellum in cases of epilepsy. I therefore first experimented with strong liquor ammoniæ and snuff.

I will now give the results of some trials made upon epileptics according to the foregoing views, as stated by my friend Dr. Saidler in a letter to me, dated Millholme House Asylum, September 18, 1860:—

"According to instructions, I have tried the plan you recommended for the epileptic fit with the following results:—In the case of Rogers (who does not snuff), ordinary snuff liberally applied has no effect. Ammonia seemed to do more good, but his fits vary so much in intensity and duration that he is not a fair subject for the experiment. In the case of the female patients the result seems to have been more marked, and in several in which the ammonia has been used, it seems to cut short the fit, speedily restoring the patient to consciousness, and preventing to a great extent the torpor and semi-comatose state so protracted after a fit. In one respect, at any rate, its value is undoubtedly great—viz., in detecting the malingerer. One woman (erotic), who used to have fits three or four times a-day, has only had one since its application, and that when she supposed the attendant to be absent. It speedily put an end to her fit."

I now suggested, as we had felt our way in the matter, that the snuff should be made more irritating by drugs, and given regularly. The powder of the root of white hellebore is a most powerful irritant, and cayenne pepper little less so. These were tried. The results are detailed in the subjoined letter from Dr. Saidler, dated October 29, 1860:—

"After many experiments of various kinds as to the different strengths of ingredients and the results of snuff and ammonia during the epileptic fit, I commenced, on the 22nd, a regular trial of the following mixture—viz., common snuff, white hellebore, and cayenne pepper. At first I gave only one pinch in the morning to our female epileptics, seven in number; and certainly the result was surprising. On the 22nd there was not a single fit; on the 23rd, only one pinch in the morning, and not one fit; on the 24th, snuff in the morning and forenoon, not one fit; on the 25th, snuff three times, not one fit; on the 26th, the same dose and result; on the 27th, the same dose, one patient had a very severe fit in the afternoon, and ordered her to have the snuff more frequently; on the 28th, the same patient had a fit at the same time as the day before, but was quickly brought out of it by the use of ammonia. I need scarcely say that I have been highly surprised, and at the same time gratified, at these results. Before commencing the trial of the snuff and the ammonia, not a day passed without at least one, but generally two or three fits. The attendant is quite surprised, and enters so zealously into the plan of treatment that I have every confidence in the facts being so, more especially as I watch the cases with great care and considerable anxiety, being afraid that we are only postponing the fits, and that the time will come when we can no longer avert them, and that then they will be all the more severe. This is as to the female patients. As to C—— R——, I have failed in the meantime. The first day I gave him the composition he had three very severe fits, and the next he was as bad. I have never ventured to try it again; but I think he has had fewer since he had the snuff than he used to have. I may state that I think the snuff, though causing sneezing, is the best for keeping off the fit, whilst the strong liquor ammoniæ is the best for bringing them out of it. I am more convinced than ever of its efficacy in shortening the paroxysm and the comatose state after it. I shall be very glad to hear from you, and try anything you may suggest. Meanwhile, I shall carry on the experiments with the greatest interest and pleasure."

Doubtless, it is very necessary to be slow in drawing conclusions as to the results of treatment in epilepsy. Experience amply proves that the hope and mental excitement which the trial of a new remedy excites in the patient are of themselves, for a while at least, powerfully curative; hence the multitude of infallible remedies for epilepsy. In few, if any, of the cases referred to was a cure expected; they were all too complicated and of too long standing. But the experiment proved, in the case of C—— R——, a sort of *experimentum crucis* as to the influence of the method of treatment, in some cases at least. His was apparently of the worst kind; the fits were of long standing and very frequent; no means had been of use; and he was, in fact, reduced to such a state of dull stupidity that he could have no knowledge that a new method was being tried; and it was tried, indeed, with hardly the slightest hope of benefit resulting. Hence any good he derived could only be referred to the treatment. His nostrils were so anæsthetic that the ordinary mixtures had no effect in producing irritation. I therefore cautiously placed some of the pure powdered white hellebore just within the nostrils, and thus caused free sneezing. Dr. Saidler repeated the doses from time to time. The result was that when I introduced him to my clinical class in the following May (1861) he had not had a fit for six months, and was transformed from the stupid drivelling epileptic to a joyous "master merryman," and repeated some comic verses to us with much humour. He remained well for about a year, when he gradually relapsed into his old state, and died about two years after.

I now sent to Dr. Saidler packages of purely medicinal snuffs, compounded of asarum, or hellebore, or arnica, so as to try whether different results would follow. Generally, they failed to produce sneezing, and the good effects were not so marked as when sneezing resulted, but still "sufficiently hopeful." After various trials, I have found the following a safe formula for a sternutatory:—℞ Pulveris cinchonæ, ʒss. Pulveris hellebori albi, gr. x., misce intimè. Signa. "The *sneezing powder*.—A very small pinch to be placed just within the nostrils three times a-day, so as to excite frequent sneezing for ten minutes. To check the sneezing, if necessary, wash out the nostrils with cold water snuffed up." I have seen dangerous sneezing excited by the powdered hellebore. It would be easy to devise other formulæ. The Greek Physicians prescribed pepper, euphorbium, soapwort, gith (or *nigella sativa*), elaterium, and castor in powder. They also injected the nostrils with the juices of pimpernel, leeks, and other plants, and mixed the juice of elaterium with milk for an injection. Aretæus mentions in his chapter on the treatment of cephalæa a syringe with two delivery pipes, made expressly for the nostrils. He also blew powders up the nostrils through a reed or quill, and applied ointments and liniments within the nostrils by means of a feather. Any irritant thing easily removed and manageable as to its effects on the mucous membrane would, doubtless, serve the purpose. Aretæus ascribes, however, valuable uses to powdered castor beyond its mere effects as an errhine or sternutatory.

Mechanical Irritation of the Nostrils.—In so far as the irritation of the nostrils by irritant drugs is curative, we can substitute mechanical irritation for them. The act of sneezing requires a co-ordination and harmonising of numerous groups of muscles, and probably the change in the nerve-centres that induces this arrests also the defect in the regulating centres, which I have shown to be the chief element in the production of epilepsy. I have accordingly tried irritation of the nostrils with a feather or a quill. A young lady had an attack of the *petite mal* while seated at table. I instantly irritated the nostrils mechanically by scratching them, and in a few seconds she was restored, but without the slightest knowledge of what had happened. On a previous occasion a like attack

had passed into convulsions. A young gentleman had a very similar attack in my presence, but with slight facial convulsions, and the fit was ended in a few seconds by the same means. That the irritation is the effective element in the treatment, is further shown by the fact that the *throat* may be irritated with advantage in other paroxysmal affections. There is a kind of hysteric fit in which the patient seems to be strangling, for she "fights" with her hands about the windpipe, and also appears to be partly unconscious. In these cases I have found it successful treatment to irritate the throat with a feather, so as to excite retching. So soon as this happens, the patient heaves a deep sigh, and is at once relieved from the fit, much to her apparent surprise. I have tried this plan for many years, and I conclude from certain statements made by Aretæus and Paul of Egina that a like procedure was anciently found of use in certain head-affections—viz., epilepsy, tetanus, and vertigo. The burnt feathers and the fetid things used from time immemorial may have a double effect. They may excite the same nausea and retching which tickling the throat excites, and thus harmonise the disordered nerve-centres into a physiological act. And they may also act as irritants on the pulmonary membrane, for I have reason to think that bronchial irritants may be beneficially used in these cases. It is necessary to remember, in treating epilepsy by nasal irritants, that the nostrils have often such a dull sensibility that sneezing cannot be excited, and that this state is worse just before, or on the accession of, the fit. The inhalation of the vapour of ammonia is a wholly different thing, and has probably a different mode of action on the medulla oblongata, since the vapour must, in part at least, reach the laryngeal or bronchial mucous membrane, and act through that on the medulla oblongata.

(To be continued.)

CASE OF

APOPLEXY, WITH PARALYSIS OF THE RIGHT SIDE, CURED BY APPLICATIONS OF HEAT AND COLD ALONG THE BACK.

By JOHN CHAPMAN, M.D., M.R.C.P.

W. H., A GENTLEMAN, aged 55, suffered during the evening of December 2, 1864, from an attack of diarrhœa—a malady to which he is peculiarly liable, and which in his case seems to be of a peculiar character: it is accompanied with extreme and remarkably persistent abdominal pain, which, so far as I can learn, is not of a spasmodic kind.(a) The pain continued from 9 p.m. to 1 a.m. Late at night the diarrhœa was followed by vomiting, which occurred about ten times. At 2 a.m. he said that he was paralysed, and requested a Medical man to be sent for. He became rapidly worse, and very shortly after having expressed a wish for Medical aid lost the power of speech. As the Physician sent for resides near the patient, he speedily arrived. He surrounded the patient's feet with mustard plasters; gave, I believe, some homœopathic medicine, and pronounced the case a very serious one. At his suggestion my advice was requested; he then ceased to visit the patient, whom I saw for the first time at 9.30 a.m., December 4. I found him in a state of profound stupor. He did not respond in any way to the questions put to him, and could not be roused up. The right arm and leg were paralysed; the leg less completely so than the arm. If the forearm were raised vertically it immediately fell like a dead mass, and when the hand was pinched severely there was no evidence of sensibility; only when I made my thumb and finger nails nearly meet in the skin was there the faintest sign of feeling. The sensibility of the leg was much more obvious. The left hand was of a markedly dusky hue; the nails of the same hand were slightly purple; the temperature of the left side was considerably lower than that of the right; and the pulse, which was 82, was much feebler at the left than at the right wrist. The head was hot. Both eyes were closed; the left one was protruded abnormally, and slightly lacrymose; the face was drawn to the left side.

The patient's wife stated that about seven years ago he became giddy on two or three occasions while on the top of an omnibus, and nearly "fainted;" that once he did actually "faint;" that he was known to have had like attacks, approaching to fainting-fits—in all, about six, at different periods during the last seven years. After smoking he often became "ghastly pale, and, indeed, perfectly blue." It is unknown whether on these occasions he ever lost his consciousness. Fifteen months ago he was troubled with attacks of "giddiness" six or seven times a-day; the attacks began to be frequent, his wife thinks, about a year previously. Latterly, they have been less frequent. Two years ago he had a slight attack of paralysis while at his office, but speedily recovered.

I removed the mustard from the feet at once, every vestige of it being carefully washed away, in order to prevent any centric irritation from that source. I then applied a spinal water-bag, small size, the temperature of the water being about 120° Fahr., to the cervical and upper dorsal region of the spine. In less than twenty minutes the head had become much cooler than before. The bag was ordered to be refilled at frequent intervals with water at 120°, and to be applied continuously during the day so long as, or whenever, the head should be found hotter than natural. A spinal ice-bag was also ordered to be applied at once to the lower dorsal and to the lumbar region, to be kept on during three-quarters of an hour, and to be re-applied during the same length of time in the afternoon.

On revisiting the patient at 7 p.m., I found the head comfortably cool. He evinced the presence of some degree of consciousness by making a slight voluntary co-operative effort when his body was raised to apply the bag, and again when he was moved from one side of the bed to the other while the bed was put in order. The water-bag was ordered to be applied as before, every two hours throughout the night, and the ice-bag also as before—once the same evening.

Dec. 4, 9 a.m.—Head cool; face much less drawn to left side; for the first time since the attack the bladder has been relieved copiously, the urine being of a very high colour. Evidences of the return of consciousness are increasing. To continue the application of the water-bag whenever the head becomes hot; to apply the ice-bag as before, twice during the day; and to give an enema of warm water with a little soap dissolved in it. ℞ Liq. am. acet., ʒjss.; mag. sulp., gr. xv.; ammonii brom., gr. v.; ammoniæ sesquicarb., gr. ijss.; pot. bicarb., gr. v.; aquæ, ad. ʒj.; sextis hôris.

5th, 10 a.m.—The face is nearly symmetrical; the tongue is freely protruded; bowels have been opened twice; urine of natural colour, or even paler than natural. The patient's son, who sat up with him last night, is astonished by the power of the water-bag in reducing the heat of the head, and volunteers the statement that when his father's breathing was stertorous, the application of the bag speedily caused it to become quite tranquil. The ice-bag to be continued as before; and the water-bag when its need is indicated by the temperature of the head. Repeat the saline mixture, omitting the sulphate of magnesia, and half the bicarbonate of potash.

6th.—Is decidedly better; he answers questions rationally, though chiefly by "No" and "Yes," and bade me "good morning." The head is normally cool, and has never been so warm during the night as to necessitate the use of the water-bag. The dusky colour of the left hand has disappeared; the pulse, which is 72, is nearly as strong in the left wrist as in the right, and a difference in the temperature of the two sides of the body can no longer be detected. Bowels open; urine natural. To continue in all respects as before.

7th.—Improves steadily; asks and answers questions intelligibly, although there is great mental feebleness. Can open and shut his right hand fairly well, but cannot bring the tip of the forefinger in apposition with the thumb. Head, and body generally, cool; pulse 72. To omit the saline. ℞ Ammonii bromidii, gr. v.; ammoniæ sesquicarb., gr. iii.; infusi calumbæ, ʒj., ter die. To give freely of nourishing food.

10th.—Talks with increasing facility. The temperature of the whole of the body is lower than hitherto; pulse 62. To apply ice along the whole spine during fifteen minutes three times a-day, and to continue giving ample nourishment: meat three times a-day.

13th.—Got up and sat in his chair about a quarter of an hour yesterday, and was up an hour to-day. Power of right hand so improved that yesterday he became enabled to button his left wristband; pulse 74. Treatment as before.

15th.—Still better; dressed and undressed himself to-day; read *The Times* for half an hour—evidently understanding, at least in part, what he read. Pulse 80; urine of deep colour. To apply the spinal ice-bag only twice a-day. ℞ Liq. ammon. acet., ʒij.; pot. iod., gr. ij.; pot. bicarb., gr. v.; aqua ad., ʒj., ter die.

(a) The patient's mother was liable to precisely the same kind of diarrhœa, and his brother, a Medical man, died of it.

28th.—Is physically stronger; walked about the dining-room easily and steadily; he talks more freely, and answers questions with facility; pulse 84; bowels open. Treatment as before.

January 23.—Walked between one and two miles two days in succession; urine turbid; pulse 84. To apply ice in each cell of the ice-bag only once daily—viz., during half an hour before rising; to continue the saline mixture each evening only, and to take ferri et quinæ citratis, gr. v., each day at noon.

30th.—Reports himself very well, and looks so; can now stand some seconds on his right leg; still a little awkward with the right forefinger and thumb, although they can now be brought into firm opposition with each other; cannot shave the upper lip, and hold his knife at table as a child does; has now become impatient at wearing the ice; the very slight remnant of paralysis in the right forefinger and thumb makes me wish that the ice-bag should be continued once daily a short time longer; but I assented to its discontinuance, ordered the medicines last prescribed to be taken during a few days more, and on this occasion took my leave of the case.

February 25.—He called upon me; reported himself quite well; impressed me as being so both mentally and physically. During the whole period of convalescence he has not had a single attack of "fainting" or "giddiness," although previous to treatment such attacks, as already stated, occurred with alarming frequency.

I have now under my care a case of apoplexy, the symptoms of which contrast in a striking manner with those of the case just described, and the treatment of which has been correspondingly different. The patient, a stout woman, aged 60, had several attacks of what were described as "something like fainting fits," and one of deep drowsiness, from which she could only be roused with difficulty, and which lasted the whole day. She also suffered great pain on the left side of her head. Her malady was regarded by her Medical attendant as neuralgia, and was treated as such, quinine and wine being given in large quantities. Having previously become considerably better during a few days, she was taken down to Brighton. In the train she complained again of violent pain in the head, was excessively flushed, had a dull, heavy expression, and at 7 p.m. of the same day (March 13), while staggering towards the bed, exclaimed, "Oh, my head! my head!" and fell into the arms of two women who happened to be near her. The Physician who was immediately called in said she was dying. He stayed with her till 3 o'clock of the following morning, and, on leaving, sent a woman to "lay her out." As stated by a spectator, "she gasped, seemed to breathe only at intervals, was blue round the mouth, clayey looking, the whole features seemed to sink, her head, shoulders, arms, and legs were quite cold, and her face was covered with clammy sweat." She remained in this state during forty-eight hours. At the end of that time I visited her. The head and face were strikingly cold and death-like; the eyes exuded a thick gluey fluid; the left pupil was dilated and immoveable in the presence of light; the right pupil was contracted; the right side was more dusky and somewhat colder even than the left; the face was drawn to the left side. On tickling the soles of the feet there was very slight movement of the left foot; none of the right.

In treating the case reported above, my object, in the first instance, was to effect the contraction of the cerebral blood-vessels, and thus to lessen the amount of blood in the head; but in this case my whole effort was directed to produce alternate contraction and relaxation of the blood-vessels, in order to effect movement of the stagnant blood within the skull. As the case is still under treatment, I defer publishing a detailed account of it until further progress has been made; meanwhile, however, I may state the chief results which, up to this date, have been obtained. Within fifteen minutes of my first application to the spinal region, an area of about two and a-half inches in diameter in the middle of the forehead became quite warm. Before twelve hours had elapsed the whole head and face became warm; and within twenty-four hours, or by the evening of March 16, her whole body was warm. On this day she saw a cup of beef-tea in the hands of an attendant, and opened her mouth as if asking for it. The same evening she was believed to have recognised her daughter.

On the 19th, when asked whether she would have some broth, and whether she knew her daughter, she answered "Yes."

26th.—A gentleman who went to see her asked her if she would shake hands with him; she unmistakeably put out her hand, and said "I will;" and when the Medical attendant told her to put out her tongue, she made an attempt, though rather unsuccessful, to do so.

29th.—The report says,—"Her eyes are clear and bright; she eats well of chicken and lamb. She appears to understand all that we say to her, and she will smile at a little joke."

April 3.—Is still progressing; looks intelligent; shows decisive likes and dislikes of the different kinds of food offered to her; she put out her tongue, and moved it about at my request, and, when I left her, grasped and shook my hand. The whole body continues warm: during the last ten days it has not once been necessary to apply warmth to the feet. The left pupil appears to me as small as the right, and is equally contractile.

May 1.—I received a report that she is improving in all respects. She has now voluntarily moved her paralysed arm and leg. The writer adds:—"I saw her move her fingers. She is much more intelligent than when I saw her rather more than a week ago."

25, Somerset-street, Portman-square, W.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

CEREBRO-SPINAL MENINGITIS (?) IDIOPATHIC.

(Under the care of Dr. MARTIN.)

The following case will be read with interest at the present time in connexion with the reports of recently prevailing epidemics of cerebro-spinal meningitis in Prussia and America. Dr. Murchison thinks these epidemics are really epidemics of typhus. For his opinion on this subject we refer our readers to the report of the Pathological Society, p. 479. In the following case, however, Dr. Andrew, to whom we are indebted for the following report, tells us that, after the most careful investigation, there was not the slightest evidence of any source of infection. Inquiries were made at the model lodging house from which the patient was brought, but there had been no case of typhus in that institution. It was also ascertained that no one had been admitted from it into the London Fever Hospital. Meningitis of any kind is rare in a patient 16 years of age; but cases of this kind in which there was not only no tubercle in the brain, but also in no other part of the body, are exceedingly rare. The rapid course of the disease is also very remarkable.

Clara L., aged 16, admitted into St. Bartholomew's Hospital, under Dr. Martin, April 13, 1865.

History.—Was quite well up to April 10; on that day was obliged to leave her work at a sewing-machine about 11 a.m., in consequence of headache and sickness, but was still able to walk home, though with difficulty, from Hoxton to St. Pancras-square, near King's-cross. According to the statement of her sisters, she complained in the course of the day of feeling cold; towards evening vomited frequently; and, the next day, the 11th, she became violently delirious, so that they had some trouble in keeping her in bed. The sickness ceased on the morning of the 11th; the delirium continued. She was the youngest of five children, the other four all healthy. No history of exposure to any infection could be obtained; but she had been greatly heated and fatigued on the 9th. No detailed note was taken on the day of admission, but her general condition and decubitus were apparently the same as on the following morning. The temperature in the axilla was 103 F.; pulse 105, small; the bowels acted twice within an hour of admission, the motions scanty, dark, and powdery. She answered questions readily and sensibly, but had completely forgotten all that had occurred between her reaching home on the 10th, and her arrival in the ward, not knowing where she was, or remembering even her being brought to the Hospital.

April 14.—A well-nourished girl, of fair complexion, frequently changing her position in the bed, but lying generally about two-thirds turned over towards the left, with the head drawn backwards as far as possible between the shoulders, the back also being slightly arched. Her friends first noticed this peculiar position on the 12th. The head retains this position

during sleep, but during the act of deglutition is brought somewhat forwards. She is unable to remain for any length of time on her back, on account of the increase of pain which any strain upon the muscles at the back of the neck occasions. She occasionally wanders, talking incoherently; complains of continual pain at the nape of the neck, and of intermitting pain in the head. There is no tenderness over the spinal column, but slight over the abdomen. Face flushed; eyes slightly suffused, with slightly dilated pupils, both equally so; respiration hurried, shallow, interrupted by a slight dry cough; lips dry and peeling; tongue dry, and thickly coated with yellowish-brown fur. Has taken milk, beef-tea, etc., readily and with ease. Bowels have acted once in the course of the night, motion relaxed; has passed a fair quantity of urine voluntarily; slept quietly, not wandering or talking; heart and respiratory sounds natural.

15th, Saturday.—Decubitus the same as yesterday; still complains of the pain. Bowels acted twice; motions relaxed, of a bright yellow, and slimy (had taken a grain of calomel the previous evening); is thirsty; swallows easily. Skin hot; pulse 96, of greater volume. Catamenia appeared early this morning (she expected their return in the course of this week). Passed a very bad night, screaming continually till about 5 a.m., when she dozed for a short time, and has since been less violent. About 3 p.m. the respiration became embarrassed and noisy. She could still swallow easily; the feet cold, the face gradually more and more livid. A few minutes after 6 p.m. she was attacked by slight convulsive movements, most marked in the muscles of the face, which lasted up to her death at 6.50 p.m. The face became of a livid purple. She retained consciousness almost up to the setting in of the convulsions, requesting that her father might be sent for, and giving his correct address to the sister of the ward. The sphincters retained their power to the last. The most careful examination failed to detect any rash during the time she was under observation.

Autopsy Forty Hours After Death.—Rigor mortis well marked. The thumbs slightly flexed upon the palms; muscles of back natural; scalp congested and œdematous. The sheath of the cord contains apparently about the usual quantity of fluid, but what there is is milky and opaque. The membranes of the upper portion of the cord are greatly congested; at the level of the foramen magnum is a little greyish transparent lymph on the posterior aspect, and there are numerous delicate adhesions in the spinal arachnoid in the upper cervical region. The cerebral convolutions are slightly flattened; in the right hemisphere, about its centre, a considerable tract of the white matter presents a yellowish tinge. The septum lucidum and pillars of the fornix are soft, but entire; the vessels of the thyroid plexus and velum interpositum greatly congested; the walls of the ventricles appear natural, and they contain about the usual quantity of clear fluid. There is some slight opacity of the arachnoid at the base; no tubercle detected anywhere, except perhaps in a gland by the side of the trachea, which contains a putty-like mass. The spleen weighed 5½ oz., was pale and soft, almost pulpy; liver and kidneys greatly congested; supra-renal capsules natural; no change in Peyer's patches. In the right ovary there was a small recent clot, and also in the interior of the uterus. There were loose clots present in the heart and large veins, but the greater portion of the blood was fluid.

SAMARITAN HOSPITAL.

CASES OF OVARIOTOMY.

(Under the care of Mr. SPENCER WELLS.)

Case 1.—*Multilocular Ovarian Cyst—Once Tapped—Ovariotomy—Septic Peritonitis—Tubular Clot in the Heart.*

On the 8th of August, 1864, an unmarried servant, 21 years of age, was sent to Mr. Wells by Mr. Cooke, of Charlwood-street, and admitted into the Samaritan Hospital suffering from ovarian disease. She had a cheerful face, and did not appear much brought down by her disease. The appetite was bad and the bowels confined; the nervous, respiratory, and circulatory systems were in good order. The urine was normal in quantity, and contained no albumen. The girth at the umbilical level was 35 inches, the distance from the ensiform cartilage to the umbilicus 7 inches, from the umbilicus to the pubic symphisis 8 inches, and to each iliac spine also 8 inches. The abdomen was occupied by a large fluctuating tumour. There was a little tenderness on pressure, but no crepitus. The abdominal parietes were of the normal thickness, and neither showed traces of lineæ albicantes nor of dilated veins. The tumour was quite unattached to the abdominal wall. The catamenia had always been regular, neither in excess nor scanty; there had never been any sudden suppression. The uterus was far back, but moveable; the tumour could be indistinctly felt in front of it. The patient was born at Brighton, of a healthy stock, and for the most of her life had acted in the capacity of housemaid in a gentleman's family. She never had any serious illness, but, on the contrary, was habitually in the enjoyment of good health. On June 13, 1864, she experienced considerable pain in the left iliac region; the pain was, indeed, so severe that she was confined to bed. There was no pressure on the bladder, no constipation, no fulness in the breasts; nothing but pain and a sense of weakness and numbness in both legs. On June 20 the patient discovered a tumour in her abdomen. At first on the left side, it quickly gained the median line, and at the same time increased very rapidly in size. The treatment which had been pursued was entirely Medical. In order to see what could be gained by tapping, on August 11 Mr. Wells removed twelve pints of very thick fluid, evidently ovarian. The patient was relieved, and was discharged three days after the tapping. The cyst refilled, and she was re-admitted on December 6. Mr. Wells wrote down this diagnosis in the Hospital book:—"Ovarian cyst. One large cyst refilling after tapping. Secondary growths both in right and left ilio-lumbar regions. No important parietal or pelvic adhesions. Uterus healthy."

On December 14, 1864, he extirpated the tumour. Dr. Wilson, of Glasgow, and others were present. Dr. Parson gave chloroform. The incision extended downwards four inches from one inch below the umbilicus. There was a thick layer of fat both beneath the skin and between the peritoneum and recti muscles. There were no adhesions. The pedicle sprang from the left side of the uterus; it was three inches long, and was easily secured in a small clamp, and fixed externally without causing traction. The right ovary was found to be healthy. There was no hæmorrhage; and the wound was closed by one deep and two superficial sutures below the clamp, and three deep and two superficial above it. The only peculiarities of the operation were the thick layers of fat in the parietes and the fact that the stump of the pedicle lay in the middle of the wound instead of, as usual, falling into its lower angle. During the operation five to six pints of very viscid dark fluid were drawn off, and the remaining mass weighed from three to four pounds. The operation was performed at 2.30. Four hours later the pulse was 100, the urine clear and plentiful, and there was slight pain. At half-past 8 the patient was sick once. The pulse was 112. Twenty drops of opium were ordered. During the whole of the next day the state of the patient was most satisfactory. The skin acted well; there was no great pain; and the urine was abundant. At night the pulse had risen to 130; the patient complained of thirst and some flatulence, but seemed very well.

On the second day the urine was loaded with purplish lithates; there was no sickness nor tympanites; but thirst was troublesome. At 8 p.m. there was a good deal of oppression, flatulence, and thirst; the pulse was 140; the respiration 36; the tongue coated, but not dry. Champagne was given; it relieved the thirst; and at 11.30 p.m. the pulse was only 128. The patient slept a little during the night, having taken twenty drops of laudanum. Next morning she was worse. The pulse was 150; the abdomen tympanitic; the vomiting frequent. At 1 p.m. the pulse was 148, very irregular in force; the respiration shallow. Mr. Wells opened a vein, and drew five ounces, by weight, of blood, which coagulated with a firm clot, having a slight coating of fibrine on the surface, and very little serum separating. Poultices were ordered to the abdomen and mustard to the back. A one-grain opium pill was given, but was immediately vomited. The urine was now scanty and albuminous, containing excess of uræmatin. After the bleeding, the pulse became feebler and more rapid. It rose to 160. The urine, however, contained less albumen and uræmatin. Vomiting became more frequent, the gradually darkening hue of the rejected matters showing how much the stomach was suffering from its efforts. A vain attempt was made to keep up the strength by nutritive and stimulating enemata. The patient dozed a little after having had twenty drops of laudanum by the rectum and a plentiful sprinkling of the same on the poultices. The pulse became almost imperceptible. There was a slight discharge from the abdominal wound, and Mr. Wells took off the clamp, after having secured the stump with

a ligature. No more fluid came away, although he introduced an elastic tube into the peritoneal cavity, and tried to pump it out with a syringe. The patient died on the morning of the fourth day, ninety-three hours after operation.

The body was examined twenty-two hours after death by Dr. Parson. He reported as follows :—"Body well nourished, fat plentiful, muscles averagely red. The wound had not united, and looked sloughy on its peritoneal surface. The pedicle was long and thin, and sprang from the broad ligament, and was well secured. The uterus was normal, the left ovary apparently so. The intestines were distended with flatus, and very vascular. The peritoneum was covered all over with recent lymph, which in some places was a little tough and organised, but in the majority thin and purulent—so much so that about a teacupful of this sero-purulent fluid was diffused in the belly. The descending colon, sigmoid flexure, and rectum were very small, and contracted. Heart. —Valves normal, nothing in left side, a clot in right side. Substance of heart perfectly firm. A good deal of dark blood in the cavæ semi-clotted, and some in the right auricle. The clot is greater in the auricle than in the ventricle; it is of ante-mortem nature. Cause of death.—Diffuse low peritonitis, possibly of septicæmic origin, with fibrinous deposition in heart."

Dr. Parson exhibited the heart at the Obstetrical Society as an excellent example of ante-mortem clot. The mass of fibrine was distinctly tubular, the current of blood from the ventricle into the pulmonary artery having clearly passed through the clot. Mr. Wells stated at the Society his opinion that the low form of peritonitis and septicæmia in this case partly depended on the low vital powers of the patient, and partly on the state of the Hospital at the time. In an adjoining ward a patient had erysipelatous phlebitis after removal of part of a uterine growth, and in a ward below, scarlatinoid pyæmic fever followed amputation of the cervix. There was nothing observed at the post-mortem connecting the death with ovariotomy, except indirectly through this septic peritonitis. The only object of the bleeding was in the forlorn hope of giving mechanical relief to the lungs and kidneys. The latter object was effected, for the urine at once became more copious, and the quantity both of albumen and uræmatin lessened. The progress of the deposit in the heart was traced very accurately from failure in intensity of the first sound till it became quite inaudible.

Case 2.—Adherent Multilocular Cyst—Four Tappings—Ovariotomy—Recovery.

On December 29, 1864, an unmarried schoolmistress, 24 years of age, who had been sent to Mr. Wells by Dr. Robbs, of Grantham, was admitted for ovariotomy.

The patient was feeble and strumous-looking, with a hectic flush on each cheek. Her extremities were habitually cold, but there were no night sweats, no eruption, no œdema, and no varicose veins. She occasionally had a troublesome cough, and expectoration was free, especially at night. On percussion, the left side of the thorax was duller than the right, and expiration was a little prolonged in the left lung. Dr. Parson, who examined the chest, thought that there was "no tubercle, unless in small quantities and scattered." The heart's sounds were normal, but the heart was evidently displaced upwards, the apex being felt between the third and fourth ribs. The liver was displaced upwards, as was also the stomach and the transverse colon. The urine was of specific gravity 1015, and contained no albumen. The girth at the umbilical level was thirty-six and a-half inches, the distance from the umbilicus to the ensiform cartilage nine inches, to the pubic symphisis eight and a-half inches, and to either ilium eleven inches. The whole abdomen was occupied by an irregular tumour, which in some parts was fluctuant.

Her parents were healthy; but three of her sisters had died of phthisis. She herself had always enjoyed good health, and had regularly menstruated up to Christmas, 1863. About this time the body began to enlarge without any appreciable cause. Pain was felt in the left side, tolerably constant, and acute occasionally. By March, 1864, the swelling was chiefly felt on the right side of the abdomen. It steadily increased in size, and became fluctuant. In October, 1864, and again in November of the same year, Dr. Robbs tapped, drawing off on each occasion about twelve pints of thick clear fluid.

After her admission into the Hospital there was a little swelling observed in the left leg. Other symptoms were become urgent, and on January 4, 1865, Mr. Wells tapped and removed seventeen pints of fluid. After the tapping the crural phlebitis on the left side increased, and the leg and thigh were much swollen. The heart and liver descended a little, and the general health improved. The cyst, however, refilled, and on January 30 Mr. Wells tapped again, and removed eighteen pints of white glutinous fluid, similar to that which had before been evacuated. After the tapping, groups of cysts, irregularly disposed and evidently adhering in many places to the parietes, were felt filling the whole of the epigastrium, and, on the right side of the median line, reaching several inches above the umbilicus. The uterus was high, and to the left side; its mobility was restricted. The os was small and virginal. The tumour was felt on the right side of the uterus, pushing that organ to the left. The tumour was scarcely below the brim of the pelvis. Mr. Wells's diagnosis was, "Multilocular ovarian cyst; parietal adhesions; pelvic attachments possible, but doubtful." He thought that ovariotomy was the only resource, but that the feeble state of general health and displacement of thoracic viscera lessened the chance of success. After the last tapping the heart beat a full inch lower than it had done before; but the apex of the left lung was still duller than the right.

Mr. Wells performed ovariotomy on February 15, Dr. Dehn, of Hamburgh, and other visitors being present. Chloroform was given by Dr. Parson. The incision was carried downwards for five inches from one inch below the umbilicus. There were extensive adhesions above and to the right side as well as to the brim of the pelvis, and, in one place to a piece of omentum. They gave way easily to the hand. Having tapped a large cyst, and broken down a second inside the first, the tumour was drawn out. The pedicle was three to four inches long. It sprang from the left side of a very long thin uterus. It was secured in the smallest clamp, and kept outside without traction. There was a very little oozing from from the adhesions. The blood was carefully sponged away, but no vessel required ligature. The right ovary was felt to be healthy. The wound was closed with five deep and three superficial silk sutures. About twenty-two pints of fluid were evacuated at the operation, and the more solid remainder of the tumour weighed seven pounds.

The patient rallied well, complained of little pain, and only required a single opiate. The stitches were all removed on third day, when there was a little tendency to prolapse of the pedicle. Mr. Wells removed the clamp on the eighth day. The bowels acted for the first time on the thirteenth day. There had been no uneasiness from the prolonged constipation. The patient left the Hospital four weeks after the operation, and called on Mr. Wells on March 16 in excellent health. She then returned to Grantham, and has been heard of since as quite well. The diagnosis in this case was well borne out. The adhesion low down to the right side quite explained the pushing of the uterus upward and to the left.

(To be continued.)

ST. THOMAS'S HOSPITAL.

TYPHLO-ENTERITIS—DEATH—AUTOPSY.

(Under the care of Dr. PEACOCK.)

The following case affords an example of perforation of the appendix vermiformis, leading to a communication between the cavity of that body and the peritoneal sac, and so inducing fatal peritonitis. In the majority of such cases the perforation is due to inflammation set up by the presence of some foreign body, as when a mass of indurated fæcal matter becomes imbedded in the appendix. No such foreign matter was found in this instance; but it is possible that a stercoraceous mass might have existed, and have become broken down so as to escape observation. The occurrence of marked symptoms of obstruction of the bowels on two occasions without any mechanical impediment having been met with is a noticeable feature in this case.

A boy, aged 10, was admitted into St. Thomas's Hospital, under the care of Dr. Peacock on January 2, 1865. He was then labouring under symptoms of peritonitis, with obstruction of the bowels, and stated that he had been suddenly seized on December 28 with pain in the abdomen, sickness, and vomiting; and as his bowels were confined, a powder was given to him. This produced no effect, and was repeated the following day, and as no satisfactory result ensued, castor oil and an injection were subsequently administered. No evacuation was, however, obtained, and the pain and vomiting continued, and he was sent to St. Thomas's. When seen by Dr. Peacock he was greatly exhausted, the pulse at the wrist was

scarcely to be felt, and the extremities were cold and livid; his face was flushed, and he had constant vomiting and great pain in the stomach, and the abdomen was tumid and very tender; the matters vomited were fluid, and of a brown colour, apparently containing bile and blood, but had no fæcal smell. He had passed but little water. Leeches and fomentations had been applied and he had taken some calomel, but without any action being produced on the bowels. He was directed to have opiates, which relieved the pain and sickness, but were not otherwise beneficial, and he died on the second day after being seen.

It appears that he had previously, in August, 1864, been in the Hospital, under the care of Dr. Bristowe, and then laboured under similar symptoms, which were relieved by aperients and opiates.

The post-mortem examination was performed by Mr. Rayner, the Medical registrar of the Hospital, after the body had been removed to the boy's home, and the following are the notes he took:—

Autopsy.—Heart, lungs, kidneys, liver, and spleen, healthy; the abdomen was tumid, and the great omentum was adherent by its edges to the abdominal wall, the cavity being thus divided into two portions—an upper which was free from all traces of inflammation, a lower which contained fluid not in large amount, but thick and creamy, equally diffused, nowhere tinged with fæculent matter. The intestines in the low parts were covered with recent lymph, by which they were slightly adherent to one another. On examining the vermiform appendage its extremity presented an opening communicating between the intestine and peritoneal cavity; the extremity of the appendix seemed to have had its cavity dilated, but no foreign substance could be found either in it or in the abdominal cavity; fæcal matter was traced through the whole length of the intestinal canal; the head of the colon contained some, but was not distended.

WESTMINSTER HOSPITAL.

VARICOCELE TREATED BY PERMANENT SUBCUTANEOUS LIGATURES.

(Under the care of Mr. CHRISTOPHER HEATH.)

Obliteration of the spermatic veins for the cure of varicocele is now a frequent operation; but the mode in which the result is effected is modified by different Surgeons. Mr. Holt has lately, in several instances in the Westminster Hospital, employed the subcutaneous ligature, which has been left permanently *in situ* with the best effect. We publish to-day a case in which Mr. Heath adopted the same plan with success.

G. W., aged 35, admitted into Mark Ward, December 12, 1864, with varicocele of left side, which had existed some years. Masturbated when a boy, but married at 23, and has had seven children. Has noticed enlargement of left side of scrotum for last ten years, but has had no pain except in very hot weather and when he walks very much.

On admission, the left spermatic veins were much enlarged and the vas deferens thickened. The left testicle hangs much lower than the right, and is softer, but not smaller, than the right.

December 13.—Mr. Heath ligatured the spermatic veins subcutaneously in two places. The upper ligature was of silkworm gut, the lower of silver wire. Both were cut close and drawn entirely under the skin.

15th.—Complains of pain in the abdomen and up the cord, but no signs of inflammation present. Veins of cord smaller than before.

26th.—Able to walk about. Great induration of cord between the two ligatures, which are now buried beneath the skin.

January 3, 1865.—Discharged.

February 10.—Came as out-patient. The thickening has nearly disappeared, and the veins of the cord appear to have returned to their normal condition. Has no inconvenience from either of the ligatures.

Deaths of Scientific Men in France.—To the already numerous list of these which have occurred recently we have now to add the death of M. Valenciennes, Professor of Zoology at the *Muséum d'Histoire Naturelle*, and of M. Léon Dufour, so well known by his writings on Botany and the Anatomy of Insects.

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Medical Times and Gazette.

SATURDAY, MAY 6.

THE LAST HOURS OF PRESIDENT LINCOLN.

Since that sad Sunday morning in December, 1861, when the whole English people awoke to learn the calamity that had befallen us in the loss of the Prince Consort, there never has been so wide-spread a sense of grief as that occasioned by the death of President Lincoln. Grief, too, embittered by the deepest humiliation at the idea that amongst any people of English lineage, amongst any free, out-speaking, self-governing race, there could be found any so base as to resort to the weapons of the assassin in a cause only to be settled by open debate or the still fiercer arbitrement of war. Not that we for one moment believe that the heroic people who have followed Stonewall Jackson and Lee could be guilty of a crime so base and cowardly. Certainly, too, nothing in the tone of English education, society, religion, manners, or sentiments can be in the least accused of fostering the sentiments of the assassin. True, schoolboys read of Harmodius and Aristogeiton, but they are never held up as models; whilst the very fact that a man or his father could bear such names as Junius, Brutus, Wilkes, shows that his sentiments may be in accordance with those of the baser populations of Southern Europe, certainly not with that of the English people, from the Queen over us to that of the lowest cads who make a ring in the streets for the love of a "fair fight."

The assassin, Wilkes Booth, son of Junius Brutus, tells the world, in a document (which some psychologists would probably consider as satisfactory a proof of insanity as the letters left by Townley), that he "waited," "hoped," and "prayed." It never seems that he worked or fought. Whilst others were sacrificing their lives, he was nursing his sentiments. Doubtless, like many other misguided creatures, whose ideas of glory are founded on French novels, he considered any powerful emotion a thing to be yielded to, and a justification of any crime he might commit. We earnestly hope that the doctrine of "doing duty" and of controlling passion will take the place of that of "irrepressible emotion."

Certainly no crime was ever arranged with more minute precautions to ensure the destruction of the victim and the escape of the murderer. Having access to the theatre by day, he deliberately surveyed the premises, placed the chair in which his victim was to sit, and made arrangements for opening the door of the lobby of the President's box himself and for barring it against entrance of others from without. Then at the fatal moment he got access to the lobby of the Presidential box, barred the outer door, shot the President *through the inner door*, rushed into the box past his bleeding victim, stabbed Major Rathbone, who tried to arrest him, and jumped upon the stage, making his escape with the theatrical flourish which we now know but too well.

The President, as we are told, "fell back in a state of syncope, totally insensible, and breathing slowly. The blood oozed from the wound at the back of his head. His eyes were closed and injected with blood, both the lids and the portion surrounding the eyes being as black as if they had been bruised by violence. For several hours the breathing continued regularly, and apparently without pain or consciousness. But about 7 o'clock a change occurred, and the breathing, which had been continuous, was interrupted at intervals. These intervals became more frequent and of longer duration, and the breathing more feeble. Several times the interval was so long that we thought him dead, and the Surgeon applied his finger to the pulse, evidently to ascertain if such was the fact. But it was not till 22 minutes past 7 o'clock in the morning that the flame flickered out. There was no apparent suffering, no convulsive action, no rattling of the throat, none of the ordinary premonitory symptoms of death. Death in this case was a mere cessation of breathing.

"On the next day, Surgeon-General Barnes, Dr. Stone, the late President's family Physician, Drs. Crane, Curtis, Woodward, Toft, and other eminent Medical men performed an autopsy on the body of the President.

"The external appearance of the face was that of a deep black stain about both eyes. Otherwise the face was very natural.

"The wound was on the left side of the head behind, on a line with, and three inches from the left ear.

"The course of the ball was obliquely forward, toward the right eye, crossing the brain obliquely a few inches behind the eye, where the ball lodged.

"In the track of the wound were found fragments of bone which had been driven forward by the ball.

"The ball was found embedded in the anterior lobe of the west hemisphere of the brain.

"The orbit plates of both eyes were the seat of comminuted fracture, and the orbits of the eyes were filled with extravasated blood.

"The serious injury to the orbit plates was due to the centre coup, the result of the intense shock of so large a projectile fired so closely to the head.

"The ball was evidently a derringer, hand cast, and from which the neck had been clipped.

"A shaving of lead had been removed from the ball in its passage through the bones of the skull, and was found in the orifice of the wound. The first fragment of bone was found two and a-half inches within the brain; the second and a larger fragment about four inches from the orifice. The ball lay still further in advance. The wound was half-an-inch in diameter."

Thus fell Abraham Lincoln, at the moment when he had achieved unexampled greatness. Not merely that he had commanded the largest armies in the world, or had subdued an heroic people of his own race, fighting for their very homes and liberties, but that in the moment of victory he thought of mercy. His best epitaph would be an admonition to his successor to follow his example.

MODERN DERMATOLOGY.—No. IV.

Though no one will dispute the assertion that the great majority of skin diseases are not mere local affections but own a constitutional origin, yet, as we have seen, it is as indisputable that it is not often possible either to say to what particular constitutional vice, defect, or taint a skin disease is due, or to use etiological affinity as a basis of classification for these affections. The modern French dermatologists have advanced farther in this direction than the English, and in addition to "scrofulous" and "syphilitic" affections, or, as they term them, "scrofulides" and "syphilides," recognise the "dartres" or "herpétides," and the "arthritides" as distinct and definite classes. M. Bazin is the special patron of the last-mentioned group; he affirms that "les affections cutanées d'origine arthritique constituent une famille tout aussi naturelle que elle des syphilides ou des affections parasitaires," but, notwithstanding his confidence that this opinion would be quickly shared in by all enlightened observers "de bonne foi et sans prévention," the arthritic group has not yet been nearly so generally recognised, even in France, as that of the "maladies dartreuses," "herpétides," or "dartres," and we think that no one will be surprised at this who will read M. Bazin's account of the "arthritides," or Mr. Williams's reproduction of it; the list of arthritides is a very long one, and includes, among others, erythema nodosum, urticaria, herpes, herpes zoster, pemphigus, intertrigo, pityriasis, psoriasis, prurigo, lichen, eczema, ecthyma, and furunculus: the simple truth, and the whole truth, is, we believe, that skin diseases are somewhat modified in appearance, course, and duration when they appear in persons of a gouty or rheumatic habit, and any Practitioner who has the sense to treat the patient, and not merely a disease of a given name, will recognise this, and regulate and vary his means accordingly.

M. Hardy's views have met with more general acceptance than M. Bazin's. His sixth class of skin diseases, "les dartres," comprises eczema, lichen, psoriasis, and pityriasis, which, according to him, "dépendant d'un état particulier, d'une disposition générale de l'économie, que l'on appelle diathèse dartreuse." The old French word *dartre*—whence our *tetter*—originally replaced the term *herpes*, and was employed to indicate "les affections cutanées chroniques ayant de la tendance à récidiver et à se généraliser," and popularly was applied to all inveterate and constitutional diseases of the skin. Willan and Bateman, finding the word had such a vague and indefinite meaning, rejected it altogether. Alibert attempted "de le zéhabiliter dans le langage scientifique," but it continued to have only a very vague and popular signification; scientific writers not making much use of it, partly because of its very general and undefined application, and partly because old authors had spoken not only of a *vice dartreux*, but also of a *virus dartreux*, manifestly a very incorrect expression, seeing that the dartres are not transmissible by inoculation. M. Hardy, rejecting altogether the idea of a dartrous virus, adopts the existence of a dartrous diathesis, of which eczema, lichen, pityriasis, and psoriasis are different expressions. How, then, does he describe this diathesis? "Nous appellerons *dartres*," he says, "affections de la peau à lésions élémentaires différentes, non contagieuses, se transmettant souvent par voie d'hérédité, se reproduisant d'une manière presque constante, présentant pour symptome principal des demangeaisons, disposées à s'étendre, à marche habituellement chronique, et dont la guérison a lieu sans cicatrices, bien qu'elles s'accompagnent souvent d'ulcérations:" these eruptions are due to the *dartrous diathesis*, which, indeed, "is often completely latent, but which, in a great number of cases, may, by careful observation, be recognised, even in the absence of any eruption, by particular characters and special accidents; its victims may possess apparently all the attributes of good health, but are nevertheless in a peculiar condition which is not perfect health; their general surface is dry, perspiration is with difficulty excited and quickly ceases; the skin is frequently the seat of severe itching, especially around the anus, even without any eruption, and it is extremely sensitive, so that very slight and passing causes, either general, such as alcoholic excess, coffee, shell-fish, etc., or local, as friction by the dress, the application of a plaster, etc., will excite an eruption, which, though ephemeral and not a dartre, reveals a peculiar predisposition of the economy and the existence of a latent defect which only awaits a favourable opportunity to manifest itself clearly; this arriving, the diathesis bursts forth:—"Elle est alors caractérisée par diverses sortes d'éruptions cutanées: vésicules, papules, squames, mais ces lésions élémentaries ne sont jamais isolées, de manière à former des éruptions à caractéres anatomiques constants. Le plus souvent, elles sont associées et unies, soit momentanément, soit pendant tout le cours de la maladie." Besides the characters already mentioned of the eruptions, they are marked by a great tendency to spread, and by itching, they generally affect a considerable amount of surface, either continuously or in patches; they often appear at several different parts at the same time; they are mostly symmetrical, and they often affect the mucous membranes. They run an essentially chronic course, and their cure is difficult.

It must be admitted that, apart from the actual presence of the eruptions, the "dartrous diathesis" has but a very vague and shadowy outline, and must be difficult to recognise and appreciate; and, even were the term accepted, it must not be forgotten that it is a mere phrase, arbitrarily employed to express a belief in the existence of a something of whose real nature we are absolutely ignorant — a convenient concrete expression of a theory. At the same time, it is undeniable that there are certain very common skin diseases, of which eczema is at once by far the most common, and *par excellence* the type, which, in their general characters, their natural course, and their behaviour under treatment, do present a very close family resemblance, and they may be very usefully and justly classed together; but, in the present state of knowledge, we prefer Mr. Wilson's mode of doing this; it is safer, we think, and quite as practically useful, to bring them together as "eczematous affections"—*i. e.*, "diseases having the character of eczema," than as so many expressions of the "dartrous diathesis." It is to be noted, in passing, that most of these modern dermatologists employ the term *Eczema* in a different sense from Willan, for they deny that it is essentially a vesicular disease; Hebra, Hardy, McCall Anderson, Wilson, and others teach that its elementary lesion "is not of necessity a vesicle, but may be an erythematous state of the skin, a vesicle, a pustule, a papule, or a fissure." It is only just to state that Dr. Tilbury Fox ably and very earnestly opposes these views, but we are disposed to side with those who give to the term eczema "a larger meaning and wider applicability" than it bore of old.

We have said that the skin diseases classed together by Mr. Wilson as eczematous affections are closely allied in their behaviour under treatment; and, in fact, when an eruption has been diagnosed as belonging to this class, the treatment required for its cure is at once known. In no part of dermatology has more marked, decided, and satisfactory advance been made than in its therapeutics. As skin diseases have been gradually rescued from the hands of empirics and mere specialists, and been recognised as diseases of the system, and worthy of the best attention of the accomplished Medical man, their treatment has become more and more scientific, and more and more simple; they are acknowledged to be constitutional as well as local affections, and the patient is examined and treated instead of only the cutaneous manifestation of his disorder, and it is now fully felt that to treat skin disease rightly requires a thorough knowlege of all Medical science; as Mr. Wilson puts it, "to treat the constitutional affection, the Practitioner must be an enlightened Physician; to treat the local disease he must be an accomplished Surgeon."

In the management of the eczematous affections, a degree of unanimity prevails among modern dermatologists that we must call really remarkable in these days. All recommend purgatives and depressants, arsenic, iron, cod liver oil, and sulphur, given in degrees and combinations varied according to the age, condition, constitution, and temperament of the patient. M. Hardy well describes the various means to be employed as belonging "à la médication dérivative, à la médication substitutive, ou à la médication reconstituante." Purgatives occupy the first place among *les médicaments dérivatifs*. Arsenic and sulphur he places in the second group of medicines, together with tincture of cantharides and the balsam of copaiba, which he has found useful in some obstinate cases, "Nous considérons," he remarks, "ces médicaments comme des modéficateurs de cette membrane (la peau) et nous expliquerons leurs effets par une action substitutive qui, amenant dans le tissu cutané une modalité nouvelle, fait disparaitre l'altération intérieure." The direct action of arsenic on the skin is evident, he observes, "non-seulement par les effets thérapeutics, mais encore par les taches grises qu'il n'est pas rare de rencontrer chez les malades qui ont pris pendant un temps assez long des préparations arsenicales, et qu'on serait tenté d'attribuer au dépôt et à la présence reelle de l'arsenic dans le tissu même de la peau."

Bitters, cod liver oil, iron, and some iodides are useful "by their effect on the constitution and the whole economy. . . They are chiefly indicated when the eruption appears in persons of the lymphatic temperament, and those with a deteriorated constitution; they evidently operate by their reparative act;" they are "les médicaments reconstituents."

In English we should call these two latter groups simply *alteratives* and *tonics;* but our readers will doubtless appreciate the trouble we have taken to give them the benefit of M. Hardy's longer description of their mode of action, as the increased number of words *must* seem to carry with it a fuller and more real degree of explanation? For the principles of the local treatment we may quote Mr. Wilson:—"Causes of irritation are to be removed; inflammation and pruritus are to be subdued; excoriated and weeping surfaces are to be soothed; crusts and sordes to be cleared away; dry and desquamating parts are to be softened; and irritable and chronic states of the tissues to be stimulated to a more healthy action." We cannot here go into details; but we may allude to the great value of stimulating applications in some varieties and conditions of eczema. "There is nothing that brings a weak, and irritable, and angry eczema—an eczema that does not seem to quite know whether to be itchy or exudative, or otherwise rebellious—so speedily to its senses as one of these stronger remedies; it seems to act the part of a local tonic, and substitutes sthenic action for asthenic action." For this purpose a solution of nitrate of silver in nitric ether (gr. i.—xx. ad ℥i.) is found of great value; and in eczema sclerosum, eczema fissum of the palms of the hands and of the fingers, and in any of the very chronic or very obstinate forms, an application first employed by Hebra is of very high value—viz., a solution of potassa fusa (℥i.—iv. ad ℥i.). For the same purpose Dr. M'Call Anderson also speaks highly of the use of acetum cantharides prepared with glacial acetic acid. When irritability and pain are very predominant, in *eczema neurosum*, Mr. Wilson has found the nitrate of silver solution of the greatest value.

It is scarcely necessary to add that attention must be paid to diet; food must be simple, nutritious, and unstimulating, and "the patient warned to eat very moderately and slowly, and to masticate his food well."—(Anderson.)

Most of our authors allude to the vulgar idea that it may be dangerous to cure, or, at least, to cure quickly, a skin disease, especially one of the eczematous affections, and all reject it as a fallacy. Dr. Hillier observes, "this idea has originated from the fact that, often coincidently with an attack of some internal disease, many chronic skin diseases disappear in part or wholly. It does not necessarily follow from this fact that the acute disease is the effect of the disappearance of the chronic disease; it is probable that the disappearance of the skin disease is an effect rather than a cause, or else the two results are produced by some common cause. We know of no remedies that act so powerfully on skin diseases that we run the risk of curing them too quickly." So, also, Mr. Wilson:—"We have no reason to fear re-percussion; our fear should be rather our incapability of mastering the disease; and we neglect our duty when we allow the disease to run on for months and years without attempting a cure, placing our reliance on morbid nature, and hoping, if the patient be an infant, that the cutting of the teeth, or the development of puberty, or menstruation, or manhood, will eventually bring about a cure. There is another evil in deferring a cure—namely, the setting up in the constitution of a tendency or diathesis. Diathesis is of two kinds, *hereditary* and *accidental*. The latter is the consequence of a protracted continuance of the disease, and in another generation may become hereditary." M. Hardy holds the same opinion on this subject; but, with Dr. Hillier, thinks that in some few complications caution is required; in some patients suffering from eczematous affections, and from asthma or chronic bronchitis. "On remarque que les accés de suffocation sont plus rares et plus légers tant que l'éruption est en pleine efflorescence, et qus les

étouffements reviennent au contraire plus fréquents et plus graves, quand l'affection extérieure est guérie ou seulement diminuée d'une manière notable ; dans ces circonstances le médecin devra toujours respecter l'affection cutanée, au moins dans certains limites ;" and a like caution is to be observed in some cases of gastralgia and neuralgia.

THE WEEK.

THE ROYAL COLLEGE OF PHYSICIANS AND THE ARMY MEDICAL DEPARTMENT.

It is not likely that the Royal College of Physicians can acquiesce in the decision of the small meeting of Fellows who contemptuously rejected the Report of their Committee, and decided not to help the Army and Navy Surgeons. If the College be really in earnest in its wish to put itself at the head of the Medical Profession, it can scarcely plead "that it is not the province of the College to interfere" in a matter in which the comfort and respectability of the Medical officers of the Army and Navy are directly, and the welfare of both services indirectly, concerned. An attempt has indeed been made by a contemporary to lay the blame on the Report presented to the College by its Committee, alleging that the Report was too long, and contained matter that was irrelevant and that could not be substantiated or could be explained away. We would observe first that the names of Black, Gavin Milroy, Sibson, Markham, Armstrong, and A. P. Stewart are not those of men apt to indulge in assertions which they cannot prove. Secondly, that if these gentlemen have erred, it has been in goodly company. They have but repeated the assertions of the Royal Commission appointed in 1857, and presided over by the late lamented Lord Herbert, and re-affirmed what was stated emphatically by the late Lord Dalhousie in the following terms :—

"It is impossible to imagine what serious justification can be offered for a system which, in respect of external position, postpones service to experience, cunning to ignorance, age to youth—a system which gives a subaltern who is hardly free from his drill precedence over his elder, who, perhaps, has served through every campaign for thirty years—a system which treats a member of a learned profession, a man of ability, skill, and experience, as inferior in position to a cornet of cavalry just entering in the study of the pay and audit regulations—a system, in fine, which thrusts down grey-headed veterans below beardless boys."

Such is the system as described by Lord Dalhousie, but which the College is too courtly to interfere with.

As for the Report itself, we pronounce it carefully drawn and temperately worded. If there be any sting, it is in the facts. If it were not the province of the College to interfere, it is a pity that they took the matter up. But having begun, they can hardly rest where they are. They cannot suppose that the six men whose names we have given above, and the Profession at their back, will acquiesce in this accidental stultification. It is clear that the Medical officers of the army and navy, unlike all other officers of Her Majesty's service, have at present no definite *status;* they are treated not according to a definite written code, but according to the whims of the Commander-in-Chief. No gentleman would venture to treat his own servants with the disrespect and contumely which is shown towards the Medical officers of the army.

RADCLIFFE INFIRMARY, OXFORD.

At a special General Court of the Governors, held on April 29 ult., Mr. John Briscoe was unanimously elected Surgeon to the Infirmary, in room of Mr. James T. Hester, resigned. This is the second vacancy within the last few years, in the staff of this Infirmary, which has been filled by one of its ex-House-Surgeons ; Dr. Gray, the last elected Physician, having, like Mr. Briscoe, served that office in former years. The Governors of a Hospital are wise thus substantially to recognise the claims of those who have already deserved well of them in a subordinate position. The well-being of a provincial Hospital generally depends so much on the personal and Professional character of the House-Surgeon, that the Governors cannot be too careful to get a good man and to keep him as long as possible. These ends will only be gained by making the post worth his keeping—that is to say, by giving him a good salary and snug home, treating him like a gentleman, and letting him see in his office not a mere means of livelihood, but a possible stepping-stone to a higher Professional position.

THE CROONIAN LECTURES.

Dr. Lionel Beale will give the Croonian Lecture at the Royal Society, on Thursday, May 11, at 8.30, "On the ultimate nerve-fibres distributed to muscle and some other tissues, with observations upon the structure and probable mode of action of a nervous mechanism."

THE "DUBLIN MEDICAL PRESS" ON THE PURE WINE QUESTION.

We have great pleasure in quoting the following friendly piece of criticism from the *Dublin Medical Press* of April 26, because it shows that the editorial staff of that journal approve and that their large circle of Medical readers are likely to join in the movement in favour of pure wines, which our Commissioner set going through our columns :—

"We have devoted a good deal of our space to extracts from a very excellent series of papers on 'Cheap Wines' which have appeared from time to time in the *Medical Times and Gazette*, because the information which they convey is not only something new, but very startling, and of great importance to the Profession. If we are to believe the author, and as far as we are enabled to judge his statements appear perfectly reliable, very few of us have ever drunk any quantity of real, genuine, unadulterated, and undoctored wine, and, as a rule, those of us who cannot afford high prices are confiding their digestion to the tender mercies of wine-makers, and are drinking stuff in some instances not containing one drop of wine. The author recommends us to fall back on the lighter Continental wines, and gives us an ample choice.

"It is strange if wine-drinkers, with their eyes fully opened to the disclosures of the author, will continue to confine themselves to the old hot-brandied mixtures called sherry when they can get real wines more agreeable, more healthful, and more economical."

OVARIOTOMY IN AUSTRALIA.(a)

On March 10, 1864, Dr. R. T. Tracy performed ovariotomy on Mrs. G., aged 29, married, and mother of three children. Five small omental arteries were tied, and the pedicle secured by a clamp. Recovery in a month. On October 27, Mrs. C., aged 46, married, no children, underwent the operation for a tumour of nine years' growth which had been tapped six times. There were no adhesions. Recovery in twenty days. On November 9, Dr. P. H. MacGillivray operated at the Bendigo Hospital on a married woman, aged 37, with a tumour of seven years' standing, which had been tapped forty-three times. On laying open the peritoneal cavity—

"A large nodulated tumour was found, into the nearest cyst of which a trocar was inserted. A small quantity of thick fluid escaped, but it was found that its contents were too viscid to be evacuated in this manner. The same was found to be the case with other cysts which were tried. The tumour, which was about the size of a man's head, consisted of an aggregation of an immense number of cysts of all sizes, from a pea to an orange ; was adherent in various directions to the uterus, the omentum and pelvic fascia. The adhesions were torn through with the fingers, considerable force being required, especially in the pelvis. In separating the adhesions here, the iliac vessels were exposed and distinctly visible. Several small vessels which bled were tied with fine silk, the ends of the ligature being cut short. The pedicle was fixed with a pair of callipers, a double ligature of whipcord passed

(a) *Australian Medical Journal* for July and December, 1864, and February, 1865. Melbourne: Wilson and Mackinnon.

through it, and tied on each side. It was then cut through above the callipers. The edges of the wound were brought together in the usual manner.

"Forty hours after the operation, there was a sudden flow of blood from the lower part of the incision, coming out by the side of the pedicle. By putting on additional padding and tightening the bandage, it was easily checked, but returned again in about an hour to the extent of three or four ounces. It was again stopped, and the bandage firmly tightened. The small quantity of blood lost, however, told at once on her feeble strength, and she rapidly sank and died at three in the afternoon, forty-six hours after the operation.

"The post-mortem examination showed that the diseased mass had been entirely removed. There were about two pints of bloody fluid in the abdomen and pelvis, and death was evidently caused by the hæmorrhage, which was found to have proceeded from some vessels in the divided adhesions, which had not bled at the time of the operation, and consequently had not been secured."

MR. CHADWICK ON DEFENCES AGAINST EPIDEMIC VISITATIONS.

Mr. Chadwick has lately delivered an address at Salisbury on the new drainage works in that city, and on the best means of meeting epidemic visitations. The lecture was, as might be expected from the known eminence of the lecturer in hygienic science, full of apt illustrations in proof of the validity of sanitary principles and the utility of sanitary practice. We do not agree with Mr. Chadwick in his estimate of the value of quarantine, but, with that single exception, we are glad to meet with a popular address so true, so practical, and so thoroughly to the point. Mr. Chadwick draws a glowing picture of the present drainage of Salisbury, and the present immunity of that city from preventible disease. *En passant*, he indicates a new use for sewerage, which we commend to the notice of our piseiculture societies. He says, if town sewage be allowed to stagnate and become putrid, it will destroy animal life in rivers, but, on the contrary, that, if fresh, it will nourish fish.

"The putrid sewage discharged from old large man-sized sewers of deposit killed fishes. The fresh sewage which is yet improperly permitted to escape from direct application to the land feeds them and improves their quality. I am told that the largest trout—thirteen pounds weight—have been caught at the mouth of your new outfall sewer."

We should like to know what Mr. Chadwick means by *quality*. We confess to seepticism on the point of flavour in trout so fattened.

The following account of an epizootie in the wilds of Brazil is curious:—

"Mr. Bates, in his travels in the Brazils, gives an account of a choleraic visitation amongst the animals of the forests there, which is so instructive that I give it in his own words:—'The first symptoms of the epidemic appeared among the crocodiles, whose hideous carcases might then be seen floating down the stream in such prodigious numbers that both the waters and air of that fine region were tainted with their effluvium. It was observed that they were first seized with a violent fit of coughing, followed by a black vomit, which compelled them to quit their watery home, and finally find a grave amongst the thickets on the river banks. The disease next attacked the fish and other inhabitants of the water with equal violence, until it was feared the streams would be depopulated. The fearful mortality among them can be better estimated from the fact that, for more than a month, the rippling waves of that noble river, the Apure, were constantly washing down masses of putrefaction, its placid surface being by them actually hidden from view for several weeks. The next victims were the pachydermata of the swamps, and it was a pitiable sight to see the sluggish *chiguires* (capyvaras) and the grizzly wild boars dragging their paralysed hind-quarters after them; hence the name of *derrengadera*, applied to this disease. Not even monkeys in their aërial retreats escaped the contagion, and their melancholy cries resounded day and night through the woods like wailings of the eternally lost.' The most destructive of fishes of prey called the Caribo, suffers from a special and constantly-recurring visitation, these fish being subject to a yearly mortality during the heats of summer, when the water is deprived of a portion of the air it holds in solution. 'Their carcasses,' says Don Ramon, 'may then be seen floating on the water by thousands, while the beach is strewn with their bones, especially their bristling jaws, which render walking barefoot on the borders of lagoons extremely dangerous.' The observation of the effects of impure water in epidemic periods is the foundation of a popular belief at those times that wells have been poisoned, which is true, but it is by the atmosphere, by decomposition of the animal and vegetable matter contained in the water."

We subjoin one more passage, as a specimen of the practical part of Mr. Chadwick's address:—

"We have various leagues—temperance leagues and others—to promote social reforms; but in my view the most important league we could have would be a national league for the enforcement of personal cleanliness, teetotalism, and regular personal ablutions, as means of protection from epidemics, as well as for promotion of general health. It is only Physicians who are aware of the personal filth of the great mass of the population. The Medical officers who have to perform the duty of vaccination will tell you how horribly dirty they commonly find the persons of children. The Surgeons who examine recruits for the army, though they examine them singly, and frequently in open rooms, before the day is over are overpowered by the effluvium. I am told of a militia colonel who a short time ago put his men into square to address them, was overcome by the surrounding stench, and vomited. Personal cleanliness, more than hands and face washing, amongst the populace is the exception. The person who succeeded best in preserving children from epidemics, and from the supposed inevitable children's diseases, and maintaining their highest degree of health, was the late Mr. Aubin, the manager of the Central District School of London, and his distinction in practice was to maintain the highest degree of personal cleanliness by the daily complete ablution of the children with tepid water. Being remonstrated with for the luxury of cleanliness of the clothes of the children of that class in giving them clean pinafores every day, his answer was that 300 soiled pinafores made an appreciable difference in the air they breathed, and in proportion would 300 soiled or dirty skins. The death-rate in some children's establishments has been reduced by about one-third by the ventilation of the dormitories, and the drainage of the premises, and by another third on the introduction of complete regular head-to-foot daily ablution. A schoolmaster of a ragged-school resorted to the practice of the daily ablution of the scholars at the school defensively against the horrible stench of the assemblage of them. At first the practice was introduced with difficulty when cold water was used; and he observed to me that it was apt to be overlooked that children of that class are generally of a low circulation, and that cold water is really painful to them, but we passed some steam through the water and made it tepid, when the difficulty was removed, the ablution was made agreeable, and the practice was introduced, and with the removal of the filth and the foul smell there was the removal of much disease, and the reduction of epidemic attacks. The difference in appearance of school children who are washed and of those who are unwashed is very striking. Into the district schools children are brought who are horribly squalid, whose aspect is gradually changed; the skin is altered and cleared, the hue of health is imparted, exercise is added; for these are half-time industrial schools, and shortly the child is another creature, it may be added, morally as well as physically, and so it might be with the entire population. With the health and strength of cleanliness they have, when properly set up, an immunity from epidemics."

PARLIAMENTARY. — THE CASE OF MARY GREEN—THE BUDGET, CONSUMPTION OF BEER IN ENGLAND.

On Thursday, April 27,

THE CASE OF MARY GREEN.

Mr. Hennessy, who had given notice of his intention to ask the President of the Poor-law Board a question with reference to the conduct of the parochial authorities in refusing Medical aid to a woman named Mary Green, who died in childbirth, said that, according to the published account of the case, the husband of the woman sent for a Doctor named Butler, who had purchased the practice of a former Doctor. Mr. Butler came to the house and looked around, but seeing that the people were very poor, and that he was not likely to get his fee, he left the place, recommending the people to send for the

parish Doctor. The man went to the Workhouse at Islington, stated the case, and asked for the assistance of the parochial Doctor. ("Order," and "Hear, hear.") The man was told that Medical assistance would not be afforded to the woman unless he produced the marriage certificate. He then secured the services of another Medical man, but by the time that the latter had arrived, the child was dead, the woman herself dying shortly afterwards. He wished, therefore, to ask whether it was the rule of the Poor-law Board that the Medical officer should not attend poor women under similar circumstances, without the production of marriage certificates, and also, if such were the rule, whether her Majesty's Government would take any steps to have it repealed.

Mr. Villiers said that he had seen the report of the case in the newspapers, but he was not yet perfectly informed as to the details; but he had already sent for the depositions taken before the coroner, and should shortly know precisely what had occurred. As soon, however, as he saw the report, he had requested an inspector to make inquiry at the workhouse at Islington, to know more of the matter, and though he learnt that the case was substantially as described by the hon. member, yet it did not appear that any authorities at that house had been to blame. The poor man who had applied for Medical assistance for his wife was not a pauper, but an independent artisan, and he had never intended seeking relief. On the contrary, expecting his wife to be confined, he had made an arrangement with a Medical man to attend her during her confinement. In the meantime, however, the Doctor had sold his business to another Doctor, and with it transferred all the engagements he had contracted. When, therefore, this poor woman was taken ill, she sent for the Doctor who had purchased the business, and it was true, he believed, that being struck with the apparent poverty of the people, he declined to attend her, and said it was a case for the parish. Upon which the husband went to the workhouse, and applied for Medical relief; but unfortunately he only applied to a man standing at the gate, who was no officer, but a pauper and inmate of the workhouse, and he told the man that they would not give him Medical relief unless he produced his marriage certificate; on which, unfortunately, the man went away. It so happened that the relieving officer was always at the workhouse, and his directions were to provide Medical relief immediately in all cases of emergency, and in this case that relief would certainly have been provided, had he been apprised of the matter. The man, upon leaving the house, called upon another Doctor, who readily went to the poor woman's assistance; but when he arrived it was too late, and shortly afterwards the poor woman died.

It will be seen that Mr. Villiers, in his reply to Mr. Hennessy, contented himself with giving the husband's *ex parte* statement. It does not seem to have struck him that it was due to the Medical man to suppose that his account, which, we are informed, placed the whole affair in a very different light, was at least as worthy of credence as that of the husband.

It is unnecessary to give an abstract of Mr. Gladstone's Budget. All of our readers have, no doubt, heard with satisfaction that the inquisitorial Income-tax is to be reduced twopence in the pound, and that half the present duty is to be taken off tea. We give, however, the following *morceau* on the consumption of beer, from that part of Mr. Gladstone's speech in which he disposed of the claims of the malt-tax:—

"But what, let me ask, is now the consumption of beer in England? In some instances it is astonishing. I am about to relate an anecdote in connexion with this point, which I may preface by saying that I have many good reasons to look upon it as authentic, though I confess I was disposed to be a little incredulous for the moment when I first heard it. The authority from which it came, however, entirely forbids the continuance of any such feeling. The subject of my tale is a labouring man, whose ordinary avocations are on the river Thames, and require great muscular exertion. An accident occurred to this man's hand, and he went into an Hospital at the East-end of London. One of the Surgeons there dealt with his case, but the result was not quite satisfactory. The Surgeon accordingly said he should wish to open his hand, but that before he performed the operation he was anxious to be assured that his patient was in every sense of the word a temperate person. He asked some persons who knew him whether he was temperate, and they informed him that he was. He put the same question to the man himself, and he said, 'Certainly, I am temperate, and have always been so.' 'What quantity of beer do you usually drink?' asked the Surgeon. The reply was, 'Never more than eight quarts a-day.' (Loud laughter.) I inquired, that being the consumption of a temperate man, how much an intemperate man might be supposed to drink, and I was told that the quantity ran from twelve to sixteen quarts a-day. (Laughter.) But if, including the whole population of the country, hon. gentlemen will have the goodness to take the number of barrels of beer brewed annually in England, to reduce them to quarts, to make a fair deduction for the population of Scotland and Ireland, who drink but little beer, for women, who drink but a small proportion relatively to the men, and for young persons under 15, who likewise drink but a very small proportion of the quantity consumed, they will find that every adult male in England consumes not far short of 600 quarts every year; and when you take into account the pauper, the criminal, the sick, the wealthy, too, and that very large and respectable class who pass under the *sobriquet* of 'teetotallers,' all of whom come more or less into the calculation, I do not think the demand for the repeal of the malt-tax can be supported by the argument that access to a sufficient quantity of beer is extremely difficult, or that the consumption of it is gradually dying away. (Hear, hear.) More than £40,000,000 sterling is, as far as we can learn, laid out by the population of England every year in the purchase of this valuable beverage. So much, then, for the consumption of beer, which I think I may fairly say is not declining, but is steadily on the increase."

On Friday, April 28, the Courts of Justice Building Bill was read a second time in the House of Lords.

FROM ABROAD.—LOCALISATION OF THE FACULTY OF LANGUAGE.—RESULTS OF REVACCINATION IN THE PRUSSIAN ARMY—EFFECTS OF THE INJECTION OF SULPHURETTED HYDROGEN.

SOME time since (*Medical Times and Gazette*, December 24) we quoted the somewhat extraordinary report made by M. Lelut on a memoir submitted to him by the Academy of Medicine. The memoir was that of a M. Dax, having for its objects to show the constancy of the coincidence of derangements of speech and lesions of the left hemisphere of the brain. M. Lelut said the inferences of the author from his numerous cases would lead to phrenological conclusions, and that as his mind was long since made up as to the fallacy of these, he altogether declined to discuss the paper. Other members of the Academy have not felt disposed to accept this dictum as final, and have insisted that the paper should be submitted to discussion. M. Bouilland, who for the last forty years has advocated the localisation of the faculty of articulate language in the anterior lobes, naturally makes much account of the confirmation of his views furnished by M. Dax' numerous cases, but he does not feel justified in localising with M. Broca this faculty in the third convolution of the left lobe. While he does not contend for the truth of craniology, too, he maintains that phrenology, properly so called, possesses a really scientific foundation. M. Trousseau, in a remarkable discourse, which, though prolonged over two meetings, held his audience entranced by its power, lucidity, and admirable delivery, recalled attention to the precise objects of the paper on which the report had been made, and entered into a complete exposition of the disturbance of articulated language which he indicates by the term *aphasie* in preference to that of *aphémie* suggested by Broca. Aphasia may affect any or all of the four signs by means of which man represents his ideas—*i.e.*, speech, gesture, writing or drawing; and M. Trousseau cited numerous cases from his abundant clinical resources exhibiting this general or partial privation of the means of communicating ideas. In some of these instances the aphasia proved quite transitory, undergoing rapid relief on blood-letting. Essential differences exist between this condition and the impediment of articulation, consequent on paralysis. At first sight the asserted localisation of a function in one side of an organ so apparently symmetrical as the brain, seems highly improbable; but singular as it may seem it must be accepted if facts can be adduced in sufficient number in proof of its exactitude. This, however, M. Trousseau does not believe is the case. That one side of the

body may become much more frequently than the other subject to certain affections is shown by the greater preponderance of neuralgia and hysterical paralysis on the left side. Such preponderance is, however, far from being so constant in aphasia; for while of thirty-two examples collected by M. Trousseau, fourteen favoured Broca's doctrine of its dependence on a lesion of the third convolution of the left lobe, eighteen contradicted the theory. Taking the more general statement of MM. Bouilland and Dax that the anterior lobes are those in which the faculty of language is seated, M. Trousseau is able to adduce eighteen cases favouring this view, while in sixteen others either disease of the frontal lobes existed without the occurrence of aphasia, or aphasia coincided with disease of other portions of the organ. As to the nature of the lesion which gives rise to aphasia, in a vast majority of cases, this is *ramollissement*, some cases of transitory aphosia being dependent upon cerebral hæmorrhage. In almost all cases the *ramollissement* is due to obstruction by thrombosis or emboli of the middle cerebral artery or the artery of the fissure of Sylvius. The general clinical conclusion to be drawn from these facts is, that apoplexy with aphasia is to be attributed to a *ramollissement* of the brain, which, if there exist any affection of the heart or vessels, may be referred to arterial obliteration. We may also prognosticate that the *ramollissement* will proceed slowly, allowing the patient to live for a considerable time, differing thereon from the diffused *ramollissement* described by Rostan.

The Prussian Government has just published its annual report on the results of re-vaccination in the army. During 1864, re-vaccination was performed upon 69,560 soldiers; and of this number 59,396 exhibited distinct cicatrices from former vaccination, 7265 had them only indistinctly, and 2899 were devoid of them. In the 69,560, the vaccination ran a regular course in 43,596, and an irregular course in 10,508; while in 15,459 no result followed its performance. These last being tried again, 4897 were vaccinated with success and 10,392 with no result; so that in 48,493, or nearly 70 per cent., of those re-vaccinated the vaccination ran a regular course. Of these successfully re-vaccinated persons, 3 became in the course of the year the subjects of varicella, 22 of varioloid, and 1 of variola. In the entire army there occurred 27 cases of varicella, 83 of varioloid, and 10 of variola. Of these 120 patients, 64 had not been re-vaccinated, 30 had been re-vaccinated without success, and 26, as stated above, had been successfully revaccinated. The number of variolous diseases has been greater in 1864 than in former years, which may in part be due to these having prevailed epidemically in regions near which the military were stationed. In almost all the cases the disease was of most trifling importance, 1 soldier only dying from this cause.

M. Demarquay, pursuing his researches on the influence of the various gases upon the economy, has performed several experiments with that highly deleterious substance sulphuretted hydrogen. M. Claude Bernard, in a memoir published in 1857, has shown that when injected in moderate quantity in the veins of dogs it produces little effect, being eliminated from the bronchi in from three to six seconds, according to the vein selected. He has also shown that when injected into the arterial system or the splanchnic centres the gas becomes partly absorbed, and symptoms of poisoning of varied intensity result. From these experiments it results that the action of the gas upon the venous blood was not sufficiently prolonged to induce grave alterations, its elimination taking place rapidly from the pulmonary surface. Injected into the arterial system, the gas, pursuing a longer course, had more time to act intimately, and operates upon the most vital element—the red globules of the blood. All who have related cases of poisoning by its agency agree in stating that the blood becomes thick, viscous, and black, the tissues also presenting characters corresponding to this condition of the blood, being of deeper colour than normal, and more or less softened.

For the purpose of still further investigating the action of this gas, M. Demarquay instituted fourteen experiments on rabbits, injecting it generally into the cellular tissue of the abdomen or back, and sometimes into the peritoneum. The quantity injected varied from ten to fifty centilitres, but there was no sensible difference in the rapidity with which death was produced, whether the quantity injected was large or small. The dangerous character of the gas is proved by the promptitude with which death ensued, this taking place from two to five minutes after the injection. Within twenty-five seconds after the injection elimination by the lungs commences; but it is a very curious fact that no traces of the presence of the gas can be discovered by means of test-papers in the kidneys, liver, spleen, heart, or even the lungs themselves; and after death free sulphuretted hydrogen cannot be found in the blood. On opening the body promptly after death, a striking degree of turgescence of the laryngeal, tracheal, and bronchial mucous membrane is observable; and if the experiment be so managed that death do not take place so suddenly, a true phlegmasia of this membrane is developed. This M. Demarquay regards as a constant alteration produced by the elimination of sulphuretted hydrogen; and he believes that some of the benefit derived from the use of sulphurous mineral waters in the treatment of chronic inflammatory affections of the air-passages may be due to the substitutive action produced by their elimination. It is well known that these patients often suffer from more or less acute inflammatory action, congestion, or hæmorrhage after the use of such mineral waters, and before a beneficial result is produced.

THE IMPULSE TO KILL.

*** In giving insertion to the following paper from one of the most gifted members of our Profession, we must beg our readers to remember that we do not coincide in the views there expressed, and that we have uniformly in this journal upheld what we venture to believe a stronger and sounder view. We hold that man's responsibility extends to the operations of his own mind. We uphold the doctrine of "self-control" to the utmost, and desire steadily to inculcate this doctrine as an essential part of morality, side by side with a trust in the guidance and faith in the goodness of the Deity, and to repressing all systems which lead people to yield to emotion, or even to value themselves for the intensity of their *emotions*, after the doctrine of French novels. Thus we believe that the impulse to murder self or others would be greatly decreased. Further, we do not believe that *work*—*i.e.*, steady, plodding work for a settled end or purpose—is killing. Too often it is the irregular kind of work, done on the spur of urgent necessity, and alternating with idleness—an idleness fostered and rendered luxurious by narcotics and stimulants—which is exhausting. The hare can't beat the tortoise, and then dies of spite, or a man goes on working spite of warnings. In saying this we also reverently admit that it is not for man to say where responsibility ends in any particular case. We judge no one. But we uphold the general doctrine of responsibility to the utmost as a part of education, politics, and morality.—Ed.

Public attention is at present naturally directed to the extraordinary amount of mortality from exceptional causes which the journals of even the last few months record. When every Sunday we pray for deliverance from "battle and murder and from sudden death," how distant they seem to us; and yet, as "black Care sits behind the horseman," so they are ever occurring and reminding us that a man, mentally and physically, is very brittle.

It is now several years since the writer of this article went to Edinburgh, and there saw the great stonemason, Hugh Miller, with shaggy hair and compressed lips, striding to the *Witness* office, or at evening in exactly the same dress, plaid and all, discussing the old red sandstone at the Royal Society. People wondered at his excited manner; but they forgot that out of that shaggy head were coming every day newspaper leaders and copy for the printer of all kinds. The public demanded it, and the strong man did his best.

One day a friend of ours, when walking on Arthur's Seat, saw Miller suddenly stop among the whins, kneel down and pray. He was probably struggling even then with the impulse to which he a few days afterwards succumbed. For he was found a few days afterwards shot through the heart, and some

writing by his own hand—some wild words—told that in a state of morbid terror at some fancied danger he had killed himself. How well we remember the morning when we entered the room at Portobello—an uncarpeted little chamber full of books, which, indeed, seemed its only furniture, except a table and chair and a sponge-bath, at the bottom of which was a revolver and a little blood. Now, what could have induced Hugh Miller to shoot himself? The readiest answer is, "disease of the brain;" but we took out his brain, and, except a little thickening of the arachnoid, there was no disease. It was a large, firm, heavy brain, weighing about sixty ounces. So for an explanation we must go elsewhere. One who assisted us in this examination has recently died,—not exactly by his own hand, but he would have, except for the watchfulness of his attendants. He had no cerebral lesion visible to our eyes; did he die of disease of the brain? If he did, we could not see it, even when handling and slicing it. What was there to account for a good man, leading a virtuous and prosperous life, wishing to kill himself? How shall we explain the terrible delirium, or, stranger still, when the apparent madman becomes suddenly tranquil and sane, says "Good bye," and dies? Within the last few days the death of Admiral Fitzroy has been mourned over and wondered at—here is one useful, respected, and prosperous cutting his throat! We have seen poor street-walkers hanging to the knockers of doors, seen them dragged from the river. We knew a clergyman who hanged himself to escape lithotomy, and a boy did the same to escape a flogging at school. It would be natural to say that want caused some to kill themselves, and terror caused the others. But after a little consideration we see that mental excitement is the cause alone; and whether induced by hardship or overwork, it is the same poison which kills the poor girl who leaps over London-bridge as that which killed Admiral Fitzroy, Hugh Miller, Lord Castlereagh, and Chatterton—

"The sleepless soul that perished in its pride."

And why? Because it was a "sleepless soul." So was the poor prostitute's and the others we have named. People do not kill themselves because they have no dinner, but because their minds are exhausted — the ψυχη and the πνεῦμα have it all their own way, and, as it were, wishing to be free, tempt their poor prison to destruction. All this may seem paradoxical, but it is no less true. Man is a killing animal, and is only separated from other beasts of prey because he does not eat what he kills in anger. We have numberless instances of men killing because they could not help it. Take the case of the sailor who had bought a new knife, and when walking into Portsmouth saw a portly gentleman with a tight-fitting coat; the back was too tempting, the knife went into it, and all the prisoner's defence was, "*he couldn't help it.*" Captain Gronow tells a story in his delightful "Reminiscences" of a party at Paris after Waterloo; one of the party rose, exclaiming "J'ai envie de *tuer* quelqu'un." He went out, met a man, insulted him, and killed him.

Now, that brings one's mind naturally to the question what you are to do should you be inclined to kill yourself. The Frenchman answered that with "tuer quelqu'un"—an answer which, as Byron says, is "convenient, but immoral." This case of Miss Kent's is especially painful to Medical men; there are so many reasons for believing her morally innocent even if she did do what she says she did. Have not we all known young girls do the queerest things when, as the phase is, they are "not well?" Have we not known grown women say wonderful things? and is there any Doctor who has not heard confessions of obviously imaginary crimes? but still, the irritable condition of a young lady may suggest to Mephistopheles the whisper, "J'ai envie de tuer quelqu'un," and she may do it; and many a one has. Some years ago a nursemaid who was quietly sewing, but had a great deal to attend to, put down her work, cut the child's head off, and carried it down to her master and mistress, who were at dinner. It was found that she was suffering from uterine irritation. When James, the murderer of Mr. and Mrs. Bonner, was asked why he had hurt such kind employers, he said, "I fell asleep on the bench in the servants' hall, and I wakened up wishing to kill somebody." Now, what is the physical difference between suicide and murder *per se?* Who are the people that kill themselves? They are the very clever or the very stupid. The class between these limits seldom do. The "perfervidum ingenium" of the genius makes his mind so impatient of restraint that he yearns for freedom from, perhaps, a starved and aching body. The passionate and jealous man, who sees circumstances keeping him from worldly success, kills himself as a scorpion does when surrounded by a flame from spirits of wine on fire.

Now, how is this terrible "envie de tuer quelqu'un" to be cured? What causes it? The last question is the easiest to answer. For many centuries neither murder nor suicide have been otherwise than execrated and despised; both deeds are so cowardly. The smallest "gamin" in London would readily face the murderer of Lincoln; because he shot a man behind his back, and why? He had a *craze* to kill *some one*, so he killed the most conspicuous man. There was a clergyman on the Continent who paid butchers to allow him to kill their beasts; the desires are analogous. Macaulay sings:

"Woe to these cruel eyes
Who love to look on torture,
But dare not look on war."

Napoleon said that all conspiracies were made up of knaves and fools: the knave finds a fool with the tendency which is most convenient. The fool may have many good qualities, but they are jumbled in his unsteady, paradoxical head.

"His honour rooted in dishonour grew,
And faith, unfaithful, kept him falsely true."

It may seem harsh to say it, but who can doubt that the tendency to kill is common to both the philosopher and the fool? though the one generally acts by an impulse from within, when the mind is rendered susceptible to the poison "tuer quelqu'un," and so he kills himself. The fool, who has no real mental inside, whether it is by bodily irritation, or by some temptation, or the influence of any person, —all of which are external irritations—generally slays somebody else, and then is aghast at what he has done; he runs away, but the chances are that ere many hours are over he will be found somewhere near where he committed the crime, wondering if it be really true.

The more one ponders over the subjects murder and suicide, the more marvellous they appear; and the more murderers' and suicides' brains we examine, the more we feel how idle it is to seek for a reason in morbid appearances of the brain.

We cannot conclude this article without a comment upon that terrible condition most Professional men now are in, namely, *overwork*. It is very pleasant to think of a youth of labour ending with an age of ease. But how few reach the latter? over how many hard workers are the spring flowers now blooming? how many, too, are in lunatic Asylums? Not long ago we saw a middle-aged man lying on the grass at an Asylum, surrounded by books (he liked to have his old friends by him). I could scarcely recognise in his expressionless face the author of one of the most erudite articles in "Todd's Cyclopædia of Physiology;" he had *read* himself into a madhouse.

It may be argued that one who dies as Admiral Fitzroy has done is but a martyr to duty. Undoubtedly he is. So, too, would be a general dying in battle; but the general is expected to keep out of fire, as, though death to him might bring glory to his army, it would bring disaster; and so, as Nelson rashly exposed himself to French bullets, Fitzroy, who for several years has been busy saving the lives of his brethren, and warring, not with man, but with the elements, has allowed his enthusiasm in a good cause, and his zeal for science, to overmaster him, and render his brain susceptible to the poison of killing, to which it seems, in certain states of health, we are all so liable.

REVIEWS.

Essays and Reports on Operative and Conservative Surgery. By R. C. Butcher, M.R.I.A., Surgeon to Mercer's Hospital, Dublin. Illustrated by sixty-two lithographic plates, coloured and plain, and several engravings on wood. 8vo, pp. 933. Dublin: Fannin and Co. London: Hardwicke.

On several occasions we have had to take favourable notice of the essays on Operative Surgery which have been published by Mr. Butcher, and which have deservedly made him known as one of the most prominent Surgeons in the sister kingdom. The work now lying before us consists in great part of the essays in question which have been brought together so as, with some new matter, to form a very imposing-looking book. In the Preface the author takes especial care to mention the fact that the work is not intended by any means to be a "System of Surgery," but "it professes simply to record some of the actual experience of one who, commencing as an Hospital pupil at an early age, has been for the last quarter of a century assiduously employed in the field of practical Surgery, and who has endeavoured to exhibit the work of a Surgeon as it presents itself at the bedside and in the operating theatre."

The reader will thus be prepared to find the work of somewhat a discursive character; but still it is eminently practical, and a glance at its contents will at once show what very important subjects connected with the domain of practical Surgery have been considered by Mr. Butcher. Thus, he commences the work with the question of excision of the knee-joint—a matter upon which Surgeons are not yet quite in accord. Nearly a fifth part of the entire volume is dedicated to this recently-revived operation. To the subjects of excision of the elbow, wrist, nipple, and lower jaw, as well as other similar operations, a large portion of the work is devoted; also, then, the important subject of wounded arteries is considered. Amputation of the foot at the ankle by Syme's and Pirogoff's methods respectively is discussed, and there is a very good chapter on "Amputation at the Knee-joint." The treatment of fractures of the thigh and leg, and injuries to joints, have received considerable attention, and the operation for hare-lip is treated of at great length, numerous coloured drawings assisting the reader very materially in this part of the work especially. Lithotomy in the infant and child has a chapter devoted to it, and the treatment of severe deformities from cicatrices is illustrated by some very interesting cases; and after having touched the various subjects of hydrocele, tetanus, and aneurism, Mr. Butcher concludes his laborious work by detailing some interesting cases of enormous tumour which he has removed by operation.

We may thus see that nearly every important department of practical and conservative Surgery has been considered, and very fully, too, in the work before us, which reflects the highest credit upon the author, who seems to have spared no pains to advance the art of which he is such an enthusiastic follower. Surgery has possessed great names in the Irish capital during the present century, and that of Butcher may be well classed amongst them. He is evidently a man who keeps pace with the times, and is an ardent follower of what is very properly termed conservative Surgery, And there is one feature of a pleasing character to which we gladly point, and this is the ready willingness of Mr. Butcher not only to be fair but to be generous towards others in appreciation of their labours—a remarkable contrast to this spirit has, we regret to say, been exhibited in some recent works, the authors of which might with propriety follow Mr. Butcher in this respect.

It will be impossible for every one, of course, to agree with the author in all he says, or to endorse his opinions on some of the more debateable subjects here discussed; for instance, they who are opposed to the treatment of diseased knee-joints by excision will consider Mr. Butcher's advocacy of this operation is much too warm, and they, even, who are not adverse to it will doubt the correctness of his views as to the comparative danger of this operation and of amputation of the thigh. Nevertheless, it is very evident that Mr. Butcher has devoted a great deal of attention to this highly important subject, and he is quite justified from his own success—deservedly great—in speaking so highly as he does of the proceeding in question. Considering all the opposition which has been raised against it, it is wonderful that excision of the knee-joint has stood its ground; but it may with truth be affirmed that the powerful advocacy of Mr. Butcher has in a large degree contributed to the almost general recognition of the operation as a legitimate proceeding in Surgery.

Some discussion is raised on the very important question of the relative merits of amputation of the foot by Syme's and Pirogoff's methods. Mr. Butcher enters very fairly into the matter, but leaves the impression very evident on the mind that he is favourable on the whole to the procedure of the Russian Surgeon; and with all due deference to Professor Syme, who will have always the great merit of originating amputation at the ankle, there cannot be a doubt that the patient is better off after Pirogoff's method. Let any Surgeon accustomed to look at stumps examine a case of each when twelve months have elapsed after a successful operation, and he cannot hesitate for a moment as to which he should perform. He will find that the stump after Pirogoff's proceeding will come into contact with the ground without the intervention of any artificial substitute, and that the limb is altogether much stronger and more adapted for movement than when the os calcis has been taken away. Of course there are a few cases when even the back part of the os calcis cannot be preserved in consequence of disease, and in such a case the operation of Syme must be substituted, but in nearly every instance falling under our own notice the disease in the os calcis has been so limited that the amount necessary for forming the prominence of the stump could readily be preserved.

The author speaks highly in favour of another conservative proceeding in Surgery, which we are glad to see is steadily gaining ground. We allude to amputation of the thigh at the knee-joint; it is an admirable operation, and should be selected in all cases when it is possible, as much safer and better than amputation through the lower third of the thigh. A very good case is related by Mr. Butcher where he performed this operation, and the illustration accompanying it shows well the character of the long and well-formed stump.

A very interesting and remarkable series of cases of complicated hare-lip are related, and we find that Mr. Butcher has achieved considerable success in this department of what may be called decorative Surgery. Certainly, some of his cases were as bad as they could well be, and the ingenuity and care required in bringing about the restoration of the deformities must have been great. He is in favour of operating at an early age, and we are glad to see does not use the simple suture, but trusts to the needles and twisted suture, in complicated cases at least.

We are not aware that there are any other controversial points in this work to which we need refer. There are many practical matters of the very highest interest to the Surgeon discussed in a very able manner; and, indeed, the enthusiasm of the writer renders his descriptions of his operations so clear that the reader is, as it were, translated to the bedside of the patients themselves. Mr. Butcher, in collecting these materials together, has executed a most laborious task. He may rest assured that his efforts to favour the spread of Conservative Surgery have already borne much fruit; and this will now be increased in a tenfold degree.

The Personal Responsibility of the Insane. By James F. Duncan, M.D., T.C.D., M.R.I.A., Physician to the Adelaide Hospital and to Simpson's Hospital, etc. Dublin: Fannin and Co. 1865. Pp. 98.

The author starts with the axiom that the difference between insanity and crime is, that the former is a morbid condition, and is associated with some disorder of the *material organisation* connected directly or indirectly with the mind, while crime is a perverted action of the mind itself, independently of bodily disease. And when the question arises as to whether any mental condition is indicative of insanity, Dr. Duncan properly holds that the standard of comparison is "not some arbitrary model of supposed human excellence, but the natural condition of the individual himself, as ascertained by personal observation of his previous habits and acquirements." Any alteration is more important if it comes on suddenly. It is not necessary that we should find bodily disease in such cases in the brain itself, but it may be situated elsewhere; and the teaching which insists upon its presence is based upon general experience, in the first place; next, upon the known efficacy of bodily Medical treatment; thirdly, upon the effects of certain material agents, such as opium, Indian hemp, in disturbing the operations of the mind; fourthly, upon the effects

of ordinary disease in altering the feelings, affections, etc., of an individual; and, lastly, upon the phenomena of sleep and somnambulism. Another axiom is, that "to create responsibility there must be both power of action and liberty. . . . No man can be held accountable for not doing what he is unable to perform, or for doing what he is unable to resist doing."

One of the principal causes of disagreements between counsel and judges on the one hand and Medical men on the other in our courts of law is, that the latter hold commonly the doctrine of *partial* insanity, whilst the former deny it, holding that a man must either be sane or insane; if sane responsible, if insane irresponsible; and that this connexion is to be practically relied upon, even though the insanity be such as leaves the sufferer quite free to judge between right and wrong, and with full liberty and power to refuse to do the evil and choose to do the good. And thus, while Dr. Duncan maintains and illustrates the doctrine of partial insanity, he attaches to it as a necessary corollary the doctrine of partial responsibility. "The plea of irresponsibility can be pushed no further than the corresponding insanity extends, either directly *per se* or indirectly by the morbid influence it may exercise over the other faculties, so as to interfere with their free action." He then goes on to show that this sort of partial responsibility certainly exists among the undoubtedly insane, and lays down some rules by which its amount and degree may be determined. This leads him to discuss the old dictum of Lord Chief-Justice Mansfield, that a person to be irresponsible must be incapable of judging between right and wrong, and its modification by Chief-Justice Tyndall, limiting its application to the specific act in question. We believe that Dr. Duncan touches the very core of our own Medico-legal controversy when he writes thus:—"The question of the personal responsibility of the insane for criminal actions may be viewed in two distinct aspects—viz., as they may be made the subject of judicial inquiry in our courts of law, and as they ought to be regarded by the individual himself *in foro conscientiæ*. This latter aspect of the question appears to me to be almost completely ignored in treatises professing to treat of the subject. The effect of it is, to some extent at least, to mislead the victims of partial insanity into the belief that if human tribunals hold them excused for their criminal actions, they must be so in reality. Against this idea it is necessary to enter a distinct caveat." The distinction which he draws between eccentricity and insanity is thus summed up:—"So long as the conduct is innocent in itself, and the result of mere whim or caprice, however absurd it may be considered, it cannot be looked upon as insane. But let this eccentric conduct be the result of some fixed idea that it is in any way necessary for him to act as he does, either for his own benefit or that of others, and it alters its complexion, and it must then be looked upon as partaking of the character of insanity." Having discussed his subject in its relation to insanity in general, Dr. Duncan proceeds to consider responsibility in its relation to certain forms of insanity. First, as it relates to those forms characterised by *delusion*. Now, in order to a delusion being accepted as evidence of an unsound mind, he lays down the three following necessary features—namely, a certain degree of permanence, its remaining proof against conviction and argument, and its influencing the conduct; and as regards the doctrine that for a delusion to confer irresponsibility for criminal acts only when there is an obvious connexion between the two, he says that to limit irresponsibility strictly to such cases, would be unphilosophical and unjust. "There may be a real, though a latent bond, sufficient to account for the occurrence, if it could only be traced; and while the mere fact of the possibility of such a connexion existing ought not to be held sufficient wholly to exculpate the party charged, it ought to make caution doubly necessary on the part of those who investigate the case, and where the truth is doubtful to mitigate the punishment."

As respects "moral insanity," Dr. Duncan says—"The proper responsibility of these cases is a very difficult question. Legal authorities will not admit, in the absence of disease of the intellectual faculties, that there is any excuse for crime. They think that were they to do so, it would be opening at once a wide door for every excess, inasmuch as it would be impossible to refute the hypothesis whenever put forward. But this is going too far. The evidence of real co-existing disease, and the history of the individual's habits and condition previous to the commission of the crime, as well as the nature of the act itself, and its attending circumstances, would guard against abuse. The absence of all proof of a co-existing morbid state ought to go a great way to fasten accountability upon the person charged." He meets the difficulties of legal writers again, as to admitting "impulsive" insanity, thus:—"When it is recollected that the frenzy of which this is but a symptom, though of short duration anteriorly to the commission of the act, is usually well marked, that it seldom passes rapidly away, and that the attending circumstances are entirely different from ordinary murder, there seems really no reason for disputing its occurrence." . . . "The plea of an unaccountable and sudden impulse prompting to the commission of an act of violence ought not to be admitted, when there has been no distinct evidence of insanity immediately preceding or following the act; more especially when the weapon employed has been deliberately provided for the purpose." He then proceeds to discuss insanity as characterised by various morbid propensities, the plea of hereditariness, and the verdict of "insanity" as given in cases of suicide by coroners' juries, and concludes with the following summary:—"1. Persons labouring under ordinary mania, where there are incoherence, excitement, and the general symptoms of complete mental estrangement, are thereby rendered entirely irresponsible for whatever criminal actions they may commit in that state. 2. Persons labouring under the various forms of partial insanity are irresponsible for the criminal actions they may commit which are plainly traceable to that condition, even though such actions may not admit of justification on the hypothesis of the cause which provoked them being real instead of imaginary. 3. Where criminal acts are committed by persons partially insane, although no connexion may be traceable between those actions and their insanity, their condition must be looked upon as a ground of mitigation of punishment, and treated accordingly. 4. Where persons convicted of crimes are exculpated, either wholly or partially, on the ground of insanity, their condition requires them to be transmitted to a proper Hospital or Asylum for their immediate Medical treatment. 5. That, subject to proper precautions, as soon as such patients are restored to health, reason and humanity require that they should be set at liberty unless there should appear to be a special risk of a relapse. 6. That where unoffending persons have suffered personal injury from the violence of insane persons, reasonable compensation should be made to them out of the lunatic's estate. 7. That coroners' juries should not be expected or required to append to their finding in cases of suicide the usual formula 'when labouring under temporary insanity,' unless some urgent necessity arises to require the person's state of mind to be carefully investigated, and the fact of such condition existing has been clearly established. 8. That, unless in clear cases of positive mental derangement, some modified form of the obsolete mode of unchristian sepulture should be maintained as a means of checking the too prevalent tendency to suicide."

The Surgery of the Rectum: being the Lettsomian Lectures on Surgery delivered before the Medical Society of London, 1865. By Henry Smith, F.R.C.S., Assistant-Surgeon to King's College Hospital. London: John Churchill and Sons. 1865. Pp. 127.

This is a very small book, but very complete in its way. It contains just three lectures, delivered before the Medical Society of London, and as the whole Surgery of the rectum could not be discussed in so small a compass, the author confined himself to certain points on which he had the fruits of his own experience to lay before his auditors. The first lecture treats of fistula in ano, and more especially of certain complications which are occasionally met with. Mr. Smith ignores the theory that there is always an internal opening in this affection, and gives gratifying proof of it in the fact that he has treated cases, and caused them to get well by good diet and stimulating injections, without the use of the knife. Loss of power in the sphincter after division next engages his attention. In small degree this is very common, and the question might be put, not how many patients suffer from it, but after what time do they regain their power? When permanent, Mr. Smith believes it to arise from too free division of the internal sphincter and fibres of the rectum itself. The combination of stricture with fistula is next dwelt upon, and in the second lecture the history of stricture, cancer, and polypus. Stricture is in many cases referred by our author to pre-existing ulceration of a syphilitic character; and in a few cases to over solicitude on the part of inexperienced Surgeons to remove piles too completely; so that healthy skin and mucous membrane are abstracted, and tight contraction the result. The last lecture treats of piles and

prolapsus, and gives the author opportunity for developing the advantages of a clamp with a screw which he has devised for seizing and holding the fold of mucous membrane to be removed whilst it is cut off, and the raw surface seared with the cautery. The cases which Mr. Smith gives bear out his claim for this process as being a safe and speedy cure; we might almost say an agreeable one—at any rate, by comparison—for the transitory smart and three days in bed are not to be compared to the constant drag upon health and upon mental capacity caused by habitual bleeding and prolapse of the rectum.

Handbuch der Allgemeinen und Speciellen Chirurgie.
Handbook of General and Special Surgery. First Part of First Volume. Erlangen. 1865. 8vo. Pp. 352.

This handbook bids fair to be the best exponent of the most advanced school of German Surgery. Edited by Pitha and Billroth—who are assisted by such men as Esmarch, Nussbaum, Simon, Wagner, Weber, and others almost equally well known here—illustrated by excellent woodcuts, and accompanied by an atlas of 136 copper-plates and 52 lithographic plates, the work must be looked forward to with interest. There will be about eight parts of six shillings each, and the atlas will cost about eight shillings. Each part will be about 350 pages, if the first is to be taken as a specimen of its successors.

This part, after a short introduction on the history of Surgery by Dr. Haeser, is entirely taken up by a series of admirable articles by Dr. Weber, of Bonn, on Hyperæmia, Inflammation, Anæmia, Gangrene, Hypertrophy, and Degenerations. We shall only give one extract—and that one on Acupressure, which will delight the heart of Mr. Syme, and no doubt call forth a long series of experiments from Dr. Simpson. Dr. Weber says:—"I shall only remark as to acupressure, that experiments on the lower animals have shown me that when it is really efficient it cuts through the vessel just as the ligature does, and that this division takes place much more rapidly than when the ligature is employed. I have assured myself by unprejudiced experiments, that suppuration through the arterial coats takes place much more quickly by this method. Sometimes forty-eight hours is sufficient. It is evident that no extra security is given by this. On the other hand, if we take away the needles too soon, we cannot be certain that the arteries are firmly closed. I have several times after taking away the needles before the second day seen such violent hæmorrhage that I was forced to ligature."

A Manual of the Practice of Surgery. By William Fairlie Clarke, M.A., F.R.C.S., Surgeon to the St. George's and St. James's Dispensary and Assistant-Surgeon to the West London Hospital. Henry Renshaw, 356, Strand. 16mo. Pp. 352.

This work is intended for those who desire brevity; whether because they are beginning study, and wish first of all to see the general outlines of Surgery before they plunge into the details, or whether they are finishing and in want of a work that shall prepare them for examination. To write a short book that shall not be obscure, the writer must possess the gift of method, and must further have the power of seizing the main facts—the kernel, as it were—of every subject, so as to present it stripped of all the husks. Mr. Fairlie Clarke seems to have both qualities, and has presented the student with a work which will go into his waistcoat-pocket, and which gives in a clear intelligible way the very pith or marrow of Surgical practice. The author wastes no space on theories, or "the most advanced views," he quotes no authorities, and indulges in no controversy, but gives a good practical account of the chief Surgical subjects, and contrives to say a great deal in a very limited space.

Observations on Medical Education: being the Introductory Lecture in the Faculty of Medicine of University College, London, for the Session 1864-5. With additions by Richard Quain, F.R.S., Holme Professor of Surgery. London: Walton and Maberly. 1865. Pp. 61.

The central topic in this lecture and in the additional notes is the practical aim which all teaching should have, and to the encouragement of which the regulations of the licensing boards of the Medical Council ought to be directed. What Mr. Quain seems to advocate is a thoroughly good preliminary education, and then a good practical system of instruction in the subjects which are to be to be the daily work of the Medical man. He thinks that the accessory subjects should be taught so as not to constitute a burden to the mind, as they are apt to do now, when distinguished chemists, physiologists, comparative anatomists, etc., are engaged in lecturing to Medical students. He seems to hint at these gentlemen reducing their teaching within more moderate limits, and such as shall embrace those matters which bear most distinctly upon the future occupation of their hearers. We think he is right here. We have expressed similar views ourselves. We think that it is outrageous to demand from a Medical student a knowledge of chemistry, for example, which with the other subjects he has to study, can be nothing else than crammed book-learning, and so certain to be forgotten as soon as the exigencies of the examination-day are over; but still, he should know all that is essential to qualify him to search for a poison in the dead body, and to enable him to understand the nature of the medicines he employs and the operation they and disease both exert upon the human body.

The Handbook of Dining; or, Corpulency and Leanness Scientifically Considered; comprising the art of dining on correct principles consistent with easy digestion, the avoidance of corpulency, and the cure of leanness, together with special remarks on those subjects. By Brillat Savarin, author of the "Physiologie du Goût." Translated by L. F. Simpson. London: Longman. Pp. 170.

Brillat Savarin's "Physiologie du Goût" is one of the most charming books that ever were written. Lively, satirical, treating with an inimitable air of seriousness of all the little comforts of life, its exquisite wit would have preserved it from decay, were not its physiological principles so well founded in experience, that in every page the practical Physician may pick up some hint which will be useful to the dyspeptic or valetudinarian. Mr. Simpson has given us an abridgment of the work, freely translated, but not destitute of the vivacity of the original. The original work, as is well known, contains the best directions possible for the cure of both obesity and leanness, and it is to these that the translator has devoted much space. We advise our readers to have Mr. Simpson's abridgment for the weaker vessels in their families, and the original for themselves. It is inimitable as a model of polished sarcasm. The author's moral reasons for adding to the embonpoint of meagre women are admirable. The spare forms, he says, of certain of the fair sex should be clothed with real flesh and blood, instead of those curious contrivances of silk or cotton (he refers to the aids to beauty which were in vogue in the precrinoline age) that are displayed in the *magasins des nouveautés*, to the great scandal of the virtuous, who turn from them "avec autant et plus de soin que si la réalité se présentait a leur yeux."

GENERAL CORRESPONDENCE.

CASE OF SUICIDE AT DAWLISH.—SIMPSON'S AND BATTLE'S VERMIN KILLERS.

*** Dr. Herapath has written us the following letter in reference to a case in which death was produced by some powders sold as Simpson's and Battle's vermin killers. The deceased person was the wife of a tradesman at Devonport, who in a fit of insanity poisoned herself at an hotel at Dawlish. Two points are worth notice in the case. First, that the condition of the body (extreme rigidity, bending back of the head, clenched hands, etc.) was strongly suggestive of poisoning by strychnia, although arsenic and not strychnia was found in the stomach. The second is as to the propriety of a Medical Practitioner obtaining the aid of an expert to make an analysis without the coroner's order. In this case the coroner objected to pay Dr. Herapath's fee, as he had not requested Dr. Baker, who had made the post-mortem examination, to obtain chemical assistance. Dr. Herapath met the difficulty by foregoing his fee, but the result of his analysis showed clearly that a chemical examination was necessary.

[To the Editor of the Medical Times and Gazette.]

Sir,—I send you the published reports of an inquest and its adjournment on the case of Mrs. Williams, who has com-

mitted suicide in a very extraordinary manner at Dawlish recently, as you will see on perusal of the enclosed. She had three or four parcels of rat poison in her reticule, or about the room, some of which were empty, others in reserve. Two papers of Simpson's vermin killer had been disposed of, and one parcel of Battle's (a powder of a blue colour, containing strychnia) had apparently been used, "some blue stains being found in the mouth and at the angles of the jaw, whilst the pocket handkerchief was marked with blue stains also." The rigidity and contortions of the dead body led Dr. Baker to infer strychnia as the cause of death. He sent the viscera to me, and I proved arsenic in abundance in the mucus present in the stomach, which was very scanty. The fluid which had escaped into the jar from an opening made in the walls of the stomach by the scalpel also contained abundance of the metal arsenic, but strychnia was not in either of these materials. I also found traces of arsenic in the liver. If strychnia were taken, it never got into the stomach at all. It is probable, however, that the two first packets did not kill her as quickly as she expected, and she took the third packet, but the contents never went further than the mouth, some being ejected in consequence of the bitter taste, and an almond was taken to get rid of this, but enough remained to kill by absorption from the mucous membrane of the tongue.

The coroner would not have my evidence, as he had given no order for a chemical analysis, but I made a voluntary statement, of which you now have the substance. I have sent to Exeter for Simpson's papers, and after having analysed them I will again communicate with you. Battle's of course contains strychnia; the other I presume to consist of arsenious acid. She was a great believer in alcohol, and that accounts for her nervousness and depression of spirits.

April 28. I am, &c. W. Bird Herapath.

"LINIMENTUM BELLADONNÆ, Ph. Br."

Letter from Dr. S. Martyn.

[To the Editor of the Medical Times and Gazette.]

Sir,—It may be worth while to make public the following note of a circumstance which has just occurred in a case under my care:—

A young married lady, who for many years has had a small tumour of some sort floating freely in the left abdomen, and attached to the uterus, suffers occasionally from inflammatory conditions set up in the surrounding parts, especially on over-exertion at the menstrual periods. She is at present recovering from a somewhat severe attack of metroperitonitis arising in this way, and on the 22nd inst. was well as to febrile signs, tongue, pulse, and abdominal tenderness (except on very deep pressure). There was, however, one exception: she had for three days suffered from a pain diffused over the sacral region, and which, on the day named, had become very intense. For this I prescribed moist heat, and, if that failed, a liniment consisting of ♏ xxx. of "Lin. Bellad. Ph. Br.," with a very small addition of opiated soap liniment, to enable the whole to be rubbed in.

The next morning I was called hastily to the case, the course of events having been as follows:—In the evening the liniment had been applied with the effect of entire and almost instantaneous relief from pain. Shortly afterwards a sense of alarm came on (the lady has no hysterical tendency, and was quite ignorant of the nature of the application), then repeated tremors or shivering, general throbbing, swimming in the head, dimness of sight, and intense thirst. There was entire absence of sleep, and towards morning a feeling of tightness across the epigastrium, with a sense of impending suffocation. This last was, however, a little relieved by mustard plasters applied by the nurse.

At 7½ a.m. I found her much flushed, and with headache and mental confusion. Eyes very open and yet somewhat intolerant of light, pupils dilated, pulse 140, weak and variable, surface dry, tongue thickly coated, throat parched, breathing gasping and irregular. Recognising the effect of belladonna, I raised the head well, applied cold to the scalp, and administered a strong ethereal stimulant, followed by effervescing draughts and castor oil. The same evening there was very little improvement. Next day (yesterday) she felt better, and in the evening her pulse was quiet and tongue cleaning rapidly. She had slept almost continuously, taking beef-tea and cream and water at intervals. There has not been the slightest return of sacral pain. I need add no comment except that the chemist is entirely trustworthy. I am, &c.

Clifton, April 25. S. Martyn, M.D.

THE MEDICAL PROVIDENT SOCIETY.

Letter from Dr. Alexander Henry.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have the pleasure of sending you a copy of the rules and tables of the Medical Provident Society in connection with the British Medical Association, and shall feel much obliged by your allowing me to inform the Profession, through the columns of your journal, that I am ready to receive applications for admission from all duly registered Medical Practitioners residing in the United Kingdom, and to furnish them with the necessary forms of examination paper and certificate.

In accordance with the decision of the Board of Directors, the Society has been registered under the Friendly Societies' Act. The tables have been approved by Mr. Finlaison, Actuary to the National Debt.

The difficulties under which Medical men often labour when prevented by illness or accident from attending to their Professional duties must be well known to you. You will therefore readily perceive that an institution like the Medical Provident Society, the financial calculations of which have been approved by the highest actuarial authority, must, if well supported and judiciously managed, be at once safe in its operations and highly beneficial to the contributors.

Allow me also to remind the more wealthy members of the Profession that they can give material aid to the Society by donations to its auxiliary fund. The sum of £700 has already been subscribed, and the larger this fund becomes the more stable will be the Society and less likely to suffer from extraordinary pressure on its sick fund. By the rules of the Society, every registered Medical Practitioner, being a donor of ten guineas or more, is eligible as an honorary member for life.

I am, &c.

Alexander Henry, M.D., Secretary.

15, George-street, Portman-square, W., April 25.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, May 2.

Dr. Peacock, President.

SPECIMENS FROM CASES OF THE EPIDEMIC OF CEREBRO-SPINAL MENINGITIS RECENTLY PREVAILING IN THE NEIGHBOURHOOD OF DANTZIG.

As this subject is one of unusual importance, and as it excited very great interest, we anticipate our report of the Society's proceedings. A report of the previous meeting is in type, and will appear next week with a report of the other specimens exhibited at the present meeting.

Dr. Sanderson, on behalf of Mr. Simon, who was unavoidably absent, exhibited the pathological results of two cases of the so-called epidemic cerebro-spinal meningitis which has recently prevailed in the neighbourhood of Dantzig.

One of the specimens was the spinal cord of a child, aged 3½ years, who died on the eighteenth day of the disease. The illness commenced in the usual way on March 26th, with flushing of the face, intense pain in the head and back of the neck, obstinate and repeated vomiting, which symptoms were soon followed by unconsciousness. Since the beginning of April there had been strabismus.

When first seen by Dr. Sanderson on April 11th, the patient was lying on her side, with the head retracted and the lower limbs drawn up. The general surface was pale, and the body much emaciated. The pulse and breathing were rapid, and the latter embarrassed. The pupils were insensible to light. The eyes, which were usually open and lustreless, squinted inwards. The patient gave no sign of consciousness when addressed by name; but when she was lifted in bed pitiful cries of pain were uttered, the countenance became distorted, and it was observed that the head remained fixed in its original position of retraction. On the 12th the breathing was more rapid and difficult, and the physical signs of hypostatic congestion were ascertained to exist. On the following morning the child died.

The principal lesions discovered after death were the following:—The pons Varolii was covered with a thick layer of concrete exudation, consisting entirely of pus-corpuscles,

which extended forwards to the chiasma, backwards to the anterior surface of the medulla, and laterally to the inferior surface of the cerebellum and into the Sylvian fissures. The ventricles were distended with purulent fluid containing flakes of concrete pus. Under the arachnoid covering the convolutions on the convexities of both hemispheres, some of the intergyral spaces were occupied with similar concrete exudation. The posterior aspect of the spinal cord was covered with a layer of similar character, which extended from the cervical swelling to the cauda equina. The anterior surface of the cord was free from exudation. With the exception of collapse and excessive hyperæmia of the bases of both lungs, the other organs were healthy.

The particulars of the second case were not communicated in detail. It was stated that the patient (an adult male, aged 42) was admitted into Hospital on the second day of the disease, and died on the tenth day. After the usual initial symptoms, rigor, vomiting, intense headache, and pain in the back of the neck, the patient became delirious, and subsequently passed into a state of stupor, from which he could be roused without difficulty. Dyspnœa came on about the seventh day, and gradually increased till death. In this case, as in the other, there was little pain, excepting when the patient was raised in bed. The head was constantly retracted, but there was no tetanic contraction of the muscles of the nape. The characteristic eruption of herpes labialis appeared on the seventh day.

The post-mortem appearances, as regards the brain and spinal cord, resembled those already related, with the exception that here there was very little exudation on the base of the brain, but a considerable deposit on the pia mater covering the upper surface of the cerebellum, from which point it extended forwards to the velum interpositum.

In answer to many questions from the President, Dr. C. J. B. Williams, and others, Dr. Sanderson stated that the facts observed at Dantzig afforded no ground for believing that the disease was communicable from person to person, or that it had anything in common with typhus fever, excepting in so far as each disease was no doubt dependent on a specific poison; that no eruptions resembling those of typhus or typhoid fever were observed; that impairment of the respiratory function was usually the immediate cause of death; and that, in general, the blood was found uncoagulated after death. In two cases, the spleen was excessively hyperæmic and soft as in typhus.

Dr. Murchison's attention had been devoted to the subject of epidemic cerebro-spinal meningitis long before the epidemic at Dantzig had been heard of. He thought that the appearances described by Dr. Sanderson left no doubt as to the existence of inflammation of the membranes of the brain and cord in the specimens which he had exhibited. But the important points to determine were whether this inflammation was primary, or whether it was merely a local complication of some general abnormal condition, and in the latter case what was the real nature of the primary disease. Most pathologists admitted that there was such a disease as primary inflammation of the brain and cord, independent of tubercle; but all Practitioners knew full well that the disease was extremely rare, and that when the lesions in question were found after death they were most commonly due to some blood disease. Dr. Murchison had found these lesions in cases of typhus fever (see *Lancet*, April 22), scarlet fever, and pyæmia, and a gentleman was present who had found similar appearances in a large number of cases of yellow fever. When, therefore, we heard of so many as 1200 persons dying of this affection in Dantzig and its neighbourhood within a few months, there could be no doubt that the lesions of the nervous centres were secondary to some general disease of the system. The question then was, what was this general disease? Was it, as had been stated, a disease which of necessity gave rise to inflammation of the cerebro-spinal membranes, and which had scarcely before been known in Britain? Dr. Murchison believed not.

The epidemic at Dantzig had been stated on good authority to be the same as the "epidemic cerebro-spinal meningitis" which had been described by many French and American writers, and which had been so common in America during the present war. Assuming this to be the case, we had ample materials for forming an opinion. Dr. Murchison had studied the accounts of these epidemics with great care, and had come to the conclusion that it was more than probable that most of them—he did not say all—were typhus fever complicated with meningitis, such as he had witnessed at the London Fever Hospital. This opinion, moreover, was the same as that held by some of the highest authorities on fever in America and France, such as Drs. Upham and Gaultier de Claubry. The signs of inflammation of the membranes of the brain were as marked in the American cases as at Dantzig; but this important observation had been made in American, that these signs were not always present, even in cases where their existence had been suspected from the previous symptoms. The other post-mortem signs were those of typhus, viz., a fluid condition of the blood, enlargement and softening of the spleen, and hypostatic congestion of the lungs. Dr. Murchison would be glad to know what was the condition of the blood, the spleen, and the lungs in the cases observed at Dantzig. A rash had also been noted in a large number of the American cases, many of the descriptions of which corresponded in every particular with the eruption of typhus—(see *Lancet*, April 22, p. 418). The etiology of the two diseases constituted another most important point of resemblance. Both in America and on the Continent of Europe the intimate relation between the occurrence of epidemic cerebro-spinal meningitis and overcrowding with bad ventilation had been a matter of general observation. If this remark did not apply to the Dantzig epidemic, then it differed not only from typhus, but from most epidemics of cerebro-spinal meningitis on record.

Dr. Murchison then proceeded to notice some objections which might be raised to his view of epidemic cerebro-spinal meningitis.

First, he had heard it said that the symptoms and whole course of the disease differed from those of typhus. After considerable experience in typhus fever, he could not assent to the soundness of this argument, and it must be borne in mind that typhus fever complicated with meningitis presented different symptoms from typhus fever not so complicated.

Secondly, it might be argued that inflammation of the cerebro-spinal membranes had been the rule at Dantzig and elsewhere, whereas in English typhus it was undoubtedly a rare exception. But it had been shown that in the so-called "epidemic cerebro-spinal meningitis" of America, cerebro-spinal meningitis was not always present; and with this fact before him, Dr. Murchison was not prepared to admit that six or eight autopsies, which were all that had been made out of 1200 fatal cases, were sufficient to decide the question in reference to the Dantzig epidemic. A more important fact remained to be stated. Outbreaks of undoubted typhus had been known to occur in England, in which almost every fatal case had been complicated with cerebral meningitis. About thirty years ago, a remarkable outbreak of this sort had occurred in an asylum for seamen in the East of London. The epidemic had been described by the late Dr. Roupell, the author of an excellent work on typhus. Dr. Roupell's description of the rash and of the other symptoms made it clear that the fever was typhus. Many of the cases proved fatal, and they were dissected and recorded by an eminent pathologist, Mr. George Busk, who had assured Dr. Murchison that Dr. Roupell's description was perfectly correct, and that in almost every one of the cases, lymph or pus was found on the surface of the brain.

Thirdly, it had been stated that there was no evidence of the disease at Dantzig being "personally communicable." Contradictory statements, however, had been made on this point, and it was worthy of consideration that many cases had proved fatal at Dantzig before the stage at which typhus probably becomes contagious. The communicability of typhus varied greatly according to circumstances. Dr. Christison and the late Dr. Alison had attended upwards of 280 cases of typhus in private houses, and in only one instance had the disease spread. Few Medical men, however, would be induced by this fact to subscribe to the opinion of some persons that typhus was not contagious. But, after all, if the disease at Dantzig was not communicable, then it unquestionably differed from many of the epidemics of cerebro-spinal meningitis already on record.

Lastly, it had been argued that typhus was unknown at Dantzig; but one of the most frightful epidemics of typhus ever known had occurred there; and it was a remarkable fact that the present epidemic had appeared almost simultaneously with an epidemic of typhus and relapsing fever in the adjacent country of Russia.

In conclusion, Dr. Murchison observed that if he had ventured to express his views in opposition to those of his friend Dr. Sanderson, he had done so solely with the hope that by free discussion light might be thrown on a disease which still required elucidation.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on April 27 :—

Edwin Charles Garnsey, Wells, Somerset; George Lamb, L.R.C.P. and L.S.A., Hull; Bryan Holme Allen, L.S.A., London; Robert Croft Beck, Louth, Lincolnshire; Joseph Thompson, Nottingham; and John Hackney, Myddelton-square, students of University College. John Holden Webb, Tunbridge Wells; Richard Samuel Purnell Griffiths, Cheltenham; Sydenham John Knott, Jamaica; and Benjamin Bingay Thurgar, M.D. Edinb., Torquay, Devon, of St. Mary's Hospital. Herbert Lucas, Hitchin, Herts, and George Rendle, Newington-causeway, of Guy's Hospital; Frederick Barham Nunneley, Burton-on-Trent, and Edward Francis Jenkins Cole, St. Helena, of King's College; Thomas Harrison Tidswell, Spalding, Charing-cross Hospital; Thomas Lloyd Place, Wickham Market, of St. Bartholomew's Hospital; William Griffith Jones, Llanelly, Carmarthen, of the Middlesex Hospital; Frederick Knowlton Hampshire, Kensington, of St. George's Hospital; William Knight Treves, Dorchester, of St. Thomas's Hospital; and Charles James Cullingworth, Leeds.

Admitted members on April 28 :—

Frederick William Humphreys, Trinity-square, Tower-hill; Robert Woodings Sutton Barraclough, Streatham-hill; George Warcup Malim, Grantham; John Battison, Chesterfield; and John Arthur Ensor, L.S.A., Exeter, students of Guy's Hospital. Ralph Gooding, B.A. Lond., and L.S.A. Ipswich; Arthur Armistead Corte, Blackburn; and Edward Living Fenn, Nayland, Suffolk, of King's College; Harry Davenport Dod, Macclesfield; William Jeremiah Wane, Lancaster; John Haigh Tarleton, B.A. Cantab, Birmingham; William Taynton, Commercial-road; and John Rogerson, Bow, of the London Hospital. Walter Lattey, L.S.A., Clapham, and Charles Edward Hocken, Chelsea, of St. George's Hospital; Alfred Marchmont Watson, M.D. Edin., Peterborough, and Myrry Clarke, Jamaica, of the Edinburgh School; Frederick Isaac Flower, L.S.A., Codford, Wilts, of the Middlesex Hospital; and Henry Hargreaves Birtwell, L.S.A., Blackburn, of St. Thomas's Hospital.

It appears that out of the ninety-five gentlemen who offered themselves for examination only twelve were referred back to their studies for six months.

The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 2nd inst., and, when eligible, will be admitted to the Pass Examination :—

John Jenkins, William Spratt, J. C. Chester, Walter Greene, Richard Tudge, Charles Nutt, Christopher Lordison, W. B. Giles, W. C. Toulmin, Henry Warlow, and John Williams, Students of Guy's Hospital; W. G. Maddox, Stammers Morrison, G. H. Maasdrop, C. A. Robinson, and L. M. Le Grand, of the University College; Arthur Waller, Frederick Stocks, and Thomas Baron, of St. Thomas's Hospital; Richard Kinneir, C. H. Orfeur, and W. A. Richards, of King's College; Arthur Jackson and L. E. Evans, of St. Bartholomew's Hospital; J. C. McDonald, of the Westminster Hospital; C. H. Dawson, of the Bristol School.

The following passed on the 3rd inst. :—

S. W. Arundell, E. H. Addenbrooke, H. F. Marshall, G. P. Hadley, and Thomas Sansome, of the Birmingham School; William Davies, G. V. Poore, F. W. Young, and Nicholas Marshall, of the University College; C. W. Eccles, Charles Hedley, and Charles Gurdon, of Guy's Hospital; William Naughtin and Ellery Turner, of Charing-cross Hospital; George Bishopp and G. C. Parr, of St. George's Hospital; W. E. Williams and Mowbray Jackson, of St. Bartholomew's Hospital; J. J. Ilott, of the London Hospital; T. J. Fawcitt, of Newcastle; James Howard, of Manchester; Isaac Taylor, of Sheffield.

The following passed on the 4th inst. :—

W. H. Moore, N. E. Davies, A. H. Smee, F. C. Shaw, Frederick Oke, and Henry Sedgwick, students of St. Bartholomew's Hospital; O. H. Foster, William Stanger, T. C. Marsh, and Henry Lyne, of Guy's Hospital; William Monckton, C. W. Philpot, and R. G. Boulton, of King's College; J. B. Withington and J. S. Wyman, of Birmingham; Thomas Conry, of Dublin; J. W. Marsh, of the London Hospital; E. N. Smith, of St. Mary's Hospital; R. C. Newton, of Newcastle; C. H. Spooner, of St. Thomas's Hospital; J. T. D. Hughes, of Glasgow; Charles Grindrod, of Manchester; and J. M. Creed, of University College.

It is stated that out of the 104 candidates who offered themselves for examination no less than thirty-three were referred back to their studies for three months.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, April 27, 1865 :—

William Hoffmeister, Cowes, Isle of Wight; Nathl. Thos. John Haydon, Bovey Tracey, Devon; Thomas Dick, Harrington, Cumberland; James Fernie, Kimbolton, Hunts; Brownlow North Hyatt, 49, Doughty-street.

The following gentleman, also on the same day, passed his first Examination :—

Shirley Woolmer Arundell, General Hospital, Birmingham.

PRELIMINARY EXAMINATION IN ARTS.—The following gentlemen passed this Examination on April 28 and 29, 1865, and received Certificates of Proficiency in General Education :—

Frederic Byres Taylor (Certificate of Honour); John Adams, Newcastle-under-Lyne; F. G. Alleyne, 27, Gloucester-place; H. F. Baker, 6, Furnival's-inn; John R. Bayley, Holt, near Winchfield; Geo. Robt. Beswick, Brick-lane, Spitalfields; W. L. H. Penkarne, College-hill, E.C.; J. A. Calentarients, 43, Camden-road; R. Caldecott, Rugby; J. G. Colborne, 53, Tachbrook-street; Lee F. Cogan, Greenwich; W. B. Davies, Chelmsford; Saml. Evans, Llandovery; W. A. D. Fasken, Norwood; Wm. Hy. Gilkes, Hereford; Clement F. Gray, Holmes Chapel; Geo. Granslade, Stoke-sub-Hamdon; T. H. Hendley, Charlton; R. C. Holman, East Heathly; Donald N. C. Hood, Croydon; J. A. Jackson, South Ockendon; Alfred A. Kidger, King's College; Walter Kitching, York; Saml. Lee, Savile-row; Aug. E. B. Love, Canterbury; Jas. McDougall, Shobdon; Herbert Norton, Springgrove; Edwd. Palk, Totness; W. A. Patchett, Mottram; F. J. Pearse, Regent-street, Westminster; A. P. Penrose, Amwell-street, E.C.; W. Perkins, Malmesbury; G. H. Phillips, 29, St. Peter's-square; Allen Sewell, 17, Euston-square; Chas. W. Smith, Douglas-road, Canonbury; Herbert A. Smith, 28, Hatton-garden; F. E. Taylor, Norwich; H. A. Turner, Brighton; F. H. Truter, 5, Manchester-street; G. H. Wade, Littlehampton; C. P. S. Wayman, Great Thurlow, Suffolk.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ANDERSON, A. M., M.D., has been appointed Physician and Medical Superintendent of the Fever Wards, Town's Hospital, Glasgow.

ANDERSON, JOHN, M.R.C.S. Eng., has been reappointed Medical Officer for Peterhead, Aberdeenshire.

ANNANDALE, THOMAS, F.R.C.S.E., has been appointed Assistant-Surgeon to the Royal Infirmary, Edinburgh.

ARMSTRONG, THOMAS, M.R.C.S. Eng., has been appointed Medical Officer for the Workhouse of the Brecknock Union.

ASHFORD, EDWIN C., L.R.C.P. Edin., has been elected Medical Officer for the Workhouse of the Tiverton Union.

BILLING, ARCHIBALD, M.D. Oxon., F.R.S., has been elected Consulting Physician to the Free Dispensary for Diseases of the Throat, King-street, Regent-street.

BOGG, THOMAS W., M.R.C.S. Eng., has been appointed Surgeon to the Louth House of Correction.

BROWNE, J. CRICHTON, M.D. Edin., has been appointed Medical Superintendent of the Newcastle-upon-Tyne Borough Lunatic Asylum.

BRYANT, WILLIAM H., M.R.C.S. Eng., has been appointed Resident Surgeon to the Great Northern Hospital, Caledonian-road.

FRASER, PATRICK, L.R.C.P. Lond., has been elected Physician to the Free Dispensary for Diseases of the Throat, King-street, Regent-street.

GREWCOCK, GEORGE, M.R.C.S. Eng., has been elected House-Surgeon and Secretary to the Stamford and Rutland Infirmary.

HACKNEY, JOHN, M.R.C.S. Eng., has been appointed House-Surgeon to the Royal Free Hospital, Gray's-inn-road.

KEELE, GEORGE T., M.R.C.S. Eng., has been elected Surgeon to the Holloway and North Islington Dispensary.

LYNCH, J. ROCHE, M.R.C.S. Eng., has been appointed House-Surgeon t St. Mary's Hospital.

OWENS, HENRY, M.D., has been appointed one of the Resident Surgeons at the Birmingham Lying-in Hospital.

PERCIVAL, Mr. T., has been elected Assistant Resident Medical Officer to the Leeds General Infirmary.

ROPER, CHARLES H., M.R.C.S. Eng., has been elected Surgeon to the Devon and Exeter Hospital.

WILLETT, CHARLES V., M.R.C.S. Eng., has been appointed House-Surgeon to the Brighton and Hove Dispensary.

WORGER, THOMAS H., M.R.C.S. Eng., has been appointed one of the Resident Surgeons at the Birmingham Lying-in Hospital.

DEATHS.

ARMSTRONG, GEORGE D., M.R.C.S. Eng., at Cockermouth, Cumberland, on March 9, aged 39.

CROWDY, CHARLES W., M.R.C.P. Lond., at Beaufort-buildings, Bath, on April 25.

HIFFELSHEIM, the distinguished man of science, who has of late paid much attention to the practical application of dynamic electricity, has just died at Paris at the early age of 37.

MOREL-LAVALLEE, the well-known Surgeon of the Beaujou Hôpital, Paris, has just died.

ROSS, SAML., M.R.C.S. Eng., at Haxey, Lincolnshire, on March 23, aged 44.

STANLEY, JOHN, M.D. Edin., at Belle Vue, near Whitehaven, on April 28, aged 89.

TOMKIN, W. BRYCKWOOD, M.R.C.S. Eng., at Witham, Essex, on April 16, aged 44.

WRAGG, CHRISTOPHER, M.R.C.S. Eng., at 198, Goswell-road, London, on April 26, aged 40.

NEWCASTLE AND GATESHEAD OBSTETRICAL SOCIETY.—A new society has been formed with the above title, the objects of which are sufficiently explained by its first law—viz., "that the objects of this Society are—the advancement of obstetrical science, the promotion of all that relates to the knowledge of all that relates to the knowledge of the diseases of women and children, and the maintenance of Professional etiquette amongst its members." The following is the list of the first officers :—*President.*—W. Dawson, M.D. *Vice-Presidents.*—A. S. Donkin, M.D.; G. Y. Heath, M.D.; B. Barkus, M.D.; J. Jobson, F.R.C.S. *Committee.*—L. Blumer, M.D., Sunderland; Richard Clarke, M.R.C.S.; J. C. Preston, L.S.A.; W. C. Nesham, M.D.; T. H. Pyle, M.R.C.S., Earsdon; J. Russell, M.R.C.S. *Hon. Sec.*—R. Ellis, L.R.C.P. Ed., 36, Hinde-street, Newcastle-upon-Tyne. We heartily wish the Society a successful and useful career.

University of London.—The Senate, at a meeting held on the 26th inst., elected the following gentlemen as examiners for the ensuing year, commencing 1st July next:—*Chemistry*—Henry Debus, Esq., Ph.D., F.R.S., and Professor A. W. Williamson, Ph.D., F.R.S. *Botany and Vegetable Physiology*—Rev. M. J. Berkeley, M.A., and Thomas Thomson, Esq., M.D., F.R.S. *Geology and Palæontology*—Archibald Geikie, Esq., F.R.S. Ed., F.G.S., and S. P. Woodward, Esq., F.G.S. *Practice of Medicine*—Professor Edmund Alexander Parkes, M.D., F.R.S., and Francis Sibson, Esq., M.D., F.R.S. *Surgery*—Professor John Eric Erichsen, and John Hilton, Esq., F.R.S. *Anatomy*—Professor George Viner Ellis, and Professor Peter Redfern, M.D. *Physiology, Comparative Anatomy, and Zoology*—Professor Thomas H. Huxley, Ph.D., F.R.S., and William Scovell Savory, Esq., M.B., F.R.S. *Midwifery*—John Braxton Hicks, Esq., M.D., F.R.S., and William Overend Priestley, Esq., M.D. *Materia Medica and Pharmaceutical Chemistry*—Frederick J. Farre, Esq., M.D., and Samuel Osborne Habershon, Esq., M.D. *Forensic Medicine*—Professor William Augustus Guy, M.B., and William Odling, Esq., M.B., F.R.S.

Royal College of Surgeons in Ireland.—At a meeting of the College held on Tuesday, May 2, the following gentlemen were elected Examiners for the ensuing year, viz.:—Examiners for Letters Testimonial and Fellowship.—Christopher Fleming, Jerome Morgan, George H. Porter, Benjamin W. Richardson, M. Harry Stapleton, Edward A. Stoker, T. Jolliffe Tufnell. Examiners in Midwifery.—James Isdell, Alfred H. M'Clintock, Edward J. Quinan. Examiners in General Education.—Thomas Byrne, John Murray, George F. Shaw.

The Académie Francaise.—The forty "*immortels*" who constitute this Academie, to which even the Emperor Napoleon is stated to be so desirous to belong, are thus distributed, according to age:—There are 5 octogenarians, 10 septuagenarians, 13 sexagenarians, 8 quinquegenarians, 3 quadragenarians, and 1 trigentenarian. Their combined ages constitute a sum of 2611 years.

The Zoological Society.—At a meeting of the Council of this Society on Wednesday last, Dr. James Murie was elected anatomical prosector in the gardens, at a salary of £250 per annum. Educated to the duties in question under Professor Quekett, in the Museum of the Royal College of Surgeons of England, there is no doubt Dr. Murie will thoroughly justify the rather difficult duty of selection made by the Council from the twenty-nine good men who offered themselves for the appointment. To the Society itself great credit is due for creating an office calculated to be of as much benefit to the scientific public at large as to themselves. Our readers will be glad to learn, from the annual report just published, that the receipts of the Society for the past year from all sources amounted to £21,713 13s. 10d.

Popular Scientific Lectures on the Continent.—These lectures, which, under the name of "conferences," are now quite the rage in France, have been taken up with great zeal in Italy, and it seems that at Naples a Mademoiselle Royer—a French lady, we presume—has met with splendid success in her conferences on some of the most important questions of natural science, especially spontaneous generation and the origin of species.

The Royal Free Hospital.—The biennial festival of this Hospital was held at the Freemasons' Tavern on Monday, May 1, E. Masterman, Esq., treasurer, in the chair. Among the donations and subscriptions announced was £1000, the second donation of that amount, by a lady anonymously; £500 by Sir Rustomjee Jamsetjee Jejeebhoy, Bart.; George Crawshay, Esq., a fourth donation, £325. The total amount announced during the evening was £4430.

Hospital for Women (Patron: Her Royal Highness the Princess of Wales).—*New Wing for Paying Patients.*—Several ladies having suggested the expediency of admitting paying patients into the Hospital, thereby supplying a want which has been long and extensively felt, the general committee have engaged to carry this suggestion into effect by the addition of a new wing, to be devoted exclusively to this purpose. The benefits of the Hospital for Women have, for the last twenty-two years, been extended to the indigent poor only, to the necessary exclusion of a large class of sufferers, such as the impoverished gentlewoman, the wives, widows, and daughters of Professional men, and needy and over-worked governesses, who, though unable to incur the expense of protracted Medical treatment at home, yet shrink from the want of privacy and repose which is common to the wards of a general Hospital, and are thus entirely debarred from the advantages which the rich and the destitute poor alike enjoy. The sum of £5000 will be required, of which £2550 must be paid on July 5 next, to complete the purchase of the new wing, and it is calculated that the remainder will be fully sufficient for necessary repairs, alterations, furnishing, etc.; after which it is hoped that the paying wing will keep itself, as the present arrangements of the Hospital will be sufficient for the double institution, extra nurses only being required for the additional patients. The patients will be accommodated, as far as possible, with separate rooms, and as they will probably each pay from 10s. to £1 per week, it is hoped that the current expenses will be met by the funds accruing from this source. Her Royal Highness the Princess of Wales has graciously signified her pleasure to become the patron of the Hospital for Women, and has given a donation in aid of the proposed new wing.

The North Staffordshire Infirmary.—The Proposed New Building.—Mr. C. Lynam, the architect, has published an account of the building which is to be the new Hospital for the Potteries. The Hospital is to be built on the pavilion principle, and the buildings are to be arranged round a central garden 140 feet long and 70 feet wide. Communication between the buildings is to be furnished by a glazed corridor which is to surround the garden. Amongst the buildings we observe that a separate ward is allotted for burn cases—a dire necessity in the Potteries.

The Adulteration of Medicine with Methylated Spirit.—An inquiry has been held by Mr. Richards, deputy-coroner, at the Crown Tavern, Charles-street, Mile-end, respecting the death of a child named John R. Lawson, and in the course of the proceedings a very abominable sort of adulteration of medicines was made known. Mrs. Lawson, the wife of a beer-shop keeper, said that deceased was ailing with the whooping-cough, and she took him to a Surgeon in Newington-causeway. The name "Tanner" was on a plate outside the door, and the house was a private one. Mr. Tanner said the child had chicken-pox, and was very dangerously ill. He gave a bottle of medicine, and some ointment, for which he charged 1s. 3d. She gave the medicine three times, and each time he was violently sick from it. The next morning she removed from Southwark to James-street, Mile-end, and as the child seemed dying she called in Mr. Reilly. Mr. F. J. Reilly, M.R.C.S., said that the child died from acute bronchitis. He had made a slight chemical analysis of the medicine produced, and found it to contain poppies and iron prepared with methylated spirits of wine. Methylated spirits of wine was used by French polishers as a substitute for naptha, which destroyed their eyes. The Government allowed spirits of wine to be sold free of duty if it was methylated or adulterated by some naptha being passed through it to render it unfit for drinking purposes, and consequently it could be bought for 6s. 6d. a gallon, while spirits of wine unsophisticated cost 22s. a gallon. It was most improper to use methylated spirits for medicine—it would sicken any patient, but it had not caused the deceased's death. The jury said that even the smell of the medicine was disgusting; it was like bad naptha. Mr. Reilly said that he could not find the name "Tanner" in the "Directory." The jury returned a verdict that the deceased died from bronchitis from natural causes, and the jury strongly deprecated the use of methylated spirits for medicine in the place of pure spirits of wine.

Death of Mark Kebbell, Esq.—"Very seldom before have we known such a feeling of deep and wide-spread regret to exist in the community as that which was caused by the sudden and untimely death of the late Mr. Mark Kebbell. The Physician, in virtue of the important duties which he has to perform, is brought in daily, almost hourly, contact with the members of the community in which he resides, and is often present at moments when not only the exercise of his skill is required, but when those at whose bedside he stands feel deeply the need of that kindness and sympathy which he can afford. Mark Kebbell, who has gone from amongst us, was one to whom it has been vouchsafed to perform such duties to suffering humanity, and hundreds can now testify to the zeal, the skill, and the fidelity which he displayed in his onerous task. To every one—to the poor as well as to the rich—were his services willingly tendered, and it is to this circumstance we partly attribute the deep and general mark of respect to his memory which was shown on Sunday, when his last mortal

remains were conveyed to the grave. When the procession started, upwards of 250 people took their place in the solemn procession, and these again were followed by many additional spectators. On reaching the churchyard, the Bishop of Wellington, accompanied by the Rev. W. Andrews, commenced to read the touching burial service, as contained in the ritual of the English Church. For a few seconds all uncovered, as the voice of the clergyman was heard. Thus the procession advanced till a quiet nook was reached, backed by an amphitheatre of hills, and presenting in front a panoramic view of the bay and its outlet. Here they halted, and gathered round the new-made grave, close to which the officiating clergyman, in calm and clear tones, continued the performance of his office, while hundreds of spectators on the hills, with bared heads, gazed on the affecting scene. At the words, 'We consign his body to the dust,' the coffin was lowered, and immediately afterwards the rattle of the handful of earth thrown on it was heard. A little time more and the service concluded, when friends, and those who were nearer and dearer, came forward to take a last sad look into the pit which would soon shut out from sight all that was mortal of a good and worthy man. 'Mark Kebbell, died on the 3rd of February, 1865, aged 38 years.' Such was the simple inscription on the coffin, such the epitaph on one whom we could have ill spared, a warm friend, a skilful Physician, and a man whose memory will long outlive his good deeds."—*From the Wellington Paper.*—[Mr. Mark Kebbell formerly resided in Brighton, and received his earlier Professional education at the Sussex County Hospital. He had been at Wellington about eight years, where he was very successful in practice. The cause of his death was malignant scarlet fever, which he contracted from his patients, and he died in the faithful discharge of his duties.—*Brighton Gazette.*]

Death after Operation for Cataract in a Child.—M. Warlomont related an interesting case at the Ophthalmological Congress at Heidelberg. A healthy infant, 11 months old, was brought to him with congenital cataracts. The capsules were punctured with Hay's needle twice at a month's interval, absorption going on slowly but regularly; so that at the end of four months there remained only fragments of the opaque capsule floating within the pupil, those of the left eye being free and of the right adherent to the iris. A third operation was required to remove these fragments from the field of vision, the right side offering a little resistance to this on account of the adhesions. After this last trifling operation, however, the child became sick and restless, while the right eye was much inflamed, iritis arising. Increased vomiting followed, together with cerebral symptoms and febrile action, and two days afterwards the infant died.—*Annales d' Oculistique*, June, p. 240.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. W. Clarke, Tweedside, Barbadoes.—The enclosed has been received with thanks.

Stockton-on-Tees.—Our present arrangements do not permit us to insert announcements of marriages.

The Abbey, Hexham.—Our obituary notices are strictly confined to members of the Medical Profession.

A deputation of Medical men interested in preventing counter-practice of chemists will wait on Sir F. Kelly in a few days respecting the proposed Chemists and Druggists Bills. The day is not fixed, but any gentleman interested and desirous of going may apply at the office of this journal, or to Dr. S. Gibbon, 23, Finsbury-square, E.C.

Payment of Gaol Surgeons for Attendance at Inquests.—Our legal adviser sends the following:—"I think that the Surgeon of a gaol is not entitled to a fee for giving evidence before a coroner's inquest on the body of a prisoner dying in the gaol. The Act 6 and 7 Will. IV., c. 89, s. 5, provides that in the case of an inquest on a person who has died in a public Hospital, or Infirmary, or any building or place belonging thereto, the Medical officer whose duty it was to attend the deceased as such Medical officer shall not be entitled to the fees given by the Act. I think that the death of a prisoner in gaol is within this clause."

The Case of Mary Green.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Two very severe articles have appeared in the *Daily Telegraph*, holding Mr. Butler up to public execration for his conduct in the affair of Mary Green. Now, taking Mr. Butler's facts to be correct, I do not myself see that the least blame was to be imputed to him. He surely had a right to decline the case, and he appears to have pointed out to them where to obtain the assistance they required. It is always a rule with me never to go to a labour unless previously specially retained (or as substitute for a Professional brother).

The public have a very firm-rooted, but mistaken, idea that we are their servants, bound to come whenever they call, be the matter light or grave; but remuneration for services rendered is the last thing thought of. This idea has been fostered to a great extent by a false philanthropy practised by the Profession, in too many instances self-seeking and egotistical. Should this idea be extended to midwifery, and should the public believe they could get the services of a qualified Medical man on the spur of the moment without previous engagement, those of us who practise among the poor would be literally robbed of our fees to an enormous extent.

I know nothing whatever of Mr. Butler, but I look to you, sir, to vindicate the honour of the Profession in this matter; and so convinced am I that he has been misjudged and injured, that, if you think proper, I will forward to you £2 2s. as the beginning of a fund to aid him in prosecuting the author who has so grossly slandered him. I am, &c.

M.B. Lond.

A Liverpool Coroner and Beadle on Sudden Death.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following report of an inquest, held before the deputy-coroner for Liverpool, is extracted from the *Daily Post* of to-day. I send it to you merely to show how such an inquiry (so-called) is conducted by a law coroner, to whom it seems it never occurred that when "there is no suspicion—nothing improper," that when a case "is one of those sudden deaths which arise from natural causes," surely no inquest is required. I may mention that the learned official, whose very lucid dicta on Medical matters appear to carry such authority, is an ex-policeman. I am, &c.

Liverpool, May 3. E. H. J.

"An inquest was held yesterday, before Mr. Wybergh, deputy borough coroner, on the body of Robert M'Dougall, 36 years of age, a fireman on board a steamer, who lived in Haddock-street. The deceased had often complained of giddiness in the head, and it was stated that he had received a sunstroke while abroad. On Monday afternoon he had suddenly fallen down dead in Regent-road. The jury seemed to have some difficulty in agreeing upon their verdict, and the foreman said a majority thought it requisite that a post-mortem examination of the body should be made. One of the jurymen explained that they desired this particularly, because shortly before his death the deceased had eaten heartily of his dinner.—The Beadle here interrupted by saying: There is no poison that would kill a man as quick as this man had died.—The Juryman: If he had fell and hurt himself we would be satisfied, but a person falling down there could not be injured.—The Beadle: If he had poison before he left his own house it would have acted upon him before he got there.—The Deputy-coroner: If you cannot come to a conclusion, the only effect will be that I shall have to adjourn the case till to-morrow, and we shall have to pay a Doctor two guineas to say whether it was disease of the heart or whether it was apoplexy. What matter will it be? It would still be natural disease. There is no cause for suspicion—nothing improper. It is simply one of those sudden deaths which arise from natural causes.—After the lapse of a few moments, the Foreman said: There is only one outstanding, Mr. Coroner, the other eleven agree.—The Deputy-Coroner: I shall have to lock you up.—Another short interval elapsed, and the Foreman then cheerfully announced: Mr. Coroner, he's given in.—A verdict of 'Natural causes' was then recorded."

Surgeon-Major Hare in Reply to Dr. Macpherson.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir.—In reply to Dr. Macpherson's letter, dated January 18, which was sent to me by the last mail, I hope you will allow me to make the following remarks:—

In my papers it will be observed that I have most carefully avoided referring to any figures which I had myself compiled. The tables which Dr. Macpherson refers to were those published as the result of the experiment by the Committee appointed by Lord Dalhousie to arrange it. I was not allowed to select my patients, nor did I keep, or ever see, the Hospital Registers. This was all arranged by Sir James Thomson and the Hospital authorities. I simply treated the patients which were sent by them to my ward; and every grain of medicine which I prescribed, and every death, was recorded by them. The public, therefore, must decide for themselves whether they will credit Dr. Macpherson or the Committee of three Medical officers, high in rank, appointed by the Government to manage the experiment, in concert with Dr. Nicholson, the Surgeon of the Hospital.

Dr. Nicholson's name is well known in India as the most successful Practitioner that ever appeared in Calcutta. He prophesied from the commencement the success of my experiment, always gave me his full support, and never sanctioned the opposition of his assistant, which he knew was only and solely caused by Dr. Macpherson's vexation in finding that the results of my practice were compared with his own, and his mortality thus proved to have been very great. I would willingly have avoided such an invidious comparison, but I was not consulted, and obliged to do as I was ordered. Dr. Macpherson did, I believe, write to the Committee some letters very early in the experiment, when he saw what the result would probably be; but I never read them, and was not consulted. They were, no doubt, what he says of them himself, "curiosities of Medical statistics." The Committee decided for themselves.

But the argument of my papers does not rest on figures. In mentioning my experiment I was obliged to give its recorded results, though I know myself that the success shown in the tables is considerably below the reality, from the determination of the Committee to publish under their authority nothing that was doubtful. The real proof of the success of the experiment is the revolution(a) which it has caused in practice throughout India, the certainty of which the reader can see for himself in the steady and large increase in the expenditure of quinine(b) ever since its date. Lord Dalhousie foresaw this, and took immediate steps to introduce the cinchona tree.

Dr. Macpherson's remarks, that the contents of my papers are "old and stale," may be noticed as a sample of the correctness and the spirit of his other objections. Can this be said of the great facts which I have proved, —viz., that quinine can be given during the hottest stage of the paroxysm of remittent malarious fever, and even in continued malarious fever, not only with impunity, but enormous saving of life; that malarious fever is not an inflammatory disease, and that in the very large number of dissections recorded during more than twenty years in the General Hospital, not one appearance of inflammatory result is found after fever, while they are constantly described by the same Practitioners in their examinations

(a) See Dr. Ewart's History quoted, p. 647, *Medical Times and Gazette*, December 17, 1864; also Ranking's Abstract, vol. 39, 1864, p. 43.

(b) See Table No. 6, p. 674, *Medical Times and Gazette*, December 24, 1864.

of the deaths from dysentery; and lastly, the curious and important proof of the immense majority of malarious fevers over every other form in Calcutta, and the clear deduction that the result of malarious poisoning is not necessarily intermittent or remittent fever, but that it is sometimes no fever at all, but icy coldness throughout, like the collapse stage of cholera; that the poison, therefore, of malaria is a direct sedative which injures the vitality of the blood, and thus stops the capillary circulation, which requires vital powers for its continuance;—the blood therefore accumulates, in what is called congestion, in the great viscera of the body, the liver, spleen, brain, etc., and the salutary efforts of Nature to overcome this stagnation we have called fever, and have been treating it hitherto most fatally as an inflammatory disease?

Also, if I were reviewing my own papers, I would add that, as the proof of error never appears so practically convincing as when we are able clearly to view its cause, so it will be seen how important my arguments are on the past practice of Drs. James Johnson and Twining, where I show that the remedies they used were truly successful, but wrongly applied, from the prevalence of false inflammatory theories, and dread of the supposed stimulating effects of bark. These facts Dr. Macpherson asserts to be "old and stale," yet I know not where else, except in my papers, they can be found; and they are truths which will benefit the human race wherever civilisation can extend itself. I am, &c.

E. Hare, Deputy Inspector-General of Hospitals, Bengal.

Agra, Bengal, March 22.

COMMUNICATIONS have been received from—

Royal Medical and Chirurgical Society; Captain Russell; Royal Institution; Microscopical Society; M.B. Lond.; Ethnological Society of London; Mr. Thomas Annandale; Dr. Crichton Browne; Dr. George Padley; Dr. J. Braxton Hicks; The University of London; Dr. J. C. Brumwell; The Rev. Adam Stewart; Dr. Kebbell; The Hon. Secretary of the Hospital for Women; Apothecaries' Hall; E. H. J.; Mr. J. Hayward; Mr. H. Gage Moore; Mr. S. Whitford; Mr. J. Hackney; Mr. G. C. Witherby; W.

BOOKS RECEIVED.

Report on the Health of Liverpool during the Year 1864. By W. S. Trench, M.D., Medical Officer of Health for the Borough. 1865. Pp. 59.

*** The greater part of this Report is occupied with a consideration of the several conditions which have appeared to promote the spread of typhus fever in Liverpool, which, commencing to be in excess during the latter months of 1861, steadily increased in the borough, until, during the last quarter of 1864, it attained the gravity and extent of a destructive epidemic. In 1864 the deaths numbered 1774, the numbers each quarter being 307, 539, 595, 753; so that this disease gave rise to 10.5 per cent. of all the deaths registered. The conditions dwelt upon in the report are contagion, indigence, overcrowding (in Liverpool very much due to the arrivals of emigrants for embarkation at that port), filth, and drunkenness. He traces very fully the influence which the American blockade of cotton ports has had in throwing out of employment a vast number of the labouring population. Taking the cotton porters alone, it seems that in 1860 and '61 there were as many as 6000 or 7000 persons engaged in this occupation alone, and the losses which fell upon these people must have been felt likewise by the whole body of unskilled operatives. The standard by which Dr. Trench judges of overcrowding is the cubic capacity of rooms, his minimum being 300ft. for each individual. This is the customary minimum in London. He is in error in thinking that more is demanded, except by one or two of the health officers. We agree with him, from practical working of this standard, that as things are at present it could not well be raised; and it is pretty certain that even thus there are abundant instances which escape the eye of health officers and sanitary inspectors in which even this minimum is not attained. Dr. Trench has a section devoted to the subject of "sub-letting" in poor tenements. He agrees with Mr. Godwin's suggestion, that houses sublet should be registered in some way, and the landlords obliged to comply with some simple hygienic requirements. This is the plan proposed also by the Metropolitan Association of Medical Officers of Health. It seems to us a very practical one, and such as Parliament should find no difficulty in sanctioning. Dr. Trench does not find that there was any increase of intemperance prior to the outbreak in 1861, and the excess subsequently he attributes to the depression of trade and its moral and physical concomitants—anxiety, idleness, and destitution. There is a report appended "On the Prevention of Contagion," from which it appears that shortly after Dr. Henry, of Manchester, published his papers in the *Philosophical Magazine*, the Liverpool Town Council erected an apparatus for disinfection by means of steam, which has been in constant use in the borough gaol since. The ordinary working is 210° Fah., equal to 8lbs. pressure on the square inch; but it is capable of being raised to 9 or 10 lbs. without danger. Dr. Henry suggests the erection of a public disinfecting apparatus, on a scale sufficient to meet the requirements of the humbler classes of the community, and also of an air-tight dry-room, in which all woollen cloth might be subjected to the action of chlorine.

Indian Emigration: Where to Settle in Western India, with Hints on Cotton and Sheep Farms. By Lieut. T. Prendergast B. Walsh, 1st Bombay Grenadier Regiment. London: Saunders, Otley, and Co. 1864. Price 1s.

*** A very interesting pamphlet, giving advice to persons proposing to settle in Western India as cotton or sheep farmers. Such a scheme is well worth thinking of by any Englishman who does not desire absolutely to expatriate himself. He recommends certain sites in Western Bombay, and gives instructions for intending settlers, with estimates of cost, etc. He looks forward to a larger consumption of animal food by all classes in India. "Meat is much used by natives in all the large towns I have visited in India, and in villages where I have put up I have been repeatedly asked for meat when I have killed a sheep. Brahmins of course I except; but the entire Mussulman population, the Mahrattas, the Rajpoots, the Coolies, and all low castes, and many other persuasions of Hindoos, eat the flesh of sheep. Beef is certainly regarded with disgust by most natives, and a Dher will not eat swine's flesh; but I have seen Bheels eat both in Goozerat."

Odds and Ends. No. 2. Convicts. By a Practical Hand. Edinburgh: Edmonstone and Douglas. 1865. 6d.

*** A thoroughly practical and interesting account of a very painful subject.

On Intra-Thoracic Cancer. Part the First. Introductory and Historic Sketch. By John Cockle, M.D., Physician to the Royal Free Hospital. London: Churchill. Pp. 34.

*** We presume Dr. Cockle intends to publish a book in the form of a series of pamphlets. If so, we should like to suggest that it would be better to change his plan, and let the Profession have all he wishes to say in a mass. It is so difficult to judge of what a book is likely to be which is published in this form, that we would rather reserve criticism until the whole series is before us.

The Annual Report of the Committee of the Manchester and Salford Sanitary Association; being the Summary of their Proceedings for the Year 1864.

*** Dwells again upon the importance of having a place to which children with contagious exanthemata may be removed from the dwellings of the poor.

Anuual Report of the Cumberland and Westmoreland Lunatic Asylum for 1864.

*** Contains an important and interesting account of an outbreak of dysentery in the Asylum.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 29, 1865.

BIRTHS.

Births of Boys, 1140; Girls, 1065; Total, 2205.
Average of 10 corresponding weeks, 1855-64, 1829·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	679	665	1344
Average of the ten years 1855-64	618·4	592·5	1210·9
Average corrected to increased population..	..	..	1332
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	2	1	4	8	3	3
North ..	618,210	2	3	4	..	12	20	4
Central ..	378,058	..	..	1	..	15	4	3
East ..	571,158	3	1	8	..	21	17	5
South ..	773,175	3	5	7	..	23	11	3
Total ..	2,803,989	9	11	21	4	79	55	18

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·967 in.
Mean temperature	54·2
Highest point of thermometer	81·5
Lowest point of thermometer	36·1
Mean dew-point temperature	43·9
General direction of wind	Variable.
Whole amount of rain in the week	0·00 in.

APPOINTMENTS FOR THE WEEK.

May 6. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m. Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m. Royal Free Hospital, 1½ p.m.

Royal Institution, 4 p.m. Prof. Bain, "On the Physical Accompaniments of Mind."

8. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

Royal Institution, 2 p.m. General Monthly Meeting.

9. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Ethnological Society of London, 8 p.m. Rev. F. W. Farrar, "On Language in Relation to Ethnology." Sir Woodbine Parish, "On the Indians of South America."

Royal Medical and Chirurgical Society, 8½ p.m. Mr Henry Lee, "On Acute Inflammation of the Veins." Dr. George Harley and Dr. Dickinson, "On Intermittent Hæmaturia."

Royal Institution, 4 p.m. Professor Frankland, F.R.S., "On Organic Chemistry."

10. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

Microscopical Society, 8 p.m. Meeting.

11. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Royal Institution, 4 p.m. Professor Frankland, F.R.S., "On Organic Chemistry."

12. *Friday.*

Operations, Westminster Ophthalmic 1½ p.m.

Royal Institution, 8 p.m. Frederick Field, Esq., F.R.S., "On Magenta and other Dyes."

ORIGINAL LECTURES.

ON

THE FOOD OF MAN IN RELATION TO HIS USEFUL WORK.

By LYON PLAYFAIR, C.B., LL.D., F.R.S.,
Professor of Chemistry in the University of Edinburgh; Vice-President of the Royal Society, Edinburgh; Vice-President, and formerly President, of the Chemical Society, London, etc.

DELIVERED AT THE ROYAL SOCIETY, EDINBURGH, APRIL 3, 1865, AND ROYAL INSTITUTION, LONDON, APRIL 28, 1865.

(Continued from page 461.)

DIVISION II.

Application of the Preceding Data to Elicit the Source of Useful Work.

13. The common experience of mankind teaches us, that when work is to be obtained from an animal, it must be supplied, in proportion to the labour, with food rich in flesh-formers. Thus a horse, when at work, must be fed with oats or beans, both rich in flesh-formers; a supply of potatoes or turnips, both abounding in heat-givers, would not enable it to do its work. Professor Dick, the head of the Veterinary College in Edinburgh, tells me that a horse may be kept without work, but taking a little exercise, in fair condition, on 12 lbs. of hay and 5 lbs. of oats; but if a good amount of work is to be got out of it, the horse should get 14 lbs. hay, 12 lbs. oats, and 2 lbs. beans. These diets reduced, as regards their flesh-formers, are as follows:—

Horse at rest .	.	29·2 ozs. of flesh-formers.
Horse at work	.	56·2 ,, ,,
Diff. for work .		27·0 ,, ,,

The labour of a horse is generally taken as equal to that of between seven and eight men; and as the working food of a labourer is $5{\cdot}5 - 2{\cdot}0 = 3{\cdot}5$, the proportion

$$3{\cdot}5 : 27 :: 1 : x.$$

in which $x = 7{\cdot}7$ leads to the same result. Again, if we compare the labour and food of a horse and of a man when doing the same kind of work—that is, pulling weights horizontally—we have the following ratios, which, from the different character of their food and assimilative processes, must be made upon the flesh-formers actually expended on work external to their body:—

Work of horse, Morin(n) $\frac{12{,}400{,}000}{1{,}500{,}000} = 8.$
Work of man, Rankin(o)

Labour flesh-formers in the food of horse $\frac{27}{3{\cdot}5} = 7{\cdot}7.$
,, ,, ,, food of man

These ratios are as near as we can expect with animals of such a different character. If we take again two labouring animals of the same herbivorous nature—the ox and horse,—we can compare their labour and food without complicating the question by deducting the quantity required for *opus vitale*. The Sussex farmers find that an ox is well fed on 50 lbs. mangold-wurzel, 3 lbs. beans, and 17 lbs. wheaten straw, the flesh-formers in this food being 38·6 oz. Muschet (p) has given us the labour of an ox, from which we obtain the following ratios:—

Work of horse in foot-pounds, $\frac{12{,}400{,}000}{8{,}640{,}000} = 1{\cdot}43.$
Work of ox ,,

Plastic food of horse, $\frac{56{\cdot}5}{38{\cdot}6} = 1{\cdot}46$
,, food of ox,

14. These numbers, so far as they go, appear to indicate that the external dynamical work of animals is proportional to their plastic food. But this is only the common experience of man. The miners in Chili, who work like horses, also feed like them, for Darwin tells us that their common food consists of bread, beans, and roasted grain. During our harvest in Scotland, the reapers consume about eight ounces of plastic nutriment daily (Christison). Our railway contractors know this necessity of the system so well that they are accustomed to discharge labourers when their appetites fail (Lankester). And, generally, the previous diet tables prove this amply, by showing a constant increase of 30 per cent. of flesh-formers in a labouring diet over one fitted for health without hard work, as contrasted with a varying increase of from 5 to 20 per cent. in the heat-givers.

15. Having thus rendered it probable that we are to look to the plastic ingredients of food as exponents of dynamical action, both internal and external to the body of a man, let us now examine the transformations which they suffer. All chemists are agreed that the final transformation of plastic matter in the body yields carbonic acid, water, urea, and sulphuric acid. Those who believe that the transformation takes place in the blood, agree on this point with those who consider that it is effected in the tissues.

If we take the simplest possible *empirical* formula for albumen, or of tissue formed by it, one representing analysis merely, and not constitution, our views may be more easily understood. Such a formula is $C_{24}H_{38}N_6O_{16}$, in which the 1·2 per cent. of sulphur is for the present supposed to play the part of oxygen:—

		Calculated.	Mean of analysis.
24 C, . . .	288	53·55	53·8
38 H, . . .	38	7·06	7·0
6N, . . .	84	15·61	15·7
16 O, . . .	128	23·78	S 1·2 O 22·3
	538	100·00	100·0

The transformation of this generic tissue-forming body, still omitting the sulphur, would be as follows:—

Albumen. Urea or amido-carbonic acid. Carbonic acid. Water.

$$C_{24}H_{38}N_6O_{16} + 10O = 3(CO_2(NH_2)_2) + 21(CO_4) + 13(H_2O_2).$$

The simplicity of the transformation is remarkable. Water and two forms of carbonic acid are alone produced; of the latter amido-carbonic or urea is secreted with water *per vesicam*, and the gaseous carbonic acid, accompanied by watery vapour, passes away *per halitem* or *per cutem*. If this empirical formula be a fair representation of analysis, and it claims to be nothing more, then, as the result of the transformation, *seven* times as much carbon should escape by the lungs and skin as by the urine. We can only test this when animals are fed on a flesh diet free from fat. Luckily there are two classes of experiments of this kind, one of them being by Bischof and Voit,(q) and the other by Pettenkoffer and Voit.(r) The results of the former, omitting the starving experiments on the dog, are as follows:—

	Grammes of Flesh.	C in Urea. Grammes.	C in CO_4. Grammes.
First Series . .	1800	24·2	180·8
Second ,, . .	1500	21·6	162·1
Third ,, . .	1200	17·7	132·6
Fourth ,, . .	1800	24·9	186·5
Fifth ,, . .	1800	25·6	223·3
Sixth ,, . .	2000	30·3	228·5
Mean . .	1383	24·0	185·6

Before using these figures, we must correct them for the one per cent. of fat which, according to these authors, still remained in the flesh. If we suppose the fat to contain 77 per cent. of carbon, then 13·83 grammes of fat, in the average daily supply of 1383 grammes of flesh, would contain 10·6 grammes of carbon. Hence we have in reality 175 grammes of the carbon in the carbonic acid due to the flesh alone. From this we obtain the ratio—

$$24 : 175 :: 1 : x \ . \ . \ . \ . \ x = 7{\cdot}29.$$

In Pettenkoffer and Voit's experiments, conducted in a like way, but where no correction requires to be made for fat, 21·6 grammes of carbon were found in the urea, and 148 grammes in the carbonic acid, and small quantity of carburetted hydrogen, which escaped by the lungs and skin. Hence we have—

$$21{\cdot}6 : 148 :: 1 : x \ . \ . \ . \ . \ x = 6{\cdot}85.$$

The mean of these two independent series of experiments shows that 7·07 times as much carbon passes away in the form of carbonic acid as we find in urea, our equation having required 7·0.

16. Having established the fairness of the equation of transformation, we have to ascertain its calorific value. Although

(n) Morin, *Mech. Trans.*, by Burdett, p. 397.
(o) *Ency. Brit.*, article Mechanics.
(p) As quoted in Rankin's "Mechanics."
(q) *Die Gesetze der Ernährung der Fleischfressers*, S. 61, *et seq.*
(r) *Ann. der Ch. and Phar.*, Supp. Bd., 1863.

we are well aware, as has been shown by Berthelot(s) and others, that this depends for absolute truth on a thorough knowledge of the rational constitution of a body, this need not prevent, until the progress of knowledge teaches us this, our use of approximative numbers. These we can obtain by the following scheme :—

21 C becomes 21 CO_4, carbonic acid.
3 C ,, 3 CO_2, carbonic oxide.
26—16 H ,, 5 H_2O_2, Water.

In this scheme the hydrogen is reduced to ten atoms, because there are already sixteen atoms of oxygen in the tissue, which may be supposed to have united with that element without increase of temperature. The calorific units employed are those of Andrews—viz., 7900 for carbon, 33,808 for hydrogen, and 2307 for the 1·2 per cent. of sulphur in albumen. We do not know experimentally how much heat is given out when carbon unites with oxygen to produce carbonic oxide; but as we do know how much the latter gives out on becoming carbonic acid, it is easy to calculate how much heat a gramme of carbon would evolve on becoming carbonic oxide. The unit of heat by this calculation would be 2227·7. It will now be convenient to ascertain by these numbers how much heat would be given out by the transformation of one ounce or 437·5 grains (t) (28·35 grammes) of tissue. A little calculation shows that this quantity would yield as much heat as would raise 126·5 kilogrammes of water 1° C. This, converted into its mechanical equivalent, gives :—

126·5 × 425 = 53,762 metre kilogrammes.

17. These numbers can easily be applied. Thus we have seen that a labourer receives 5·5 oz. (155·92 grammes) of flesh-formers in his food. The potential energy represented by this quantity is 295,691 metre kilos.; while the man's labour of raising his own weight one mile high per day is 109,496 metre kilos. But we have not yet deducted the amount of energy required for *opus vitale*, in which we include internal, dynamical, mental, and assimilative work. Concurring estimates of the force exerted by the heart have been made by Helmholtz (u) and Haughton. (v) The latter estimates it at 122 foot-tons, or 273,280 foot-pounds, which is more than one-third of the useful work done out of the body. Now, although the motion of the blood in the human body depends almost entirely upon the heart, there are at least indications in man, and clear evidences in plants, (w) and in the lower animals, that there are other movements in the system without any *vis a tergo* from an impelling body. If the heart do not use the energy placed at its disposal more economically than the conscious man does the amount with which he works, then it would require nearly one ounce, or exactly 1·20 oz. (theoretically, 0·702 oz. should suffice) of the plastic food. This is very nearly one-half of that which is required for subsistence. The two ounces of flesh-formers used in subsistence would yield by their transformation 253 units of heat, or a mechanical equivalent of 107,524 metre kilos., while the work of the heart is only 37,781 metre kilos. But in addition to the other dynamical work within the body, there is also included in this subsistence quantity both a limited amount of mental work and a full proportional of assimilative work. In the dynamical work, besides the cardiac movements, there are those of the respiratory apparatus, of the diaphragm, of the intestines, and of the arteries. All these in the aggregate represent a considerable, though numerically unknown, demand upon plastic food. And finally, we have the mental work, not considerable certainly in a man fed upon a minimum diet, but probably requiring a certain amount for the manifestations of mind to the material world. We cannot therefore be surprised to find that double the amount of energy necessary for the cardiac movements is supplied for the whole functions included in *opus vitale*.

18. The *opus mechanicum* or external dynamical work done by the body of a hard-worked labourer, is to be sought in the 3·5 ounces (99·2 grammes) of flesh-formers which remain after deducting the amount required for *opus vitale* from the total plastic food. But of this quantity one-twelfth appears in the alvine evacuation, without being formed into tissue, and the remainder yields 405 units of heat, or its mechanical equivalent of 172,125 metre kilos.; while the actual amount of useful work performed by the man is 109,496 metre kilos.

19. When we contrast the useful work of a steam-engine with the potential energy supplied to it, this economy of force on the part of the man must appear surprising. But even in the rough mode of calculation available to Scoresby and Joule, to Dumas and Helmholtz, before our knowledge of dietetics had enabled us to consider this question in a more precise way, the relative economy of the human machine excited their surprise. And yet our demand for economy is much greater than they supposed to be necessary, for we require that more than half of the potential energy should be converted into useful work.(x) It may be therefore necessary to adduce general arguments in support of the view that the dynamical action of the body depends wholly on the transformation of the tissues.

20. Nothing is better established in physiology than that muscular activity is dependent on a free supply of arterial blood to the muscles. When a ligature is applied to a large arterial trunk, the action of the voluntary muscles depending on that vessel is either wholly or partially arrested, at least until the collateral circulation is developed. Thus when the abdominal aorta is tied in animals, their hind legs can scarcely be dragged along (Segalus).(y) Such experiments only prove that a free supply of arterial blood to the muscle, to promote its transformation and to restore its waste, is necessary for the production of muscular action. Anything that interferes with the oxidising influence of the blood upon the substance of the muscle affects the power of movement. In the cerulean disease, when venous and arterial blood become mixed, the patient shows both indisposition and inability for muscular exertion. Like difficulty is observed in the thin air of mountain tops, until the lungs become suited to it. Certain substances which retard the oxidation of phosphorus or phosphuretted hydrogen, even in the presence of oxygen (Graham), such as ether and chloroform, seem to act in a like way on the tissues of an animal, by arresting muscular effort. The proof that there is diminished oxidation in such cases is found in the presence of sugar in the urine. The wayward gait of the drunkard under the influence of alcohol is probably the result of a similar obstacle to change.

Gustav von Liebig (z) has demonstrated that the oxidation of tissue is quite essential to muscular irritability, which ceases when the access of oxygen is prevented, and is again manifested when it is supplied. Scelkow's (a) experiments on the gases of the blood are particularly interesting in this point of view. Arterial blood contains 17 vols. of oxygen and is reduced to 8 vols. in coursing through a muscle at rest, and to between 1 and 2 vols. when the same muscle is in action, the volume of carbonic acid augmenting from 24 to 34½ at the same time. These experiments prove clearly that oxidation and contemporaneous production of carbonic acid attend the transformation of tissues, a fact which other physiologists had shown with less numerical precision formerly. Thus Matteucci,(b) in confirming the fact that muscular contraction is dependent on the presence of oxygen, showed that the evolution of carbonic acid is proportional to the amount of contraction, a result which has been confirmed by Valentin.(c) We need scarcely adduce proofs that the oxidation and production of carbonic acid proceed simultaneously in the substance of the tissue and not in the blood, for as long as the muscle is contractile, after it has been cut off from the blood, the

(s) Acad. de Science, January, 1865.

(t) The details of this calculation are as follows :—
One ounce of albumen contains—

Carbon	235·37	grains
Hydrogen	30·62	,,
Nitrogen	68 68	,,
Sulphur	5·25	,,
Oxygen	97·56	,,
	437·48	

This, treated according to the equation given :—

C.	201·75 ×	7,900	= 1,593,825
C.	33·62 ×	2,227·7	= 74,895
H.	8·05 ×	33,808	= 272,154
S.	5·25 ×	2,307	= 12,111
			1,052,985

$\frac{1,952,985}{1 \text{ kil.} = 15,432 \text{ grs.}} = 126{\cdot}5$ kilogramme units. To convert this into mechanical force :—

126·5 × 425 = 53,762 metre kilos.

(u) Lectures at Royal Institution, Lect. VI.

(v) New Theory of Muscular Action, p. 23.

(w) Carpenter's Physiology, p. 215.

(x) It would take from 1000 to 1200 grammes of coal burned in a steam-engine to raise a man from the level of the sea to the top of Mont Blanc; but the same man could do this work in two days by the transformation of 198·4 grammes of dry muscle.

(y) *Journ. de Phys.*, 1824.

(z) Inaugural Abhand. Giessen, 1853.

(a) *Sitz. Wiener Acad.* 1862.

(b) *Comptes Rendus*, xlii. 648.

(c) *Müller's Archiv.* 1845. S. 72.

same changes go on. Again, in insects which have no true blood, carbonic acid is produced by muscular activity (Newport.(d) Valentin (e) observed that when muscular contraction takes place a greater volume of oxygen is absorbed than of carbonic acid evolved, a result to be expected when we know that hydrogen is oxidised and urea is formed. Helmholtz attempted to follow the changes in a contracting muscle, and found evidence of increasing lactates, but could find no diminution in the fat contained in it, a fact of great significance, as we shall see hereafter. Brown-Séquard (f) by producing a circulation of arterial blood in the body of an animal which had assumed cadaveric rigidity, showed that muscular relaxation and contractility was restored and preserved for a long time, the blood issuing as venous; and he further proved that the elongated condition of muscles required the presence of oxidised blood. I have made experiments along with Mr. Turner, the Demonstrator of Anatomy in the University of Edinburgh, to ascertain whether oxygenated water (peroxide of hydrogen), or a solution of permanganate of potash, would cause relaxation in the muscles of rabbits after *rigor mortis* had set in, as Richardson found. In four rabbits these supplies of oxygen had no effect whatever, either in preventing the access of *rigor mortis* or in relaxing it. I believe, therefore, that this relaxation is not due merely to the oxidation of the muscle, but to its nutrition by the arterial blood, which feeds it while it removes the effete matter. It will be obvious from the tenor of my remarks, although I am unwilling to complicate the present question by a theory, that I agree with Draper (g) and others, in considering the contraction of a muscle due to a disintegration of its particles, and its relaxation to their restoration, agreeing also with Dr. Radcliffe (h) as to the active state of the relaxed muscle and the exhausted state of the contracted, without assenting, however, to his torpedo discharges as the causes of these states.

21. All these facts prove that transformation of the muscle through the agency of oxygen is the condition of muscular action. Most likely intermediate products are formed before the final forms of carbonic acid and urea are reached. If these graduated changes take place in the muscle itself, the same amount of potential energy will be available as would be if the simplest forms of oxidation were reached at a bound. If lactic acid be the intermediate product of oxidation before carbonic acid, its passage into the latter must be very rapid, for that is continually eliminated from a muscle during its action. And if we thus constantly find that carbonic acid, the highest oxidised form of carbon, is manifested in the substance of muscle during its activity, it is certainly to be expected that the less oxidised form of amido-carbonic acid should be simultaneously produced. In those cases of disease where elimination of urea is retarded, it is found abundantly in the muscles. Thus, in cholera, especially in the muscles which have been severely cramped, urea is detected with ease. In this disease there is a small amount of chloride of sodium in the blood, and its solvent action on the urea is thus reduced. In uræmia, also, it can readily be extracted from muscular substance.(i) Although in the muscles of certain kinds of fish, as in the *Plagcostomata* (Frierichs and Städeler), urea may be always found, yet Liebig (k) searched for it in vain in the muscles of healthy mammals. Yet this is not surprising when we consider how long search was made for urea in the blood without success. Although the blood contains the sum of the urea of all the transformations proceeding throughout the body, yet as Marchand (l) has shown, the quantity of it which can exist in the blood at any one time is so small that it may readily escape detection. If this be true in regard to blood, it is *à fortiori* true in respect to flesh from which the blood is rapidly removing waste matter in the process of the reparation of the exhausted muscle. It may be possible that creatin(m) is intermediate between tissue and urea, but this is a pure speculation; for although we are acquainted with process by which it can be split into sarkosin and urea, we know of no simple oxidation which will effect this change. Let us inquire how much urea we may expect to find in flesh in a given time, and it will not appear wonderful that it has escaped detection even in the skilled hands of Liebig. In an adult man, 520 grains of urea are secreted in twenty-four hours; hence in one hour $\frac{520}{24} = 22$ grains. Now, although we know that blood is incessantly and promptly removing waste material from the muscles, let us suppose that a quarter of an hour elapses without any of it being taken up, and that the man is killed at this period. Distributed through all the muscles of his body, there would be about 5 grains of urea; and in 10 lbs. weight of fresh flesh, the quantity operated upon by Liebig, there could not be more than 0·4 grains of urea, or 0·026 gramme. In this estimation we take the weight of fresh flesh at 1800 ounces. In our present state of analysis for urea this small quantity could not be detected.

22. In considering the origin of energy in the muscles, one of three sources is alone conceivable—(1.) The energy might arise in the circulating fluid itself; or, (2.) The oxygen of the blood might consume the fat deposited in the muscle; or (3.) The substance of the muscle must be transformed to provide the energy.(n)

We have already (§ 20) shown that the changes which take place in muscle during contraction occur in its substance, and not in the circulating fluid of the capillaries, for irritability continues for a considerable time after the blood has been cut off; and we might here recall the well-known fact, that in spite of a larger quantity of oxygen being taken into the lungs than of carbonic acid evolved, and consequently a necessary evolution of latent heat, the blood of the left side of the heart is 0·2 degrees cooler than that of the right side, showing that oxidation of material is not largely effected during aëration of the blood. We may therefore proceed to the second possible source of energy—the combustion of the fat in the substance of muscle.

23. The usual function of fat is unquestionably, like that of starch or of sugar, to keep up the heat of the animal. When they have served this purpose their physiological work is completed, and the *opus calorificum* cannot be changed into *opus mechanicum*, for that must be due to converted heat, or to force, which has never assumed that form. We know that all the fat and starch in food is required to account for the animal heat, because it has always been a difficulty to reconcile the experimental heat actually generated by an animal with the amount available in the food-fuel supplied to it. In fact, until the researches of Andrews, and of Favre and Silberman, gave to us higher calorific values for hydrogen and carbon than formerly, there was no possibility of accounting for the heat actually given out by animals in the experiments of Dulong.(o) And even with these increased coefficients, we require the combustion of all the non-nitrogenous constituents of food to enable us to account for animal heat. But although this is the case, we must bear in mind that only a small quantity of converted heat is theoretically necessary for mechanical work. The energy available in 22 oz. of a starch equivalent of fuel, consumed by a healthy man, would correspond to 2187 kil. units of heat; while the transformation of the muscles of that man, required for mechanical force, yields about 543 kil. units. Although nearly one-half of the latter is spent in internal dynamical work, and passes into heat within the body, still we cannot afford to subtract any of the available work from the heat-givers. Taking it in round numbers, we have 2500 kil. units of heat available from them and converted vital work, and 2700 kil. units are required, according to the estimate of Helmholtz, to account for evaporation, heating of the ingesta, and radiation. The

(d) *Phil. Trans.* 1836.
(e) *Archiv. fur Keilkunde*, xiv. 431.
(f) *Gazette Medicale*, 1851, and Croonian Lecture, R.S., 1861; compare also Stannius, *Vierordt's Archiv.* 1852.
(g) Human Physiology, p. 446.
(h) Lectures on Epilepsy, 129.
(i) Buhl und Voit, *Zeitsch. fur rat. Med.*, vi., 94; and Von Bibra, *Ann. der Ch. und Phar.*, xciv., 206-215.
(k) "Chemistry of Food," p. 142.
(l) *Pogg. Ann.*, xxxi., 303.
(m) *Schottin Archiv. fur Heilkunde*, 1860, 417.

(n) We do not consider it necessary in the present state of science to present a fourth alternative of the origin of the energy from "nervous force." Some old experiments of Matteucci are still, however, constantly quoted in support of this view. He says ("Phys. Phen. of Living Beings," p. 325) that the chemical action of three milligrammes of zinc, oxidating and converted into nervous force, in a frog, produced a muscular power equal to 5·419 metre kilos. But the current emanating from the zinc could only have exercised a directive action on the muscle which it affected. The total energy derivable from the zinc can be found as follows:—

$$\left(\frac{003 \times 1301}{1000}\right) \times 420 = 1{\cdot}64 \text{ metre kilos.}$$

Deducting this from 5·42, actually got in the experiment, 3·78 metre kilos. of work must have been obtained from some other source of energy beyond the zinc. There is no other source than the substance of the muscle itself. So long as a muscle is alive and in contact with oxygen it can contract under electrical excitement, and the difference between the work which could be done by the exciting force and the useful work obtained, must be the measure of the energy rendered available by the structural and molecular change of the muscle itself. In a later memoir (*Phil. Trans.*, 1857), Matteucci compares the exciting current to the spark which ignites gunpowder, and would seem to have abandoned his former ideas.

(o) Berl. Med. Ency. art., "Thierische Warme;" compare also Fick, Med. Physik. S. 175, *et seq.*

diversion, therefore, of the ordinary ingredients of food, whose proper function is *opus calorificum*, to the production of *opus mechanicum*, is not probable from *à priori* considerations. But it is nevertheless a fact that fat is always present in healthy muscle, and it is desirable to consider its relation to muscular action.

24. The experiments made by Bidder and Schmidt(p) on starving cats, and by Bischof and Voit on a starving dog,(q) throw light on this subject. From these we learn that during the whole course of starvation fat disappears from the muscle in a regular manner, while there is no such regularity as to the waste of the tissues. The amount of urea falls to one-half in two days; then remains constant for a week, falling again rapidly and considerably two days previous to death; during all this time the daily waste of fat remains nearly constant. Nor is there anything surprising in this difference. As the animal becomes weaker, the internal dynamical or vital motions decrease, and their representative in the urine naturally falls. But the fat continues to burn in the living lamp as steadily as the lungs afford to it oxygen.

When Bischof and Voit supplied their starving dog with fat, the waste of the body, as evidenced by the lessened amount of urea secreted, was diminished, because the fat supported the respiration, which before had partially to depend on wasting tissues. The fat cast over them a protective influence, and limited their waste to the support of their own dynamic functions. And in this fact would seem to be the use of fat after it is stored up in the muscle. We allude to its chemical use; for its mechanical advantage in lessening friction, and its possible histogenetic employment in the formation of cells, are not under consideration. Fat does not form a portion of an organ, for ether can extract it without any lesion of the organic structure. In wild animals the muscular fat is present in only small proportion—not exceeding 2 per cent. of the muscle. In the muscle of an active man the fat amounts to 2·2 per cent. A man in ordinary health and activity wastes daily 1750 grains of dry flesh, or 7000 grains of fresh muscle, which would contain 150 grains of fat. The total amount of heat which this quantity could yield by its combustion is 87 kil. units, while the flesh in which it resides would give by its transformation about 506 kil. units. We need not, therefore, look for the source of potential energy in a minor when we have a major source quite sufficient to account for it. The human heart weighs, on an average, 9·4 oz., and contains, according to Böttcher, a mean of 1·7 per cent. of fat. On the extravagant supposition, in § 18, that it destroys more than half its substance daily in movements, it would use 147·7 grammes, containing 2·5 grammes of fat. This quantity could, by its combustion, give 23·9 kil. units of heat, or 10,157 metre kil. of mechanical force. But we have shown that the useful work of the heart is 37,780 metre kils. So that the fat cannot account for the work performed. In these calculations we refer to fat distributed in and inherent to healthy muscle, and not to masses of fat in adipose tissue, such as we find in fattened animals or obese men, for no one pretends that such separate fat can be the cause of movement in any other sense than that starch, sugar, or other body extraneous to the muscle, may, by some unknown or inconceivable method, have this force transformed from *opus calorificum* to *opus mechanicum*. The chemical use of fat deposited within the muscle may be to protect it from the assaults of oxygen during its repose. A muscle, even at rest, gives out carbonic acid, which is no doubt partly due to the oxidation of its effete particles, but also to the oxidation of fat. The conception that the latter is the source of muscular action can only have arisen from the false analogy of the animal body to a steam-engine. But incessant transformation of the acting parts of the animal machine forms the condition for its action, while in the case of the steam-engine, it is transformation of fuel external to the machine which causes it to move.

25. From the considerations which have preceded, we consider Liebig amply justified in viewing the non-nitrogenous portions of food as mere heat-givers. They never can act vicariously for albuminous bodies as tissue-formers, although tissues may and do evolve heat by transformation when required to do so. That heat-givers do operate indirectly on the waste of tissues cannot be questioned. They facilitate transformation by keeping up animal heat and by the promotion of circulation. Cold-blooded reptiles become more active when artificial warmth is supplied to them, and conversely, warm-blooded mammals become more sluggish when the heat of their bodies falls, as during hibernation. Such dependencies of different groups of food, acting co-ordinately, are incessantly found, but nevertheless each group has its own specific work to perform.

26. While we have been led to the conclusion that the transformation of the tissues is the source of dynamical power in the animal, we have yet to examine whether the appearance of heat, and electro-motive force current in the muscles, may not be evolved from, and thus absorb the force on which we have relied. The muscle during contraction is certainly hotter than at rest, about 0·5° C. warmer, according to Becquerel and Brechet. In fever, the temperature of the muscles rises sometimes to 40° or 41° C., and in tetanus to 44° C. (Ludwig); while Fick has shown that in these cases the muscles are hotter than the circulating blood. But the experiments have been made when the waste of tissue is not producing useful work, and must therefore necessarily pass into heat. Beclard (r) found, in fact, that the heat developed in a muscle is in inverse ratio to the mechanical effects produced; for example, in trying to raise insuperable weights, more heat is evolved than in lifting lighter weights. Hirn(s) also ascertained, by direct experiment on a treadmill, that less heat is evolved for each gramme of oxygen taken into the body when hard work is done outside the body. In fact, the heat developed in muscles, when not due to the combustion of fat, is probably only the result of lost work, just as we find that the electro-motive force disappears almost entirely during the active work of a muscle or nerve (t) (Du Bois Ramond). Even with the wonderful economy of force which the animal as a machine exhibits, we cannot be surprised that some of the lost work is manifested in the forms of heat and electricity. We know, for instance, that all the potential energy rendered available for internal dynamical work must assume ultimately these forms.

(To be continued.)

(p) Das Stoffwechsel, 1852.

(q) *Die Gesetze der Ernährung*, etc., p. 97, *et seq.*

(r) *Comptes Rendus*, 1860, i. 471.

(s) *Théorie Mécanique de la Chaleur*, i. 34.

(t) *Untersuchungen uber Thierische Electricitat*, bd. ii., 511.

ORIGINAL COMMUNICATIONS.

ON A

SIMPLE METHOD OF TREATING CERTAIN KINDS OF EPILEPSY, DEMENTIA, AND OTHER CHRONIC HEAD-AFFECTIONS.

By THOMAS LAYCOCK, M.D., etc.,

Professor of the Practice of Medicine and of Clinical Medicine, and Lecturer on Medical Psychology and Mental Diseases in the University of Edinburgh.

(Continued from page 464.)

2. Headaches and Delirium.

Hemicrania may also be relieved by these means. This kind of headache, known as sick headache, *migraine*, the *megrims*, seems to be rather a neuralgia of the cranium, or dura mater, or the scalp than of the encephalon, when it occurs in its simple paroxysmal form unassociated with any structural disease of those parts. Some difference of opinion is expressed as to its nature, but there seems little doubt that it is of vascular origin, for the chief characteristic is the intensely painful throbbings of the temporal and other arteries, aggravated by any movement. That it is also centric seems probable from the symmetrical distribution of the pain and from the concurrent affection of the stomach, in which there is often the production of an intensely acid fluid as well as nausea and vomiting. Dr. Brown-Séquard thinks the symptoms affecting the face, ear, and eye indicate a palsy and not an irritation of the sympathetic or vaso-motor nerves. Prof. Du Bois-Reymond (who has published his own case) is of opinion, on the contrary, that there is a sort of tetanic contraction of the blood-vessels from irritation of the sympathetic system. But neither palsy nor contraction explains the distressing *pain*, for both conditions of the vessels notoriously occur without any pain whatever. It is, therefore, a sensory and not a purely motor affection of the nervous system. Now, I have found that the smelling of strong smelling salts or liquor of ammonia far more certainly alleviates, and even cures, than ammonia and other stimulants taken internally. Some of these, indeed,

make matters worse by exciting vomiting when the head feels to split at every strain on the stomach. I therefore think the action of the irritant is directly on the medulla oblongata.

In hallucinations and delirium the mental disorder seems to be proximately due to a loss of that co-ordination of the various encephalic centres engaged in perception and thought upon which the unity of consciousness depends. It therefore seemed to me to be *à priori* probable that the same class of means which co-ordinate motor centres when disordered would restore the balance of the sensorial centres. I have long demonstrated this to my clinical class as to delirium when opportunity served. It not unfrequently happens that a delirious patient cannot be got to take his medicine or attend rationally to things necessary for his benefit. Now, irritating the nostrils will often serve to recal the patient, temporarily at least, to reason, so that time is given for the administration of the dose or for other matters. In like manner, when a patient awakes out of sleep in a state half way between delirium and hallucination, this very simple means will be found more available than shouting to him, shaking him, or the like.

3.—Chronic Mental Defects and Dementia.

The results of nasal irritation in relieving the hebitude of the epileptic suggests its application to states of mental apathy and torpor in which it is reasonable to conclude that there is defective nutrition and circulation of the encephalon, whether with or without defective co-ordination. I subjoin a case of mental torpor, in which the helleborised cinchona(a) seemed to have a singularly rapid effect, together with the particulars of the morbid changes discovered after death. I am indebted to my friend, Dr. Herbert Taylor, of New Barnet, formerly one of my clinical clerks, for the details:—

Case of Apathy and Somnolency Consecutive to a Blow over the Occiput, Successfully Treated by a Sternutatory—Death Five Months Subsequently—Deposit over the Commissure of the Cerebellum.

Mark S., a coachman, aged about 40, was admitted October 10, 1863, into the "Skin Ward," or Ward 2 of the Clinic of the Edinburgh Royal Infirmary, under the care of Dr. Laycock, suffering from extensive scabies, especially severe about the nates. This was speedily cured, and he was about to be discharged, when Dr. Laycock's attention was called to the circumstance that, except at visit (when he was roused up), the patient was constantly in an apathetic, sleepy state, although quite intelligent when spoken to. This was diagnosed as due to a morbid cerebral condition, the consequence of a blow upon the occiput. A dose of a sternutatory powder was ordered to be taken three times a day; each dose excited sneezing for several minutes, and in a few days the apathy was cured. No particulars were recorded at the time, but in March, 1864, the patient was again admitted into the Infirmary, under Dr. Laycock, when the following history was obtained from him:

Patient states that he has been always a healthy man. When 19 years of age had gonorrhœa; but he stoutly denies any attack of syphilis. He was never a drunkard, and for the last ten years has been a total abstainer. Five years ago, however, while engaged as a stoker on a railway engine, he fell from off the engine, and struck his head about the occipital protuberance against a metal plate. The engine was stationary at the time. He was unconscious in consequence, and remained so for four or five days, but was shortly afterwards able to resume his work. Ever since, at the spot struck, he has "off and on" experienced uneasiness, which seldom amounted to pain. He is now constantly giddy; and the least sudden movement, such as looking up quickly or abruptly stooping, increases this sensation of giddiness. His own expression is, he feels like a drunken man, unable to keep his feet. This condition has increased up to the present time. The drowsiness which annoyed him before the treatment in October was then entirely removed, and he has had no return of it since. Since leaving the Hospital, the head-symptoms have increased, and during the last six weeks his memory has become shorter; although ever since his fall it has been somewhat impaired, and never was very good. Patient was found to suffer from aneurism of the arch of aorta on his second admission to the Hospital; and of this, with other complications, he died on March 28, 1864. Examination of the brain and membranes revealed the following appearances:—Dura mater thickened, and Pacchionian bodies numerous; convolutions of cerebrum not flattened, or, at all events, but little; a good deal of sub-arachnoid fluid; but vessels on the surface not particularly congested. Pia mater distinctly opaque and thickened. Section: "Red points" more numerous than they ought to be; consistence of brain substance not altered; cortical portion rather paler than natural; lateral ventricles contain more fluid than they should—serous in kind; choroid plexus of right side very pale; on membranes covering pons Varolii are seen little deposits, whitish in colour, opaque, and clustered together, the membrane at this point and around being thickened.

Comment.—The patient died of spurious aneurism of the aorta, which ulcerated into the trachea and stretched to paresis and finally to paralysis the vagus and recurrent nerves. The deposits on the membranes covering the pons and the thickening thereof might be reasonably supposed to so far influence the functions of the crura cerebelli and their commissure as to interfere with the locomotive functions of the cerebellum; hence the staggering, etc. Probably the vaso-motor functions were involved in the apathy and drowsiness.

I have tried sternutatories in cases of insanity with general palsy, but with no beneficial result. They were all such that degeneration of the cerebral vessels was probably the proximate cause; and I should hardly expect much benefit from excitement of nutrition and of the circulation in this kind of mental hebitude. But that there are various forms of insanity and dementia which a permanent excitation or modification of the cerebral circulation and nutrition artificially induced by this kind of treatment would cure or relieve, seems fairly deducible from various cases in which improvement has originated spontaneously. Dr. Skae mentions instructive examples in his report of the Royal Edinburgh Asylum for 1859. A patient who had been ten years in the institution, and in a very imbecile state, appeared to be remarkably sensible for two days before his death. In two cases of chronic mania there was also a remarkable interval of sanity extending to several hours, which occurred immediately before a fatal apoplectic seizure. This illustrates the nature of the cerebral change to which the change in the mental state is due. In persons predisposed to apoplexy an analogous condition is sometimes seen. After suffering from various head symptoms, they go to bed, feeling better than they have felt for a long time, and during the night have a fit. Perhaps the most striking example of this kind of change in dementia is recorded by Dr. Skae:—"A lady, whose residence extends to forty-six years, was lately seized with an illness which threatens to be her last. She has not been known, in the memory of the oldest officer or servant, to answer a question or to speak at all, except to swear or talk to herself incoherently while being undressed. On recovering from the immediate effects of the invasion of this illness, she conversed very coherently, asked a portion of the Bible to be read to her, and mentioned the chapter she preferred. She named parties connected with the Asylum twenty years ago, and spoke intelligently of events previous to that period, but seemed quite ignorant of any of the present officers." (Report, 1859, p. 29.) The therapeutic problem for solution is—how to induce artificially that change in the encephalon which in these cases follows upon disease? I think excitation of the cerebellum and medulla oblongata is the chief point to be aimed at, so as to induce at once both a better co-ordination of the encephalic centres and an increased activity of circulation and nutrition. In cases of so-called hysterical palsy the effect of emotional changes in this way is often very striking; and even in other cases of a more organic kind they are powerfully curative. I knew a gentleman suffering from hopeless paraplegia, believed to be dependent on cerebellar disease, who rose from his chair and walked freely under the influence of a painful hallucination. Febrile diseases, such as scarlatina or measles, occurring to the insane sometimes restore them to sanity, during at least the course of the fever. My friend, Dr. Rorie, of the Dundee Asylum, mentions the case of an aged female, the subject of recurrent mania, who was restored to reason in proportion as a disease of the liver advanced, and which finally caused death. The restoration of reason in acute head-affections for a few hours before death is not at all uncommon, and is, indeed, prognostic of a fatal issue. How, then, can we induce similar changes therapeutically, so as to secure their permanent curative effect? In all these instances there is probably at first an increased activity of the encephalic circulation, due to that kind of change in the vessels which follows upon lesion of the cervical sympathetic, together with an evolution of heat. It would be hardly possible to act upon that system directly, but perhaps drugs may be discovered which have indirectly this effect. At present we are too

(a) This powder is composed of ten grains of powdered white hellebore and sixty grains of powdered cinchona. In the first part of this communication the proportion of the latter is erroneously put at ʒss.

much in the dark as to the action of opium, strychnine, and the like, on the cerebral circulation to use them rationally. Excitation of the nerve-centres directly may be, however, available, and the means thereto are very various. Thus I have found that the stimulus of a cold douche to the face has instantly removed defective co-ordination in melancholia, and relieved a patient from depressing delusions; and nothing in these cases is so exhilarating as breathing cold air. Some curious illustrations of the tonic effects of cold on the nervous system have been lately published by my friend, Mr. Roberton, of Manchester, in the form of eases of child-crowing in infants cured by exposure of them to a cold dry wind.(b) So important is this remedy in certain forms of melancholia and dementia, that I believe the cure of such cases is hopeless in the crowded dormitories and wards of Asylums. Local excitation through the skin, nostrils, and lungs, of the encephalic centres, conjoined with a rational treatment in other respects, may do much; and perhaps we may yet discover drugs or other means by which we can excite artificially that encephalic condition which is sometimes so curative in apparently the most hopeless eases as to the merely mental states.

Should any of your readers try the means recommended above they would oblige me much by eommunicating with me.

Rutland-street, Edinburgh.

ON THE RAPIDITY OF THE PASSAGE OF CRYSTALLOID SUBSTANCES INTO THE VASCULAR AND NON-VASCULAR TEXTURES OF THE BODY.(c)

By HENRY BENCE JONES, M.D., F.R.S.

Dear Dr. Sharpey,—I am anxious that you should read to the Royal Society a short note containing the results of some observations I have lately made on the rapidity of the passage of crystalloid substances into the vascular and non-vaseular textures of the body.

It occurred to me that it might be possible to trace the passage of substanees from the blood into the textures of the body by means of the spectrum-analysis, and with the assistance of Dr. Dupré some very remarkable results have been obtained.

Guinea-pigs have chiefly been used for the experiments. Usually no lithium can be found in any part of their bodies. When half a grain of chloride of lithium was given to a guinea-pig for three successive days, lithium appeared in every tissue of the body. Even in the non-vascular textures, as the cartilages, the cornea, the crystalline lens, lithium could be found.

Two animals of the same size and age were taken; one was given three grains of chloride of lithium, and it was killed in eight hours; another had no lithium; it was also killed, and when the whole lens was burnt at once no trace of lithium could be found. In the other which had taken lithium, a piece of the lens, $\frac{1}{20}$th of a pin's head in size, showed the lithium; it had penetrated to the centre of the lens.

In another pig the same quantity of chloride of lithium was given, and in four hours even the centre of the lens contained lithium.

Another pig was given the same quantity, and it was killed in two hours and a quarter. The cartilage of the hip showed lithium faintly, but distinctly. The outer portions of the lens showed it slightly; the inner portions showed no trace.

To a younger pig the same quantity was given, and it was killed in thirty-two minutes. Lithium was found in the cartilage of the hip; in the aqueous humour; distinctly in the outer part of the lens, and very faintly in the inner part.

In an older and larger pig, to which the same quantity was given, lithium after one hour was found in the hip and knee-joints very faintly; in the aqueous humour of the eye very distinctly; but none was found in the lens, not even when half was taken for one trial.

Chloride of rubidium in a three-grain dose was not satisfactorily detected anywhere. When twenty grains had been taken, the blood, liver, and kidney showed this substance; the lens when burnt all at once showed the smallest possible trace; the cartilages and aqueous humour showed none, probably because the delicacy of the spectrum-analysis for rubidium is very much less than that for lithium.

A patient who was suffering from diseased heart took some lithia-water containing fifteen grains of citrate of lithia thirty-six hours before her death, and the same quantity six hours before death. The crystalline lens, the blood, and the cartilage of one joint were examined for lithium: in the cartilage it was found very distinctly; in the blood exceedingly faintly; and when the entire lens was taken, the faintest possible indications of lithium were obtained.

Another patient took lithia-water eontaining ten grains of earbonate of lithia five hours and a half before death: the lens showed very faint traces of lithium when half the substance was taken for one examination; the cartilage showed lithium very distinctly.

I expect to be able to find lithium in the lens after operation for cataract, and in the umbilical cord after the birth of the fœtus.

I am yours truly,

H. Bence Jones.

A patient of Mr. Bowman's with a double cataract was given lithia-water with twenty grains of carbonate of lithia seven hours before the operation on one lens. Lithia was present in each particle of it. After seven days the other lens was examined, and no trace of lithia could be found in it.

(b) *Medical Times and Gazette*, January 14, 1865.

(c) A letter to the Secretary of the Royal Society, read February 2, 1865.

ON SOME OF THE

MORE FREQUENT COMPLICATIONS OF INTERNAL HÆMORRHOIDS.

By W. ALLINGHAM, F.R.C.S.,

Surgeon to the Great Northern Hospital; Assistant-Surgeon to St. Mark's Hospital for Diseases of the Rectum.

There are few operations which can offer a more satisfactory result, both to the patient and the Surgeon, than the removal of internal hæmorrhoids; and, paradoxical as it may appear, the worst cases generally do best, the relief afforded being more marked, and a recurrence of the disease much less frequent. But there are eases we see every now and then which do not by any means turn out so well, unless their nature is thoroughly understood and the proper treatment adopted; and these are the cases to which I wish, in a few words, to call attention.

One of the most frequent complications of internal hæmorrhoids is fissure. When examining a ease of piles, I always inquire whether the patient has pain in passing a motion, or after doing so. If these questions are answered in the affirmative, I expect to find a fissure or small ulcer, and I am rarely deceived. Simple cases of hæmorrhoids are not attended with pain; there may be a fulness and discomfort, with some smarting at the time of defeeation, but eertainly not pain.

A very careful examination is needed to deteet a small fissure when it is conjoined with hæmorrhoids, for frequently a hæmorrhoidal tumour will overlap the fissure, and so conceal it as almost to defy detection, unless the investigation be conducted with certain precautions.

Before proceeding to an examination to determine the operation required, the patient should have the bowels thoroughly cleared out by an aperient and a copious warm water injection; the part should then be protruded by straining over hot water, if the injection has not sufficiently accomplished it. Each pile should be examined, and separated from its neighbour, to see if any fissure or ulcer exists between them; then the finger should be passed into the rectum, to ascertain the condition of the mucous membrane, and to see that there is no ulceration or stricture above the hæmorrhoids.

Frequently one is led to discover the whereabouts of the fissure by observing one or two little papillæ of muco-cutaneous structure, which grow at its margins. When a fissure is found, be careful to see that no polypus co-exists, for if it does, and the fissure be divided, the polypus being left, the wound will certainly not heal. To effect a cure, the polypus must be removed at the time of operating for the fissure. We frequently learn more by our failures than by our successful cases. A young woman was operated upon by me for fissure, and apparently with success. However, six or seven weeks after the operation she returned complaining of the old pain, and, on examination, I found the wound had not healed. This led to a further and more careful search, resulting in the discovery of a polypus at the upper end of the wound. I, therefore, removed it, re-incised the fissure, and she got rapidly well. In operations where you have to divide a fissure as well as ligature piles, there is more tendency to hæmorrhage than in simple cases. Possibly the division of the sphincter may in

some measure account for this. Be that as it may, it is a practical point that these patients should always be watched with extra vigilance.

Sometimes it is a small ulcer with thickened edges which complicates hæmorrhoids. To this most of my previous observations respecting fissure will also apply. Occasionally these ulcers are of syphilitic origin. I have now under my care two cases of hæmorrhoids in which syphilitic ulcers exist. Here, I think, it is better to wait until the ulceration is cured, or nearly so, before proceeding to operate upon the hæmorrhoids.

Fistula in conjunction with hæmorrhoids is not so common as fissure, although by no means an infrequent complication. My colleague, Mr. Lane, and myself operated on the same day at St. Mark's Hospital on two cases of this description only a few weeks ago. If the fistula be well marked, there is no difficulty in the diagnosis, but if it be of the blind internal variety, or the external orifice be very small, it may be overlooked by any one not very conversant with rectal disease or not exceedingly careful. Such a case I saw a couple of months since, and I have at various times met with several examples of this oversight.

A gentleman came to me and stated that three months before he had been operated upon for internal piles. He had done very well after the operation, and had been pronounced cured, but he still had occasional throbbing and pain, particularly on passing a motion. There was also a constantly-recurring discharge, which stained his linen; it might cease for a day or two, but then returned. He had consulted the gentleman who operated upon him, and had been told that he was only suffering from a little weakness of the bowel, which would right itself soon. Of this, however, the patient could not feel convinced. The frequent discharge and soiling of his linen gave him the greatest concern, and worried him to a degree which seemed almost absurd and quite disproportioned to the gravity of his case. And this I have often observed in patients of the better class, while the majority of Hospital patients think nothing of a rectal discharge unless it is attended with pain or is very copious. On a careful examination of this case, I detected just at the very verge of the anus, and concealed between two of the natural folds of skin, a very small orifice. A fine probe passed into it, and through a short sinus not quite three-quarters of an inch long, into the bowel. Here was an explanation of the whole matter. From the history of the case, there was no doubt that this slight fistula existed with the hæmorrhoids, but the major malady masked the minor one, and so it had escaped detection. I divided the fistula, and in a week the patient was perfectly well and cured of his annoying discharge.

Before operating for piles, be certain that no stricture of the rectum exists. I saw a patient a few days ago at St. Mark's who had been operated upon in one of our London Hospitals for hæmorrhoids only six or seven weeks ago, and had been rendered worse rather than better by the operation. On examining him, I found extensive ulceration and stricture, commencing about an inch and a-half up the rectum, and extending higher than the finger could reach. This was evidently of long standing, and the patient's history clearly showed that he had been suffering from stricture and ulceration for at least eighteen months or two years.

It can scarcely be necessary to observe that these are cases which do not admit of any operative interference. It is well to remember when we have discovered the presence of a disease in an organ that we have still something more to do in the way of diagnosis—viz., to determine whether any other malady co-exists.

In the above observations I have purposely avoided noticing the methods of treating the complications I have described, as I intend in a future paper to enter fully into that part of the subject.

The Jubilee of the Vienna University. — The University Consistorium has averted the disgrace which would have attached to this body had Virchow's name been omitted from the list of those upon whom honorary diplomas are to be conferred. The list at present comprises twenty-four names—viz., Baer, Baum, Baumgartner, Dubois-Reymond, Bruns, Bunsen, Carus, Chelius, Donders, Frerichs, Graefe, Helmholtz, Langenbeck, Liebig, Middeldorpff, Mitscherlich, Pettenkofer, Purkinje, Reichert, Ruete, Scanzoni, Schönbein, Virchow, and Weber—a galaxy of talent of which Germany may well be proud!

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

SAMARITAN HOSPITAL.

CASES OF OVARIOTOMY.

(Under the care of Mr. SPENCER WELLS.)

Continued from page 467.)

Case 3.—Adherent Multilocular Cyst—Four Tappings—Ovariotomy—Death on the Fourth Day.

In October, 1864, a married sterile woman, 50 years of age, came from Leeds to consult Mr. Wells by the advice of Dr. Braithwaite. Her habits were very sedentary; she was rather fat, and had a brownish complexion. Her feet were habitually cold; she always perspired freely about four o'clock in the morning. The appetite was tolerably good; her bowels regular. She was prevented from sleeping by a fixed pain in her right side; she had a slight cough, which had lasted two months, but there was nothing wrong with the chest; she habitually slept on the right side. Her pulse was 100; there was no bruit, but the sounds of the heart were very feeble, and there was a suspicion of fatty heart. The urine contained no albumen; its specific gravity was 1012; thirty-six ounces were passed daily; it usually contained much urates and mucus. The girth at the umbilical level was 40½ inches, the distance from the umbilicus to the ensiform cartilage 9½ inches, to the symphisis pubis 8 inches, and to either ilium 9½ inches. The liver and spleen were in their normal position. The whole abdomen was filled with a tumour which reached as high as the epigastrium. Fluctuation was distinctly perceptible in that portion of the tumour which was above the umbilical level, less so in the portion beneath that level. The parietes were of the normal thickness; there were numerous lineæ albicantes. The right loin was clearer than the left on percussion. No pain nor tenderness on pressure was felt, except in the right iliac and lumbar region. The ribs were slightly pushed outwards. There had been no catamenial discharge for two and a-half years; there was no leucorrhœa. The uterus was central and mobile. The os was large, and unusually patent, considering that the patient has never been pregnant. No hereditary predisposition to disease could be traced. When 20 years old the patient suffered from amenorrhœa and palpitation, and for the last seven years she had been subject to headache. Three years before Mr. Wells saw her, she felt a dragging at the navel, with a "pressure forwards," and at the same time observed that her size was increasing. Up to Christmas, 1863, she increased in size without discovering a distinct tumour. She observed, however, that the swelling was confined to the lower part of the belly, just as if she had been in the family-way. At Christmas, 1863, she had a great deal of pain for five days, at the end of which time the swelling had disappeared. In about a month's time it began again to be visible, springing up from below and in the mesian line, though, perhaps, slightly inclined to the right side. The swelling increased more and more rapidly. During the three months immediately previous to her first seeing Mr. Wells, the tumour had doubled its size. His diagnosis was "Multilocular cyst behind uterus, not attached there." The patient not being anxious for ovariotomy, he tapped and removed sixteen pints of whitish opaque fluid, whose colour was due to the presence of fat.

The patient was discharged on October 19, having recovered well from the tapping. On December 9 she wrote to say that she was suffering much from her tumour, and was very anxious to have it removed. It was arranged that she should come to London, but she was at that time so unwell that she could not bear the journey. On December 14, Mr. Braithwaite tapped and reported, "After tapping the second time, the tumour fell down low in the abdomen, so that there were probably not yet any adhesions at the upper part; liquid extremely thin, almost like water, but rather 'milky.'"

The patient was readmitted into the Samaritan Hospital on December 27, 1864. On the 9th of January, 1865, as the general health was not satisfactory, Mr. Wells removed fifteen and a-half pints of opalescent, excessively fœtid fluid, full of pus corpuscles. A part of the tumour appeared to adhere behind the left false ribs. On account of the fœtor of the fluid, Mr. Wells, after emptying the cyst, threw a little tincture of

iodine into it. The pulse remained feeble for several days; so quinine was given, and the patient went to Eastbourne. She returned to the Hospital on February 1. She appeared in better general health than before, but was beginning to suffer from distension; and on February 6, there being much heat of the skin and tenderness over the upper part of the cyst, Mr. Wells tapped again and removed fourteen and a-half pints of whitish, curdy fluid, not at all fœtid. This relieved her much; it was thought that ovariotomy might be performed, and Mr. Wells operated on February 23, Dr. Reinhardt, of Munich, Dr. Playfair, etc., being present. Dr. Parson gave chloroform. The incision was begun an inch below the umbilicus, and was carried downwards five to six inches through a very thick layer of fat and œdematous cellular tissue. Two veins were compressed to stop bleeding. There were extensive adhesions in front, but they yielded easily to the hand; on separating them near the scars of tapping the cyst wall gave way, and some ovarian fluid escaped in the peritoneal cavity. The tumour was easily withdrawn, a large piece of omentum being separated from its upper portion; the pedicle was slender—three to four inches long—and sprang from the left side of the uterus, which was globular, and at least twice as large as natural. The pedicle was fixed in a medium sized clamp, and kept out without difficulty; the right ovary was healthy. A good deal of peritoneal sponging was necessary. The wound was closed with silk sutures, deep and superficial. The patient rallied well, but required a good deal of laudanum; 110 drops were given in the six hours following the operation. She passed an excellent night; there was no sickness, and no more opium required. The pulse was 108; the skin moist; the urine full of urates. During the second night there was some pain, and twice there was bilious vomiting. At 10 in the morning on the second day the pulse was 116; the aspect cheerful; the tongue coated with yellowish mucus; the urine loaded with lithates; at night the pulse rose to 120. On the third day there was occasional vomiting of greenish mucus; the pulse was 108; the clamp and stump were quite dry. Mr. Wells removed one deep stitch and changed the plaster. The tongue was cleaner; the urine rather less loaded; pain began in the abdomen in the afternoon, and at night vomiting became frequent.

At 5 a.m. on the morning of the fourth day the pulse was 140, the respiration 20, the urine scanty, the belly tympanitic. Stimulants were freely given. At 8.30 the pupils were closely contracted, the urine almost suppressed, the pulse scarcely perceptible. A long tube was introduced into the rectum, but nothing came through it. The patient died ninety-five hours after the operation.

At the post-mortem examination the body appeared rather fat; the abdomen distended; the pedicle well secured; the wound partially united—the inner as well as the outer surfaces well approximated. The peritoneal edges were so well united that the stitches could not be seen. The whole descending colon was empty and spasmodically contracted, and the small intestines were slightly inflamed, and were distended with flatus. There was little serum in the peritoneum. The opposite ovary was normal; the uterus large, its cavity not elongated; a small mucous polypus in the cavity of the cervix. In the fundus uteri was a fibroid tumour as large as a child's fist. The liver was large and very fatty; spleen very small; kidneys pale and flabby; lungs normal. The heart was very thin, fat, pale, and dilated, left ventricle scarcely thicker than right; some dark blood in right side; left side empty; a fibrinous clot in the right ventricle, interlaced with the chordæ tendinæ, and extending into the pulmonary artery.

Case 4.—Non-adherent Cyst—Twice Tapped—Ovariotomy—Recovery.

On December 16, 1864, Mr. Wells was consulted by a patient who had been under the care of Dr. Hare, in University College Hospital, suffering from ovarian disease. She was single, a housemaid, and 25 years of age. There was little emaciation, but the patient looked sickly. Some of the veins of the legs were slightly varicose, and the legs themselves became œdematous at nights. The mammary areolæ were somewhat dark. The tongue was clean, the appetite poor, the bowels regular. There was often a good deal of pain in the hypogastrium after walking. There was a slight cough, but no expectoration. The physical examination of the chest showed nothing abnormal, except that the lower lobe of the left lung was evidently somewhat compressed. The pulse was 112; the heart's sounds normal. The urinary organs were healthy. The girth at the umbilical level was 37¼ inches, the distance from the ensiform cartilage to the umbilicus 8 inches, to the symphisis pubis 10½ inches, and to either ilium 10½ inches. The abdomen was filled with a fluctuating tumour, which extended from the brim of the pelvis to the epigastrium. The right loin was clear; the left dull on percussion. The abdominal parietes were not excessively thick; there were no dilated veins; there was no crepitus nor tenderness to the touch. The stomach and liver were evidently somewhat displaced upwards by the tumour. The catamenia were regular, and rather more abundant than they usually had been. The uterus was central, freely moveable, five and a-half inches long. The condition of the os and cervix was virginal.

No hereditary disposition to disease could be traced. Two years and a-half before Mr. Wells saw the patient, she had a fall and hurt her knee. Even before this she had observed that her abdomen was increasing in size, but it was only six months later that the swelling became hard and that pain began to be complained of after exertion. The pain was in the right iliac region, and was often accompanied with vomiting. There was no vaginal fulness, no bearing down of the uterus, no pressure on the bladder. The tumour increased gradually in size, and the symptoms became aggravated. On four separate occasions attacks of circumscribed peritonitis occurred in the right iliac region.

In July, 1864, the patient entered University College Hospital under the care of Dr. Hare. Her health greatly improved under his treatment, but the tumour continued to increase, and she was tapped. The operation was performed in July, 1864, and gave her great relief. The fluid removed was quite clear, and after the tapping scarcely a trace of the tumour could be felt through the abdominal walls. About two months after the tapping the cyst began to refill.

The patient was admitted into the Samaritan Hospital on the 1st of February, 1865. She was then suffering so much from distension that Mr. Wells tapped at once, and evacuated thirty-two pints of clear limpid fluid. On the 5th of March the patient was as large as a woman in the seventh month of pregnancy, and increasing. She was most anxious for ovariotomy. Mr. Wells's diagnosis was "Cyst of left ovary nearly unilocular; no close connection either to abdominal wall, pelvis, or uterus." He performed ovariotomy on the 20th of March, in the presence of Drs. Doniges (Breslau), Sirelius (Helsingfors), Marion Sims, Hare, and others. Chloroform was given by Dr. Parson. The incision was made midway between the umbilicus and the pubic symphisis to the extent of five inches. There were no adhesions, except to a long narrow slip of fibrous tissue running close to the pedicle. After separation, it was secured temporarily in a clamp, but it was found not to bleed and was released. The pedicle was secured in the smallest sized clamp and kept outside. There was no hæmorrhage except from the edges of the wound. The opposite ovary was healthy. The wound was closed with five deep and two superficial silk sutures. The cyst consisted of several large loculi, some of which intercommunicated.

The whole operation only lasted eight minutes. The patient rallied well, and only required two doses of opium. On the first morning she twice vomited some bile. There was no pain; but the tongue was white and the breath offensive. In the afternoon the pulse was 120, and there was a wheezing cough. On the second day there was a good deal of restlessness, the urine was scanty and high coloured, the pulse was 140, and, although there was no tympanites, no flatus had passed by the bowels since the operation. Mr. Wells removed two of the deep stitches. The pulse at ten in the evening had fallen to 128. Per vaginam the uterus was felt pressing against the rectum, and there was a sensation as if some of the small intestines had fallen into Douglas's space.

On the third morning there was still some bilious vomiting, and the urine was much loaded with pink sediment; the pulse was 124. There was still the sensation as if some of the bowels were in Douglas's space; but some flatus passed after the examination. In the evening Mr. Wells removed another deep suture. The chest was easier. There was still considerable thirst, but the tongue was less loaded. On the fourth morning the patient appeared to be quite out of danger. The pulse was 96. She had begun to feel better in the middle of the night, after passing much flatus. Just before this she had drunk a little brandy and iced water. Shortly after this uterine epistaxis was observed. The discharge lasted three days, and both in duration and quantity resembled the patient's ordinary catamenia. Mr. Wells removed the clamp on the eighth day. The bowels acted easily on the twelfth day, after a warm water injection. No inconvenience was experienced

from this long period of constipation. The patient gained strength rapidly, left the Hospital on April 13, and has since obtained a situation as nursemaid.

(To be continued.)

ST. BARTHOLOMEW'S HOSPITAL.

FIBROUS TUMOUR GROWING FROM THE LOWER BORDER OF THE PECTORALIS MAJOR, IMMEDIATELY BEHIND THE MAMMA, SIMULATING SCIRRHUS OF THE GLAND—REMOVAL.

(Under the care of Mr. SAVORY.)

JOHN B., aged 22, an ill-nourished, sallow-looking man, applied to Mr. Savory on February 29 for advice respecting a tumour in the left mammary region. On examination the growth was found to be situated immediately behind the nipple. In general outline it was egg-shaped, with a long diameter, taking the line of the lower border of the pectoralis major, of nearly 3 inches, and a transverse measurement of about 2½ inches. Wide at its base of attachment, it gradually rose to an oval prominence in front, on which the nipple was seated. It was distinctly circumscribed, somewhat irregular on the surface, of an almost stony hardness, and so firmly fixed to the muscle beneath as to be scarcely at all moveable. The skin, however, covering it was not adherent, and there was no retraction of the nipple. Some slight enlargement of the axillary glands could be detected, and a hard cord, formed by some thickened lymphatic trunks, was felt running towards the arm-pit from the upper and outer border of the tumour. The man stated that he first noticed the growth seven months previously, and that it had since been steadily increasing in size. It was not painful except when he struck or otherwise injured it while at his work. He could assign no cause for its formation, and denied having had syphilis. He was admitted into the Hospital.

The interest of this case rested chiefly in the question what the nature of the growth would prove to be. Looking at the extreme hardness of the mass; its firm connection with the parts beneath, and its situation in the immediate neighbourhood of the mammary gland; and also at the affection of the axillary lymphatics, and the cachectic appearance of the patient, the question was raised whether this could be an example of scirrhus of the breast. The well-known rarity of this disease in the male, particularly during the early period of life, made Mr. Savory hesitate to adopt this view, especially as some other circumstances seemed to point to an opposite conclusion. Thus, although the tumour had attained a considerable size, it had not involved the skin, which was freely moveable over it; there was no retraction of the nipple; and on very careful examination it appeared doubtful whether the mammary gland could not be felt thinned out and carried forward on the surface of the mass. The difficulty of arriving at an opinion as to the precise character of the tumour was of little importance practically, as the proper treatment evidently was to excise it.

Upon proceeding to operate, Mr. Savory found that the growth was connected with the lower edge of the pectoralis, so that it was necessary to cut away some of the fibres of the muscle along with it. The mammary gland was not involved in the mass, but was only carried forward in front of it. The wound was closed, and it subsequently healed without complication. By the aid of the microscope the tumour was seen to be composed entirely of dense fibrous tissue, strong bands of which crossed each other irregularly in various directions. Muscular fibres traced to its surface were there abruptly lost; none could be found entering its substance.

Fibrous tumours of voluntary muscles are rarely met with—indeed, so rarely that they are scarcely mentioned in the ordinary handbooks of Surgery and Pathology. A recent notice of them may be found in Mr. Teevan's paper in the *Medico-Chirurgical Review*, lxiv., October, 1863, in which reference is made to seven published cases.

THROMBOSIS OF CEREBRAL SINUSES, WITH APOPLEXY OF OPTIC THALAMI, CONSEQUENT ON ANÆMIA.

(Under the care of Dr. JEAFFRESON.)

This case is very interesting, as showing effusion of blood in nervous tissue from an unusual cause—viz., venous obstruction. Apoplexy of the optic thalamus is rare in patients twenty years of age, and apoplexy of both thalami rarer still. As regards treatment, of course the general condition of the patient was most important. She was liable to thrombosis almost anywhere, and its occurrence in the cerebral sinuses, if not a matter of accident, is one which it would be difficult to explain. The case is an interesting clinical record, as showing one of the dangers of anæmia.

Eliza S., aged 20, admitted into St. Bartholomew's Hospital, under Dr. Jeaffreson, March 29, 1865. She had enjoyed good health up to twelve months before her death, when, without any apparent cause, the catamenia suddenly ceased, and she began to suffer from anæmia. On admission, she was very feeble and anæmic; ankles œdematous; pain in left side; anæmic murmurs in neck, etc. She complained of slight headache, at first frontal, which gradually became more intense, so that on the night of April 3 it kept her awake. On April 4 she vomited several times, was delirious during the night, and on the 5th became gradually insensible and comatose, the pulse varying from 90 to 120, and being slightly irregular. She died at 10.30 a.m. on the 6th.

Autopsy, Twenty-six Hours after Death.—(By Dr. Andrews, to whom we are indebted for this report.)—Brain: Convolutions somewhat flattened, particularly on the right side, and marked by impress of fibres of dura mater. In the white matter of the posterior part of each hemisphere, about half an inch from the upper surface, is a dark clot the size of a pea. Both lateral ventricles contain a considerable quantity of blood-stained fluid; in the right one is a long thin dark clot lying upon the surface of the corpus striatum and optic thalamus. The septum lucidum is entire, but soft. The optic thalami are unusually prominent; on section, œdematous, and filled with numerous firm, dark clots, by which their tissue, greatly softened, is broken down. These characters are more marked in the right than in the left; but the left corpus striatum presents numerous dark red points, apparently small clots. The veins of the choroid plexus and velum interpositum, together with the venæ Galeni are distended by firm, partly yellow, and fibrinous clots. These extend continuously along the straight sinus, and for about one inch into the commencement of the lateral sinuses, a little further down the right than down the left; but in the lateral sinuses they do not entirely fill the vessels, whilst the straight sinus and the smaller veins are greatly distended by them. The oldest portion of the clot appears to be at the junction of the straight with the lateral sinuses. It is here of a dull pinkish tint, and somewhat soft. The blood in the other sinuses was almost entirely fluid; no disease of any of the cerebral arteries was detected. The substance of the brain was throughout a little soft and watery. No tubercle was detected in any organ. Several of the branches of the pulmonary artery in each lung were obstructed by old clots, some of which were breaking down in their centres. There were numerous large ecchymoses immediately beneath the endocardium of the left ventricle, which was very firmly contracted, and in the jejunum there were three recent intussusceptions.

ST. GEORGE'S HOSPITAL.

CASE OF ANEURISM OF THE BASILAR ARTERY — EPILEPTIFORM CONVULSIONS — DEATH — AUTOPSY.

(Under the care of Dr. FULLER.)

THIS patient died of apoplexy, but the cause of it was an unusual one. Had the patient been much younger, one would have felt pretty confident that the apoplectic symptoms were due to rupture of a cerebral aneurism, but, being 37 years of age, he was liable to rupture of vessels in the usual way—*i.e.*, without previous aneurismal dilatation. The case is of great interest also as showing how cautious we ought to be in making a prognosis when we are called to a patient in an epileptiform paroxysm. We ought to be especially careful when the fit is the first the patient has had, but sometimes death from rupture of a cerebral aneurism will occur when a patient has long been subject to epileptiform attacks. Mr. Squire, Dr. J. W. Ogle, and Dr. Murchison, have recorded cases of this kind in the Pathological Society's *Transactions*. For the notes of the following case we are indebted to Mr. Heywood Smith, Dr. Fuller's clinical clerk:—

A man, G. W., aged 37, was admitted into the King's Ward of St. George's Hospital, February 22, 1865, under the care of Dr. Fuller, when the following history was given of him. Five days ago he was attacked with diarrhœa, and the following day he had five fits of a convulsive character, which lasted from 1 to 12 p.m. Last evening he had another fit of a similar character, which lasted an hour and a half, since which he

has not regained consciousness. Has not been subject to headache; he is reported to have had a blow on the head when in the Crimea. Has had a large blister applied to the neck, which is now discharging freely.

On Admission.—There is no loss of power on either side in the upper extremities; there is no œdema of the legs; skin cool; pupils somewhat contracted, both equally so; pulse 84, regular; tongue slightly coated; bowels costive. Enema terebinthinæ vesp. Decoct. aloes co., ℥jss.; potass. nitratis, gr. xx.; ter quotidie. Hydr. chlor., gr. x., in pulv. stat. His bowels were not open. At 10 p.m., he said a few words to the nurse, shook a little, but was not convulsed, and died at 4 a.m. on the 23rd.

Autopsy Thirty-four Hours and a-half after Death.—The external appearance of the body was natural. Head: On opening the head the convolutions were seen to be very much flattened all over the vertex; the large vessels were more than usually injected. At the base of the brain was a thick layer of black coagulum in the arachnoid and sub-arachnoid cavities. The pons Varolii and medulla oblongata were deeply imbedded in clot; the fourth ventricle was filled, and the spinal cord was surrounded inside its dura mater to the cauda equina. There was a rounded clot, like a leech, at the bottom of each lateral ventricle, in connexion with the choroid plexus. It was found after a more careful examination of the base of the brain, that the blood had proceeded from a small aneurism of the basilar artery, about as large as a small bean. This projected from the right side of the vessel, very near the junction of the vertebrals. It had burst by an opening almost as large as could be made in so small a sac. The aneurism was completely imbedded in coagulum. There was atheroma of the cranial vessels. Chest: There were a few old adhesions of the pleuræ. The lungs were natural. The left ventricle of the heart was somewhat contracted; the valves were natural; the aorta was somewhat atheromatous. Abdomen: The abdominal viscera were natural, excepting that there was a considerable cyst in one kidney.

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Medical Times and Gazette.

SATURDAY, MAY 13.

MEDICAL ETHICS AND THE ISLINGTON INQUEST.

Just as the ordinary courtesies of life are based upon the principles of Christian ethics, so, too, are the relations between Professional men and the public. What we call etiquette, and Professional etiquette in particular, is nothing else than an unwritten code of laws for the guidance of conduct under certain circumstances which experience shows are of common occurrence, and these rules are of no value whatever, except as they embody moral precepts. Were we all living in a condition of absolute perfection, no such concrete laws would be necessary. But, unhappily, personal interests and personal feeling often run counter to abstract right, the wellbeing of society, and the maintenance of the true balance between man and man. But society does more than inculcate regulations for the conservation of order and propriety, for it takes upon itself the performance of certain duties which, if not performed by the aggregate body, would be liable to suffer, either from the wilful negligence of individuals, or from the inconvenience which would result were each of its members called upon to carry them out in his own person. And while doing this it relaxes, *to a certain extent*, individual responsibility. That is, while leaving unrepealed the moral law of charity, it provides for its execution in the general, but not for its execution in exceptional contingencies. Such contingencies it leaves to individual responsibility. Thus, for instance, it deals with the command—"Give to every one that asketh thee." Providing a system of public relief for the poor and unfortunate, it meets all ordinary necessities of an extreme nature; instituting charitable establishments, it provides for other cases which, from one cause or another, the arrangements of the State fail to include; but after all this is done, there remains much distress and trouble which private philanthropy alone can relieve. No man who possesses the means of relieving it can shift upon society in such cases the responsibilities which bear upon the individual. And, on the whole, this sort of combined action of society works satisfactorily, charity is exercised with discrimination, fraud is defeated, and the convenience of social and individual life maintained undisturbed.

Thus it is that society at large dispenses to the necessitous the worldly goods which Providence has placed in its hands. And thus, too, that section of society to which Medical men belong dispenses to the necessitous sick the resources of art which it alone possesses. We are prepared to maintain that there is no class of men which, as a body, exercises a larger, more extensive, and more bountiful philanthropy than our own Profession. Witness the hours spent day after day and year after year, at the risk of life and health—hours which others devote to the prosecution of schemes for personal aggrandisement—by the most distinguished and learned of our body, in Hospitals and Infirmaries, and in visiting the wretched hovels of the sick; and even putting these aside, the labour and self denial of the miserably paid Poor-law officers. Yes; these too are doing a work of charity; let the public hug itself as it may in the fancy that they only do what they are paid for doing. They are not paid, if by this is meant that they are adequately remunerated for all that they do and suffer for the poor. It is for the public convenience, no less than for the convenience of the Profession, that this order is established; and private Practitioners have, as a rule, been absolved from individual demands upon their service in the sense that the public have any absolute claim that under ordinary circumstances, such demands shall be necessarily complied with as of right. Under ordinary circumstances, no one can go to a Medical Practitioner and claim as his right his Professional aid. We put the question of fees apart altogether. We say that it is only on the ground that we have taken, or on the plea of absolute incapacity, preoccupation, or ill health that any Medical man can ever retire from the practice of his Profession so long as there is a sick person whom it is possible for him to relieve. But society and the arrangements of the Profession relieve him from this inconvenience, and permit him to retire from practice whenever it may please him to do so. They enable him also to dictate the conditions upon which he will exercise his art, and to say to the public, "Such and such are my conditions; if you are willing to conform to them, well and good; if not, I must beg you to seek the advice of some one else."

We are led to make these remarks because it appears that the general public are somewhat mystified upon this subject. And it seems desirable not only to set them right, but to place before our Professional brethren an answer to an absurd doctrine put forward by a portion of the non-Medical press. The occasion was the unfortunate death of a woman named Mary Green in childbirth. It was stated at the inquest that a Dr. Gardiner had engaged to attend her, but that he subsequently sold his practice to a Dr. Butler. Both these gentlemen deny the engagement; and as we would not affix upon the Greens the stigma of perjury, we can very well understand that from some mistake in the matter they imagined that one or other of these gentlemen was bound to attend. Of course,

had there been an engagement, this would have been the case. Being applied to in the middle of the night, Dr. Butler visited the woman. He might have refused, but he did not; he went, and in this he exercised his discretion. Had he been told that the case was urgent, that there was danger in any delay, of course he would have had no choice; no right-minded man would have desired even the power of declining to attend in any such emergency. And here it is that we disagree with the doctrine set forward by a local paper while commenting upon this case: "Women in childbirth must be attended. Fee or no fee, a Doctor who is summoned in this extremity must come." We say that he need not come unless he chooses; we say that an ordinary case of labour is not an "extremity;" neither is it an emergency. The lowest of the low are perfectly well aware of the rule which requires the pre-engagement of a Practitioner or midwife, and there are nine months in which to provide for the coming need. Even where parish aid is sought some notice is expected, in order that the necessary attendance may be at hand when wanted; and no one has a right to demand a Professional man's services (except under circumstances of immediate danger) when this ordinary precaution has not been taken, and when no preparation has been made to comply with the conditions on which he may choose to practise. But we say in this case there was no such emergency. Dr. Butler visited the house, and says that, perceiving that the case was not sufficiently advanced to render his stay necessary, he left, giving the Greens to understand that he declined the case, and advising them to apply to the parochial authorities for the attendance they were unable to pay for. He had a perfect right to do this. As it happened, however, in consequence of some mistake or supposed informality, for which the parish authorities of Islington are responsible, the husband failed in obtaining the services of the parish midwife, and on his again applying to Dr. Butler he was not at home. The mistake of Dr. Butler was this, that having once visited the case, and so knowing that sooner or later Professional aid would be required, he did not voluntarily call in the morning to see if the application for the parish midwife had been successful. Still, we do not know what took him away from home so early as nine o'clock; it might have been some case to which he was engaged, so far as we know; at any rate, there was abundance of time between one and nine o'clock for the communication to be made to him that the application to the parish had failed. He very fairly supposed that it was successful; and he seems to have gone out with that idea. Still, we say that, had nothing intervened to prevent his doing so, a call for the purpose of inquiry would have been wisely made. It would have been an act of kindness, and its neglect has rebounded unmercifully upon Dr. Butler. It would have been prudent, more especially as he had not determined the presentation in his first visit—a circumstance which brings the possibility of a cross birth to every accoucheur's mind. If he had paid a second visit out of charity or policy, early in the morning, he would have satisfied himself as to the presentation, and would have turned and delivered: he would have had one or perhaps two hours of hard work unpaid, but he would have enjoyed the gratification of saving two lives, and of having had an opportunity of performing one of the nicest operations in the whole range of Medicine; and he would have avoided all the waste of time at the Coroner's Court, and all the obloquy hurled at himself and at his Profession. Or if unable to devote the time himself to this operation, we will undertake to say that fifty accoucheurs—in general practice or in consulting, in private practice, or officers of public institutions—might have been found who would have been on the spot in half an hour, and have performed the operation. We confidently assert that if notice of such a case—a poor woman likely to perish from unusual presentation—had been given to any member of the Obstetrical Society, from the President downwards, she would have been relieved instantly. Whatever the shortcomings of our Profession, any unwillingness to come forward at such a juncture is not amongst them. Dr. Butler did not call a second time. We repeat that he was not obliged to do so, though it would have been a kind and prudent act; no doubt he had a reasonable excuse; but, all things considered, it is a pity, for the sake of himself and his Profession, that he did not. After all, gratuitous Medical aid is such a drug in London that the possibility may never have occurred to him that the poor woman was perishing for want of it!

Let us sum all this up. The Profession has its rights as well as its duties. It is the duty of any Medical man who is not disabled by circumstances to give his aid in an emergency, whatever that emergency may be. Under ordinary circumstances, in a society where he is not the sole representative of his order, and where proper provision is made for the poor, he is not bound to grant his service to any one who may choose to ask for it. He may decline to attend a labour if he pleases, unless pre-engaged. Many Medical men never attend labours at all, although perfectly competent and even highly qualified to do so. A Medical man may make any conditions as to his ordinary services that he chooses; he may decline to attend, for instance, at night, or unless conveyed to the patient's house in a cab, or for less than his own customary fee, and so on. Having visited a patient once and exercised his art, he is not compelled to pay a second visit; but then he must make it known that he declines to do so. Even in the progress of a confinement, on any good and sufficient reason, as where his directions are not obeyed, or he is subjected to insult, etc., he may decline further responsibility; but in this case he must remain until a successor has been found, and until he has handed over the case to him. In all cases a man of proper feeling will not allow any silly notion of dignity to intercept the performance of an act of Christian kindness, or mere pique to hurry him into conduct incompatible with Christian forbearance. Even on grounds of common self-interest, a man who hopes to get on in midwifery will rather encounter an unpaid attendance than let a poor woman run the risk of losing her life.

THE WEEK.

THE PROBABLE SUCCESSOR TO ADMIRAL FITZROY.

Our readers will be gratified to know that there is every reason to hope that Her Majesty's Government will confer on Mr. Glaisher the superintendence of the Meteorological Department of the Board of Trade, vacant by the lamented death of Admiral Fitzroy. We believe that Mr. Glaisher at present holds an appointment in the Observatory at Greenwich, under the Astronomer Royal, the duties of which he discharges with zeal and efficiency quite sufficient to merit promotion. But it is the vast amount of extra-official and gratuitous labour which he has undertaken for the pure love of science which has rendered his name so truly a household word amongst us, and which demands some public recognition and reward. Besides doing his own work, Mr. Glaisher lends a hand to assist every other meteorological worker, by his services in correcting instruments and comparing them with the standards, and by his collation and publication of results. We say nothing of the balloon ascents, or of the element of danger to life which they superadd to Mr. Glaisher's other assiduous and interesting labours; but feeling, as all Medical Practitioners must, how many unsolved problems there are of the influence of weather upon human life and upon the production of food by agriculturists, and upon the production or transport of epidemic disease, we hope that the man who has done so much to advance our little stock of knowledge will be rewarded with a position which we feel sure will be to him an incentive and opportunity for researches still more laborious and fruitful.

MORE PAPERS ON MODERN SYPHILOGRAPHY.

Our readers will be glad to learn that the able writer of the articles on "Modern Syphilography" which have lately appeared in our pages, and which we know have been eagerly perused by all who are diligently working at that subject, has furnished us with a series of "Rough Notes from the Life"—on all the most vexed questions in syphilography, which we shall begin to publish next week. "Abortive treatment," "Modifying effects of tissue on character of sores," "Suppurating bubo," "Characters of constitutional sores," are the titles of the earlier papers. They will be what they profess—not polished theoretical essays, but rough notes from the life.

LOCAL METROPOLITAN MUSEUMS.

The permanent buildings which have lately been erected at the South Kensington Museum have superseded the unsightly structures with which we have all been long familiar, and which are commonly called the Brompton boilers. The boilers—as all boilers should be—are made of iron; and the question arises, What is to be done with them? Are they to be taken down and sold as old iron? That were indeed a degradation! Can they not be turned to some better account? It appears that they are separable into three portions, and that they could be converted at a trifling expense into three distinct buildings, each capable of containing a small collection of objects of scientific interest or works of art. At a meeting held a few days ago, Earl Granville intimated that the Government were willing to dispose of them in this way at a nominal price to any of the metropolitan districts which would undertake to provide a suitable site and to raise the necessary funds for their erection. Several gentlemen who were present at the meeting immediately set forth the claims of the districts which they represented, and begged to be allowed to participate in the boon. In fact, the boilers, for the first time in their lives, were quite in favour. Thus it seems probable that these "ironsides," after having done their duty manfully at South Kensington for twelve years, notwithstanding many scoffs and taunts, will ere long be disbanded and marched off separately to suburban districts, there to enter upon a fresh career of honourable usefulness and to protect the rising local museums of science and art.

INSTRUCTION IN MENTAL DISEASES A RECOGNISED BRANCH OF MEDICAL EDUCATION.

At the annual meeting of Convocation of the University of London, held on Tuesday last, the following resolution was passed unanimously:—

"That it is desirable that a certificate of having attended a course of clinical instruction in mental diseases should be required from all candidates for the Second M.B. Pass Examination, and that the examination should necessarily embrace the subject of insanity."

The University of London has always taken the lead in the promotion of Medical education, but, perhaps, on no occasion has a step been proposed more calculated to confer a lasting benefit on the Profession, and, through them, upon the public. The senate to which this resolution will now go cannot fail to give it effect, and when once the importance of the study of insanity is thus recognised by the University of London, other examining bodies in the metropolis will insist upon the candidates for a licence possessing, at least, clinical acquaintance with this important class of maladies. We may hope then that the deplorable blunders sometimes fallen into by members of our Profession who have to certify or give evidence in our law courts in cases of insanity will be of less frequent occurrence than hitherto. Besides, as was well pointed out by a member of Convocation in the discussion of the subject, it will be no small point gained that the general Practitioner of Medicine and the Physician in ordinary practice will be in a position to meet the specialist upon something like an equal footing. The immediate advantage which the public will gain by the adoption of this resolution by the University of London is, that there will be at once provided for the service of Asylums a class of graduates the most highly-educated of any sent forth by any licensing body in the United Kingdom.

GOVERNMENT RECOGNITION OF PROFESSIONAL SERVICES.

Tuesday's *Gazette* contains the following:—

"*General Order.—No.* 865.

"Dated Horse Guards, May 9, 1865.

"In consideration of the highly meritorious services rendered during the prevalence of the yellow fever in Bermuda by the undermentioned officers, Her Majesty has been graciously pleased to command that they shall be promoted as herein stated:—

"Staff Surg.-Major T. W. Barrow to be Deputy Inspector-Gen of Hospitals.

"Surg. F. Cogan, 2nd Foot, to be Surg.-Major.

"The Rev. J. Virtue, Fourth Class Roman Catholic Chaplain to the Forces to be Third Class Chaplain.

"The conduct of the following officers during the epidemic was likewise conspicuous and praiseworthy:—

"Brevet-Major J. E. Hope, Royal Artillery; Capt. F. N. Cromartie, Royal Artillery; Capt. D. C. Walker, Royal Engineers; Brevet-Major W. W. Lynch, 2nd Foot; Capt. J. Armstrong, 2nd Foot; Staff Assist.-Surg. F. J. Shortt; Staff Assist.-Surg. F. Pennington; Assist.-Surg. B. Burland, M.B., Royal Artillery.

"By command of His Royal Highness the Field Marshal Commanding-in-Chief,

"James Yorke Scarlett, Adjutant-General."

We congratulate the recipients—Medical and lay—of these honours. The Horse Guards, with its accustomed liberality to Medical officers, and with that sense of the value of Medical lives and services which has ever so conspicuously distinguished it, has granted two promotions for Professional services during an epidemic in which nearly half the Surgeons employed lost their lives.

THE CHEMISTS AND DRUGGISTS BILLS.

We understand that a deputation from the Parliamentary Committee of the Metropolitan Counties Branch of the British Medical Association, consisting of C. J. F. Lord, Esq., of Hampstead; Mr. Martin, of Hammersmith; Dr. Seaton; and Dr. Septimus Gibbon have had a conference with Sir F. Kelly, M.P., on the subject of the bills now before Parliament for promoting registration of chemists and druggists. Dr. Druitt was also present. We believe that the deputation expressed themselves as favourable to the principle of the bills, so far as they would secure a better education and more scientific status for the chemist and druggist, but they objected that whereas these bills propose to protect the public from persons who shall carelessly or ignorantly make up prescriptions of duly qualified Medical Practitioners, they run the risk of sanctioning a worse evil—viz., the practice of Medicine in the form of "counter practice" by chemists destitute of any Medical qualification whatever. They doubted the mischiefs of careless dispensing, except as most rare instances, but believed the evils of unqualified practice by chemists to be daily and hourly palpable. They spoke of cases of disease which might be checked in the bud by early and judicious treatment, allowed to go on from bad to worse, whilst the chemist was giving his "bottle of stuff," instead of referring the case to a Practitioner. It appeared clear to the deputation, from the observations which fell from Sir F. Kelly, that in the minds of some members of the Committee of the House of Commons the object was not so much to advance a knowledge of scientific pharmacy and of the natural sciences on which it rests, amongst chemists, as to supply the poor with Medical advice for slight ailments. "What a benefit to the poor, who go to a chemist for some

slight ailment, to have an educated man," etc., etc. This is the real sting of the Bill, and of the efforts of its promoters. These Members of Parliament forget that pharmaceutical chemists learn nothing and know nothing of the Healing Art; whilst the General Practitioners of England do exactly, as matter of skilled practice, what the prescribing chemists do irregularly and ignorantly. If the poor man do not like to knock at the private door of a "Doctor" or "Surgeon," or if he do not care to go to a charitable institution, there is no district which has not an "open Surgery," kept by some rising Practitioner, who contents himself at the outset of life with the small profit derivable from charges for medicine, in return for the skilled treatment of disease. It is in vain to raise the apothecary if he is to be supplanted by the chemist. We believe that the deputation intends to petition the House of Commons on the subject of the injury which the Bills are likely to inflict on the General Practitioner in poor and populous neighbourhoods. As we have before admitted, it is not the really scientific pharmaceutist who is to be dreaded as a rival to the Medical man; he is really an ally, working in a different path; and it is admitted that the leading men in the Pharmaceutical Society, whose zeal and acuteness in promoting the interests of their own body well deserve to be imitated, not only do not desire counter practice, but desire to put it down, and are ready to consent to the enactment of a clause by which a penalty shall be inflicted on any of their body who practise Medicine. The subject of Patent Medicines was discussed by the deputation; and here also we believe that the sentiments of the enlightened members of the Pharmaceutical Society are at one with those of the Medical Profession. The deputation expressed themselves as highly gratified by the attention which Sir F. Kelly paid to their observations, and the suggestions he offered for attaining the ends desired.

THE SUPPLY OF EXPENSIVE MEDICINES TO THE POOR.

At length the Poor-law Board have taken the initiative in regard to the supply of cod-liver oil and other expensive medicines to the sick poor; they have issued to Boards of Guardians the following circular letter on the subject:—

"Poor-Law Board, Whitehall, S.W., April 12, 1865.

"Sir,—I am directed by the Poor-law Board to state that they are desirous of drawing the attention of the Guardians to the question of the supply of medicines for the sick poor.

"The Board transmitted to the Guardians a copy of the Report of the Committee of the House of Commons on Poor Relief shortly after it was printed, with the view of informing them of the opinions and recommendations of the Committee on the several points to which their inquiries had been directed.

"The Board think it right, however, now to bring more particularly under the notice of the Guardians the following resolution of the Committee relating to Medical relief, viz.:—

"'That there are no sufficient grounds for materally interfering with the present system of Medical relief, which was made the subject of special and lengthened inquiries by select committees of this House in the years 1844 and 1854.'

"That the recommendations of those committees were for the most part carried out by the orders of the Poor-law Board, and the system of Medical relief appears to be administered with general advantage. Your Committee, however, recommend that in future cod liver oil, quinine, and other expensive medicines, shall be provided at the expense of the guardians, subject to the orders and regulations of the Poor-law Board.

"The Board have repeatedly considered the recommendation of the Committee relative to the supply of cod liver oil, quinine, and other expensive medicines, with the view of determining what measures should be taken by them to carry it into effect.

"It does not appear to the Board that they can, with advantage, issue any general and positive regulation on the subject; and they are of opinion that much difficulty and embarrassment might arise from a compulsory interference with the arrangements for Medical relief which are in force under the existing contracts. They request the Guardians, however, to be good enough to consider whether an alteration in those arrangements as regards the supply of the medicines referred to cannot be made whenever a new appointment of a Medical officer may become necessary; or, with the consent of the present Medical officers, during the continuance of their existing contracts.

"With regard to the mode in which the proposed object can most conveniently be effected, the Board are of opinion,—

"1. That it may be advisable to provide a store of cod liver oil at the workhouse, or at some other convenient places of deposit in the union, and to supply it to the sick poor on the prescription of the Medical officers, through the relieving officers, in the same way as wine, or other extras recommended by the Medical officers in the way of nourishment, are now supplied.

"2. That quinine and other expensive medicines may be supplied,—

"Either by an order of the Medical officer on a chemist, the cost of the medicines so ordered being paid for by the Guardians to such chemist as goods or provisions supplied in relief;

"Or, by the Medical officers themselves, who may send in an account, quarterly, to the Guardians of the cost of the medicines in question which they may have supplied to their pauper patients.

"The former plan may probably be convenient in the town unions; the latter in the country unions.

"Cod liver oil and any other medicines intended to be so supplied should be specified and excepted from the provisions of the Medical contract, which require generally that Medical officers should themselves provide the requisite medicines and medical appliances for their pauper patients.

"I am, Sir, your obedient servant,

"Enfield, Secretary."

This does not go so far as many members of the Profession engaged in the care of the sick poor would, we believe, have desired; but, on the principle that "half a loaf is better than no bread," we should hail it with satisfaction, as affording evidence that the Central Board are anxious to exert themselves for the benefit of the poor and of Medical officers (the interests of both classes being equally in their care) to such extent as the Report of the "Select Committee on Poor Relief" will permit. At the end of last year, when commenting on Mr. Griffin's proposed Bill for Poor-law Medical Relief, we stated our opinion that there existed no necessity for *directing* the establishment of Dispensaries; it now remains to be seen whether a *recommendation* that the Guardians should supply medicines of exceptional cost will not be equally efficacious as a means of relieving Medical officers from incurring, as at present, either the cost of providing them for their poorer patients, or the conscience-reproach of omitting to order them when necessary. We believe that we shall be borne out by all classes in a position to judge—Professional or lay—when we state that the cases have been few in which a Medical officer has been deterred from recommending quinine, for instance, on account of its cost to himself, although we do know there are cases in which arsenic is substituted; but very many indeed are the instances in which a large share of a quarter's salary has been disbursed for expensive drugs. We have learnt with great pleasure that, although the above circular is only dated the 12th ultimo, in numerous Unions the Guardians have responded to it with proposals to relieve their Medical officers from the charge of supplying the medicines to which it has reference, and we also understand that in very few cases has there been any suggestion to reduce the salaries in consequence of such relief. We doubt very much whether Guardians of the Poor (who are not, as a rule, the meekest of mankind) would not, had they been *directed* to adopt the measure recommended in the circular, have made a point of at once proposing to reduce the salaries of their Medical officers; and therefore we consider that the course adopted by the Central Board in adopting a *recommendation* in lieu of a *direction* will, on the whole, prove the more beneficial to the interests of the Profession.

THE ROYAL ALBERT VETERINARY COLLEGE.

We understand that the new Veterinary College of Edinburgh, including its eminent head Professor John Gamgee, with the whole staff and apparatus, of professors, teachers, students, museum, library, diagrams, etc., is to be transferred to London, and to be established at Chelsea, under the title of the Royal Albert Veterinary College. There will be no attempt to displace or injure the Royal Veterinary College, which is working so energetically at Camden Town; for London is large enough to admit of two such colleges working in harmonious and honourable competition. To quote from the prospectus:—

"A preliminary contract has been concluded for one of the most desirable sites in the West-end of London, adjoining the new Chelsea Barracks, facing the gardens of Chelsea Hospital, situated about a mile from Hyde Park-corner, and in the immediate proximity of Belgravia.

"The great wear and tear amongst horses in the metropolis, their increasing value and number, and the enhanced price of cattle, sheep, and other domestic quadrupeds, for our rapidly increasing population, render it of paramount importance that no effort should be spared to secure the most approved mode of veterinary teaching and practice.

"The number of Veterinary Surgeons in the United Kingdom is lamentably deficient: though this country possesses the finest animals in the world, there are fewer skilled persons to attend to their health than in most parts of Europe.

"Notwithstanding the far greater value of stock in England than in France, we find that the whole of Her Majesty's possessions have less than 1500 Veterinarians engaged in their profession, whereas France alone without her dependencies has upwards of 3000.

"*With a view to relieve the sufferings of sick animals belonging to the humbler classes, an early portion of each week-day will be set apart at the College for affording gratuitous advice.*

"Owing to the great desideratum of a course of scientific education for agriculturists in the metropolis, arrangements have been made on the plan which has worked so successfully in Paris and elsewhere, of combining a course of agriculture with the curriculum of veterinary studies.

"The Committee have great pleasure in announcing that they have for this purpose secured the services of a gentleman so eminent in the department of agricultural education as Professor Coleman, late of the Royal Agricultural College, Cirencester.

"It is believed that many interested in farming pursuits, whether in London and its environs or elsewhere, will avail themselves of the great privileges thus afforded them, preparatory to or after a course of practical training in the country, and no effort will be spared to render the agricultural curriculum complete in all particulars."

We are sure that the advent of so energetic and original a worker as Professor John Gamgee will be welcomed by every scientific man in London.

THE COLDSTREAM MURDER.

A short time ago we called attention to the case of a Medical Practitioner who, for imposing personal restraint upon a dangerous and violent lunatic, was fined £5 by a Durham bench of magistrates. The following case affords a more striking commentary on the present state of the law in reference to the responsibilities of Medical men who are called to to take charge of lunatic patients than any we can offer. A few more such ghastly examples, and the public will perhaps learn that it is better a violent person, who is not insane, but simply wicked, should occasionally be restrained in error than that madmen should be allowed to murder and destroy whilst the Doctor can only interfere at his own peril.

"At the Jedburg Circuit Court on Wednesday, May 3, before Lord Ardmillan and Lord Jerviswoode, Alexander Thomson, lately residing in Church-lane, Coldstream, was placed at the bar charged with the murder of his wife in his own house on the 4th or 5th of December last. The prisoner had given himself into custody on the morning of December 5, to the sheriff-officer at Coldstream, who on repairing to the house found the deceased Margaret Dickson or Thomson barbarously murdered, eleven of her ribs being fractured and her body showing many frightful injuries. The panel pleaded 'Not Guilty,' and a special defence was put in to the effect that he was insane at the time the act was committed. The Medical witnesses called for the defence were allowed to sit in court to hear the evidence. It was proved that the prisoner was usually a person of very quiet and inoffensive temper, and that he and his wife usually lived happily together, but that he took to great fits of drinking, which gave rise to acts of violence bordering on if not producing insanity. Sometimes he had been chained to the bed to prevent him getting out of the house to satisfy his craving for drink, and altogether he appeared to have been a pitiable victim of that propensity. On the night in question there had evidently been a great conflict, and the woman, who was spoken of as a very quiet person, would appear to have used either poker or tongs in her defence. She had, however, been overpowered by the husband's fury, and the Medical witnesses who examined the body expressed their opinion that several of the wounds separately were sufficient to cause death. The evidence of the murder was quite conclusive, and the contest of evidence related rather to the question of the prisoner's responsibility as a sane person for the act. The local Medical witnesses deposed that several times he had suffered from delirium tremens, and on one occasion, at least, had showed symptoms of acute mania. On the night before the murder Dr. Turnbull had advised restraint, on account of old symptoms reappearing, but Mrs. Thomson expressed her confidence in being able to manage him. The doctor, not quite satisfied, had applied for the use of leg-irons, but the constable declined to lend them. The Professional witnesses examined for the defence thought the prisoner's violence was attributable to an attack of acute mania, followed by a gradual return in the morning to consciousness."

After hearing counsel and the Judge's charge, the jury returned the following verdict:—"Not Guilty, in respect that at the time of his committing the act he was temporarily insane."

PARLIAMENTARY.—WORKHOUSE NURSES—THE CONDITION OF THE NATIONAL MUSEUMS—PRECAUTIONS AGAINST RAILWAY ACCIDENTS.

In the House of Commons on Friday, May 5,

Mr. A. Mills asked the President of the Poor-law Board whether Government intended to adopt the suggestions contained in the evidence given before the Select Committee on Poor Relief, respecting the employment of trained and competent nurses in workhouses, and whether it was intended to carry out the recommendation embodied in the report, that quinine and other expensive medicines should be provided, when required, by the guardians.

Mr. Villiers said he believed the evidence to which the hon. member referred was that of a lady, Miss Twining, who appeared as a witness before the Poor-law Committee. She referred to the great want of improvement in the system of proper nurses for the sick poor in the workhouses of London, and said that in most of these workhouses there was no such attendance at all. This was an overstatement of the case. The Metropolitan Poor-law Inspector had always urged the guardians to employ competent persons as nurses for the sick, and the fact was that, upon inquiry, which he (Mr. Villiers) had directed in consequence of this evidence, he found that there were no less than ninety-three paid nurses in the different houses in London, and that out of the thirty-nine workhouses there were only eight without them. There was, however, great reason to doubt whether they were efficient for the purpose for which they were employed, and there was no doubt a great difficulty in proving who were competent persons; but, in consequence of communications lately received at the Poor-law Board from Miss Nightingale, who superintended establishments for the purpose of properly training nurses, and who was now taking much interest in the state of these houses, there was every reason to suppose that well-qualified persons could be obtained, and in number equal to the demand for them, should the guardians be willing to engage them. The Poor-law Board had already issued a circular to the guardians of all unions and parishes in London urging them to employ such persons, together with proper assistants, and it was to be hoped that they would now exercise their discretion in doing so. With respect to the supply of expensive medicines, such as quinine, etc., which the hon. member inquired about, the Poor-law Board had

issued a circular to all the unions in England and Wales on this subject, suggesting the propriety of their making arrangements with their Medical Officers forthwith for this purpose, and he was glad to say that many unions and parishes in the metropolis did supply those medicines, and found no difficulty in doing so.

Mr. Gregory called the attention of the House to the condition of the British Museum, the National Gallery, and the Kensington Museum. These collections of the treasures of nature and art were grossly neglected, though acquired by great expenditure. This neglect had been attributed to the parsimony of the House of Commons, but he rather ascribed it to the conduct of the Government, which had shaken the confidence of the House. He believed the House was prepared to vote the money that might be required, but the attempts of the Government to remove these collections to South Kensington had excited suspicions and made the House distrustful. He ascribed the defects in the management of the British Museum to allowing it to continue under the control of trustees. The collections ought to be placed under one head, who should be made responsible to a Minister. At present the collections were in a state discreditable to the wealth and intelligence of the nation.

Mr. Cowper agreed with much that Mr. Gregory had stated, but the different proposals of the Government for disposing of the national collection of pictures had been overruled. They had therefore been abandoned.

Mr. Walpole denied that the present state of the British Museum, which he admitted to be discreditable, was the fault of the trustees, who had added so largely to the collections. Things had reached a point at which the Government must interfere. They were exactly in the same position in which they stood ten years ago. The necessary space might be provided by purchasing the ground in the vicinity of the Museum, but the houses only to be pulled down for the gradual additions to the building. The Government would take the clear decision of the House on the question of keeping the collections together, and then act on that decision.

Sir G. Bowyer thought that, as the great fault of the National Gallery was want of height, it might be improved by adding another storey to it. In the same manner space might be gained at the British Museum.

Mr. Tite could see no difficulty in effecting the desired object of keeping the national collections together, if the Government determined to propose a good plan for the purpose.

The Chancellor of the Exchequer said the House had rejected every plan of the Government, but had never come to any decision of its own. He pointed out the enormous expense of purchasing the eight acres of ground in the neighbourhood of the Museum, which Professor Owen stated the collections would require. This would surely be inexpedient when seven acres of land had been purchased at a moderate rate at Kensington.

Mr. Ayrton denied that eight acres were wanted. But with respect to the British Museum the Government had always persevered in the plan the House had condemned.

Mr. H. Seymour feared the Government intended to make another attempt to drag the British Museum collections down to Kensington. That plan had prevented all progress since 1862.

Sir W. Gallwey moved as a resolution, "That the safety of the public requires some immediate provision should be made for compelling railway companies to establish a proper communication between guards and passengers." He referred to the numerous railway accidents that have lately occurred, and the alarm they have excited, as fully justifying some interference.

Mr. Milner Gibson said the Government had been in communication with every railway company in the kingdom on the subject, and a plan was then under trial by which passengers could arrest the attention of the guard, who would be instructed to stop the train at the next station protected by a fixed signal. This plan would do much to remedy the evil, and while the experiments were in progress it would be inexpedient to pass the resolution.

The resolution was withdrawn.

FROM ABROAD.—PROFESSIONAL ADVERTISING—ALCOHOLISM AT HAVRE—CONDENSED MILK.

In the laudable desire to prevent indiscriminate advertising and puffery, the question arises whether the Profession has gone too far in prohibiting it in any mode or degree whatever. At all events, the editor of the *Boston Medical Journal*—a sound reasoner on most matters that come before him—thinks that there is something to be said on the other side. He bases his argument upon the great development which has taken place in specialities in modern times, which in the opinion of some would be only to justify one abuse by another. Still, right or wrong, these specialties do thrive apace, and are pursued by men of high principle as well as great repute, and here is the suggestion:—

"It is certainly important for the Medical Profession and for the public at large to know who those Physicians are who have determined to occupy a restricted field of labour, and what are the special subjects to which they confine their attention. No more ready means occurs to us of making such a decision publicly known than through the medium of a modest advertisement in a Medical periodical. So presented, it is addressed almost exclusively to Medical readers, and the advertiser hardly lays himself open to the charge of mercenary motives. No Physician in general practice can expect at the present day to keep up his knowledge to the highest standard of progress in the diagnosis and treatment of diseases of the eye, for example, and the advertisement of one who restricts himself to the treatment of this class of disease tells him where he may send his obscure or doubtful cases for relief. The relief is twofold, for the Physician and the patient, and the result is a positive public benefit. . . . . It would seem, then, if we judge rightly in this matter, that the simple statement of a specialist in a Medical journal that he has chosen a particular department of Professional labour should not only not lay him open to animadversion, but is probably to some extent a public advantage. It has not the character of a newspaper puff of a tradesman in any sense, where the advertiser plainly designs to recommend as strongly as possible the wares which he offers for sale. Its publication should be limited, however, to the Medical press. Advertisements of such a nature in the daily newspapers savour very strongly of a hankering after the gains which are supposed to reward the enterprising advertiser of the last new nostrum, and are not to be thought of for a moment. The only advertisement in a daily newspaper which occurs to us as being in keeping with strict Professional propriety, is that of a change of residence, and even this may be allowed to stand so long sometimes as to present a most unwholesome look."

It is evident from this statement of our *confrère* that advertising exists already to an extent in the United States not known to ourselves. Not that we are so free from its practice as at first sight seems, for although neither qualifications nor address can be advertised even in the Medical journals, let alone the political ones, yet the frequent advertisements of Medical works that we see in these latter are certainly addressed to the public and not to the Profession, which is possessed of ample sources of information in the Medical journals.

John Bull has got such an inveterate habit of speaking of his own defects, and so loudly calling attention to them, that he really sometimes seems worse than he is. Now, in the matter of drink, how often has he had the sobriety of the Continent pointed out to him as worthy of his imitation, forming, as it does, such a contrast to his own disgraceful habits! It is true that persons acquainted with the beer-drinking in Germany, and the quantity of brandy and absinthe consumed by the lower classes in France and Switzerland, have had their doubts as to the comparative amount of the abuse of alcoholic drinks in this country; but the undeserved stigma attaches to us still; in spite of the efforts of our numerous temperance societies. However, one of the towns of France—Havre—must run us pretty close, if we are to believe the testimony of a thesis just published by M. Piasecki, on alcoholism as observed among the working-classes of that seaport. From the octroi returns, it appears that its consumption of alcoholic fluid far exceeds that of any other town in France, reaching the enormous quantity of 16 litres per head per annum. It seems it is a place in which labour is very highly paid, but is liable to frequent intermissions. M. Piasecki furnishes a statistical account of some of the results of such dissipation as observed at the Hospital during the years 1858-63. During this

period, 6175 males were admitted into the Physicians' wards, and of this number, 301 were suffering from alcoholism, death resulting in 56, as compared with 827 deaths from other causes. During the same period, among 3101 females admitted, there occurred 147 cases of alcoholism, followed by death in 19 cases, as compared with 529 deaths from all other causes. Of the 301 cases of alcoholism in males, 135 were cases of delirium tremens, 67 of insanity, 2 of alcoholic vertigo, 1 of chorea, 1 of pneumonia, 44 disease of the liver, and 42 disease of the stomach. Of the 147 female cases, 56 were delirium tremens, 37 insanity, 2 chorea, 22 affectious of the liver, and 21 affections of the throat. In the first category, suicide was either accomplished or attempted in 9 instances, and in the second in 6 instances.

A recent number of the *Boston Journal* contains an interesting account of the preparation of condensed milk, which during the war has been consumed in enormous quantities. At one of the factories in New York State, described in the article, there is a daily reception of 10,000 quarts of milk from more than fifty farmers, at three cents per quart. Before entering the establishment it is strained and cooled down by ice or spring water for transport to the factory, its quality having been first tested by tasters, who by practice have acquired a wonderful perception of watery additions. Cleanliness is of such vital importance in the process that the company itself cleans out the farmers' cans in which the milk has been brought by means of a strong jet of steam, followed by one of water. The souring the cans after they are emptied, which is a common cause of spoiling milk next put into them, is thus effectually prevented. The milk cooled down, even in summer, to from 56° to 58°, is transported to the factory under cover of blankets and buffalo skins. A large ice-house is connected with the factory, as is also a cheese-room, so that when the demand slackens for the condensed milk cheese may be made from the milk bought by contract. The milk when strained is poured into brass pails, capable of containing fifty quarts each. Sixteen of such pails are placed in a flat tub, filled with water, which is heated by means of a coil of steam-pipe to 190° or 195°. This constitutes the great improvement upon all former processes of condensing milk by heat, the albumen of the milk in the open pails undergoing coagulation without separation from the watery part of the milk. Any portion of coagulated albumen that adheres to the pail is instantly severed by the steam jet. The coagulation only requires a few minutes, and as fast as the proper temperature is reached the pails are emptied through a fine brass-wire gauze sieve into the "steam well," which is an open egg-shaped copper vessel holding 750 quarts. A steam-jacket is fitted on to its lower end, the milk is soon brought to the boiling point, and then drawn up by suction into the condenser or vacuum pan, this being four by five feet in diameter, and holding 1000 quarts. This copper vessel is kept brilliantly clean, and the air having been exhausted by an air-pump, the milk, on turning a cock, rushes in to fill the vacuum left. Steam is next let on, heating a coil of pipe within and a steam jacket outside the condenser. The pump is kept in constant operation, and the whole process is closely watched by a girl who, like all the apparatus, is a model of cleanliness. In a few minutes she finds the thermometer indicating 190°, and the milk rapidly boiling in vacuo. The milk is allowed to flow in until 3200 quarts have been taken up, when the supply is closed, and the most diligent watching is required to keep the heat regular. The vapour drawn from the boiling milk is condensed by a stream of cold water flowing through the air-chamber, emitting the peculiar odour of milk just warm from the cow. When the 3200 quarts have been reduced to 800 quarts, the steam is shut off, and its place supplied with cold water, the heat of the milk being thus instantly raised to a very high degree, and all the remaining odour thrown off. From the time the milk is received from the farmer, only three and a-half hours are required for all the operations necessary for its complete condensation. When the milk is required to be preserved for very long and almost indefinite periods, its preservation is secured by dissolving sugar in the boiling fluid, and packing in tin cases.

REVIEWS.

A Manual of the Domestic Practice of Medicine. By W. B. Kesteven, F.R.C.S.E. Small 8vo, pp. 400. London: Longman and Co.

Medical works addressed to the public are generally viewed with considerable distrust and disfavour by the Profession; and very rightly, for too generally they are trashy and mischievous productions, written by superficially educated and inexperienced men, whose only object is to write themselves into notoriety and practice, and whose idea of a *popular* work is, not one that will truly help and instruct the non-professional public, but one that will make themselves popular. Happily, however, this is not the only way in which Medical subjects may be popularly treated of. Now and then a really accomplished and experienced Practitioner addresses a treatise on Medicine *ad usum popularem*, and produces a "guide, counsellor, and friend" of real value and great utility; and among the few existing works of this kind Mr. Kesteven's book deserves to take high rank. In an "Introductory Chapter," he gives short, but clear directions on hygiene in its various branches—as sleep, cleanliness, bathing, diet, ventilation, etc. —on nursing and nurses, leeching, blistering, fomentation, and so on. On this part of the work we will only remark that we think it a mistake to say that "the quantity of alcohol in port is, on the average, about 18 per cent.; in sherry, about 15 per cent. Other foreign light wines contain about 13 per cent." The great majority of readers will by *alcohol* understand *spirit* in the common acceptation of the term; but light foreign wines—*pure wines* —contain on the average about 20 per cent. of proof spirit, some so little as 17, a few as much as 26 per cent; while sherries in the English market average about 32, and ports 35 per cent. of proof spirit—they often contain as much as 40, and sometimes even 45 per cent.; this point is the more noticeable because when speaking of "spirits" Mr. Kesteven does not give the percentage of alcohol contained in gin, brandy, etc. In Section I. Mr. Kesteven gives a table of "the most prominent symptoms of disease, so that by reference to a symptom the reader may, if at a loss, be guided to the disease in which the symptom occurs;" he then treats, in alphabetical order, of "diseases and emergencies, their symptoms, causes, and treatment." Section II. is on "Accidents, and their treatment." Section III. on "Poisoning." Section IV. on "Medicines." As a specimen of the mode in which he handles subjects we may refer to small-pox; he gives the symptoms of the stages of incubation, invasion, eruption, and decline, noticing the differences in the discrete, semi-confluent, and confluent forms, and the benignant, modified, and malignant varieties; then come complications, causes, and treatment. The spirit in which he advises on the last may be understood from the warning which he gives, that "more harm is likely to be done by meddlesome physicking than by entirely withholding medicine." Then follows an excellent chapter on vaccination, in which he gives most valuable and instructive information, supported by statistics, on the protection afforded by vaccination. The only addition we can suggest to this is a few words of warning that vaccination may, just like any other irritation, excite an outbreak of eczema, and kindred skin diseases, in children predisposed to them. In the table of poisons, their symptoms and treatment, we do not observe any mention of Burnet's Disinfecting Fluid, which has been the cause of many cases of accidental poisoning, from having been given instead of fluid magnesia. Section IV., "On Medicines," contains an "Alphabetical list of medicines and table of prescriptions; with observations on the use and doses of medicines, a classification of medicines and prescriptions, a table of medical weights and measures, and a list of articles for a medicine-chest." Some of the electuaries are directed to be made up with "confection of senna," we observe; it would have been more useful and generally practical to make them all with treacle.

In the preface to the work Mr. Kesteven says, "It is not the intention of this manual to supersede the office of the Professional attendant; the pretence could only be a self-evident and useless imposition. Common-sense and the instincts of

self-preservation will urge the sufferer to seek for aid where skill and science inspire confidence, and afford the only rational ground of hope for a speedy and permanent restoration to health. Skill and science, however, are not at the command of all with whom the *praetiee* of Medicine may become an unavoidable and urgent obligation." Years ago there were many parts of England where Medical aid was difficult of attainment, or where the only Professional aid within reach was of the very lowest and rudest kind; and then, in numberless households, "Buchan's Domestic Medicine," and one or two other like works, were an invaluable guide and stay. In England such helps are now rarely needed, but in our colonies, and the many semi-populated and semi-civilised parts of the world where Englishmen are scattered, such a family guide as Mr. Kesteven's book must be most valuable; we have indeed, already, heard of some marked proofs of this. Families emigrating cannot do better than arm themselves with this "Manual;" with its aid, and common-sense, they may treat disease and accident with confidence and safety till Medical assistance ean be procured; and they may protect themselves from the necessity of having recourse to the services of ingenious Practitioners whom scant experience and less learning reduce to the device of "treating diseases by the circular method."(a)

On Diphtheria and Diphtheritie Diseases. By J. West Walker, M.B. Lond., etc. London: Churchill and Sons. 1864. Pp. 88.

This little work is a revised edition of a set of papers which appeared in the *British Medieal Journal.* The author's intention is to establish a theory that diphtheria is neither a distinct acute specific disease of modern origin having its own peculiar train of local and general symptoms, nor a modification of one of the previously-known diseases, such as scarlatina, eroup, or epidemic sore-throat. He finds in the leather-like pseudo-membranous formation the chief eharacteristic of the so-called diphtheria, but he finds that this may be associated with various groups of symptoms, and may be a concomitant of entirely different diseases. Diphtheritic exudation may occur on the skin or on the tongue, and be accompanied by little or no constitutional disturbance, and even in the throat it may be attended with the greatest possible variety of general symptoms. It is only when it is laryngeal that it is attended with croupal symptoms, and it then confers on the primary disease on which it is grafted a semblance to true croup. The amount of exudation, except in croupal cases, is by no means an index of the danger, for the danger may be slight whilst the exudation is abundant, and *viee versâ.* He therefore comes to the conclusion that diphtherite is a complication of disease rather than a disease *per se,* "manifesting itself, it is true, only at certain seasons, such seasons being noted for the extensive prevalence of zymotie diseases generally." He does not, however, deny that a new disease may have prevailed during a diphtheritic epidemic to which the term diphtheria has been applied; but if such a disease exist he denies that we have at present the positive means of recognising it, maintaining that the occurrence of the leather-like formation is no diagnostic sign, and is not peculiar to any one form of disease. The author's work is well written and well thought out. It is ingenious, if not convincing.

Thomson's Conspeetus of the British Pharmacopœia. Edited by Edmund Lloyd Birkett, M.D. Cantab, etc. Longmans. 1865.

Are we to understand by the title of this book that the late respected Professor of Materia Medica in University College has been summoned from his Elysian repose to take a look at the British Pharmacopœia, and that he has embodied his remarks on it in the neat little duodecimo before us? We really don't know what other construction to put on the title. The British Pharmacopœia was published in 1864, and Dr. Thomson died some fifteen years ago; so, except on the supposition of necromancy or spirit-rapping, or some other weirdly agency, we cannot conceive how any book can be Dr. Thomson's Conspectus of the British Pharmacopœia. Dr. Thomson, we know, published a Conspectus of the three Pharmacopœias of the three Colleges, giving in a short space their agreements and differences; but as the three are now represented by the British, it is evident that, even supposing ghostly supervision, the term Conspectus will not apply in the same sense as to the former work. Dr. Birkett, who is the fleshly editor of the present work, sees the difficulty, and adroitly meets it by remarking in his preface "it is as necessary as ever to hold *in conspectu* the prominent points of Pharmacy, Materia Medica, and Therapeutics." Undoubtedly; but that is not meant by a Conspectus of a Pharmacopœia. However, we will not be hypercritical. What's in a name after all? The book is a good and useful little manual of Therapeutics and Materia Medica, adapted from Thomson's Conspectus by Dr. Birkett. We suppose that the name "Conspectus" has been retained for commercial reasons; and, although it has a title suggestive of the uncanny, we are sure the book will be found a very tangible aid and a very useful companion in the brougham or the consulting-room.

(a) *Vide Medical Times and Gazette,* February 11, 1865, p. 154. Story from Mr. G. A. Sala's Diary.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, May 10.

The Dublin International Exhibition of Arts and Manufactures 1865, was opened yesterday, with great *éclat,* by His Royal Highness the Prince of Wales, and although the events of the day are not, in strict propriety, subjects for record in a Medical journal, a brief notice of the proceedings, and a short account of the locality in which they took place, may be not unacceptable to your readers, as introductory to future reports, which I hope to send you, on the Surgical appliances, chemical and pharmaceutical productions, and other matters specially interesting to the Profession, to be found in this rich collection of the world's treasures.

The building through which the Exhibition is entered, presents to Earlsfort-terrace a handsome stone front, adorned with coupled columns of the Roman Doric and the Corinthian order, with Italian and Byzantine windows, and leads, through its grand hall, to a supplemental structure of glass and iron, correctly described in the "Stranger's Guide to Dublin," as exquisitely light, airy, and tasteful, the principal transept being 447 feet long by 84 feet wide, and 65 feet high, having a circular extension opening on the park, an extent of thirteen acres, laid out with admirable taste, and diversified with fountains, rockeries, shrubberies and cascades, an ornamental pond, croquet grounds, parterres, and a maze, similar in plan to that at Hampton Court.

The addition which such a park so judiciously laid out, and connected with a palace containing every facility for the study of the fine arts, the enjoyment of music, and of other means of rational recreation, and, moreover, actually in the city, makes to the sanitary and elevating resources of the inhabitants of Dublin is obvious; and it is matter of congratulation that so great and useful a work, now temporarily applied to the purposes of a vast International Exhibition, should have been inaugurated under the auspices of the Heir Apparent to the Crown of these realms.

Long before the arrival of His Royal Highness some ten thousand persons had assembled to witness the interesting proceedings of the day. In addition to the Duke of Cambridge, the Prince of Leiningen, the Lord Lieutenant and Lady Wodehouse, and others, who accompanied the Prince, there were present the Lord Mayor of Dublin, the Archbishops of Armagh and Dublin, the Lord Chancellor of Ireland, the Lord Justice of Appeal, the Duke of Leinster, the Marquises of Kildare, Drogheda, and Conyngham, the Earls of Meath, Charlemont, Rosse (Chancellor of the University), and Howth, Field-Marshal Viscount Gough, and many others of the nobility, judges, etc. The music, by a band and chorus of nearly 1000 performers, was conducted by Mr. Joseph Robinson, and included the 100th Psalm, the Coronation Anthem, "The Heavens are Telling," from the "Creation," the Grand March from "Le Prophete," Mendelssohn's Hymn of Praise, Handel's Grand Hallelujah Chorus, the National Anthem, and the Danish National Hymn. All passed off admirably, and this great undertaking was most auspiciously inaugurated.

I may have dwelt at too great length in this introductory letter upon matters not strictly Professional, but nothing calculated to advance civilisation or to promote a taste for healthy recreation and for pursuits enlarging to the mind can be considered unworthy the attention of the Physician. In my next I hope to be more special.

GENERAL CORRESPONDENCE.

ACUPRESSURE—EXPERIMENTS ON THE LOWER ANIMALS.

LETTER FROM MR. R. LAWSON TAIT.

[To the Editor of the Medical Times and Gazette.]

SIR,—I observe in the *Medical Times and Gazette* a quotation taken from Professor Weber in relation to some experiments of his with acupressure upon the blood vessels of the lower animals. As the results of these experiments, Professor Weber concludes that the compression of an artery by a needle will affect its coats more deeply and swiftly than deligation with a silk ligature, etc., etc.

During the last six months I have been engaged in a series of experiments with acupressure on the lower animals, and have come to conclusions exactly the opposite of Professor Weber's. These results will be shortly published. Let me here merely state that in the many experiments that I have performed I have never seen the ulceration or cutting of the coats which he describes as the invariable results of acupressure. There must, I believe, be some strange fallacy in his experiments. Reasoning even *a priori*, and without experiment, one can scarcely imagine the flat and gentle compression exerted by acupressure could possibly cut and divide the coats of an artery to the same degree as would a tightly-drawn ligature.

That the results of my experiments on the lower animals are correct, is proved by the same appearances having been found on several occasions in the arteries of the human subject where the acupressure needle had been used. That the effects of acupressure on the arteries, as stated by Professor Weber, are incorrect, I further think is fully proved by the success attending its employment in Surgical operations upon the human subject, an employment which Professor Weber never seems to have once witnessed. No later than last night I heard Dr. Pirrie, the eminent Professor of Surgery in the University of Aberdeen, state that during the last six months he and his colleague Dr. Keith had used acupressure alone in all their amputations, and in most minor operations in the Aberdeen Infirmary; that it had never once failed or given him trouble; that it could be more easily and rapidly applied than the ligature; that he had not seen a case of pyæmia or other evil result among all those in which it had been used, and that the wounds had generally healed very kindly and rapidly, results which could not have followed were Professor Weber's statements correct. I am, &c.

R. LAWSON TAIT.

THE ARMY MEDICAL SERVICE.

[To the Editor of the Medical Times and Gazette.]

SIR,—I am sorry to see that the students have been so foolish as to come forward and take service in the Medical Department in such numbers as to render abortive the exertions that were being made to better the department. No doubt the temptation of high pay—for to the juniors the pay in India, comparatively speaking, is high—has caused them to overlook the possibility of being employed elsewhere; and even in India, if you compare the emoluments of the Indian with other skilled labour of equal length of service, you will find the Surgeon is the worst-paid man. The consolidated pay artfully gives him when in charge of a regiment just the bare pay of his rank, but if sick and absent, instead of getting the pay of a major, as his rank entitles him to, he will only get Rs. 600 in place of Rs. 789, which a major would; no matter how intelligent or how well qualified, he can never get more than his bare pay. The circumstance of his possessing Medical knowledge, in addition to the other acquirements of a gentleman, debars him from the advantages open to every other military man who will qualify himself for staff or civil employ by passing in the languages. Formerly, in addition to his Professional work, the Surgeon of a station was generally Cantonment Magistrate and Postmaster—situations which gave him great influence and increased his emoluments. Now, practically, every Doctor is tied down in India to his bare Professional salary, which extra work and responsibility do not increase. But, though this is a matter of complaint in India, the grievance becomes a trifling one compared with the position of military Surgeons at home or in the colonies. The pittance of 15s. a day is quite unsuited to his position, and, when cut down by compulsory payments (subscriptions), is more like 13s. or 13s. 6d. The difference of pay between a Surgeon and an Assistant-Surgeon is ridiculous—only 2s. I have known a Surgeon lose money by promotion:—As Assistant-Surgeon he had 13s. a day, and, ranking as captain, he drew lodging-money—2s. 3d.—as he ranked among the seniors and had choice of quarters. On promotion as Junior Surgeon, a field officer's quarters in barracks, consisting of two rooms, were allotted to him. These he could not occupy, as they were useless to him, as a married man; but they, being vacant, debarred him from drawing lodging-money. Thus he lost 3d. a day in cash by his promotion, besides having to pay higher subscriptions to mess and band. Moreover, the pay of a Surgeon on promotion is less even than that of his comparative rank, whereas it ought to be higher, and carry, as in the Royal Engineers, a charge pay when employed in a responsible post. Indeed, the most satisfactory arrangement would be to give 10s. a day on entrance, with an increase of 6d. a day on the completion of each year for all ranks; Assistant-Surgeons to draw merely length of service pay; Surgeons, 5s. rank pay in addition; besides this, all ranks to have a charge allowance when holding separate charges; and so on for the higher grades. This would tend to give satisfaction, as the pay would increase both by length of service and by promotion, and the latter would be a certain rise of 5s. per day, and not, as in some instances, a present loss.

In the society in which a military Surgeon is placed from his position, 15s. a-day to a married man ranking as major is a bare existence, and does not leave a margin to meet travelling expenses, or provide for sickness, which involves being placed on half-pay, as we are not so liberally treated in respect to sick leave as the executive officers.

If the students would only have held out another session, the Horse Guards would have had to give in, and something would have been done to give better pay and pensions, and earlier retirements to

India, March 30. ARMY SURGEONS.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 25.

Dr. ALDERSON, President.

A PAPER, by THOMAS LAYCOCK, M.D., of Edinburgh, was read

ON THE INFLUENCE OF CERTAIN NERVE-CENTRES UPON THE PRODUCTION AND PREVENTION OF DROPSIES AND DROPSICAL EFFUSIONS.

After noticing generally the deficiencies in the theories of dropsies, and especially the absence of any consideration of the part which the nervous system plays in causation, the author arranges nervous dropsies as they are centric, or reflex, or due to local nervous disorder; or as they affect the trunk, or limbs, or viscera. He then details a case of cardiac dropsy in which the anasarca was unilateral, being limited to the left arm, left side of the thorax, and left half of the scrotum and penis, with hyperæsthesia of the right thorax. This he gives as an example of a "centric" nervous dropsy. The author then points out that the gravitating theory of dropsical effusions wholly fails to explain the caprices in the distribution of the effused serum observed in this and other cases of anasarca; and refers to numerous observations made on the order of development of the dropsy in various parts of the body, and also to an experiment made upon a corpse. He further shows by diagrams that the anatomical distribution of the capillaries, as well as the connexions of the areolar tissue, influences the seat and the distribution of the effused fluid. As an example of this he explains the origin of "præcordial œdema." The author next considers how far the obstructive theory of the anasarca in cardiac dropsy can explain the distribution of the fluid, and details a case of unilateral or hemiplegic anasarca, with hyperæsthesia of the same side, but without either cardiac or renal disease; thus proving that neither the obstructive nor humoral theory was applicable to an explanation of the distribution of the fluid. On the supposition that the

nervous system had a special influence in this respect, the author proceeds to examine how far this is supported by known data, and shows that, in accordance with the conclusions to be drawn from vivisection, the influence of the nervous system in these cases is opposite on the two sides; and that while on the œdematous side the effusion is thus promoted, on the non-œdematous side it is inhibited. As a proof of this doctrine, the author relates a history of a case of cardiac dropsy, in which, when the anasarca was very extensive, embolism of the middle cerebral artery of the right side took place. As a consequence, there was palsy and finally anæsthesia of the left side, with increase of the œdema on that side, but as to the left side entire disappearance of the œdema from the leg. This illustrates the true nature of the so-called "serous metastasis," in which, with disappearance of the œdema, head-symptoms arise or effusion takes place elsewhere. Following up the clue thus obtained, the author shows how in cases like 1 and 2 a previously unilateral morbid condition of the nervous system would render an anasarca unilateral or hemiplegic, which would otherwise have been general. In proof of this he details a fourth history, in which there were symptoms of cerebellar lesion, the right testicle wasted, a stricture of the urethra of long standing, and purulent urine; and in which, after a hemiplegic attack affecting the left arm, and left side of the face and tongue, œdema appeared in the leg and arm on that side, but not on the other. He also refers to a case of the same kind related by P. Frank. Having thus established the general principles of production and inhibition of dropsical effusion under the influence of the nervous system, the author proceeds to inquire what portions of the cerebro-spinal axis are involved in dropsies, and comes to the conclusion that in Case 2, in which the hyperæsthesia was on the same side as the œdema, the lesion was spinal; but that in Case 1, in which it was on the side opposite to the œdema, the lesion was encephalic, and in the medulla oblongata. In Cases 3 and 4 the seat was more complex and higher up. The author next considers paraplegic dropsy, and details a case of facial and paraplegic anasarca with long-standing Bright's disease, in which hæmaturia and coma came on, and therewith a disappearance of the œdema from the legs, constituting another example of so-called serous metastasis. After death, however, no serous effusion into the brain was found, but the frontal bone was perforated with holes from syphilitic disease, and the cranium generally much thickened, except the occipital bone, which was unusually thin. The theory of uræmic poisoning might explain this case, but as the theory itself is very doubtful, it is as easy to class the production and removal of the dropsy with the hemiplegic cases, which the author attributes to a probable defect in the function of the cerebellum as the great central regulator of nutrition. Under the head of "reflex dropsies," the author examines the origin and development of renal anasarca, and shows that in this, as in reflex paraplegias, the urinary and genital systems have a direct influence on the cerebro-spinal centres, and that when we know with what particular organs and tissues they have physiological sympathies, we can predicate where the effusion will be specially produced or inhibited. Hence he concludes that albuminuria without tube-casts is usually a symptom and not a cause of the nervous disorders attributed to it, such as puerperal convulsions and the like. Hence, also, in renal anasarca the œdema of the external genitals and of the loins; and finally, of the legs, as paraplegic œdema. The œdema of the eyelids in anasarca has two sources of reflex action. The upper eyelid is more in relation with the emotional centres, the lower eyelid with the genito-urinary. For this reason the lower eyelid is chiefly affected with local dropsy in women with uterine disease, but in men with disease or irritation of the bladder, prostate, and vesiculæ seminales. In women with Bright's disease effusion into the cellular tissue of the neck and thorax is sometimes so copious during menstruation as to endanger life by suffocation. The author is of opinion, however, that in many of these cases the reflex influence is not exercised directly through the spinal cord, but indirectly through the cerebellum and other centres of the nutrient nervous system. The law of production and inhibition of dropsical effusions by changes in the nerve-centres renders intelligible caprices in the distribution of the fluid otherwise incomprehensible; as when, for example, in lateral decubitus, the arm of the same side is free from anasarca when it is general elsewhere; and in particular it explains the close connexion between cardiac diseases and œdema of the thorax and upper extremities through the cilio-spinal region, and the reason why a differential œdema of the two sides occurs. He further shows how the same law applies to dropsical effusions into the pleura and lungs, and explains why in these cases there is sometimes a corresponding œdema of the thorax, and why in others there is neuralgia or hyperæsthesia of the same or the opposite side. The relation of crossed œdema to certain kinds of wasting palsy and to spasmus alternans transversus of Remak is also shown. The author finally discusses general anasarca from the points of view thus developed; but while insisting that the state of the nervous system is one great factor in the causation, the condition of the blood is equally important. The concurrence of the two great morbid states is therefore necessary. He also maintains that a particular portion of the nervous system is affected, the morbid changes of which are not necessarily manifested by disorders of voluntary motion or of consciousness, but by changes in the blood and the capillaries, and by modifications of the nutrient processes. These are out of the sphere of consciousness, and belong to the processes of vegetative life which the system in question regulates and binds into a homogeneous whole. Amongst the morbid phenomena to be classed with anasarca as to the part of the nervous system which regulates their production, the author specifies purpura hæmorrhagica, both acute and chronic; diathetic and metastatic inflammations and irritations, known chiefly as the rheumatic and gouty; nervous fluxes of serous fluid from free surfaces; effusive inflammations like herpes zoster; congestions and congestive inflammations of a symmetrical kind associated with nervous symptoms; certain plastic and fibrinous inflammations, as the syphilitic and gouty; and finally, reflex variations in the temperature of parts. As to the treatment of dropsies, the author thinks a cure almost impossible when the treatment is so directed as to depress the nervous system, as by confinement to bed, especially in the wards of a crowded Hospital; but he reserves the discussion of special remedies.

Dr. Webster said the object of the author was, he gathered, to show that disease of the nervous system was a great source of dropsy. He could not controvert the author's experience, but in his own experience dropsical symptoms had been rarely found in patients who had died of disease of the brain who, during life, had been insane. Among the 298 autopsies of insane patients, which he (Dr. Webster) had published in the Society's *Transactions* or elsewhere, only four were examples of simple anasarca; 12 had effused serum in the abdomen, 8 of whom showed also serous effusion in the chest or pericardium; while in 23 other cases serum was found effused more or less copiously in the thoracic cavity, but without any indications of anasarca externally.

Dr. Gull, whilst acknowledging the interest and importance of the paper, remarked that several difficulties had occurred to him during the reading of it. The two cases which Professor Laycock had quoted as examples of hemiplegic anasarca were of the left side. This fact diminished their value as illustrations of the theory brought forward, since the venous relations of the left side of the body to the general circulation might alone have explained the limitation of the effusion in these cases. Professor Laycock had quoted a case of anasarca limited to both upper extremities, and to the head and face, from the pressure of a tumour on the superior vena cava, and objected that, according to the common principles of gravitation, and the admitted universal permeability of the areolar tissue by fluids thrown into it, such a state of things should not have existed unless there were some hitherto-unrecognised influence in operation in the dropsical textures. On this, Dr. Gull remarked that such an assumption did not seem to him necessary. The limitation of the anasarca in these well-known cases seemed to him explicable by the most obvious fact in their history; for whilst, on the one hand, the obstructed veins could not remove the fluid from the parts from which they arose, on the other hand, the fluid gravitating into the areolar tissue of neighbouring parts, whose veins were free, would be quickly absorbed, thus accounting for the limitation of the anasarca without assuming nervous interference in the phenomena. Dr. Gull remarked also that Professor Laycock had drawn most of his illustrations of partial and limited dropsies from cases of chronic albuminuria. Now, it was notorious that in the albuminous cachexia tissue changes of an inflammatory and allied character were most common, whether from local exposure to cold or the like. He was therefore disposed to view with doubt the bearing of these cases on the theory of nervous interference now propounded by the learned Professor. It was, Dr. Gull also argued, further to be made out in such cases as those recorded by Dr. Laycock, whether the peculiar distribution and limitation of

the anasarca was not due to more local obstructions of the veins or absorbents than seemed to be generally recognised. It was remarkable that in a learned Medical Society like this, the difficulties connected with dropsies should, at the present day, be discussed without an allusion to the absorbent system—a system which, on its discovery, was no doubt over-estimated in reference to its pathological bearings in dropsies, but which, probably, was now too much forgotten.

Dr. Laycock, in reply, remarked that he concurred generally with the observation made by Dr. Webster as to the comparative immunity from dropsical disorders manifested by the insane. It was only one, however, of a class of immunities of the kind, and which gave a peculiar character to the pathology of the insane. It had attracted his attention in connexion with the conclusions he had submitted to the Society, and admitted of explanation on the principle which Dr. Webster had omitted to notice—namely, that morbid states of the nervous system inhibit or prevent dropsical diseases and other affections of the class. In reply to the objections of Dr. Gull, Dr. Laycock did not desire it to be understood that he set aside other causes of dropsy, such as exposure to cold, obstruction and distension of the veins and absorbents, and the like. All these might be causes, just as they are causes of inflammation. Hence the bandaging of dropsical limbs was an important aid to cure. Further, the anatomical distribution of the vessels had an influence upon the distribution of the fluid; and in proof Dr. Laycock directed attention to two diagrams, one of which indicated the line of effusion in a case of embolism of the inferior vena cava, which corresponded over the back to the line of the seventh or eighth rib; and the other showed the line of præcordial vascularity which bounded the œdema in a case of pressure on the superior vena cava. These facts showed that the circulation of the skin over the thorax and abdomen was distinct. Vivisections had also recently been made, which tended to prove that the venous capillary circulation was under the influence of the nervous system as well as the arterial. As to other objections brought forward by Dr. Gull, he would only remark that the facts remained the same, however they might be explained. When these were verified by other observers, they might come to a different conclusion than that which he had submitted to the Society; but carefully conducted observations with exact measurements were necessary as to the order of development and particular seat of the dropsical effusion, in order to reach correct conclusions. Hitherto the facts of the kind he had laid before the Society have been looked upon as inexplicable caprices; so far he was aware, they could only be explained on the theory he had laid down, that states of the nervous system both caused and prevented dropsical effusions. In further reference to a remark of Dr. Webster, he would observe that the portion of the nervous system involved was not that which subserved to external relations and ministered to volition and consciousness, but that which regulated internal relations and the processes of vegetative life. He had only made use of the changes in motion and sensation—the palsy, the spasms, and the hyperæsthesia—which accompanied certain dropsies to determine the centric seat of lesion. But there might be nervous dropsy without any of these.

Royal Institution of Great Britain. — General Monthly Meeting, Monday, May 8, 1865.—Sir Henry Holland, Bart., M.D., D.C.L., F.R.S., President, in the chair. The President appointed the following Vice-Presidents for the ensuing year:—The Lord Wensleydale, the Earl Percy, Sir Roderick J. Murchison, and Wm. Pole, Esq. Charles Butler, Esq.; William Henty, Esq.; Walter Morrison, Esq., M.P.; George Banks Rennie, Esq.; Arthur Charles Tanqueray, Esq.; Phillip D. Tuckett, Esq., F.G.S.; were elected Members of the Royal Institution. The following Professors were re-elected:—William Thomas Brande, Esq., D.C.L., F.R.S., Hon. Professor of Chemistry; John Tyndall, Esq., Ph.D., F.R.S., Professor of Natural Philosophy; Edward Frankland, Esq., Ph.D., F.R.S., Professor of Chemistry. The special thanks of the members were returned for the following additions to "The Donation Fund for the Promotion of Experimental Researches:"—John Carrick Moore, Esq. (second annual donation), £10; Harry Mackenzie, Esq. (second donation), £20. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

METROPOLITAN WATERS IN APRIL, 1865.

The following are the returns of the analyses of the metropolitan waters by the Metropolitan Association of Medical Officers of Health.

The amount of saline matter in the waters supplied to the metropolis during the month of April is, with one exception (the Kent) about two grains less than that of the preceding month, and the proportion of oxidisable organic matter has not in any case exceeded eight-tenths of a grain per gallon, the range being from 0·48 to 0·80 gr.

	Total solid matter per gallon. grains.	Loss by incineration.(a) grains.	Oxidisable organic matter.(b) grains.
Thames Companies.			
Grand Junction . .	Not examined.		
West Middlesex . .	18·0	1·66	0·80
Southwark and Vauxhall .	18·3	1·83	0·56
Chelsea	18·0	1·44	0·80
Lambeth	18·0	2·16	0·56
Other Companies.			
Kent	26·6	1·72	0·48
New River . . .	17·72	1·06	0·56
East London . . .	19·7	1·57	0·56

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 9th inst.:—

William Greenwood Sutcliffe, Ashton-under-Lyne; James Grosvenor Mackinlay, Isleworth; Abraham Robert Verity, Bridgend, Glamorganshire; and Richd. Young Vance Packman, Ebury-street, Pimlico, students of Charing-cross Hospital. Henry Charles Hilliard, Shefford, Beds; Jas. David Rowlands, Carmarthen; Frederick Martyn Rickard, Plymouth; and John Gettins, Shrewsbury, of Guy's Hospital. William Frederick Pen Davis, Ardwick, Manchester; Thomas Nathaniel Twigge, Parwich, Derbyshire; Jas. Atkin White, Cheetham-hill, Manchester; and William Nuttall, Bury, Lancashire, of the Manchester School; Edwin Atherstone, Graham's Town, Cape of Good Hope; Thomas Howells, Kennington; Edward Charles Evans, L.S.A., Cardiff; and Charles Berrell, Camberwell, of King's College. Frederick Barton, Bradford; Josiah Leale, Jersey; and William Andrew Patrick Stuart, Barbadoes, of University College. George Paddock Bate, Stone, Staffordshire, of the Westminster Hospital: Thomas Henry Willand, Aubourn, Lincolnshire, of St. Bartholomew's Hospital; Charles Victor Helsdon, North Walsham, of the Middlesex Hospital; and Thomas Loars Johnson, Wolverhampton, of the Sheffield School.

At the same meeting of the Court Mr. Joseph Collings Grigg, of Greenwich Hospital, passed his examination for Naval Surgeon. This gentleman had previously been admitted a member of the College, his diploma bearing date April 12, 1858.

Admitted members on the 10th inst.:—

Richard Frederick Nell, Cardiff; George Frederick Pritchard, Highbury; John Burges Welsh, Taunton; and John King, Stratton, Cornwall, students of King's College. John Henry Bryant, Sussex-square; Thomas Leah, Penzance; William Le Gros Denziloe, Bridport; and George Brown Millett, Penzance, of St. Mary's Hospital. Anthony Charles Colborne, M.B. and M.C. Aberd., and L.R.C.P. Lond., Pimlico; Clarence Visick, Exeter; and Howard Barrett, Richmond, of St. George's Hospital. Frank Holmes, West Gorton, near Manchester, and James Henry Worsley, Bluepits, near Manchester, of the Manchester School; John Bradley, Liverpool, and Thomas Drake Leigh, Liverpool, of the Liverpool School; John Canning Wilkins, Pinnor, Middlesex, and Joseph Wall, London, of University College; William Joseph Marsh, New Kent-road, and Nelson Albert Hilder, Camberwell, of Guy's Hospital; William Powell Keall, Bristol, of the Bristol School; and John Neesam Stone, Dublin, of the Dublin School.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, May 4, 1865:—

Nicholas Watson Fairles, South Shields; Charles Glen Bott, Brentford; William Knight Treves, Dorchester; Charles Humphrey Weld, Rolvenden, Kent; Rees Llewellyn, Maesgwyn, Breconshire; Albert Waymouth, Middlesex Hospital; William Griffith Jones, Llanelly, Carmarthen; Wm. Heath Strange, Streatley, near Reading.

The following gentleman, also on the same day, passed his first Examination:—

George Richard Cooke, Charing-cross Hospital.

(a) This represents a variety of volatile matters as well as organic matter, as ammoniacal salts, moisture, and the volatile constituents of nitrates and nitrites.

(b) The oxidisable organic matter is determined by a standard solution of permanganate of potash, the available oxygen of which is to the organic matter as 1 to 8, and the result is controlled by the colours of the water when seen through a tube two feet long.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Barter, Clement S., M.R.C.S. Eng., has been appointed Surgeon to the Bath Institution for Idiots.

Belcher, Thomas W., F.K.Q.C.P.I., has been elected one of the Examiners in Arts at the King and Queen's College of Physicians in Ireland.

Bond, Thomas, M.R.C.S., has been appointed House-Surgeon to King's College Hospital.

Bradley, C., M.R.C.S. Eng., has been elected House-Surgeon to the General Infirmary, Leeds.

Briscoe, John, M.R.C.S. Eng., has been appointed one of the Surgeons to the Radcliffe Infirmary, Oxford.

Brodie, George B., M.D. St. And., has been appointed Medical Officer for In-patients and Physician Accoucheur to Queen Charlotte's Lying-in Hospital, Marylebone-road.

Broughton, Mr. E. T., has been elected Resident Medical Officer to the Kingston-on-Thames Provident Dispensary.

Caldwell, Samuel J. B., M.R.C.S. Eng., has been appointed Assistant Medical Officer for the Workhouse of the Parish of Liverpool.

Cook, William H., M.D. Edin., has been appointed Medical Officer for the Workhouse, Hampstead.

Cooke, Alfred S., M.R.C.S. Eng., has been appointed House-Surgeon to the Stroud General Hospital and Dispensary.

Fenn, E. L., M.R.C.S. Eng., has been appointed Physician's Accoucheur's Assistant to King's College Hospital.

Griffiths, William H., M.R.C.S. Eng., has been appointed Medical Officer to the Hinckley Workhouse.

Holyoake, Thomas, Jun., M.R.C.S. Eng., has been appointed Resident Surgeon Accoucheur to the Birmingham General Dispensary.

Kenny, P. F. J., L.R.C.P. Edin., has been appointed Second Junior Resident Surgeon to the Birmingham General Dispensary.

Mackey, Edward, L.R.C.P. Edin., has been appointed Junior Resident Surgeon to the Birmingham General Dispensary.

Ringland, John, F.K.Q.C.P.I., has been elected one of the Examiners in Arts at the King and Queen's College of Physicians in Ireland.

Simmonds, Henry M., M.R.C.S. Eng., has been appointed Medical Officer for the Workhouse of St. Mary's, Newington.

Steele, William E., F.K.Q.C.P.I., has been elected one of the Examiners in Arts at the King and Queen's College of Physicians in Ireland.

Walker, George Charles, M.D. St. And , has been appointed Honorary Medical Officer to the North Dispensary, Liverpool.

DEATHS.

Biddle, Charley H., M.D. St. And , at the Public Dispensary, Leeds, on May 1, aged 27.

Buchanan, A. B., M.D. Glasg., at Glasgow, at April 4.

Davies, Sir David, K.C.H., M.D., at Lucca, Italy, on April 2, aged 73.

Drysdale, James, L.R.C.S. Edin., at Kinross, N.B., on April 21.

Eccleston, Thomas B., M.R.C.S. Eng., at Warrington, on May 6, aged 41, formerly of Newton-in-le-Willows.

Evans, Evan T., L.R.C.P. Edin., at Rose-place, Liverpool, on April 17, aged 41.

Hamilton, Charles T., M.D. Edin., at 6, Windsor-terrace, Maida-hill, W., on May 3, aged 52.

Jones, J., M.B., at Tower House, Gloucester-road, Regent's-park, N.W., on April 12, aged 55.

Kenny, Mason S., M.D. Edin., at Ballinrobe, Co. Mayo, on April 23, aged 77, formerly of Halifax.

Kinsey, Robert B., F.R.C.S. Eng., Deputy-Inspector-General of Hospitals, Dinapore, at Calcutta, on April 1, aged 48.

Lightbody, J., Surgeon-Major on half-pay, at Danube-street, Edinburgh, on April 21, aged 78.

Pendlebury, Wm. H., M.R.C.S. Eng., at Bolton, Lancashire, on April 1.

Robertson, Charles, L.R.C.P. Edin., at Scarborough, Yorkshire, April 16, aged 36.

Sawyer, John J., M.R.C.S. Eng., at Park-street, Grosvenor-square, W., on April 14.

Smith, William H., F.R.C.S. Eng., at Southsea, Hants, on April 5, aged 54.

The College Lectures.—Professor Fergusson, F.R.S., will complete the course of lectures annually delivered in the theatre of the College of Surgeons, by delivering six lectures on the "Progress of Surgery during the Present Century." The lectures will be delivered on Mondays, Wednesdays, and Fridays, at 4 o'clock, commencing on the 5th proximo.

F.R.S.—The Council of the Royal Society recommend the following gentlemen for election:—Sir F. L. M'Clintock, Lieutenant-Colonel J. T. Walker, Dr. G. Harley, Dr. R. M'Donnell, Rev. W. R. Dawes, and Messrs. H. Christy, James Cockle, A. Geikie, G. Gore, R. Grant, G. R. Gray, W. Huggins, W. K. Parker, A. Tennyson, and G. H. K. Thwaites.

Typhus in Malta.—A severe form of typhus fever has lately been very prevalent in several of the country districts in Malta. Its virulence has now abated, and from a report made by order of the Governor it appears that it was due to overcrowding in ill-ventilated apartments.

Medical Charities.—The funds of the Dorset County Hospital, situated at Dorchester, have been augmented by a bequest of £100 under the will of the late Earl of Ilchester. This benevolent nobleman left a similar amount to the Dorset Eye Infirmary at Weymouth, and liberal bequests to other institutions not strictly Medical.

The Great Northern Hospital.—The annual festival of this charity was held on Tuesday last at the Albion Tavern, Aldersgate-street. The Right Hon. the Lord Mayor presided. In the course of the evening a legacy of £2000 from the late Cuthbert Collings, Esq., and donations and subscriptions to the amount of £1040, including a donation of £180 from the Society for the Relief of Insolvent Debtors through the treasurer, B. Bond Cabbell, Esq., were announced.

Conviction under the Medical Act.—A Justice of Peace Court at Aberdeen, on Monday afternoon, had before them a case in which Frederic Adair, who addressed himself to a certain class of cases, was accused of advertising himself as M.D., F.R.C.S., without a title to do so. A witness said he had given the accused directions as to getting a diploma from Glasgow. One was produced bearing to be from the Metropolitan College, New York, conferring the degree of M.D. on Frederic Adair. After other evidence Adair was fined £5, with costs, £2 2s., for using the letters F.R.C.S. without warrant.

A Dangerous Patient.—An attempt has been made to assassinate M. Lediberder, a Practitioner of L'Orient, in Brittany, by one Nahenec, aged 68, a retired tanner, suffering from hypochondriasis. Having called to pay the bill which his Doctor had sent him, he had entered into conversation, when suddenly he discharged a double-barrelled pistol, the balls entering M. Lediberder's chest and abdomen. "You wretch!" exclaimed the Doctor, "you have murdered me." "Well," replied the assassin, "you promised to cure me," at the same time firing another pistol at his own head, which, however, was only grazed by the ball. M. Lediberder's condition is not regarded as quite hopeless, and aid has been summoned from Paris.

Westminster Hospital.—The distribution of Prizes to the students of the Westminster Hospital took place on Wednesday, May 10, Lord Charles Russell in the chair. Summer Session, 1864: *Practical Chemistry.*—Mr. W. C. Watson, prize; Mr. Joseph Oakman, certificate; Mr. John C. F. McDonald, certificate. *Materia Medica.*—Mr. Robert Charles Brookes, prize; Mr. Arthur Hill, certificate. *Botany.*—Mr. W. C. Watson, prize; Mr. Walter Moore, prize; Mr. Thomas Joseph Quicke, certificate. *Forensic Medicine.*—Mr. G. P. Bate, prize; Mr. Arthur Hill, certificate; Mr. Richard Bugden, certificate. *Midwifery.*—Mr. Richard Bugden, prize. Winter Session, 1864-65: *Anatomy.*—Mr. J. C. F. McDonald and Mr. W. C. Watson (equal), prize; Mr. Walter Moore and Mr. Robert Charles Brookes (equal), certificate. *Prosectors' Prizes.*—Mr. G. P. Bate and Mr. Robert Charles Brookes. *Chemistry.* — Mr. Winckworth, prize; Mr. Charles Henry Furnivall, certificate. *Physiology.*—Mr. J. C. F. McDonald, prize; Mr. Walter Moore, certificate. *Medicine.*—Mr. G. P. Bate, prize; Mr. Richard Bugden, certificate. *Surgery.*—Mr. G. P. Bate, prize; Mr. Arthur Hill, certificate. *Clinical Medicine.*—Mr. G. P. Bate, prize. *Clinical Surgery.*—Mr. G. P. Bate, prize. *Dental Surgery.*—Mr. Joseph Oakman, prize; Mr. Robert Charles Brookes, certificate. *Chadwick Prize.*—Mr. G. P. Bate, prize; Mr. Arthur Hill, prize.

The Hunterian Society.—Adjourned Discussion on Syphilis.—The next meeting of this Society is to be devoted to the discussion of a paper read by Mr. Hutchinson at a former one on the "Medical Aspects of Syphilis." One adjourned meeting has already taken place; but the debate not being concluded, it has been decided to resume it next Wednesday, May 17. The President invites the attendance of all interested in the subject. No paper will be read, but the following propositions will be submitted to criticism:—"1. That syphilis ought to rank as an exanthematic fever, having its stages of incubation, efflorescence, decline, and sequelæ. 2. That the secondary rash (together with iritis, retinitis, condylomata, mucous patches, and superficial inflammations of the mucous membranes) is the exanthem stage. 3. That both primary and secondary stages will, after a certain duration, disappear spontaneously. 4. That the evolution of the exanthem cannot be prevented by internal treatment during the period of incubation. 5. That the symptoms which constitute the tertiary class are rather sequelæ

(more or less accidental) than a true stage. They are irregular as to their time of outbreak, have no tendency to spontaneous cure, and they relapse over and over again after remedial treatment. 6. That a very important distinction between the secondary and tertiary symptoms is found in the fact that secondary phenomena are, as a rule, symmetrical, and tertiary, as a rule, not so. 7. From the symmetry of secondary symptoms we infer that they depend on a poison circulating in the blood; and from the non-symmetry of the tertiary that they depend upon defective organisation of the solids rather than upon any pre-virus still existing in the blood. 8. This statement as to the non-symmetry of tertiary lesions applies only to acquired syphilis. In inherited syphilis some very remarkable differences are noticed. The distinctions between the stages are much less marked, and most of the symptoms are symmetrical. 9. Of the symptoms which should be classed as tertiary, the following are the chief: Serpiginous ulcerations of the skin and mucous membranes; syphilitic orchitis; nodes, whether of bone, periosteum, cellular tissue, tendon, bursa, or ligament; deposits in the internal viscera, and diseases of the nervous system. 10. That the investigations of recent observers have proved that very numerous and important organic diseases are remotely but directly consequent upon syphilis, and are to be cured only proceeding on that supposition.

The Russian Epidemic.—The *Journal de St. Pétersbourg* publishes the following return respecting the epidemic at St. Petersburg:—"In the first days of April the number of sick had considerably decreased, despite the period of festivities, the breaking up of the ice, and other hygienic disadvantages; though in the week after Easter the Hospitals of the capital were again crowded; but this fact must be attributed to the great affluence of workmen. The Hospital Doctors have observed that there lies the real cause of typhus, of relapsing fever, and other virulent maladies which have shown themselves among the newly-arrived workmen. Nevertheless, there is room enough in the Hospitals; and the sick, thanks to the collections that have been made in every quarter, are admirably taken care of and fed, and even given tea, sugar, and change of linen. The following is a comparison between March, 1864, and March, 1865:—

Number of Sick in all the Hospitals.

	March, 1864.	March, 1865.
Sick	5,634	11,404
Cured	2,396	5,343
Died	370	1,211
Not cured	2,868	4,850

The following is the proportion of deaths:—

	1864.	1865.
To the number of sick	1 in 15	1 in $9\frac{1}{3}$
To the number of cured	1 in $6\frac{1}{8}$	1 in $4\frac{1}{2}$

Odontological Society.—The monthly meeting of this Society was held on Monday, May 1, Thomas A. Rogers, Esq., President, in the chair. The President referred to the recent death of Mr. Parkinson, the second President of the Society, and said he only echoed the sentiments of the whole Profession in publicly recording the sorrow of their Society at the loss they had sustained. The Secretary brought forward a model taken in the practice of Mr. Walkinshaw, representing a case of torsion, in which the lateral incisor on the left side was turned half round. On turning the tooth round by means of the forceps it was found to be of an oval shape transverely, so that it projected considerably beyond the natural arch. Some discussion ensued as to the use of the forceps for turning teeth, Mr. Tomes and Mr. Catlin stating that they had frequently performed the operation with complete success. Models were also brought forward by Mr. Williams, representing cases of double cleft palate with double harelip, taken from children at the age of four, seven, and seventeen days. Mr. H. Rogers said he had been making experiments with a view to improve the quality of solders for the mouth. He tried several metals, but ultimately preferred cadmium, making the solder in the proportion of a grain and a quarter of cadmium to a pennyweight of gold. That solder flowed easily, held well, and came a good colour out of hydrochloric acid. Mr. Ramsay then read a paper on the treatment of congenital cleft palate adopted by Dr. Kingsley and himself. He proceeded to explain the method of producing the artificial velum, noticing the improvement which took place in mastication and deglutition after the fissure had been artificially closed. He also took up the subject of articulation, explaining the system he adopted in instructing the patient to articulate; and, lastly, compared Dr. Kingsley's method of mechanical treatment with the Surgical operations which hitherto had been considered the most successful method for remedying those congenital deformities. A long and interesting discussion followed, and at the close the thanks of the Society were unanimously voted to Mr. Ramsay.

University College, London.—Faculty of Medicine.—Distribution of Prizes on Monday, May 8, 1865.—Sir Rutherford Alcock, K.C.B., in the chair. The following prizes were awarded:—*Practical Physiology and Histology*, Professor Harley, M.D.—Silver medal, Mr. Richard Gowers; Certificates, George V. Poore, Thos. R. Loy, Gysbert H. Maasdorp, R. L. Roberts. *Anatomy*, Professor Ellis.—Senior Class: gold medal, G. H. Maasdorp; 1st silver medal, J. Wreford Langmore; 2nd silver medal, T. R. Loy; certificates, Richard Matthews Pryce, Louis Le Grand, Thomas Lettis. Junior Class: silver medal, W. H. Allchin; certificates, David Havard, Samuel Pidwell, William J. Scott, Tempest Anderson. *Anatomy and Physiology*, Professor Sharpey, M.D.—Gold medal, William R. Gowers; 1st silver medal, J. Davis Thomas; 2nd silver medal, George V. Poore; certificates, Louis Le Grand, Thos. Hopgood, J. W. Langmore, R. M. Pryce, Thomas B. Hay, Tempest Anderson, G. H. Maasdorp. *Chemistry*, Professor Williamson.—Gold medal, Frederick Toplis; 1st silver medal, James John Bowey; 2nd silver medal, Tempest Anderson; certificates, Temple A. Orme, Henry N. Martin, Henry James Benham, R. C. Joy, R. L. Roberts, Henry Cass, J. C. Bruce, Milward Harding, W. W. Houlder, A. Payton Hurlestone, Y. Yamaora. *Comparative Anatomy*, Professor Grant, M.D.—Gold medal, William H. Allchin; certificates, Henry Cass, R. L. Roberts, Tempest Anderson, James C. Bruce. *Principles and Practice of Medicine*, Professor Jenner, M.D.—Gold medal, J. Wickham Legg; 1st silver medal, William Hoffmeister; 2nd silver medal, Julian A. M. Evans; certificates, William A. Stuart, Charles J. Hardy Smith, W. Cunningham Cass. *Surgery*, Professor Erichsen.—Gold medal, Marcus Beek; 1st silver medal, Frederick B. Nunneley; 2nd silver medal, Henry Clothier; certificates, F. J. Grose, B. H. Allen, C. J. Hardy Smith, Joseph Thomson, jun., Stammen Morrison, J. E. Coxwell. *Special Class of Clinical Medicine*, Professor Reynolds, M.D.—1st prize, William Andrew Stuart; 2nd prize, William Hoffmeister; 3rd prize, Edward De Morgan; certificates, Henry Clothier, John Williams, John W. Legg, William C. Cass, Charles F. Leshbridge, Robert C. Beck, Thomas F. Hopgood, Charles R. Streton, Joseph Thompson. *Fellowes' Clinical Medals.*—Summer, 1864: gold medal, George Jackson. Winter term, 1864-65: gold medal, William V. Snow.

A Benevolent Proposal.—The following letter appeared in the *Times* of Thursday, May 11:—

"*To the Editor of the Times.*

"Sir,—A proposal has been made to me by Captain Erskine, Her Britannic Majesty's Consul at Funchal, in the island of Madeira, of so liberal and charitable a nature that I venture to hope you will help in its realisation by giving it the publicity of your columns.

"He offers, with the co-operation of several residents and visitors, to guarantee the maintenance and Medical treatment of twenty consumptive patients during the coming winter, if the authorities of the Brompton Hospital will undertake to provide transport to and from the place. This, with the assistance of the governors and public, the committee hope to accomplish.

"If the experiment prove successful, measures can subsequently be taken for its permanent continuance. It is suggested that the first party sent out should consist entirely of men, from the greater ease with which they can be conveyed and provided for on their arrival.

"I sincerely hope no impediment will prevent the success of this excellent scheme. During my recent visit to the island I became convinced that the climate, though not perhaps beneficial to all cases of phthisis indiscriminately, still exerts a most singular and salutary influence on them if properly selected. The proposed sanatorium would thus not only be a work of the highest charity, but would tend materially to advance Medical knowledge by enabling the effects of climate as a therapeutic agent in pulmonary disease to be studied under circumstances the most favourable.

"I remain your obedient servant,

"William H. Stone, F.R.C.P.,

"Assistant-Physician to the Hospital.

"Hospital for Consumption and Diseases of the Chest, Brompton, London, S.W., May 10."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

H.M.S. Dreadnought.—Our present arrangements do not permit us to insert announcements of marriages.

Dr. R. Ballota Taylor.—The examinations for the degree of M.D. Erlangen take place at that University in the months of February and March, and June and July, or at any other time the examiners may think fit to appoint. They are held in the Latin or German languages.

Griffin Testimonial Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The following subscription has been further received on behalf of the above fund:—J. G. Leete, Esq., Thrapstone, 10s.; amount previously announced, £123 11s. 3d.; received at *Lancet* office, £9 9s.

I am, &c.

Robert Fowler, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, May 10.

The Mysterious Poison Case at Dawlish.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have only just succeeded in obtaining samples of Simpson's rat poison from Messrs. Blackwell and Son, of Plymouth, who appear to be the only agent for this article in the West of England, as I have failed in getting it in most of the chief towns, even Exeter and Bristol, most of the druggists of whom I have inquired informing me that it is very seldom found in the trade. I have also analysed it, and find that the packets contain a very irregular quantity of material, varying from seven and a half to thirteen and a half grains; and the four packets contained forty-one and a half grains, giving an average of a little more than ten grains for each powder if all were equally well mixed and properly weighed or divided. The mixture consists of arsenious acid—potato starch—coloured by Smaltz, and flavoured or scented with some essential oil, probably oil of rhodium. I found ten grains of the well-mixed powder to contain four grains of arsenious acid. It is therefore certain that Mrs. Williams had arsenious acid in her own possession, and that she must have taken from six to eight grains, as two empty packets were found by the police in her bedroom. This is a quantity sufficient to kill, but requiring more time, probably, than she liked; and the explanation of the reason why the third packet was made use of has already been given. I greatly regret that there was no opportunity given me of examining the saliva for strychnia, as that would have determined the question whether that poison had also been taken into the mouth. Mrs. Williams had been buried during the interval of the adjournment of the inquest, and I never saw the handkerchief. It is probable, therefore, that Mrs. Williams purchased all these rat and vermin poisons at Plymouth, on her way up to Dawlish from Devonport, and the tracing of the arsenic into her own possession is satisfactory to all parties, as the matter is now fully explained; all other theories must be for ever set at rest.

I am, &c.

Old Market-street, Bristol. W. Bird Herapath.

Poor-law Medical Relief.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I shall feel obliged by your calling attention to the circular letter(a) from the Poor-law Board to the Boards of Guardians, as it is a document of very considerable importance. I should recommend the Medical officers of each Union to meet and, if possible, come to some definite decision as to what should be considered "expensive medicines." Cod-liver oil and quinine are named; and, in addition to these, I should say, leeches, castor oil, sarsaparilla, and, perhaps, a few other drugs might be added, but not too many, for fear that all may be rejected.

It may be fairly pointed out to the guardians that the recommendation of the Select Committee was made for the benefit of the poor, as it was considered that, in consequence of the expensive nature of many articles, and the very low salaries paid to the Medical officers, they could not always afford to purchase them, and, as a consequence, the poor have not had them to any very great extent; therefore, to attempt to reduce any of the salaries cannot be submitted to by the Medical officers. Should any of the Boards of Guardians be disposed to find all the medicines for the poor, I should strongly recommend the Medical officers to second the proposal, and submit to a general revision of their salaries.

I am, &c.

12, Royal-terrace, Weymouth, April 15. Richard Griffin.

Snuffism in Epilepsy.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—*Apropos* of Professor Laycock's paper on the treatment of epilepsy by snuffism, I should like to refer to the supposed efficiency of this test of malingering in doubtful cases. I suspect that Medical men not unfrequently think themselves uncommonly shrewd in detecting imposture when no imposition whatever exists, the result being that the Physician is the dupe, not of the patient, but of his own want of knowledge. Dr. Watson observes that "Dr. Hutchinson relates the case of a sailor who was suspected to be a cheat, in whom the convulsions of epilepsy were instantly removed by blowing some fine Scotch snuff up his nostrils through a quill. This brought on another kind of fit—viz., a fit of sneezing—which lasted nearly half an hour, and there was no return of the epilepsy so long as Dr. Hutchinson remained in the ship." (Lectures, vol. i., p 645.) Now, although the trial of snuff in some other cases of epilepsy did not lessen the number of attacks, is it not probable that the sailor really laboured under epilepsy? At any rate, it seems perfectly clear that the test is utterly worthless, and might lead the Practitioner to a most cruel and unjust conclusion.

In conclusion, I beg to add that Dr. Marshall Hall pointed out that the use of snuff would in some instances prevent the occurrence of the fit.

May 3. I am, &c. M.R.C.P.

(a) See page 497.

Protracted Pregnancy and Large Size of Child.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A few days ago a lady was delivered of a child weighing eleven pounds and a half; it was a male. Her pregnancy must have lasted at least forty-two weeks, even assuming that impregnation had taken place just before the expected menstruation. Quickening came on five months and a half before delivery. Eight years ago she was delivered of very large twins, and had no child since.

I am, &c.

Artillery-place, May 9. Augustus Hess, M.D., M.R.C.P.L.

Government Fees for Life Insurance.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—We shall feel obliged if you will give insertion to the enclosed correspondence, having reference to the remuneration of the Medical examiners to be appointed under the Government Insurances and Annuities Act.

We are, &c.

T. L. Walford.
Wm. Butler Young.
Francis Workman.

Reading, March 11, 1865.

"Sir,—We beg to acknowledge the receipt of your letter, dated March 8th, having reference to the appointment of Medical men to examine persons presenting themselves for examination under the 'Government Insurances and Annuities Act.'

"In reply, we beg to state that some time ago the Medical men of Reading resolved not to accept a lower fee than half a guinea for the examination of a life from any insurance office. In the present case, bearing in mind the object of the above-mentioned Act, we are disposed to relax this resolution, and are willing to accept the sum of 10s. as the fee for all examinations where the sum assured exceeds £50, and the sum of 5s. where it does not exceed that amount.

"We shall feel obliged if you will bring the subject of the remuneration of the Medical examiners again under the notice of the Postmaster-General, as we feel assured that on a further consideration his Lordship will be satisfied that the amount which he proposes to recommend to the Commissioners of Her Majesty's Treasury is too small compared with the amount of time and labour required for each examination, the questions in the form which you have enclosed being more minute than those required by insurance offices generally.

"We feel a greater confidence in asking for a more liberal remuneration as the security against risk must depend upon the care with which the Medical examination is made. Awaiting your reply,

"We are, sir, your obedient servants,

"T. L. Walford.
Wm. Butler Young.
Francis Workman.

"F. J. Scudamore, Esq., General Post-office, London."

"General Post Office, April 13, 1865.

"Sir,—In acknowledging the receipt of the letter signed by yourself and Messrs. Young and Workman, dated the 11th inst., I beg leave to inform you that the subject of the fees to be paid for the Medical examination of persons proposing to insure their lives under the Government Insurance Act was very fully considered by the Postmaster-General before the circular letter dated the 8th March last was issued, and that the replies to that letter expressing willingness to undertake the duty for the terms proposed have been so numerous as to render it unnecessary—at all events, for the present—to make any alteration in those terms.

"The subject was again brought under the notice of the Postmaster-General by a deputation from the Parliamentary Committee of the British Medical Association on March 15; but even at that early date, after the issue of the circular letter, the terms had been accepted so generally that his Lordship felt bound to inform the deputation that he could hold out no hope that the amount would be increased.

"Since that date the majority of the Medical men to whom the circular letter was addressed have accepted the terms, and applications are made daily to the Department by other members of the Profession for employment under the Act—in many cases by more Medical men than are required.

"Looking, therefore, to all these circumstances, I can only express to you the regret of the Postmaster-General that he cannot entertain the application made in your former letter of March 11.

"I am, Sir,

"Your most obedient servant,

"T. L. Walford, Esq." "Frank J. Scudamore.

On Catarrh.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Your correspondent "Alpha"(b) seems to have had considerable difficulty in stopping the bleeding from the leech-bites when he leeched the nares. Permit me to bring before his notice the simple expedient of plugging the nostrils with a small dossil of lint dipped in cold water; he will find this all that is necessary for his purpose, though perhaps not all that could be desired. About ten years ago, when leeching my nares for a severe headache, and when in the act of making an experiment of my case by collecting the blood as it dropped from my nose, I was called out to see a patient taken suddenly ill; the plugging of the nostrils with wetted lint at once arrested the bleeding, which was still dropping somewhat freely. The mucous membrane of the nose is very vascular. I collected upwards of two and a-half ounces of blood, including, of course, what came out of the two leeches; the nares is, therefore, a good surface to take blood from when our supply of leeches is small; and it might with propriety be adopted in Hospitals and other charities as a measure of economy; but, independent of these considerations, I have found leeching the nares useful in congestive headaches, in the headaches of the plethoric, and in cases of incipient apoplexy. Did space permit, I could give cases; as it is, I shall only give one.

About eight years ago, two brothers, captains of vessels, called at the same port at the same time, the one brother to wait the outfit of a new vessel; the other to get his vessel repaired. The captain of the new vessel (a stout, plethoric man) called on me complaining of giddiness, drowsiness, numbness of the feet and hands, and other symptoms of incipient apoplexy. Leeching the nares and purgatives entirely removed those symptoms in a few days. My patient had, however, scarcely recovered from his illness when I was sent for to inspect the body of his brother, who had suddenly died of apoplexy,—the third of a family of four brothers who had died of this disease. The treatment I have found most useful

(b) See *Medical Times and Gazette*, April 1, 1865.

for catarrh or coryza in the early stage is a mustard foot-bath, repeated, if necessary, two or three nights in succession, mustard applied to the nape of the neck, or the nape of the neck to be well rubbed with a stimulating liniment. The following I generally use:—R. Lin. saponis; tr. aconiti (Fleming's); tr. capsici; chloroform, āā ʒij. M. Sig. The nape of the neck to be well rubbed with this liniment night and morning.

The rest of the treatment consists in a good glass of brandy-punch or whisky-toddy immediately after the chill or on going to bed, followed in the morning by a saline draught, and, if necessary, a dose of Plummer's pill with aloes in the evening, and, if convenient (which it seldom is), two days within doors. When the catarrh is accompanied with pain in the ear, as it often is, I have found benefit from plugging the ear with wool dipped in hot olive or almond oil; the oil can be heated by merely holding the pledget of wool to the fire. This treatment in my hands has been attended with excellent results; I can, therefore, confidently recommend it to "Alpha," or to any one subject to catarrh. I am, &c.

Blantyre, May 5. THOS. DOWNIE, M.D., etc.

P.S.—In justice to "Alpha," I have to state that I have not leeched specially for catarrh, and therefore he is entitled to whatever merit is due for the information we have received.

COMMUNICATIONS have been received from—

Mr. C. S. BARTER; Dr. FOTHERBY; Mr. W. COPNEY; Dr. W. BIRD HERAPATH; Mr. F. J. WILSON; Dr. ROBERT FOWLER; Mr. HARRY G. MOORE; Mr. R. FREEMAN; Dr. JOHN WHITMORE; Dr. HARRY LEACH; Mr. T. L. WALFORD; M.R.C.P.; Dr. A. HESS; Dr. R. B. TAYLOR; Mr. W. FAIRLIE CLARKE; Mr. C. C. ATKINSON; ROYAL INSTITUTION; ODONTOLOGICAL SOCIETY; HUNTERIAN SOCIETY; Mr. R. LAWSON TAIT; THE ROYAL ALBERT VETERINARY COLLEGE; Mr. GEORGE GREWCOOK; APOTHECARIES' HALL; Dr. T. DOWNIE; HARVEIAN SOCIETY OF LONDON; Dr. ALEXANDER ROBERTSON; OBSTETRICAL SOCIETY OF LONDON.

BOOKS RECEIVED.

A Treatise on Smoky Chimneys: their Cure and Prevention. By Fredk. Edwards, jun.

*** Fifteen causes are enumerated:—1. A fire-place being too open. 2. Doors and windows of a room being fitted too closely. 3. Fires being lighted in two or three adjoining rooms which are inadequately supplied with the air required by the grates in use. 4. A chimney being very short. 5. A chimney being situated in an external wall and not being sufficiently protected against the action of the external air. 6. A chimney being exposed on two or three sides to the action of the external air, and the brickwork not being sufficiently thick. 7. A low chimney being in connexion with a room adjoining a house or building in which the air becomes rarefied. 8. A down current in a fire-place bringing smoke from an adjoining chimney. 9. The top of a chimney being situated below a pitched roof. 10. The top of a chimney being situated near to a tower or similar source of obstruction to the wind. 11. A short chimney being enclosed on three or four sides by high contiguous buildings. 12. Rooms with short chimneys being situated between the main body of a building and a contiguous eminence. 13. Chimneys of one house being lower than those of one adjoining. 14. A chimney being too small for the fire-grate used. 15. Two fire-places being used for one chimney.

The Epidemic of Fever in Lower Bengal.

*** Anonymous.—The disease is a congestive remittent fever. The writer advocates the early use of quinine in very small doses, ½—½ gr., and says that 3—4 gr. doses aggravate the symptoms. He recommends quinine also as a prophylactic. "If the Medical Profession had sufficiently urged upon Government and private individuals the necessity of this measure, instead of suggesting the doubtful necessity of clearing jungle, under the pretence of which large and valuable fruit and other harmless trees, had been cut down by the insolent and greedy subordinate officials, and if accordingly quinine had been liberally supplied to the poor villagers, the sorest calamities would certainly have been averted from millions of families in Bengal."

The Law of Lunacy as it Affects the Insane Charged with Crime. By J. G. Davey, M.D.

*** Dr. Davey maintains in this pamphlet "that the several tests which the ingenuity of the peers and judges has created, tests held to discriminate the sane from the insane, the responsible from the irresponsible, constitute a mere sham, a metaphysical chimera—in short, an idle fiction, a *delusion*." He holds that the springs of all human action are to be sought, not in the understanding or knowing faculties, but in the tone and quality of the moral feelings, the affections, and propensities.

Essai sur la Médication Isolanto ou Traitement des Inflammations en Général par les Enduits Imperméables; avec des Observations Cliniques a l'Appui Suivi de Quelques Considérations sur la Nature et la Traitement de la Fièvre Dite Puerpérale. Par le Dr. Ferdinand Benoist. Poitiers. 1864.

*** The method recommended is the covering of the surface over the inflamed part with a layer of collodion. The author is certainly enthusiastic, and we think his enthusiasm carries him rather too far. Doubtless in some cases collodion is a valuable remedy, but we should hesitate to trust in it, as the author does, in deep-seated inflammation.

Archives de Médicine Navale. Tome I. Nos. 1 and 2.

*** Published by order of the French Minister of Marine. The present number contains a report of the Hospital ship *La Caravane* in the Gaboon. The writer gives a miserable account of the dietetic resources of the station. The deficiency of fresh animal food and vegetables is such as to weaken the strongest constitution, and produce anæmia even when paludal fever is not conjoined.

A Treatise on Vaccination; being a Description of its Nature, its Origin, and Progress amongst the Population of India. By Daniel Robert Thompson, M.D. Madras: Gantz, Brothers.

*** This little book is intended apparently for the use of native students. The author lays great stress upon his doctrine that "up to the evening of the seventh day" vaccinia is only a "local disease."

Insanity and Crime: a Paper Read before the Bath and Bristol Branch of the British Medical Association, on February 18, 1864. By James George Davey, M.D.

*** Dr. Davey, in this paper, advocates the view of Townley's insanity. Like other Medical writers, he is dissatisfied with the present "plea of insanity."

The Modern Practice of Medicine: a Lecture Delivered before the Royal College of Surgeons. By D. Rutherford Haldane, M.D. Edinburgh: Oliver and Boyd.

*** The central idea which Dr. Haldane's remarks are intended to enforce is contained in the following extract:—"The Physician seldom attempts to *cure* disease; he endeavours to place and maintain his patient in the most favourable condition for recovery, and he treats symptoms, although he often does not know on what they essentially depend."

Cocoa: its Growth and Culture, and Manufacture, etc. Accompanied by easy methods of analysis whereby its purity may be ascertained. By Charles Hewett, of the firm of Dunn and Hewett, chocolate and cocoa manufacturers. 1862.

*** Does not regard the addition of starches and sugar an *adulteration*. Nor do we, unless the article is sold as *pure* cocoa. Let it be understood that manufactured cocoas are all thus "amalgamated," and we should not complain.

Inhalation the most Rational Treatment for Diseases of the Respiratory Organs. By C. T. Schmid, M.D., and C. Milner, M.D. London and Cambridge: Macmillan and Co.

*** This pamphlet contains an account of Dr. Siegle's apparatus for the inhalation of pulverised fluids, and the application of this method in the treatment of various diseases.

On the Inhalation of Gases and Medicated Vapours in the Treatment of Consumption, etc. By W. Abbotts Smith, M.D. London: R. Hardwicke.

*** Reprint from the *Medical Mirror*. It is a fair, but brief summary of the use of inhalations in orthodox practice. Appended to this is a second paper on the Treatment of Hooping-Cough, advocating the use of the bromide of potassium.

Sanitary Statistics of Cheltenham. By Edward C. Wilson, M.B. Oxon., etc. London: Longman and Co.

*** This is a paper which was read before the British Association at Bath last year.

On the Use of Alkaline Lactates in the Treatment of Functional Diseases of the Digestive Organs. By J. E. Petrequin, M.D. Paris: Grimault and Co. 1864.

*** We believe this pamphlet has been distributed pretty extensively among the Profession in this country by M. Du Buisson, the Pharmaceutical Chemist of Lyons, who prepares the lozenges and powders containing the lactates of soda and magnesia.

Census of the Island of Bombay, taken February 2, 1864.

*** It seems that the taking of this census was no easy task. The poor and ignorant natives often shrank from the inquiry, and actually hid their families, from the fear that the enumeration was made with a view to taxation. The total population of Bombay as enumerated was 816,562, the males being to the females in a ratio of 185·4 to 100.

Hints towards an Improved System of Poor-law Medical Relief. By E. T. Warry, M.D.

*** "I would wish to impress upon guardians of the poor in England that, by paying their Medical officers in a manner proportionate to their services, they will ensure to the poor prompt attention, skilful treatment, and good medicine, thus materially economising the public expenditure." It is very certain that it is only by making these appointments worth the holding that the poor will ever get the sort of attendance that should be provided for them.

Collection de Mémoires sur une Fonction Méconnue du Pancreas, la digestion des aliments azotés. Par Lucien Corvisart, Médicin Ordinaire de l'Empereur. Paris. 1857-63. Pp. 206.

*** It is scarcely necessary to review this book at length, inasmuch as the memoirs have become, we should hope, familiar to English physiologists as they have appeared. However, we think it well that they have been brought together in the present form.

Case of Degeneration and Atrophy of the Cerebrum, causing Unilateral Epilepsy. By Kenneth McLeod, A.M., M.D. 1864.

*** The history of a case admitted into the Durham County Asylum. Very interesting and important, but impossible to review. The paper must be read *in extenso*.

First Annual Report of the Self-Supporting Dispensary at Colombo. By S. de M. Aserappa, M.D., Edin.

*** The objects of the Institution are—1. To bring within easy reach of the working classes of the inhabitants of Colombo efficient Medical aid. 2. To lead the natives generally to a due appreciation of European Medical treatment.

Seventeenth Annual Report of the Chinese Hospital at Shanghai.

*** This Hospital is associated with a missionary enterprise, and there can be no doubt that the greatest successes must await those who follow the footsteps of their Master, and find their way to the hearts of men by compassionating and healing their sick.

The Painless Extinction of Life in Animals designed for Human Food. By Henry MacCormac, M.D. Longman. 1864.

*** The proposed plan consists in the use of carbonic acid gas. The author would discourage bleeding. We should like to hear something about the keeping qualities of meat that has not been bled, especially in hot weather.

A Review of the Treatment of Tropical Diseases. By Joseph Ewart, M.D., Bengal Medical Service. Part II. Tropical Dysentery. 1863.

*** The subject is discussed chronologically. A great part of this pamphlet is occupied with the subject of ipecacuanha as a remedy.

Lunatic Asylum Reports: Dorset, Sussex, Perth, Nottingham, Devon, Warwickshire, Norfolk, Northampton, Wilts, Wye House, Buxton, and Brislington House, near Bristol.

*** We shall review these as soon as possible.

Vital and Economical Statistics of the Hospitals, Infirmaries, etc., of England and Wales for the Year 1863. By F. Buckle, M.D. London: John Churchill and Sons.

*** Will be noticed shortly.

The Saline Treatment of Cholera. By J. Kellie, M.R.C.S., Deputy-Inspector-General of Hospitals, H.M. Indian Army.

*** The object of this pamphlet is to defend the practice of Dr. Stevens from misrepresentation. Dr. Kellie advocates the injection of Dr. Stevens' solution into the rectum while acetate of lead or some other astringent is given by the mouth.

The Difference between the Statutes bearing on Public Health for England and Ireland. By E D. Mapother.
*** This paper advocates the extension of our sanitary Acts (with necessary modifications) to Ireland.

Rules of the Medical Provident Society in Connexion with the British Medical Association.
*** The British Medical Association has done good service by the establishment of this Society. We look forward with interest to its working. The table of contributions has been certified by Mr. Finlaison.

Annual Report of the Bourton-on-the-Water Village Hospital. January, 1865.
*** We have more than once alluded to the Cranley Village Hospital. Here is a report of another successful attempt at a similar institution.

In Memoriam of the late William Williamson, A.M., M.D. By Alexander Harvey, M.D. Aberdeen. 1865.
*** This feeling address, inculcating a lesson of caution, was delivered in the Royal Infirmary of Aberdeen on the occasion of Dr. Williamson's death from a second attack of typhus.

Practical Suggestions as to Means of Providing Cheap and Abundant Food. London: Longman and Co. 1865.
*** The "food" chiefly had in view is milk. The writer hopes "that new systems of cropping and feeding may be found of a nature to provide milk and vegetables at much lower prices than those now demanded."

For and Against Tobacco. By B. W. Richardson, M.A., M.D. London: John Churchill and Sons.
*** In spite of all that Dr. Richardson has to say against the use of tobacco, he sums up by calling it "one of the least hurtful of luxuries."

Report of the Nottingham Dispensary. 1864.

L'Art Medical, Intérêts Sociaux, Scientifiques, and Professionnels. Brussels. 1865. No. 2.
*** A new periodical. This number contains a contribution towards the history and diagnosis of "Sterility in the Female," by M. Houzé.

Nord Americanische, Deutsch' Medicinische Zeitschrift für Practische Heilkunde. Buffalo. April, 1865. No. 1.
*** A new periodical published for the benefit of the German Practitioners in North America.

The Sewage of the Metropolis. A Letter to John Thwaites, Esq.; being a Comparative Analysis of Baron Liebig's Three Letters. By Messrs. Napier and Hope. 1865.
*** Part of an important controversy upon a subject which requires to be viewed from more points than one.

The Archives of Dentistry, No. 3. London: John Churchill and Sons.
*** It contains three original papers—one on Filling Teeth with Gold, by Mr. Bate; one on Mechanical Dentistry, by Mr. Edwin Freeman; and one by Dr. B. W. Richardson, designated Historical Notes on the Science and Practice of Dentistry in England.

Journal de Médicine Mentale. Paris. 1864. Tome iv.
*** Contains a discussion upon the partial responsibility of the insane, and a capital paper on the value to be attached to anything *written* by the insane.

Man considered Socially and Morally. By G. Sparkes. London: Longman and Co
*** This is not exactly the sort of book for us to review at any length. We need only say that our Professional brethren may spend a leisure half-hour more unprofitably than in reading it.

Observations on the Psychological Differences which Exist among the Typical Races of Man. By R. Dunn, F.R.C.S.
*** An interesting and suggestive paper.

The Spirit of Nursing. By Harry Jones, M.A., Incumbent of St. Luke's, Berwick-street. London: John Churchill and Sons.
*** A pamphlet which deserves to be extensively distributed, and to be carefully read both by Doctors and clergy.

The Philosophy of Health; or, an Exposition of the Physiological and Sanitary Conditions Conducive to Human Longevity and Happiness. By Southwood Smith, M.D. Eleventh Edition.
*** Contains much new matter.

The Sanitary Commission of the United States Army. A succinct Narrative of its Works and Purposes. New York. 1864. Pp. 318.
*** One has only to read through the index to this volume to see in how many directions this valuable organisation has been operating for the benefit of the troops. It is one of the noblest efforts of the day.

Hunt on Stammering. 6th Edition.
*** Two years only have elapsed since the fifth edition was published. The book is well known and appreciated. We have only to announce the new edition.

The Irrationale of Speech. By a Minute Philosopher. Longmans. 1864. Pp. 33.
*** Written in a pleasant and taking style.

First Help in Accidents. By Charles H. Schaible, M.D. London: R. Hardwicke. 1864.
*** We can conceive of many circumstances under which the information contained in a book of this sort would be desirable to the public.

Handbook of Dental Anatomy and Surgery. By John Smith, M.D.
*** Will be reviewed soon.

The Medical Service. [Republished from the *Bombay Gazette*, September, 1864.]
*** A good and, let us hope, an effective grumble at Sir C. Wood.

A Brief Sketch of the Past and Present Condition of the Bengal Medical Service. By a Surgeon of the Bengal Army. Calcutta. 1865.
*** Shall be kept in mind.

The Canada Lancet. Montreal. September, 1864.
*** A journal likely to be practically useful.

Observations on the Function of the Liver. By Robert M'Donnell, M.D.
*** Will be noticed shortly.

On the Structure and Formation of the Sarcolemma of Striped Muscle, etc. By Dr. Lionel Beale.
*** An abstract will be given on an early opportunity.

The Archives of Medicine. No. 15. London: John Churchill and Sons.
*** Contains some important physiological papers.

The Physician and his Work: a Sermon. By Steuart A. Pears, D.D. Derby: Bemrose and Sons. 1864.
*** A worthy tribute to a self-denying Profession.

Reports of the Inspectors of Factories for the Half-year ending October 31, 1864.
*** We shall notice this on an early opportunity.

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 6, 1865.

BIRTHS.

Births of Boys, 1006; Girls, 1068; Total, 2074.
Average of 10 corresponding weeks, 1855-64, 1840·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	627	609	1236
Average of the ten years 1855-64	608·6	588·5	1197·1
Average corrected to increased population..	..	..	1317
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	4	5	..	2	5	..
North ..	618,210	9	..	2	2	13	7	6
Central ..	378,058	1	..	3	1	10	5	3
East ..	571,158	2	1	5	..	17	13	1
South ..	773,175	6	4	9	1	13	13	4
Total ..	2,803,989	19	9	24	4	55	43	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·760 in.
Mean temperature	54·1
Highest point of thermometer	74·0
Lowest point of thermometer	31·4
Mean dew-point temperature	44·3
General direction of wind	S.W.
Whole amount of rain in the week	0·16 in.

APPOINTMENTS FOR THE WEEK

May 13. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.
Royal Institution, 4 p.m. Prof. Bain, "On the Physical Accompaniments of Mind."

15. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

16. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.
Anthropological Society of London, 8 p.m. Meeting.
Pathological Society, 8 p.m. Meeting.
Royal Institution, 4 p.m. Professor Frankland, F.R.S., "On Organic Chemistry."

17. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.
Hunterian Society, 8 p.m. Resumed discussion on Mr. Hutchinson's paper, "The Medical Aspects of Syphilis."

18. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.
Harveian Society of London, 8 p.m. Meeting.
Royal Institution, 4 p.m. Professor Frankland, F.R.S., "On Organic Chemistry."

19. *Friday.*

Operations, Westminster Ophthalmic 1½ p.m.
Royal Institution, 8 p.m. Wm. Huggins, Esq., "On Stellar Physics and Chemistry."

EXPECTED OPERATIONS.

King's College Hospital.—The following Operations will be performed on Saturday (to-day) at two o'clock:—
By Mr. Fergusson—Pirogoff's Amputation of the Foot; Ligature of External Iliac.

ORIGINAL LECTURES.

ON

THE FOOD OF MAN IN RELATION TO HIS USEFUL WORK.

By LYON PLAYFAIR, C.B., LL.D., F.R.S.,
Professor of Chemistry in the University of Edinburgh; Vice-President of the Royal Society, Edinburgh; Vice-President, and formerly President, of the Chemical Society, London, etc.

DELIVERED AT THE ROYAL SOCIETY, EDINBURGH, APRIL 3, 1865, AND ROYAL INSTITUTION, LONDON, APRIL 28, 1865.

(Continued from page 488.)

DIVISION III.

Secretions as Measures of Work.

A. *Secretion per vesicam.*

27. WE have now to examine how far the secretions present us with measures of the work performed by the body. Commencing as we did in the first division of the lecture, it is necessary to inquire how far the urea secreted by a man living on a mere subsistence diet represents the amount of tissue which we have supposed to be wasted in internal dynamical work. Further on it will be seen that, in a man of good digestion at least, one-twelfth of the nitrogen of the food passes away in the fæces, without having been built into muscle or other tissue. Hence, of the 875 grains (2 oz) of flesh-formers required to support *opus vitale*, 73 grains will pass out *per anum*, and 802 grains will be moulded into tissue, and be transformed into urea and the other products of wasted muscle. Hence, in the urine of a man supported by the lowest diet sufficient for life, we should still find 267 grains of urea. The same amount must appear in the first days of starvation, during which life is supported by the wasting tissues; or what is the same thing, it will appear when non-nitrogenous food is taken. In Ranke's experiments upon himself, we find that, in the first case, he passed 17·02 grammes of urea, and in the second case 17·10 grammes.(a) The mean gives 263 grains of urea—a number remarkably close to our calculated quantity, and probably identical, if the undetermined uric acid be accounted for. Beigel(b) during a three weeks' "hungercur" found the urea sink to 17·83 grammes, or 275 grains. A patient in the fifth week of typhus would possibly pass even less than 267 grains of urea, because part of the subsistence food, in the low state of dynamical vital work, would go to build up tissue; and accordingly we are not surprised to find that Brattler,(c) in the fifth week, found the urea as low as 16 grammes (247 grains). But when the patient becomes convalescent, and receives the standard diet for quietude—viz., 2·5 ounce of flesh-formers, he should then pass 335 grains of urea. Turning to the researches of Vogel(d) and of S. Moos,(e) we find that the secretion gradually rises from 22 grammes (339 grains) to the normal quantity of 35 grammes. Haughton(f) also states that convalescents in Hospitals pass about 300 grains of urea.

28. The experiments of the latter observer on the amount of urea secreted by average healthy men, living on a mixed diet, give from 560 to 580 grains. The mean of the extensive table of analyses in Parkes'(g) excellent work is, however, only 512 grains. If we add to this his average for uric acid, in its equivalent of urea, we would have 521 grains. If, now, we take as a mean, for the present, the results of Barral,(h) Valentin,(i) Vierordt,(k) and E. Smith,(l) for the nitrogen in the fæces as being about one-eighth that in the urine (one-twelfth according to Ranke), then this, calculated as urea, would give $521 + 65 = 586$ grains of an equivalent of urea. We can convert this into flesh-formers:—

$$586 \times 3 = 1758.$$

Now, 4 oz., or 1750 grains, form the usual diet of non-labouring men.

It will thus be seen that numbers closely approximating to the demand are obtained from recognised averages. But in order to apply them to the special class of healthy men (soldiers) described in Table II., we must take the diet as there given. Soldiers during peace are supposed to be well exercised by a daily march of seven miles. This march represents work equal to 38,333 metre kilos. If we take Haughton's mean of 575 grains of urea for such men, then the tissue transformed to produce this would be 3·94 oz., to which, using Ranke's proportion of one-twelfth of nitrogen in fæces, as we do for reasons hereafter to be stated, 0·33 oz. have to be added; making 4·27 oz. as against 4·21 oz. in Table I. Taking, then, 3·94 oz., we have:—

Potential energy in transformed tissue, 211,822 metre kilos.
Useful external work, . . . 38,333 ,,

But as the former number includes the energy required to support *opus vitale*, we obtain the amount available for external dynamical work by subtracting it:—

$$211{,}822 - 107{,}524 = 104{,}298 \text{ metre kilos.}$$

Hence we have still nearly three times as much force available as is represented by useful work; but we need not be surprised at this when we know that the healthy soldier is capable of more exertion than he takes in peace.

29. Passing from our standard man in health to a hard-worked labourer, we can readily calculate how much urea should be produced by his plastic food. We obtain the amount which is transformed from tissue by deducting that which passes away as fæces:—

$$2406 - \frac{2406}{12} = 2205{\cdot}5 \text{ grains.}$$

Without any error worth taking into account, the urea may be obtained by dividing this number by 3 (the correct number is 3·01); hence the working man, doing really a hard day's labour, should have 735 grains of urea in his urine, including its equivalent of uric acid. There are very few estimates of the urine of hard-worked labourers, and I have found it no easy matter to induce them to be made the subject of experiment. Nevertheless, in conjunction with my friend Dr. A. Dalzell, I have estimated the amount of urea in the urine of hard-worked labourers, and we are still continuing our inquiries on this subject. Before alluding to them, it will be more convenient to consider Dr. E. Smith's (m) researches on weavers and tailors. The two weavers were engaged in "the very laborious occupation of wide-width cocoa-matting." Applying my tables to the recorded food of these men, I find that they received a daily supply of 5·33 oz., or 2333 grains of plastic nutriment, containing 366 grains of nitrogen. As an average of twenty-six days' experiment they gave:—

702·9 grains of urea, containing .	328·0	grs. nitrog.
8·52 oz. fæces, containing . . .	40·93	,,
Total nitrogen . . .	368·93	,,

As this differs by only three grains from the nitrogen of the ingesta, as determined independently of the experiment, the latter has obviously been done with great care.

The tailors, who were fully fed, received 4·63 oz. flesh-formers, according to my tables, containing 318 grains of nitrogen, and as an average of twenty-six days gave in egesta:—

608·4 grains of urea, containing .	283·7	grs. nitrog.
6·98 oz. fæces, containing .	26·43	,,
Total nitrogen . .	311·13	,,

These tailors were, however, overfed; for while the weavers slightly lost weight, the tailors gained about 16 oz. each during the experiment. The lesser quantity of urea in this case was a necessary result of diminished food and work as compared with the weavers.

A distinguished colleague in my University, Professor Christison, whose knowledge as a chemist does not require to be referred to, had long since the idea that work, with corresponding food, increased the urea. When he was twenty-eight years of age and remarkably vigorous, he worked for two days as a carpenter to try this problem, and in addition walked on each of these two days ten miles, at a pace of nearly five miles per hour. As a mean of the two days, he passed 845 grains of urea; but, as the process of analysis was not then by the mercury method, we may reduce it, to make it comparable to our present standard, to 800 grains. But perhaps this may be too large a deduction, as we find that

(a) Müller's Archiv. 1862, S. 358.
(b) Nov. Acta. Acad. Nat. Curios. xxv.
(c) Ein Beitrag zur Urologie, 1858, p. 19.
(d) *Zeitschr. f. rat. Med.*, iv., p. 362, *et seq.*
(e) *Idem*, vii., p. 291.
(f) Urine of Healthy Men, p. 30
(g) Parkes on Urine, p. 15.
(h) *Comptes Rend.*, xxviii., 361. *Ann de Ch. et Phys.* [3], xxv., 129, 171.
(i) Text-Book of Phys. 326.
(k) Vierordt, Phys. 192.
(l) Phil. *Trans.*, v. 151, p. 747, *et seq.*

(m) Phil. *Trans.*, v. 151, p. 747, *et seq.*

Hammond, exercising himself in a similar hard way, passed 865 grains.

We may compare these instances with those recently determined in my laboratory, and which were generally made on two men in each occupation for at least two days:—

Hammerman	530 grains.
Quarrymen	550 ,,
Tailors	608 ,,
Weavers.	703 ,,
Blacksmiths	695 ,,
Forgemen	740 ,,
Hard-working—pedestrian .	800 ,,

The work of the two first set of workmen is fatiguing, but not laborious. The work of a hammerer (9) is 480,000 foot-pounds, which is within the capability of a fairly fed man with 4·2 oz. of plastic food. The difficulty of getting working men to understand the value of such inquiries has considerably retarded these determinations. In the case of the two blacksmiths, the difference between the urea of Sunday and labouring days is instructive:—

	Sundays.	Labour Days.
H.	1. 38·56 grammes.	1. 41·38 grammes.
	2. 34·47 ,,	2. 46·69 ,,
Mean,	36·51	44·03
M.	1. 31·42 grammes.	1. 40·61 grammes.
	2. 31·06 ,,	2. 49·08 ,,
Mean,	31·24	44·84

H. on the Saturday evening previous to the first Sunday had killed a pig and made merry with his friends—having, in fact, been drunk; hence that day's urine was probably deranged. Taking the mean, then, of the three observations, we have for

	Grammes.	Grains.
Sundays, or days of rest . .	32·32	499
Week-days, or days of labour .	44·43	686

The difference between 686 and 695, as given in the table, is for the equivalent of uric acid.

30. It will be seen that the demand of 730 grains of urea for a man doing the hard work of 790,000 foot-pounds is not beyond what is found in many cases. In fact, it follows as a necessity, if Tables III., IV., and V. are correct returns of the food of men engaged in labour. The researches of Lehmann(n) and Ranke(o) have shown, that when much nitrogenous food is taken, an increase in the amount of urea follows. If, then, the plastic food of the adult man stands to the hard-worked labourer as 4·2 : 5·5, the urea must increase in nearly like proportion. There is now no longer any question that all the nitrogen of the ingesta is to be found again in the urine and fæces. Bischchof and Voit(p) have proved this for dogs; Henneberg(q) for cows; Voit(r) for dogs and pigeons; Lehman(s) for pigs; Ranke(t) and Smith(u) for men. As this is now determined beyond doubt, it scarcely needed new experiments to prove that a labourer, eating more food than a man not working, must pass more urea than the latter. The dispute as to the effects of *luxus consumption* involved the decision of this as the common battle-field for the disputants on both sides. Thus Beigil(v) found a secretion of 711 grains of urea in the case of men, when they had lived on animal food and rested, and 806 grains, under the same conditions, when they had active work. Becher found 729 grains, Lehmann 798 grains, and Ranke 1330 grains under like conditions. We need not, therefore, discuss the *questio vexata* as to whether albumen may or may not pass directly into urea, when in excess in the blood, without being built into tissue, for this is not the normal mode of nutrition. *Luxus consumption* may be a question to discuss when considering aldermanic dinners, but it can have no meaning when applied to the hard fare of the artisan, who takes no more food than is necessary for his work. The discussion, also, as to whether exercise increases the elimination of urea has little further interest for us, when we find such men as Lehmann,(w) Hammond,(x) Beigil,(y) Speck,(z) Franque,(a) and Beneke,(b) deciding in favour of the fact that it is increased, against the varying experiments of Voit(c) and the younger Draper(d) on the other side. Dr. E. Smith has explained much of the anomalies of the latter physiologists, by showing that the period of the production of urea is not necessarily its period of elimination.(e). In most of the experiments made on this subject, the heavy exercise has been taken, not with the corresponding diet, but with the old diet, and under such circumstances the increased elimination of urea from the system is sometimes retarded two days. Hammond's experiments, even upon the same diet, were, however, very conclusive. His results are as follow:—

	Urea.	Uric acid.
With no exercise . .	487·0 grs.	24·9 grs.
Moderate ,, . .	682·1 ,,	13·7 ,,
Hard ,, . .	865·0 ,,	8·2 ,,

31. When a large amount of animal diet is the chief source of food, exercise becomes a necessity, in order to waste the tissues for the support of respiration and other vital movements. Without it the animal soon loathes the food. This is not only the experience of carnivora, but also of man. Darwin tells us that, when in the Pampas, he lived tolerably well on a meat diet, "but felt that it would only agree with me with hard exercise;" and he tells us that the Guachos, who live upon meat, eat largely of fat, probably not only for respiratory food, but also as a protection against unnecessary muscular waste, as we have explained. Sir John Richardson observed the same fact in his Arctic travels, having noticed "that when people have fed a long time solely upon lean animal food, the desire for fat becomes so insatiable that they can consume a large quantity of unmixed, and even only fat, without nausea." The hyena in confinement wastes its tissues by moving backwards and forwards incessantly in its den, and thus is able to consume its animal diet. All this shows that the normal function of nutrition is to build its plastic food into tissues, to be transformed by internal and external dynamical work into carbonic acid, water, and urea.

32. We have confined our attention chiefly to urea, because, as a representative of dynamical labour, it is not mixed up with any other kind of work, such as *opus calorificum*. Carbonic acid is a marked product of work, but then it represents the sum of two factors,—increase in dynamical and in respiratory action. Thus, a labourer, living upon our standard diet, exhales in eighteen hours' quietude, and six hours' hard work, the following quantities of carbon, in the form of carbonic acid, after deducting the carbon in urea and in fæces(f):—

In 18 hours' quietude, 2375 grs. of carbon.
,, 6 ,, labour, 3212 ,, ,,

In one hour's work, 535 grains of carbon are exhaled as carbonic acid, of which nearly one-fourth, or 135 grains, is due to the transformation of tissue, and the rest to the increased demand of the oxygen inspired for non-nitrogenous food.

B.—*Assimilative Work, as Measured by the Secretions per Anum.*

33. The measure of the digestive or assimilative work in a man of healthy digestion is, I believe, to be found in the nitrogen of the fæces.(g) Although the alvine evacuation frequently does contain undigested food, either in cases of over-eating or of indigestion, in full health, it is difficult to find with the microscope even traces of unchanged food. Bischof and Voit could not detect any muscular fibres in the fæces of the dog,

(n) Phys. Chem., ii., p. 450.
(o) Ranke, Müller's Archiv., 1862.
(p) Ernährung des Fleischfressers, 1860.
(q) Quoted by Voit, *infra*.
(r) Stickstoff-Kreislauf. *Ann. des Ch. und Phar.*, 1863; Supp. Bd. 238.
(s) Zoochemie.
(t) *Op. cit.*
(u) Phil. *Trans.*, 1852.
(v) Day's Phys. Chem., p. 43.

(w) Phys. Chem., Bd. ii., 449.
(x) *Amer. Journ. Med. Soc.*, 1855 and 1856.
(y) Ueber die Harn, etc., S. 42.
(z) Archiv. des Vereins für Wiss. Heilk. Bd. iv., 484, and Bd. vi., 161.
(a) Schmidt's Jahrbuch, 1856.
(b) Nord, See Bad., 1855, p. 83.
(c) Unters. über den Einfluss der Muskelbewegung, etc., 148, *et seq.*
(d) *New York Jour. Med.*, 1856.
(e) The experiments of E Smith upon prisoners working on the treadmill are perhaps the most difficult to explain, for with this heavy work there was only an increase of sixteen grains daily. They worked every alternate day, but clearly under abnormal conditions, for "their muscular system was overworked and underfed." Their food, I find, contained daily 250 grains of nitrogen, while their urine and fæces contained 280 grains. Hence the working experiment was not one of health.
(f) 220 grains of carbon are allowed for fæces, and all of which is deducted from the six hours' labour.
(g) It is only as this lecture passes through the press that I observe Mareet has given the same view, without, however, working it out. Not having found any such views in his two papers on fæces, I did not think of looking at his lecture on the chemistry of digestion till the last moment. The passage to which I refer is as follows:—"The principal object of the alvine evacuation is obviously to rid the body of certain parts of the intestinal secretions which, after having served their purpose in effecting the digestion of food, are not fit to return to the blood."—*Jour. Ch. Soc.*, xv., 418.

and not even fat, when that had been purposely added to the meat. Rawitz(h) and other observers are of the same opinion. Hence the common notion that fæces represent the refuse of food is not supported by correct observation. Undoubtedly they contain various ingredients, nitrogenous as well as non-nitrogenous, mixed with mineral matter (Marcet).(i)

34. The average weight of fæces secreted in health is 4·6 oz., according to Wehsarg(k), or 5½ oz. (Liebig). In Ranke's(l) experiments, on a mixed diet, the nitrogen excreted by the fæces is to that in the urine as 1 : 12·5. We take one-twelfth as the amount in health. But although this is the case in man, it is not so with regard to the carnivora. In Pettenkoffer's experiments with a flesh-fed dog, the nitrogen in the fæces was to that in the urine as 1 : 72; and in the still more extensive experiments of Bischof and Voit, as 1 : 76. But the ratio(m) alters when fat or starch is added to the flesh; in the first case it is as 1 : 41, and in the second 1 : 40. When the dog was fed on flesh and sugar, it was as 1 : 23·3, and on starch alone the proportion became reversed, and then the nitrogen in the fæces was to that in the urine as 2 : 1. A little consideration will explain these differences. There are four fluids engaged in the promotion of digestion. All of them contain albuminous ferments, which receive special names, as pepsin when in gastric juice, ptyalin when in saliva, pancreatine in pancreatic juice, and intestinal ferment in the juice of the intestines. But we know nothing more of their chemical composition than that they are albuminous bodies, slightly oxygenised, and in the process of change. We do know that they have different actions,—pepsin acting on albuminous bodies, ptyalin and pancreatine converting starch into sugar, and the latter fat into its acids and glycerine; but in all probability the same ferments in different conditions produce their varying effects, just as we find the gastric ferment also able to act upon fats as well as on flesh-formers(n), and the intestinal ferment combining the functions of the salivary, gastric, and pancreatic ferments. In fact, experiment tells us that alkaline gastric juice acts like pancreatic juice, and the latter, when acidified, plays the part of the former.

Referring to the proportion of nitrogen in the urine to that in the fæces of the carnivora, it is now possible to explain the apparent anomaly, that the addition of non-nitrogenous aliments to the diet increased, instead of diminishing, the amount of that element in the fæces. When the animal is fed on flesh free from fat, the gastric ferment alone is brought into activity, aided partially perhaps by the intestinal ferment, and the residue of these appear in the fæces, which are found to contain but little nitrogen. When fat is now added to the diet, a large amount of pancreatic juice is brought into activity, and the used-up ferment of this juice is added to that of the gastric and intestinal juices as before. Hence we find that the proportion of nitrogen in the fæces is increased. When starch is mixed with the flesh, then the salivary ferment co-operates with the other three ferments in preparing the food for assimilation, and we find the proportion of nitrogen rather greater than before. When a carnivorous animal is placed in such an anomalous position as in feeding it on starch alone a much larger quantity of salivary, pancreatic, and intestinal ferments appear to be called into action to digest this unusual and unmixed diet, and hence the amount of nitrogen in the fæces becomes increased to an unusual amount.

35. The usual amount of nitrogen in the fæces of man is 6·5 per cent. in dry and 1·7 in fresh excrement; while the carbon is from 43 to 44 per cent. in the former. This is almost identical with the composition of normal fæces in the carnivora. The reason obviously is, that the changed albuminous ferments which form the nitrogenous constituents of fæces in health are the same in both classes of animals. Just as yeast loses some of its nitrogen by work, as emulsin becomes poorer in nitrogen and richer in oxygen when it has ceased to act on amygdalin, so do these different forms of albumen in their degradation suffer like changes. A well-known experiment of Lehmann is instructive on the subject under consideration. When emulsin (the casein of sweet almonds) is introduced with amygdalin into the stomach of an animal, the well-known fermentation by which that body is converted into oil of bitter almonds and prussic acid takes place, and the animal dies. On the other hand, when emulsin alone is introduced to the stomach, and amygdalin is injected to the blood, the animal does not suffer by the experiment. But upon reversing the mode of administration, and injecting the emulsin to the blood and putting the amygdalin into the stomach, the animal dies as before. Hence, we find that the ferment, after acting upon the substances which it met with in the intestines, could not be absorbed, for had it been it would have met with amygdalin in the blood, and would have produced fatal effects. That it had acted as a ferment upon the materials in process of digestion and had become exhausted is certain, for it altogether changed in its passage, the fæces of the animal not containing any emulsin capable of acting upon fresh portions of amygdalin. No experiment could be more conclusive for our views, because emulsin is simply changed casein, as these digestive ferments are changed albumen, each having certain peculiarities of action, according to the alkaline or acid fluids with which they act, or with other varying conditions.

36. Let us now return to the proportion of nitrogen found in the alvine dejections of man; it stands in relation to that in the urine as 1 : 12. Where it is present in larger proportions than this, then the excess is probably due to undigested flesh or to an excessive secretion of ferments necessary to overcome some digestive difficulty. In other words, one-twelfth of all the plastic food taken by a man is converted into digestive ferments, and this is excreted *per anum*.

I am not inclined to agree with those physiologists (o) who consider that these ferments secreted from the blood are the degraded products of tissue-waste in their passage to urea. On the contrary, I believe them merely to be albumen of the blood, the oxygenation of which is incipient, so as to make it ready to build up tissue, as in its passage to fibrin.(p) Hence when there is an extensive demand on the blood for tissue material, as in the case of work in excess of the food supplied (for instance, as observed by E. Smith with his overworked prisoners), then the amount of the alvine dejection diminishes. These digestive ferments secreted from the blood cannot be albuminous materials in a downward career, otherwise their surplus, beyond that required for fermentation, would not again be absorbed into the nutrient fluid. It is only a small portion of the whole that is rendered unfit for re-absorption and is reduced to a degraded condition. If the great bulk of what is generally esteemed to be the ferments were not taken back into the blood, the amount of nitrogenous matter in the alvine dejections must be much greater than we find to be the case. Let us take very moderate computations as to the quantities of digestive juices secreted in twenty-four hours by a standard man, and this re-absorption will appear to be a necessity :—

1·6 kilog.	of saliva, (q)	contains	2·4	grammes	ptyaline.
6·4 ,,	gastric juice(r)	,,	20·5	,,	pepsin.
4·0 ,,	pancreatic(s)	,,	50·8	,,	pancreatin.
0·2 ,,	intestinal(t)	,,	1·8	,,	ferment.
	Total . . .		75·5	grammes.	

Now as the whole fæces contain only 9·4 grammes of these exhausted ferments, it is obvious enough that the larger quantity represented above cannot consist of degraded matter in its descending career. When it is further borne in mind that the daily waste of tissues in a healthy man is only 112 grammes, it is impossible for us to suppose that more than half that quantity of degraded matter is preserved in the blood, to be excreted and then re-absorbed. This view would be quite inconsistent with the admirable arrangements of the excretory organs for speedily carrying off used-up matter from the nutrient fluid.

The functions of these digestive secretions must be con-

(h) Ueber die Einfach Nährung Mittel.
(i) *Phil. Trans.*, 1854 and 1857.
(k) Mikros. Und. Chem. Untersuchg. des Fæces, 1853.
(l) *Op. Cit.*, p. 311.
(m) These numbers are relative, not absolute. The fæces of flesh diet contained 6·5, of starch 4·4, of sugar 7·9 per cent. of nitrogen; but the proportions of nitrogen in urine to nitrogen in fæces are as given in the text. Thus we find, on summing up the quantities, that the nitrogen in urine and in fæces, on a diet of flesh and sugar, is, in grammes, as 85·22 : 3·65; on flesh, starch, and fat, as 101·46 : 2·57; and on starch alone as 5·68 : 10·26. I have omitted the fæces on bread diet, for they seem to have been chiefly undigested bread.—(Ernährung des Fleischfressers.)
(n) Marcet, Chemistry of Digestion, Chem. Soc. Jour., xv.

(o) Draper's Human Physiology, p. 84.
(p) Smee, *R. S. Proc.*, xii., 399, 505.
(q) Dalton's "Human Phys.," p. 96.
(r) Katherine Kutt, the Esthonian peasant, with a gastric fistula, gave no less than 30 lbs. daily; the usual estimate, however, from researches on dogs, and applying them to man, is 14 lbs.
(s) The estimates on this subject vary enormously, some going as high as 15 lbs. for a standard man. I have therefore taken a low estimate, nearly that of Bernard, who has devoted so much study to the pancreas.
(t) I allow this for intestinal juice, from the experiments of Bidder and Schmidt.

sidered as assimilative in the largest sense of the term. Chemical affinity generally is assimilative effort. When hydrogen unites with oxygen, each element endeavours to assimilate the chemical characters of the other element to itself, and when they are equal in power neutrality results. These ferments, as they are termed, when secreted in the digestive fluids, are albuminous substances changed and fitted for assimilation in the body, and capable of preparing the ingested food to assume their own state. They meet with resistance, which their large mass enables them to overcome, but a small portion of them succumb in the conflict, and are finally excreted in the alvine dejections, along with certain non-nitrogenous materials, which have probably been used in co-operation with them to fit the calorifacient constituents of food for absorption into the blood.

ORIGINAL COMMUNICATIONS.

ON A NEW FORM OF FIXED BANDAGE FOR FRACTURES, &c.

By CAMPBELL DE MORGAN, F.R.S.,
Surgeon to the Middlesex Hospital.

In the first and several subsequent numbers of the *Gazette Médicale* de Paris for the present year are some papers by Dr. L. Hamon (de Fresnay), entitled "Essai sur la methode Amovo inamovible, ou plutôt valvaire, appliquee a la therapeutique des fractures au moyen d'un nouvel appareil (Bandage Gelatino alcoolisé lacé)." Under a very high sounding title is described, albeit at a most tedious length, a really valuable and simple mode of applying a firm apparatus.

I have tried it now very frequently in the Middlesex Hospital, and my colleagues are also using it. It certainly appears to me to be in some respects superior to any starch or gum, or plaster of Paris bandage, and is quite as easy of application. The material with which the bandage is stiffened is glue, and it should be prepared as follows:—The best French glue should be used. It should be broken up and soaked in a little cold water for some hours, and then melted in the usual way in a glue pot, as little water being used as possible. It is not necessary to soak the glue in cold water, but if this is not done it will require the longer heating. When it is to be used, about a fifth part of its bulk of alcohol must be added—methylated spirit answers quite well. At first this converts a great part of the melted glue into a whitish coagulum, but by a little stirring it all liquifies, and is then fit for use. The alcohol is added to induce the rapid drying of the glue—which would otherwise remain soft for many hours, but when mixed with the spirit begins to get firm on the surface very soon after it is applied, and in a short time becomes tolerably firm throughout. It should be applied with a moderate sized flat hogs' bristle brush. Supposing that a simple fracture of the leg is to be treated, these are the steps to be taken:—

The foot should be neatly and firmly bandaged from the toes to the ankle. Two or three streaks of glue along the sides and front will secure the bandage, so that it need not be again disturbed. The leg from the ankle to the knee should then be covered with a very thin layer of cotton wool—not the medicated wool, as it is called, but such as it procured in sheets for lining dresses. Of this a layer not more than the eighth of an inch in thickness can be easily stripped off, and smoothly applied to the leg. A cotton bandage should then be rolled very smoothly and with tolerable firmness up the leg from the ankle to the knee, and well painted over with the glue. Another bandage should then be placed over the first, and the glueing process repeated. A third may then be applied and glued, and then a bandage should be put on over all, and the leg placed in position. and retained, if necessary, by sand-bags or junks. Of course, if the Surgeon please he may apply strips of bandage, or of any linen or cotton material he may find at hand, instead of repeating the rolling process. The glue should be laid on freely, and brushed a little into the bandage. In some cases two layers of the glued bandage will be found sufficient. In others it may be desirable to give greater support; but this can always be done as an after-process. The leg should be left at rest for from twelve to twenty-four hours. The glued bandage must then be cut through its whole length. This may be done with the ordinary scissors used for the starched bandage, or a director may be insinuated beneath the bandage and cut upon with a sharp knife. If too long a time elapses before the bandage is cut through, it becomes so hard that great difficulty may be found in cutting it at all. When the bandage is thus slit up, so great is its elasticity that it may have its edges separated sufficiently to allow it to be easily slipped off the leg; and when left to itself it will resume its original shape, and this elasticity it will retain for as long as it is used. A strip not more than a quarter of an inch wide, and running the whole length of the bandage, should now be cut off from one edge, and holes punched out parallel to the edges on either side, and about half an inch from them; into these "œillets" are to be inserted, such as are commonly used in laced bandages or boots.

The punching and insertion of the œillets are rapidly done with the common instruments used for the purpose, which, with the œillets, can be had at any toolmaker's.

The bandage is now complete. If it is thought desirable to strengthen it generally, or in any particular part, this may be done by gluing on fresh strips of linen. Its appearance may be improved by gluing on an edging of tape round the top and bottom, and along the sides of the slit. It is re-applied to the leg, and laced up as firmly as may be thought necessary. The lace, if it is not furnished with a tag, is best introduced on an eyed probe, and it should always be passed from without inwards. If the tag is introduced from within it always gets entangled in the cotton wool, and the process of lacing is extremely troublesome.

Thus a case is formed which is completely moulded in the form of the limb, is very elastic, very firm, and very durable, and which can be accommodated with perfect ease to all the varying states of swelling of the limb.

In situations where the roller cannot be conveniently carried round the part, the splint can be just as well formed by laying strips of linen in any direction and glueing them. The cotton wool of course adheres to the first layer of the bandage, and comes off when it is removed. It is applied in the first instance in great measure to keep the glue from contact with the skin.

The great advantage of this splint is its union of firmness with elasticity. These qualities it retains undiminished for a great length of time. I have found no alteration in these respects during the many weeks that some patients have worn it; a patient now in the Hospital has worn one for six weeks, and I find no change in either its firmness or elasticity. At any time it could, if required, be strengthened by a few strips of linen being glued on it.

I have described it as applied to fracture of the leg, but it can be used in any situation where support is required. Thus I have used it in Pott's fracture, enclosing not only the leg, but the ankle and foot, and have found that it could be slipped on and off with the greatest ease. I have used it in fractured patella, after sprains to the knee and ankle-joints, in diseased knee-joint, and in case of diseased hip-joint encircling the pelvis and upper part of the thigh.

Altogether this "bandage gelatino alcoolisé lacé" appears to me to be one of the best as well as the most easily applied, and most convenient in its after use, of any of the modifications of Seutin's bandage which have as yet been tried, and it is well worth the notice of Surgeons. The advantage which it possesses over others is in its elasticity, which permits of its being widely opened when slit up, without cracking or losing its form. Hence it can be applied as a laced bandage, and may be worn for weeks together, while the patient is moving about, without the trouble of re-adjustment; while it can be accommodated to any change in the state of the limb, through increase of swelling or its diminution, by simply letting out the lace, or taking it in, without even removing the bandage. It is, moreover, very light, and yet strong enough for any purpose to which a splint can be applicable.

Metropolitan Association of Medical Officers of Health.—On Saturday evening, the 20th, Mr. Walton will read a paper on "Contagious Diseases of the Eyes in London Workhouses." On the Saturday following Dr. Clouston, of Carlisle, will read a paper on "Dysentery as a Consequence of Sewage Irrigation." The meetings are held at the Scottish Corporation Hall, Crane-court, Fleet-street, at 7.30 p.m.

St. Mary's Hospital.—The ceremony of laying the foundation stone of the new wing will take place on the 23rd of May. The stone will be laid by H.R.H. the Prince of Wales. The Right Rev. the Bishop of London will officiate in the religious part of the ceremony.

EPIDEMIC OF CEREBRO-SPINAL MENINGITIS AT SUNDERLAND IN 1830.

By JOHN SCOTT, M.R.C.S.

Sir,—I send an account of an epidemic which prevailed at Sunderland in the year 1830. It has some resemblance to those existing on the Continent in 1865, and I think has some interest in the history of disease. If you think so, please insert it. I am, &c.

Hanley, Staffordshire. John Scott.

The late numerous discussions and papers on the epidemic of cerebro-spinal meningitis now prevailing on some parts of the Continent of Europe have recalled vividly to my memory a disease which existed as an epidemic in Sunderland during the year 1830. I was at that time an apprentice to the late Mr. T. H. Embleton, a general Practitioner of that town; and though I knew then but little of the science of Medicine, yet the great fatality of the disease and the having watched to its fatal termination a case which occurred in a member of my own family, impressed the facts of the disease so strongly on my recollection that I have no doubt that I can recall them correctly, even at this distance of time. It is now many years since I left that part of England. I do not know who of the older Practitioners are left, or it is probable that a much better account of the disease might be got.

The disease began in the autumn of 1830. The earliest date I do not know, but I know well that a fatal case occurred on October 12 of that year, and that there had been many fatal cases before as there were many after it. I do not recollect that it was preceded by any distress among the working classes, by high price of provisions or any of those causes which usually precede epidemics, but I have a strong impression that there had been during the few preceding months a great excess of sickness, especially among paupers, though of what kind I have no recollection. The disease was at first considered to be typhus fever, and a great number of fatal cases had occurred before I ever heard any other name applied to it. The first time I heard the name meningitis used was as applied to one of the cases in which Dr. Brown, of Sunderland, had been called in, in consultation, and I well recollect the discussions to which the application of that name to the case gave rise. That case I know terminated fatally, with all the symptoms which, at that time, marked so many cases of the same disease. During the whole epidemic the disease was very fatal; but I believe it followed the usual law, that the cases were much less severe during the latter than the earlier periods, and that recoveries were much more frequent towards the end of the epidemic. In the practice to which I have referred, and which was the only one with which I was intimately acquainted, thirteen fatal cases occurred in rapid succession with hardly a case of recovery. My impression, indeed, is, without a single recovery, but I may be mistaken in that. The disease was not confined to the lower parts of the town, to the narrow lanes and alleys, which two years later were to become the first home of epidemic cholera in England, but attacked pretty equally all parts; at least, I know that cases were by no means rare in the most open and best built localities, and among families in at least comfortable circumstances. The greater number of cases with which I was acquainted did, indeed, exist among the poor, but that was probably from the character of the practice referred to. During the whole of the epidemic the cases were scattered about very much, seldom more than one being seen in a house, and the question was often asked, Why is it that it does not spread like fever, and that you have generally but one case in a house? This scattered character was rather characteristic of the disease. It prevailed chiefly among children, and though at this distance of time I can recollect the exact age of but one patient, my belief is that there were few cases above fifteen or sixteen years of age. The symptoms of the disease, as I recollect them, are chiefly gathered from one case closely observed, a few seen now and then, and what I constantly heard of the progress of cases under treatment.

The attack always began with violent headache and fever, judged by every one at first to be typhus. There was severe pain in the back and limbs, and I think, in some cases, sickness. At this, almost the outset, there was great prostration and partial coma, which, after three or four days in the cases which ran the least rapid course, was followed by some mitigation of symptoms, and the display of more intelligence. This was shortly followed by convulsions of a severe character, and in most cases, especially those most slow in progress, by well-marked opisthotonos. In all cases there was obstinate constipation, over which the remedies employed seemed to exert little influence, especially in the early stage of the disease. At an early period the cheeks were flushed, and the eyes very much suffused; but later, the look was rather that of a person suffering from pulmonic congestion. The treatment followed by all who then treated the disease was antiphlogistic in the strictest sense of the term, and calomel given freely, but I do not remember salivation ever being produced. I saw but one post-mortem during the time; it was that of a child ten or twelve years of age, and the only thing I recollect about it is that the posterior portion of the brain looked as though it had been smeared over with some thick fluid like cream, and had then had a portion of the fluid scraped off.

I do not know if at that time a disease answering to this description existed in any other place in England, but I do know during this last thirty-five years I have never seen any cases precisely resembling these, still less proofs of cases existing as an epidemic such as occurred at Sunderland in 1830. The impression made on my mind at the time was very distinct, and the recollection of the general aspect of the cases is even now most vivid. The resemblance of the epidemic to that now existing on the Continent seems in many things very marked. It is like it in its epidemic character, in its marked general resemblance to typhus fever, and especially in the convulsions, tetanic spasms, and opisthotonos which marks the later stages of both diseases. The idea of a specific eruption in typhus, or, indeed, in any continued fever, except small-pox, measles, and scarlet fevers, had not been conceived, and, consequently, was not thought of as a diagnostic sign. It is very probable that the early history of a disease is frequently overlooked from its existing during its period of genesis as a sporadic, or rather as a very local epidemic disease, until becoming more developed, it spreads over a wider range, is of more frequent occurrence, and then it is said a new disease has rapidly originated; while the fact is a new disease, like all new things of Nature's production, is a thing of slow growth.

HOLIDAY NOTES ON SOME CONTINENTAL SPAS.

(Second Series.)

CAUTERETS.

By HERMANN WEBER, M.D., F.R.C.P.,

Physician to the German Hospital.

(Continued from page 439.)

Cauterets is, after Bagnères-de-Luchon, the most frequented Spa in the Pyrenees. It is a small town of about 1400 inhabitants in the Departement "Hautes Pyrénées, arrondissement d'Argelès," about 550 miles distant from Paris, and 28 miles from the railway-station at Tarbes. It is situated in the rather narrow valley of the Gave de Cauterets, 3254 feet (992 mètres) above the level of the sea, between mountains rising to the height of from 6000 to 8000 feet. The aspect of the valley is in one direction friendly and cheerful, the mountains being covered with bright verdure and pine forests up to their summits; while in the other direction it is rather desolate and wild. The climate is said to be uncertain, exposed to sudden changes, and, through the great elevation and the near proximity of the mountains, more frequently visited by fogs than Luchon.

Like the latter place, it has been renowned for its hot springs in remote ages, and counts even Julius Cæsar among its early visitors, whose name is borne by one of the principal springs; certain it is, that it has been visited by the celebrated sister of Francis I., Marguerite, the Queen of Navarre, who wrote here part of the "Heptaméron" and left an interesting description of the journey to and from the place.

Cauterets possesses about twenty-four springs. All the more important ones are characterised by sulphuret of sodium; but they vary considerably with regard to temperature (from 75°8 to 140° F.), and also with regard to the amount of sulphurets. The Physicians at Cauterets maintain that their different sources offer specimens of all qualities of sulphuretted waters of the Pyrenees, from the mildest to the most energetic. This is of considerable value, as it is often desirable to use at first the milder waters, passing gradually to the stronger sources. A great inconvenience, however, in many respects,

is the circumstance that almost all the sources are situated out of the town, having separate establishments, some being more than two miles distant. Only two of the principal sulphuretted sources—the "*César nouveau*" and "les Espagnols"—have been conducted into the town, and supply the "thermal establishment;" the sources "Rieumizet" and "Bruzaud" are likewise near this establishment, but the former is not at all sulphurous, and the latter has lost the greater portion of its sulphurets through a faulty conduction from the origin of the spring to the place of its utilisation.

The different sources have been divided, according to the locality of their origin, into the following groups (a):—

I. *Groupe du Nord* (François), or, according to others, *groupe de l'Est.*

All the sources of this group originate on a mountain near Cauterets. "César nouveau" (120°F.) and "Espagnols" (119° F.) have been conducted in tubes to the thermal establishment in Cauterets, which contains twenty-four separate baths and several grand douches. The water of these sources loses much of its sulphurets on its passage. Thus, according to Filhol ("Eaux Minér. des Pyrénées, 1853, p. 335, and table), a litre of "César nouveau" contains at the source 0·0267 grm. of sulphuret of sodium, in the "Bassin d'Arrivée" only 0·0186 grm., and in the bath only 0·0099 grm. (Buron); a litre of "Espagnols" at the source, 0·0123 grm., and in the bath, 0·0123 grm. This loss might probably be avoided if the tubes in which the water is conducted were to be completely filled by the latter. In spite of this loss the waters of this establishment are reckoned amongst the most powerful of Cauterets. Chronic rheumatism, scrofulous affections, and diseases of the skin are generally treated here.

Pause, or *Pause vieux*, has a separate establishment at the place of its origin on the mountain. The baths, of polished marble, are provided with a douche ascendante and three jets for the water in its natural temperature (112·5° F.), for the cooled mineral, and for the common cold water. The establishment contains also some douches and a buvette (108·5° F.). The amount of sulphuret of sodium at the grand douche is 0·0245 grm. per litre (Filhol); in a bath of 93·2° F., 0·0151 grm. per litre (Buron.) Cutaneous affections are most frequently attended here, but also chronic rheumatic affections and chronic catarrhs of the respiratory organs.

Pause nouveau is composed of several springs united in the establishment of this name, which contains similar accommodation as the Pause vieux. The temperature is about 2° F. higher than that of the latter source; the amount of sulphurets differs only slightly. These baths are considered a good test for the existence or non-existence of syphilis, as in the former ease the characteristie eruptions are said to show themselves very soon.

"*César vieux*," the source which is said to have been visited by Julius Cæsar, furnishes at present only a "buvette" with a temperature of 118° 4 F., and 0·0308 grm. of sulphuret of sodium in the litre (Buron).

"*Bruzaud*" has been conducted to the town of Cauterets itself, but the water loses on its way, as already mentioned, nearly all its sulphurets, and may, therefore, be considered as an almost pure, slightly alkaline, thermal water (99° 5 F.). It is highly spoken of in uterine affections (fluor albus, superficial ulceration of the os uteri, engorgement of the womb), in gastralgia, and various conditions in which the patients are better without much sulphur! The establishment makes a rather poor impression.

"*Rieumizet*" is a weak sulphatic saline source of rather low temperature (75° to 77° F.), more sedative than exciting, employed in abdominal affections and under similar circumstances as "Bruzaud." The establishment contains eleven separate baths and some douches ascendantes.

Groupe du centre (or de l'Ouest). This groupe is formed by the "*Raillère*" alone, a source which for two centuries past has enjoyed a very high reputation for its beneficial influence on some affections of the respiratory mucous membrane, and on chronic pharyngitis. The source "vieille" at Eaux Bonnes is the only one which equals it in this reputation; but the "Raillère" is considered as less exciting, which may depend, according to Filhol's suggestion (l. c. p. 337), on its being richer in alkalines and organic substances. The establishment is situated about a mile distant from Cauterets, in a wild spot on a terrace, at the foot of a granitic mountain (Mont Péguère), and overhanging the banks of the Gave de Marcadau; its elevation above the sea is 3640 feet. It contains about thirty baths, many of which are provided with moveable douches; it has also a buvette, and adjoined to it a special building for gargling the throat. The temperature of the water at the drinking-fountain ("buvette") is, according to Buron, 102° F., and the amount of sulphuret of sodium is 0·0199 grm. per litre; the temperature in the baths is from 95° to 98° F., and the proportion of sulphurets rather lower.

In the neighbourhood of the "Raillère" are stables for the imperial horses of the stud at Tarbes, their chronic bronchial affections being much benefited by the use of these waters.

III. *Groupe du Sud.*

"*Petit St. Sauveur*," almost a mile and a-half from Cauterets, possesses a small establishment with twelve "Cabinets de bains." Its natural temperature is about 86° F., and its amount of sulphuret of sodium 0·0099 grm. per litre (Buron), which rises when heated to 0·0149 grm. Filhol ascribes this peculiarity of showing by the "sulphurometer" when warmed a higher degree of sulphuration to the richness of the water in alkalines. This source is considered as very similar to those of St. Sauveur, near Luz, and is employed in baths and douches only.

"*La source du Pré*" is near the latter. It has a temperature of 116°6 F., and contains 0·0223 grm. of sulphuret of sodium in the litre. It is likewise rarely taken internally, and is used principally for chronic and atonic rheumatism and affections of the skin. The establishment, which possesses seventeen "cabinets de bains," with a douche descendante, is the favourite resort of Spaniards, who in considerable numbers annually cross the mountains in order to undergo a curious so-called nine days' treatment, which is customary with them. As this treatment is of some therapeutical interest, I will give it in the words of Dr. Gouet ("Des eaux Mineralcs de Cauterets," Paris, 1858, p. 47):—

". . . . Aprés un bain tempéré pour se préparer ils boivent de six á huit verres de l'eau de Mahourat et prennent au Pré, avec ou sans douche, deux bains par jour á la température naturelle de l'eau qu'ils supportent pendant près d'une demiheure. En sortant du bain, où l'on conçoit difficilement que tous indistinctement puissent autant séjourner impunément, ils s'enveloppent d'une couverture de laine et, assis sur un tabouret dans le cabinet même, ils complètent l'effet du bain par une sudation si abondante, que le sol en est inondé. Ils s'habillent alors et après quelques instants de répos dans la galerie, ils s'entourent d'une autre converture en guise de manteau; ainsi drapés en vrais *hidalgos*, ils regagnent gravement leur logis. La neuvaine finie, ils retournent au pays, déjà soulagés et sans doute bientôt guéris, à en juger par les imitateurs aussi nombreux qui leur succèdent d'année en année, les mêmes ayant rarement besoin d'y revenir." This treatment certainly does not lack in energy, and it can well be imagined that it produces a revolution in the body sufficient in many instances to lead the functions back into their normal track; but in many others it must be of doubtful value.

The source "*Mahourat*" or "*Maouhourat*" (121° 122° F.) is used only internally. It contains about 0·0149 grm. of sulphuret of sodium in the litre (Buron), and a comparatively small proportion of glairine. It is considered as easily digestible, and especially suitable to cases of gastralgia and intestinal disorders; it is employed also in many cases of chronic catarrh of the respiratory organs where the "Raillère" is too exciting.

The source "*des Yeux*" is a small streamlet close to the last-named, of similar constitution as to temperature and proportion of sulphurets, reputed for its healing powers in catarrhal and scrofulous ophthalmia.

"*Les bains des Bois*," a small establishment of several baths and douches, and two piscines for four or six persons, supplied from several sources, with a rather low proportion of sulphurets. The temperature of these sources lies between 95° and 114° F. They are only employed externally, under similar circumstances as the source "Petit St. Sauveur."

There is another group of sources called "*les oeufs*," from their smell. Their temperature is high—from 121° to 140° F.—and they contain a moderate amount of sulphurets (0·0192 grm. per litre). These sources are as yet not employed. They are so abundant—yielding more than 600,000 litres in twenty-four hours—that Dr. Buron has proposed to utilise them for piscines, with a constant renewal of the water, to form, so to say, river baths of thermal sulphuretted waters—a suggestion which appears very reasonable, and the carrying out of which

(a) On this subject, as well as on others connected with the action and use of the springs of Cauterets, I owe much information to the kindness of Dr. Buron

would, no doubt, considerably increase the reputation and usefulness of Cauterets.

In taking a general survey of all the sources of Cauterets, we find them exhibiting in the *physical appearance* a great resemblance to those of Luchon, but in their process of decomposition none of them exhibit the phenomenon of "blanchiment," and they emit also a much smaller amount of hydrosulphuric acid. Filhol ascribes this to their greater richness in alkaline and earthy carbonates and silicates, and to their smaller proportion of sulphurets. The Cauterets waters contain, as a whole, a smaller amount of free silicic acid, but a larger one of organic matter than those of Luchon. They deposit very little sulphur, and their products of decomposition are peculiarly rich in hyposulphate of soda, which is quite in accordance with the limited evolution of sulphuret of hydrogen.

The *therapeutical actions* of the waters of Cauterets have been already alluded to in the sketch of the different sources and establishments.

The *affections of the respiratory organs* stand at the head of morbid conditions treated at Cauterets, and many of these are much benefited and cured there.

The simple *chronic catarrh* of the bronchi, trachea, and larynx is, in general, cured, and with it the tendency to frequent attacks of cold, if the waters are properly used. The *emphysema of the lungs* is likewise often mentioned among the diseases curable at Cauterets, but when emphysema is in any progressed stage, it is surely not cured, but only the chronic catarrh, so frequently connected with it, is removed or ameliorated, and through this the symptoms are much mitigated, often for a long space of time.

Granular pharyngitis and laryngitis, "angine glanduleuse," and similar affections, are much relieved, and more recent cases are, in general, cured. In these cases gargling with the source "Raillère" is used with great diligence.

Tubercular phthisis is often attended at Cauterets, and some of the Medical men assert that the water of the "Raillère" frequently cures the first and second stages. Even Dr. Fontan, who practises at Luchon, attributes to the source "la Raillère" at Cauterets and the source "*Vieille*" at Eaux Bonnes a curative action in pulmonary tubercles in the first stages. (Recherches sur les eaux nunée des Pyrénées, 1853.)

Dr. Buron, however, who is as intelligent as unprejudiced, has not met with any real cures of indisputable tubercular affections of the lungs, although he has in many instances of tubercles in early stages, in persons of rather torpid constitution, seen much benefit from a cautious use of the waters. Excitable constitutions, with tendency to pyrexia, are, in general, more injured than benefited. One can scarcely help thinking that many of the cases of cure in advanced tubercular phthisis were only simulating this disease, and were in reality caused by bronchial dilatation, condensation of tissue or abscess from pneumonia, and other conditions occasionally mistaken for tubercular consumption.

In *diseases of the skin* the action of the waters of Cauterets is similar to that of the waters of Luchon. Like the latter place, Cauterets has the advantage of possessing sources of varying strength, but it can scarcely be considered as superior to Luchon. The same remarks are applicable to *rheumatic*, *scrofulous*, and *syphilitic affections*.

Cauterets enjoys a considerable reputation with regard to *diseases of women*, as chlorosis, fluor albus, superficial ulceration of the os uteri, etc. In the management of chlorosis and of the oligæmia connected with the majority of chronic affections of the uterus, the exciting influence of the mountain air, of the unwonted occupation of mind and body, and of the thermal treatment, are probably of greater value than the sulphur contained in these waters; and in the chronic catarrh of the vagina and uterus, which is so often the principal cause of the fluor albus, and of the superficial ulceration of the os uteri, the douche ascendante of an almost pure warm water does probably likewise the greater portion of the healing work. At all events, the results obtained in these various complaints at some of the non-sulphuretted spas, are quite as striking as those gained at Cauterets; we may, therefore, infer that these results are due to the other influences, and not to the sulphur, the more so as the Physicians at Cauterets employ in general in these affections either the weakest sulphuretted springs, as "Petit-St.-Sauveur," and "Bruzaud," or the non-sulphuretted "Rieumizet."

With regard to the manner in which the waters of Cauterets are employed, it is similar to that at Luchon,(b) but, in addition to the entire bath, greater use is made of the half-bath(c) and foot-bath, especially in affections of the respiratory organs, in which a derivatory action is attributed to these partial baths.

The *gargling*, too, principally with the water of the "Raillère," is more frequently recommended at Cauterets than perhaps anywhere else; it is generally done in the morning, before, during, or after the bath, but may be repeated in the course of the day. The internal use of the waters is likewise, perhaps, more general than at Luchon. The quantity of water taken is about the same as at the latter place.

The bathing apparatus, it must be owned, is less complete than at Luchon. The absence of a larger central establishment, and of spacious piscines, is to be regretted. Proper arrangements for the aspiration, with the exception of some imperfect attempts, are likewise wanting.

Physicians.—Besides Dr. Buron, who during the winter resides at Pau, Drs. Dimbarre, Cardinal, Daudirac, Goucet, Darré, Broca, and others, enjoy general esteem.

The accommodation in the Hotels de France, du Lion d'Or, des Ambassadeurs, de la Paix is satisfactory, and, in addition, furnished apartments may be had in almost all the private houses. The price for rooms is rather higher than at Luchon.

The season at Cauterets extends from the middle of June to the end of September, but the months of July and August are preferable.

(To be continued.)

(b) Confer this Journal, vol. i. 1865, p. 439.

(c) In the half-bath the patient sits in the water up to the waist, while the upper part of the body is covered with flannel.

REPORT OF A CASE OF

ANEURISM OF THE BRACHIAL AND RADIAL ARTERIES, WITH A VASCULAR TUMOUR OF THE THUMB OCCURRING IN THE SAME ARM—WITH REMARKS.

By W. DUNNETT SPANTON, M.R.C.S.
House-Surgeon to the North Staffordshire Infirmary.

Mary R., aged 23 years, single, was admitted into the Sheffield General Infirmary, under the care of Mr. Barber, on November 5, 1863, for a swelling of the left thumb.

The patient was a tall, fat, large-boned woman, with very flabby muscles, florid countenance, yellowish hair, and dark-blue eyes. She had a large bronchocele, which had existed as long as she could remember. She had been a maid servant since childhood, and always enjoyed excellent health; was never under any Medical treatment.

On admission there was a swelling about as large as half a small orange over the ball of the left thumb; the skin being tense, red, shining, and hot, and evidently containing pus. There was no distinct fluctuation; no pulsation. The left thumb was much smaller than the right; the patient complained of much pain in the tumour. On close examination there was found a small pulsating tumour the size of an ordinary marble, globular in form, situated on the left radial artery in the space between the first and second metacarpal bones; the artery was distinctly to be felt, and was larger than that of the right arm. By compressing the artery the aneurism could be quite emptied, but no difference was then to be observed in the palmar tumour.

The history the patient gave was this:—As long as she could remember she had a swelling over the ball of the left thumb, which never pained her, or gave rise to any inconvenience, till about ten months before she came to the Infirmary. It then began to "gather" at times, discharging a little matter each time. Of late it increased more rapidly in size, and in consequence of this and increasing pain, caused the patient to leave her situation. The present inflamed state came on about three weeks before admission, in consequence of a blow. The aneurism of the radial was first noticed two years since by her sister; it never gave any pain, and increased very slowly in size.

I made a small puncture in the tumour of the thumb, and a few drops of pus escaped, giving relief to the patient. There was less hæmorrhage than one would have expected from an ordinary abscess in that situation.

The following day, on a further examination, there was found an aneurism of the left brachial artery, about three inches above the bend of the elbow, which the patient was quite unaware of; it was the size of a large pigeon's egg,

fusiform, pulsating strongly and expansively. By pressure on the artery above the aneurism could be nearly emptied; a loud murmur was heard over it with the stethoscope; the circumference of the left arm was eleven inches, of the right ten and a-quarter; the brachial, radial, and ulnar arteries of the left arm were much larger than those of the right, but there was no feeling of increased hardness in the vessels; the temperature of the brachial aneurism was 96° F., of the tumour of the thumb 97·5°, of the healthy arm 90°. There was audible a distinct, soft, systolic murmur at the base of the heart and along the course of the aorta; no bulging nor increased dulness. No other enlargements than those mentioned were to be found. The patient was kept quiet, and a tourniquet was applied over the brachial artery in its upper third, being kept on for a few hours at a time.

On November 9 the palmar tumour was softer and less painful, and ceased to discharge. Considerable deposit had taken place in the radial aneurism; in the brachial pulsation was less violent, and it could not be so completely emptied on pressure.

November 13.—Tumour of palm quite soft and flabby, painless, without pulsation. Radial aneurism hard and firm, with very slight pulsation to be felt. Brachial much the same.

24th.—During the last few days pulsation had become more marked in the radial, somewhat less in the brachial aneurism.

For some time pressure was applied over the artery at intervals, but the aneurism remained in much the same state. It was not considered advisable to attempt to ligature the vessel; a firm bandage was therefore kept applied over the brachial aneurism, and the patient left the Infirmary in much the same condition as on admission.

Remarks.—Spontaneous aneurism of the arteries of the arm and forearm appears to be a very rare affection, and more especially so in women. There are but few cases recorded in Surgical works, and many Surgeons of large experience state that they never saw one. Some have even expressed a belief that such a disease never occurs; that when aneurism is met with in the arm, it has invariably arisen from violence, not from disease of the vessels simply. Hodgson says that "those morbid alterations in the coats of arteries which predispose to the formation of aneurisms are rarely met with in the brachial artery or its branches. . . I have never seen an aneurism in the arm which was not produced by accidental violence." ("Diseases of Arteries," p. 388.)

I have found three recorded cases of aneurism of the brachial, and four of the arteries of the forearm.

Pelletan mentions one case in which the brachial was tied. Hæmorrhage occurred on the tenth day, and the patient died on the fourteenth. There was found calcareous degeneration of the artery, and a fissure extended through the coats of the vessel as far as the disease of the artery existed. (*Clinique Chirurg.*, tome ii., p. 4.)

Liston, speaking of spontaneous aneurism at the bend of the elbow, says he treated but one such case, in which the brachial was tied, and the patient recovered.—("Practical Surgery," p. 18.)

Scarpa relates three cases of aneurism of the brachial, but I have excluded them from the list, as each one seems distinctly traceable to injury.—("On Aneurism," second edition Wishart's *Trans.*, p. 188-194.)

Guattain mentions a case of aneurism of the palmar arch, which appears to have been of spontaneous origin. The tumour was the size of an apple, did not pulsate, but was tense and fluctuating. It was cured by being laid open, and afterwards firmly bandaged; the wound being healed in twenty-six days.—("Observations on Aneurism," by Erichsen, Syd. Soc., p. 316, case 21.)

Sir Astley Cooper says, "I do not recollect to have seen a case of aneurism from disease in the brachial artery," and "only one case of aneurism of the ulnar artery from disease." In the latter case the ulnar was tied, and "the patient died from the constitutional irritation resulting from the operation."—("Lectures on Surgery," p. 78-81.)

John Hunter does not mention any instance of the disease in his writings.

Mr. Birkett has recorded a case of spontaneous aneurism of the brachial, which occurred in a Surgeon who was subject to rheumatism. The tumour was small, situated at the bend of the elbow, and was discovered accidentally. Venesection had never been performed in either arm. After compression, employed for about four months, the aneurism was cured. Mr. Birkett remarks that he has been unable to find a similar case recorded, and that Sir B. Brodie had never met with one.—(Guy's Hospital Reports, 1862, p. 310.)

Dr. Gulston Wollaston has lately informed me that Mr. Birkett's patient has continued well since the report was written, and that the disease has not shown any tendency to return.

A very interesting case of aneurism of the ulnar artery has been recorded by Mr. Campbell De Morgan (*Med. Times and Gaz.*, Nov. 22, 1862). It occurred in a man, 47 years of age, spontaneously; was about the size of a duck's egg, fusiform, and could be quite emptied by pressure. There was no pulsation in the ulnar artery below; the radial beat freely. The patient had albuminuria and disease of the heart. Pressure was tried in various ways, but without producing any permanent benefit; and the tumour remained much the same up to the time of the patient's death; which occurred six months after admission into Hospital. When the aneurism was examined, there was found to be a free opening into the ulnar artery above; but below the vessel appeared to be closed. There was found, however, a very small opening at the upper part of the aneurism, which communicated with the ulnar artery below. There was but a very thin deposit of fibrine, which was quite smooth.

Mr. De Morgan remarks that this case is important, as showing "that closure of an artery below an aneurismal sac does not tend of itself, even after a considerable time, to cure or diminish it;" and, moreover, "how entirely insufficient is the mere closure of the artery below the sac to arrest or diminish pulsation."

Erichsen says:—"Spontaneous aneurism in the forearm is of extremely rare occurrence. I am only acquainted with one—that recorded by Mr. Todd as occurring in a woman 28 years of age, which had existed several years before the brachial was ligatured, when pulsation in the tumour ceased, though it continued solid and hard for some months after the operation."—("Treatise on Surgery," p. 553.)

In order to collect any cases which might not have been mentioned in any of the Medical periodicals or standard works, I wrote to forty-one of the principal provincial and London Hospitals to inquire if any instances of aneurism below the axilla were known to have occurred. To my inquiry I had thirty replies; twenty-six of which were to the effect that no cases of the kind were recorded in the Hospital books, nor were known to have occurred. In many instances the Surgeons to whom the question was put had been attached to the Hospital for a half a century or more.

I am indebted to Mr. Thomas Jones for the following account of a case of aneurism of the ulnar artery, under the care of Mr. Pollock, at St. George's Hospital:—

"It was in a boy about 16 years of age, admitted under the Physician for extensive disease of the heart. A tumour the size of one's fist was found in the upper part of the right forearm, over the ulnar artery. A very slight brûit could be heard, but there was a certain amount of pulsation. From the extreme emaciation of the boy and the absence of the characteristic brûit of aneurism, the tumour was considered by the majority of the Surgeons to be malignant. Mr. Pollock, under whose care the boy was now placed, thought it was an aneurism, and accordingly applied pressure. The boy, however, rapidly sank, and died about a month after admission. On post-mortem examination, disease of the valves of the heart was found, and plugging of the ulnar artery. Immediately above the plug the artery was enormously dilated—forming, in fact, the tumour, which contained coagulated (imperfectly-formed) blood. The artery has not been very carefully dissected as yet, to see whether any of its coats has given way."

For the next case I am indebted to Mr. Williams, of Norwich. It occurred in a man who was admitted into the Norwich Hospital for rheumatism in the year 1859. "It was a well marked case," Mr. Williams says, "and not produced by any injury or wound: it was indeed a true aneurism. He was 43 years of age, a labourer. The aneurism was situated at the bend of the right elbow, and was the size of a flattened hen's egg when first noticed by me. In three weeks it had attained the size of a small orange, pulsated visibly, and gave a very distinct bruit. He strictly refused to have any operation performed, and urgently desired to go home. This, of course, could not be denied, and he went home, and I have never heard what became of him. I should not think he could have lived long, for he had the symptoms and signs of aneurism at the base of the heart."

At the Newcastle Infirmary an instance occurred of aneu-

rism of the palmar arch, for an account of which I have to thank Dr. Bolton. "An elderly woman was brought by her husband as a casual to the Hospital from a country district. A large pulsating tumour possessing a well-marked aneurismal thrill, occupied the palm of the left hand, the pulsation of which ceased entirely on compressing the vessels of the forearm. Observing the serious nature of the case (there being besides distinct evidence of atheromatous degeneration of the aorta, and the radial and ulnar arteries of both arms), I recommended her admission into the Hospital. The husband, however, would not leave her, being firmly of opinion that the tumour contained 'matter or humour which should be let out with a lance.' Being pressed by him to use my 'lance,' in order to satisfy him, and at the same time secure her as a patient, I put a small pointed bistoury into the centre of the tumour—presto! a jet of florid blood shot upwards, blinding the old man, and besprinkling those around. A compress and bandage restrained further hæmorrhage, and the husband, now alarmed, permitted the removal of the patient to the wards. On the second day the compress was removed, the puncture had healed, and the tumour appeared consolidated and less in size. Mr. Armandale, her Surgeon, declined operative procedure in consequence of the diseased condition of the arterial system, and the tumour having become smaller and more solid from compression, the patient left shortly afterwards. How the case progressed or terminated we did not learn."

Among the eleven cases I have mentioned, disease of the heart is stated to have been present in five, and probably in a sixth. It seems quite probable that it may have also existed in the remaining ones, but was not recorded. Three of the cases in which compression was tried as a means of cure resemble each other very strongly in the absence of any tendency to heal by this method. Why this should be so does not seem very clear, for in Mr. De Morgan's case firm clots were found after death in the head and in the heart and large vessels, though the aneurism was almost empty.

An interesting feature in the case of Mr. Barber's patient, Mary R., is the occurrence of more than one aneurism in the same arm. There is clearly in this girl an unusual tendency to disease throughout the vascular system. We find disease about the aorta, and a large bronchocele in addition to the aneurisms of the arm and forearm. No cause was discoverable. The patient had led a healthy country life: her family history was good. It seems probable that a fatty condition of the vessels may have existed, and this view is strengthened by the patient's general appearance. It is very improbable that atheroma existed at such an early age.

The palmar vascular tumour was remarkable for the absence of any pulsation or murmur; but this may be accounted for on the supposition that it consisted chiefly of veins, or that the vessels had become occluded from the suppuration which had occurred. I heard a short time since that the patient has not presented herself again at the Infirmary, and it is not known how the case has progressed since the report was written.

Etruria.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

CASES FROM THE OUT-PATIENTS' DEPARTMENT —CLINICAL REMARKS.

(Under the care of Mr. SPENCER WATSON.)

The following clinical remarks were made by Mr. Watson on the cases:—

Cases 1 and 2 were each typical of a class. The sores in these two patients might by a superficial observer have been regarded as very similar; but, apart from the history and circumstances of each, there were certain peculiarities of form and appearance which marked the one as a chronic epithelioma and the other as a primary syphilitic sore. The outline of the epithelioma, though approaching somewhat to an oval, was irregular; its edges were rounded and callous, and at one or two points were continuous, with white lines of cicatrix extending a short distance into the mucous membrane. This character is noticeable, as it shows that the processes going on in the tissues had been a long time at work. The surface of the ulcer had a very indolent, half-dried appearance, with no attempt at granulation. Contrasted with these, the syphilitic sore was rounded and of a regular outline, the edges somewhat raised, but evidently the result of a recent deposit, and the ulcerated surface, though not distinctly granulating at first, had a somewhat florid tint, which became brighter as soon as the mercury began to affect the gums. The history in each case only confirmed the inferences drawn from these appearances. Case 3, though from the first of a somewhat doubtful nature, was scarcely one in which any serious error of diagnosis could occur. In the first place, the age of the patient was such that it was extremely unlikely that aneurism would be found. Then, 2nd, he was of an age and of a class of patients in whom strumous abscesses are very common; and 3rd, the progress of the case confirmed the opinion of its belonging to the latter and not to the former disease. Nevertheless, it presented such a remarkable resemblance to a case of subclavian aneurism at first, that if the same series of symptoms had occurred in an elderly person, and under different circumstances, it would have been a case in which the diagnosis must have been very different. A somewhat similar case has been recently under Mr. Watson's care of an enlarged lymphatic gland in the axilla simulating axillary aneurism.

Case 1.—*A Case of Epithelioma of the Lip—Removal by the Knife.*

H. R., aged 57 years, a chaff-cutter, has had very good health up to the time of admission, on November 4, 1864. He is pallid and of spare habit, but has no appearance of cachexia. Seven years ago he was scalded on the lower lip by some hot wax, and since then he has had a sore which has lately rather increased in size. It is situated near the right angle of the mouth on the lower lip, is about the size of half-a-crown, has raised edges, an ash-grey ungranulating surface, and is surrounded by a slight amount of induration. Beneath the jaw of the same side is an enlarged lymphatic gland. He has been a smoker of tobacco, and has generally smoked a short clay pipe.

November 5.—Mr. Watson, considering the sore to be of the character of epithelioma, removed it by a V-shaped incision, and brought the edges of the wound together by means of hare-lip pins.

21st.—The lower part of the wound has healed, but the upper part is still granulating.

30th.—The wound has entirely healed, leaving a scarcely perceptible scar. The slight enlargement of one of the lymphatic glands remains.

Case 2.—*Chancre on the Lip.*

V. F., aged 19, an unmarried woman, came to the Hospital on October 10, 1864, with a sore on the lower lip, having an indurated base and associated with enlarged glands under the jaw. She was also suffering from œdema of the labia majora, and a discharge probably of a leucorrhœal nature. The appearance of the sore was from the first suspicious, and in the course of a week or ten days an eruption of a scaly character, and having a slight brownish tint, made its appearance.

Mr. Watson now put her under a course of mercurial fumigations, and subsequently prescribed mercurial ointment for inunction.

October 31.—The gums are slightly spongy, but not tender. The hardness around the base of the sore on the lip has disappeared, and the eruption is fading. The mercurial fumigation to be continued.

November 7.—The eruption has faded and the sore healed, leaving a slight hardness.

14th.—There are slight remains of an ulcer on the right tonsil, but in all other respects she has quite recovered.

Case 3.—*Pulsating Swelling below the Right Clavicle simulating Aneurism, but terminating in Abscess.*

H. F., aged 17 years, a tolerably healthy lad, who works as a shoemaker at the Refuge in Great Queen-street. He first noticed a swelling in the right sub-clavicular region on March 26, 1864, and can recollect no injury to account for it. He has never had any swellings in the neck or other parts of the body.

March 30.—*Present Condition.*—Occupying the middle of the subclavicular region, on the right side, is a swelling slightly raised above the surface, in which there is distinct pulsation synchronous with the heart's action. It is tender on pressure, and has a faint purplish tint on the surface. He suffers a good deal of pain at night from it. The pulsation of the axillary and radial arteries are not interfered with. With stethoscope a single whirring bruit is heard over the swelling.

April 1.—The pulsation has almost disappeared, and can only be felt when firm pressure is made on to the artery.

There is more pain, and the redness of the skin has extended. He was now admitted into the Hospital, and after a week or ten days an abscess was evidently pointing, and was opened by the House-Surgeon. The cavity very soon closed satisfactorily, and he left the Hospital very much improved in health.

Case 4.—Foreign Body in the Cheek—Attempted Removal by Operation—Subsequent Formation of Sinus and Removal.

W. H., aged 13 years, applied to the Hospital in the early part of the year 1864 with a sinus in the right cheek, immediately in front of the masseter and at about the level of the molar teeth. He had been playing with another boy some weeks previously, and had been stabbed in the cheek by his playmate with a wooden sword or lath. He thought that a piece of wood remained in the wound. Mr. Watson, on probing the wound, thought he could feel a foreign body, and therefore recommended that chloroform should be given in order to facilitate its removal. This was accordingly done, the wound enlarged, and search made with forceps; but, though the object was seized on one occasion, it was found impossible to withdraw it, and the operation was therefore desisted from. It then appeared to Mr. Watson, and to Mr. Henry Smith, who saw the patient at the same time, that it was possible the bone had become necrosed, and the sinus was kept open by this cause.

In the course of months a second exploratory operation was performed, but with no better success; and on December 7, 1864, nine months after the injury (a sinus having made its appearance at the posterior border of the jaw opposite its angle), a hard body was found presenting itself at this new opening. Mr. Watson seized it with forceps and easily removed it. This turned out to be the pointed edge of the wooden sword, which had worked its way beneath the masseter, and had at length formed for itself a means of exit. The difficulty of removing it was at once seen on inspecting the piece of wood, the end of it nearest the original wound being broad and jagged, and the other end being cut to a sharp point. The sinuses rapidly healed, and the boy has had no further trouble.

COMPLETE OCCLUSION OF THE VAGINA IN A PATIENT AGED 21—RETENTION OF MENSES FOR NINE MONTHS — OPERATION — SPEEDY RECOVERY.

(Under the care of Mr. JOHN WOOD.)

This case is possessed of some interest as illustrating that the ill consequences sometimes ensuing from the puncturing of a tumour containing retained menses may be obviated by taking the precaution of syringing the cavity after the operation with some antiseptic fluid, and keeping it thoroughly clean.

Agnes H., aged 21, an anæmic-looking girl, was admitted, under Mr. Wood's care, into King's College Hospital March 10, 1865. She had not had any symptoms of the menstrual period until about nine months before she applied for relief.

On admission, there was a large tumour in the vagina, covered in by a tough villous membrane, which completely occluded its orifice. By passing the finger into the rectum, and a sound into the bladder, the tumour was found to occupy the space between the two, extending backward as as far as the uterus, which was enlarged. Fluctuation was distinctly perceived. Chloroform having been administered, an exploratory puncture was made with a fine trocar, revealing the menstrual nature of the contents. The contents were evacuated by puncture with an abdominal trocar and canula, and about a quart of dark grumous fluid, having a slightly offensive odour, escaped. The opening made by the trocar was then enlarged with a pair of curved scissors, an elliptical piece being entirely removed, and the mucous membrane stitched to the skin with silver-wire sutures. The cavity was then thoroughly syringed out with a solution of Condy's fluid, and a double-action catheter introduced into the uterus (which had become greatly distended by the pressure of the fluid), and this was syringed out in like manner. A large piece of false membrane (something like a deciduous membrane) came away from the inner surface of the uterus which, when examined with the microscope, appeared in be inspissated mucus and epithelium. This syringing was repeated for several days, and another large piece of false membrane came away, being the fellow piece to the former, the two fragments formed a complete cast of the inner surface of the uterus.

She left the Hospital, April 22, completely cured and much improved in health, having had no bad symptoms.

THREE CASES OF REMOVAL OF A LOOSE CARTILAGE FROM THE KNEE-JOINT.

It is still an open question which operation should be adopted for the removal of loose cartilages from joints: the direct, in which the body is extracted at once through an incision made directly into the joint; or the indirect, in which the synovial membrane is divided subcutaneously, and the cartilage is forced out of the joint into the surrounding cellular tissue, where it is allowed to remain, either to undergo absorption, or to be subsequently removed by a fresh incision through the skin, when it is supposed that the wound in the synovial membrane has healed.

The following statistics referred to in Holmes's "System of Surgery" (vol. iii., p. 739) show that both operations are attended in many instances with very unsatisfactory, often very serious, results. Of 131 direct operations, 98 were successful, 5 were doubtful, and 28 ended fatally; while of 39 indirect operations, 19 were successful, 15 failed, that is, the cartilage could not be extracted, and 5 were fatal. From these figures it would appear that the direct method is followed by death in more than 20 per cent. of the cases in which it is employed, while the indirect, although attended with a much lower mortality than the direct, can claim but little superiority, since only 19 cases out of a total of 39 were successful. It may be thought that the numbers here given place the indirect method in too unfavourable a light; it is, however, certain that the operation is in many cases a difficult and troublesome one, and that it occasionally fails in the hands of the most skilful Surgeons. Indeed, it is sometimes impracticable, from the want of sufficient depth of cellular tissue outside the joint in which to lodge a cartilage of large size; granting the body can be displaced into the subcutaneous tissue, it will under these circumstances be impossible to leave it there, on account of the disturbance it would produce; hence an operation commenced as the indirect is not infrequently, of necessity, converted into the direct.

It would, of course, be improper to conclude that the direct is the better proceeding from the evidence afforded by the following cases. They were, however, so entirely successful that they must be allowed some weight; at least, they are important as showing under what circumstances a favourable result may be expected after the operation.

It will be noticed that the patients were confined to bed before anything was done, in order that all tendency to inflammatory disturbance, so commonly present in these cases, might subside. Precautions were taken at the time of the operation to protect the joint from the entrance of air; the wound was closed carefully; and subsequently a splint was employed for maintaining the joint in a state of perfect quiet till the opening into its capsule had completely healed.

The case for which we are indebted to the kindness of Mr. Holmes is particularly valuable, affording as it does an example of how difficult, or even impossible, it may be to make use of the subcutaneous method of operating where the cartilage is of large size. It goes, also, with Mr. Coote's case in showing how little disturbance, either constitutional or local, may result from a large wound made directly into the knee-joint, provided sufficient care is taken in the management of the patient before and after the operation, and at the time of its performance. This is indeed strictly in harmony with clinical experience, which teaches that the mischief which follows a wound of a joint is, in the majority of cases, regulated to a great extent by collateral circumstances, such as the previous condition of the joint, the management of the wound, and above all the admission or non-admission of air into the articulation.

The operation for radical cure in these cases should not generally be undertaken until palliative treatment has failed after a fair trial. In many instances a well-adjusted knee-cap will keep the cartilage fixed so that no inconvenience is felt from it; and Mr. Wormald has relieved patients of all symptoms by fixing the body by the side of the "ligamentum patellæ," and retaining it there by a shield of gutta-percha carefully moulded to its shape and kept constantly applied.

ST. BARTHOLOMEW'S HOSPITAL.

1. *Loose Cartilage Removed from the Knee-Joint by Direct Incision—Recovery.*

(Under the care of Mr. COOTE.)

J. M., aged 15, became an in-patient on February 14. His mother stated that four months previously he had fallen down and bruised the right knee. This accident was immediately followed by a sharp attack of inflammation, and the boy had

since frequently complained of pain coming on suddenly as he was walking, or if he attempted to run. The joint was often swollen and tender, especially at night, if he had taken during the day any unusual exercise. On examining the articulation, Mr. Coote at once felt a loose cartilage, apparently of large size, lying on the outer side of the ligamentum patellæ. The boy was ordered to be kept in bed, and at the end of a week Mr. Coote, having first fixed the cartilage by two needles passed down upon it, removed it through an incision about an inch and a-half long. The wound was immediately closed with strapping and a compress, and all disturbance to the joint prevented by bandaging the limb to a back splint. No bad symptom occurred; no effusion into, or heat about, the joint took place; and the patient was discharged cured about five weeks after the operation.

2. *Loose Cartilage in the Knee-joint—Removal by Direct Incision—Recovery.*

(Under the care of Mr. SAVORY.)

D. M., aged 17, was admitted into the Hospital a few months ago suffering from the usual symptoms of loose cartilage in the knee, to which he had been subject for about two years. He was placed in bed, and a long splint was applied to the back of the limb. After the joint had been thus kept at rest for ten days, Mr. Savory extracted the cartilage by direct incision. Care was taken that no air entered the joint, and the edges of the wound were immediately adjusted with strapping and a bandage. No unpleasant symptom of any kind followed the operation. The use of the splint was continued till the wound was quite healed, and the lad left the Hospital in about three weeks. The cartilage was as big as a large almond.

Mr. Holmes has kindly furnished us with the notes of the following case, in which he operated about a year ago at St. George's Hospital:—

T. McP., aged 56, a labourer, had been conscious of the existence of a loose body in his knee for many years, but of late it had become much larger as he supposed, and led to frequent attacks of pain, followed by swelling of the joint, preventing him from following his employment. The loose body was easily found, and could be driven up into the pouch of synovial membrane, above and external to the patella. The operation was performed at this part of the joint on May 4, 1864. The incision was meant to be subcutaneous, and it was proposed to have driven the loose body out of the joint into the surrounding cellular tissue, but from its large size this was found impossible; so the puncture was enlarged, and the cartilage extracted. About a teaspoonful of synovial fluid escaped; the limb was carefully bandaged from the foot upwards, and kept on a splint. The man was discharged on June 4, with a laced bandage to support the knee. The cartilage was almost as large as the end of the first finger, and contained a great deal of earthy deposit.

Belfast Branch of the Royal Medical Benevolent Fund Society of Ireland.—The usual quarterly meeting of the Committee of this branch of the above society was held on the 3rd instant in No. 33, High-street, Dr. Patterson presiding, in the absence of the permanent President, Dr. T. H. Purdon. Amongst the other members present were—Dr. Browne, R.N., Dr. Cumming, Dr. Moore, Dr. Drennan, and Dr. Stewart, Hon. Sec. This being the period of the year for applications to be sent in for grants at the ensuing annual distribution of funds by the parent Society, a larger number than usual was submitted for consideration, which occupied the attention of the meeting for some time in carefully weighing the merits of each party. Ultimately, all were disposed of to the best of the Committee's judgment, the greater number being recommended for assistance. The Committee having discussed the best means of adding to the list of subscribers by inducing members of the Profession not yet on the roll thereof, as well in Belfast as in the country districts, to join it, the Chairman, with Dr. Browne, the local treasurer, was requested to call upon the members generally in town; and Dr. Moore having kindly volunteered to visit several of the neighbouring towns—viz., Holywood, Bangor, Banbridge, Carrickfergus, Ballymena, etc.—in furtherance of the objects of the Society, he was appointed a deputation accordingly, on the part of the Committee, on this mission, and also Dr. Browne, to attend the annual meeting in Dublin next month. Some further routine business having been disposed of, the meeting separated.

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Medical Times and Gazette.

SATURDAY, MAY 20.

CEREBRO-SPINAL MENINGITIS.

The public have lately heard a great deal about the "Russian epidemic," and have been watching with anxiety the progress of the disease which has been making such ravages in the valley of the lower Vistula and in the neighbourhood of Dantzic. To Medical men, however, it was very soon apparent that this was no new disease, but one which had long been known to the Profession. It is an old acquaintance, which has suddenly made its appearance in a new locality,—an acquaintance who has often "cropped up" in the course of Medical history. From a communication which we publish in another column, it appears to have flourished at Sunderland in 1830. M. Boudin, and other French military Surgeons, met with it abundantly nearly twenty years ago, and recognised its alliance with typhus.(a) An extensive epidemic of it prevailed at Montgomery, Alabama, U.S., in 1848, and there is now an eminent American Physician in London, who not only witnessed very many of the cases, but suffered the disease in his own person. Most of the American writers describe it as having prevailed extensively of late years. There are traces of it so early as 1816. We know an army Surgeon who met with it in the Mediterranean five or six years ago. But, at any rate, during the years 1862-1864, the cerebro-spinal meningitis, or "spotted fever,"—a petechial typhus with peculiar cerebro-spinal complications—has been very prevalent in America. Many cases have occurred in the civil as well as in the military and naval Hospitals; it has shown itself in many widely-scattered places over the vast area of the United States, and everywhere with the same fatality; it has been discussed at every Medical Society; it holds a prominent place in the American Professional literature of the last three years, and yet, strange to say, it has excited no apprehension in this country. But when an epidemic of a similar kind has appeared in Prussia all eyes are turned to the spot, although, when we consider the constant intercourse which is kept up between this country and the New World, there seems almost as much ground to fear lest an epidemic disease should be brought to our shores from America as from the Baltic.

We propose here to give, in a few bold touches, a rough outline of the "spotted fever," or cerebro-spinal meningitis, as it has occurred of late in America, to furnish our readers with a sketch of the symptoms and progress of the disease, to mention the principal morbid appearances which have been met with after death, and to indicate the treatment which has generally been adopted. We shall then, in conclusion, give a brief abstract of a few cases which we have gathered from

(a) *Arch. Generales de Méd.*, September and October, 1849. Quoted in Ranking's Abstract, vol. x.

American sources, and which may be taken as types of the disease. It will be seen that these cases occurred in persons of both sexes, of all ages, of various employments, under the most different conditions, and in places far distant from one another.

The disease is ushered in with rigors, pains in the limbs and joints, distressing nausea and vomiting, and there is almost always pain in the head. Sometimes this begins in the forehead, sometimes at the occiput or in the neck. It is generally extremely severe and persistent. From the head it gradually extends along the spine, and it is often associated with tetanic convulsions. The muscles of the back and jaws are affected with tonic spasms, and opisthotonos is sometimes very marked. Contractions and rigidity of the limbs, especially of the upper, are occasionally noticed. Delirium is generally an early symptom; sometimes active and violent, accompanied with great restlessness and agitation; at other times it is low and muttering. In most cases it is intermittent, and alternates with somnolence or stupor, the exacerbations growing less frequent, and the somnolence deepening into coma as the disease approaches its termination. The breathing is sighing and irregular. The pupils are commonly dilated, vision is indistinct, and the conjunctiva injected. There is rapid and extreme prostration. The face is pallid. The surface cold and shrunken. The pulse quick, feeble, and sometimes imperceptible. The tongue is generally covered with a whitish fur, though sometimes it is brown. The appetite may be natural or completely lost. This is not generally a marked symptom. As a rule the bowels are inactive. The urine presents no special modification, though in rare cases there is hæmaturia, and in others albuminuria. The eruption—which is not, however, a constant accompaniment of the disease—consists of spots which vary in size from that of a pin's head to that of a "ten cent piece." They are either rose coloured and slightly papular, or truly petechial. They never entirely disappear on pressure, and they remain after death. In fatal cases patients generally die comatose.

The mortality of this disease is said to be not much less than 50 or 60 per cent. Whether or not it is contagious is a question which is still undecided.

We now come to the morbid appearances. As might be expected from the symptoms, they are found in the membranes of the brain and spinal cord. In rapidly fatal cases, there is simply great engorgement of the sinuses and veins, with more or less effusion of serum into the arachnoid and ventricular spaces. But in more protracted cases indications of acute inflammatory action are found. There are plastic exudations (which sometimes become purulent) into the sub-arachnoid space and into the meshes of the *pia mater*. Purulent effusion has been noticed in the ventricles, and occasionally superficial softening of the brain substance. Similar changes are also found in the coverings of the cord where the case has shown spinal symptoms. The serous and synovial membranes throughout the body are often more or less inflamed. The blood is usually dark and fluid; the spleen enlarged and softened; and the lungs in a state of hypostatic congestion.

The treatment which has been adopted in cases of cerebro-spinal meningitis is of a supporting and stimulating kind. Antiphlogistic measures have been tried, and abandoned as worse than useless. The patients have been allowed beef-tea and milk *ad libitum*, with a moderate quantity of alcoholic stimulants. Frictions, sinapisms, and other means of counteracting the tendency to collapse have been constantly employed. Strychnia has been tried, but without apparent benefit. The drugs which have been found the most useful are quinine, the preparations of iron, and, above all, opium. Some speak highly of the advantage of profuse diaphoresis, while others have seen good results from the application of ice to the head and along the spine.

Case 1.—F. J. S., midshipman, at Newport, Rhode Island, aged 16, was placed on sick-list January 15, 1863, complaining of sore throat with slight headache. Later in the day the headache became more severe, with fever and delirium. There were jactitations and restlessness; tongue brownish. During the night these symptoms increased.

January 16.—An eruption has appeared on the legs and arms, in some places of the bright blush of erythema; in others there are livid spots, as large as a pea; there are also some dark-coloured pimples. Tongue brown and covered with sordes. Ordered, cold water to be applied to the head, stimulants, diaphoretics.

17th.—Patient drowsy; livid spots disappearing; no fever; tongue white in the middle and red at the tip and edges; three small pustules on the right leg.

18th.—The delirium continues, though he can be aroused to answer questions; spots fading; no excitement of pulse; complains of much pain in the joints; tongue covered with a thick brown fur and the teeth with sordes; tenderness in the right iliac fossa, with tympanitis. Ordered a blister to the back of the neck, ice to the head; Dover's powder, 10 grains, at bedtime.

19th.—Delirium continues; passes urine involuntarily; pulse 145; extreme tenderness of epigastric and iliac regions, with tympanitis; tongue brown and dry; face flushed; debility extreme. Ordered carbonate of ammonia, 4 grains every hour. The symptoms increased gradually. The pulse rose to 163 beats in a minute; and at 11.20 p.m. he expired.

No post-mortem examination.(b)

Case 2.—E. F., aged 19, a young woman living in Philadelphia, employed in "a manufactory of postage-currency notes," retired to bed in her usual health, at 11 p.m., February 19, 1863. Next morning, at 7 o'clock, she complained of headache, chilliness, and pains in her back and limbs. At 3 p.m. she was seen by Dr. Packard, and presented the symptoms of a severe cold. Ordered an anodyne febrifuge mixture, a hot foot-bath, and warm drinks. At 10 p.m. her pulse was 160, her tongue white and furred, and her throat sore, though presenting no abnormal appearance. Her hands and arms and her body were pungently hot, while her legs and feet were cold. She lay in a semi-stupor, unless when asked a question. Active stimulation and support were ordered, and counter-irritants applied externally.

All night she was unconscious, and when seen on the morning of the 21st she was evidently dying. Her pulse was gone, and the surface was growing cold. Dark, bluish-purple spots, of varying size, generally very small, were scattered over the face, arms, and body. The lower extremities were covered with irregular pale bluish patches and streaks, as if from bruises. At 11 a.m. she died.

At the post-mortem examination, made twenty-one hours after death, the only morbid appearances which were found were the following:—The pericardium contained about ʒi. of turbid serum; the peritoneal coat of the stomach and also of the small intestines was spotted here and there with purplish-blue maculæ; the mesenteric glands were much enlarged; Peyer's patches were thickened and decidedly injected; both kidneys were intensely congested. The brain and spinal cord were not examined.(c)

Case 3.—W. K. B., midshipman, aged 17, admitted on sick-list at Newport, Rhode Island, March 16, 1863. Feverish, delirious, and very restless. Small red spots on his face, wrists, and lower extremities. Ordered sulphate of quinine and strychnia in pills every four hours.

17th.—Delirious and in constant motion. Cold applied to head. Quinine omitted; strychnia continued.

18th.—Rather easier; pulse soft; tongue natural. Ordered a blister to the back of the neck. Other treatment continued.

19th.—Had a paroxysm of fever towards evening; delirium almost constant; coughs a good deal; expectorates bloody mucus; fauces inflamed; chest sounds normal; pain in right hypochondriac region; bowels not open. Ordered castor oil, f ʒij., and a blister to the right hypochondrium. Milk punch; Dover's powder, 8 grs., at bedtime. Continue the strychnia.

20th.—More comfortable; pulse softer and less frequent; tongue cleaner. Ordered Dover's powder, 5 grs., thrice a-day. Continue the other treatment.

On the 21st the strychnia was discontinued. The patient progressed favourably on a tonic and nutritious treatment

(b) Dr. Wales in the *American Journal of the Medical Sciences*, January, 1864, p. 27.

(c) Dr. Packard in the *American Journal of the Medical Sciences*, Oct., 1863, p. 403.

until the 27th, when he had an accession of fever with restlessness and opisthotonic convulsions.

On the 28th he was better, and the improvement was sustained until April 3, when he had two consecutive and long-continued paroxysms of convulsions, which left him very weak and insensible.

On the morning of the 4th he was tranquil and partly conscious; but at 6 p.m. he was seized with *black vomit*, which lasted until 8.30 p.m., when he expired.

No post-mortem examination.(d)

Case 4.—D., midshipman, aged 16, admitted into Hospital, at Newport, Rhode Island, March 29, 1863, was seized suddenly with headache, vertigo, and stupor; pulse thready; ecchymotic spots upon lower limbs. Ordered strychnia $\frac{1}{32}$ thrice daily; blister to neck; wine.

March 30.—Stupor and vertigo less; pulse improved; tongue moist; headache continuous; distressing nausea. Ordered brandy and beef-tea; strychnia as before.

31st.—Continues to improve; cephalic symptoms gone. Treatment continued.

April 1.—Partial opisthotonos occurred last evening. Strychnia suspended; pulse irregular and feeble.

2nd.—Opisthotonos relaxed during the night, but he was very restless until tranquillised by an opiate enema; slept until morning; when he awoke he spoke but once, "It hurts," and was turned over upon his back. Brandy and stimulants were freely used, but without avail. He expired at 9.10 a.m.

No post-mortem examination made.(e)

Case 5.—G., midshipman, aged 14, admitted on sick list at Newport, Rhode Island, April 8, 1863.

Last night was seized with sore throat, fever, and headache. This morning he has stupor, from which it is difficult to arouse him; headache; pulse almost imperceptible; death-like pallor; extreme debility; arms and legs dotted with minute ecchymoses; passed his urine and fæces involuntarily. Stimulants were ordered immediately; and sinapisms applied to the abdomen and extremities. No apparent improvement. In the evening, mixtures containing strychnia and quinine were prescribed. Friction with tinct. of camphor and chloroform to the spine and surface. Later in the evening, some signs of reaction; pulse perceptible; pallor less—even a tinge of redness on the cheeks; great jactitations. Frictions kept up.

April 9.—At 2 a.m. this morning, the patient became furiously delirious, and died at 7.48 a.m.(f).

Case 6.—D., aged 46, farmer, living in Sicking County, Ohio. Habits somewhat intemperate. Had been taken with a severe chill on November 27, 1863, succeeded by high fever and delirium. He had milder remittent chills, followed with free perspiration. Cathartics and diaphoretics administered.

November 30.—Expression calm; face flushed; skin moist; tongue moist and clean; intense thirst; mind rational; pulse 142. Complains of soreness throughout the whole body as if he had been beaten, with darting pains along the extremities. Sees spectra and wanders occasionally.

December 1.—No improvement; feels cold, and did not sleep. Ordered morphia, chlorate of potash, and ipecac.

2nd.—No better. Perspiration excessive during the night. Great thirst. There is great soreness amounting to tenderness over the limbs; and on the inside of the left knee, a little above the joint, a diffuse swelling has appeared, with a faint blush of red. There is a similar one just above the wrist joint of the right arm. The pain in these spots is extreme, and the slightest pressure cannot be borne. Bowels torpid. Ordered a cathartic of Rochelle salts, followed by morphia, quinine, and iodide of potass.

3rd.—Perspiration continues; pulse more feeble; is quicter and less disposed to talk; eats nothing. The swelling on each limb is extending.

4th.—Head drawn back; not quite rational; pulse almost imperceptible at the wrist; evidently sinking rapidly. The swellings gradually increasing. Died at 12 a.m.(g)

Case 7.—Leonard S., aged 9, living at Philadelphia, was seized with stiffness in his lower jaw and in the muscles of the throat on the 11th of February, 1864. During the night he was restless, continually throwing off the bed-clothes.

12th.—In the morning his speech was thick, mumbling his words as if his tongue or throat was swollen. During the morning he complained of being cold, and had a severe chill, his skin assuming a purplish hue. In the afternoon he became very sick, and began to vomit, his skin retaining its bluish and collapsed appearance. Complained of violent pain across the forehead, with extreme restlessness and apparent suffering. Sinapisms were applied to the surface, and cordials administered.

During the night he continued restless, vomited frequently, cried out with pains in his head, and, when touched or moved, complained of extreme muscular soreness.

13th.—Had convulsions, and was unconscious; his body covered with an eruption like purpura; muscles at the back of the neck retracted, and his head thrown backwards; pupils dilated, and insensible to light; pulse slow, but scarcely perceptible, surface below its natural temperature; lips and hands congested, and of a dark purplish colour. Scattered over the face, body, and extremities, were numerous spots, resembling petechiæ of a dull red colour, not elevated nor affected by pressure. The boy was restless, in constant motion, with considerable jactitation of the muscles, and making frequent spasmodic efforts to vomit. Ordered dry cups to the nucha and spine, mustard to the lower extremities, and a turpentine enema. Subsequently, he passed into another severe and protracted spasm, and died at 5 p.m., after an illness of forty-eight hours.

Post-mortem Examination.—Head: On cutting through the scalp, the blood flowed away more freely than usual, and was found abnormally fluid within the veins. The vessels of the dura mater were distinctly congested with fluid blood—a yellow effusion existed in the sub-arachnoid space; it proved to be of a serous character, and to exist in the spinal canal also. The substance of the brain was firm, but slightly congested. In the lateral ventricles there was a somewhat abundant reddish serum, and on cutting into any part of the brain substance, the gap was soon filled up with serum exuding from the cut surfaces; about two fluid ounces of serum were found in the pericardium; the mesenteric glands were enlarged and congested; some purpura spots existed here and there on the mesentery; the mucous membrane of the stomach was very deeply congested at the central part of the organ; Peyer's patches were normal; the kidneys were much congested.(h)

Case 8.—H. S., aged 3, residing in Philadelphia, had been quite well until the night of March 15, 1864, when he complained of severe headache, with nausea and vomited freely.

At 4 p.m. next day the pulse was 146, and the surface pale; there was also slight injection of the conjunctiva, and severe pain in the calf of the left leg. Ordered flying sinapisms to the surface, a turpentine enema, and five drops of ol. terebinth. every hour.

17th.—There were several vibices about the knees, and numerous petechiæ on the left side of the face and a few on the leg; the tongue moist and creamy; slight strabismus; the head retracted; great soreness of the muscles; pulse 120; skin warmer; pupils not affected. Ordered grain doses of quinine every hour with brandy.

18th.—Very restless; grinds his teeth; head strongly retracted; muscles of the neck rigid.

19th.—Spots fading; eyes much injected; pulse 120, stronger. The quinine, brandy, and turpentine continued; had also one-eighth of a grain of morphia at bed time.

20th.—Pulse 84, but very weak, the brandy being omitted. Resume brandy.

28th.—Pulse 96; no retraction of head; spots nearly gone. From this time convalescence could be dated, and though there were one or two partial relapses, the little patient recovered entirely.(i)

Case 9.—Private J. M., 90th Pennsylvania Volunteers, residing in Washington, aged 40, and of sound constitution. On the morning of July 28, 1864, he arose, dressed himself, and went out to the pump for a drink of fresh water, as was his daily practice, and then returned to the ward, apparently in his usual health. *About 6 o'clock* he was suddenly seized with a great pain in his back between the shoulder-blades. He said it felt as if a bar of hot iron was being pressed into his spine. He had no chill. A mustard plaster speedily relieved the pain. *At 7 o'clock* the paroxysm of burning pain

(d) Dr. Wales in the *American Journal of the Medical Sciences*, January, 1864, p. 29.
(e) *Ibid*, p. 30.
(f) *Ibid*, p. 31.
(g) Dr. Black in the *American Journal of Medical Sciences*, April, 1865, p. 347.
(h) Dr. Jewell in the *American Journal of the Medical Sciences*, July, 1864, p. 129.
(i) Dr. Levick in the *American Journal of the Medical Sciences*, July, 1864, p. 137.

returned, which was again relieved by a sinapism. He felt sick and tried to vomit. He declined food, and had no thirst. His strength appeared to be good. After it was over, he fell into a profuse perspiration and slept an hour. *About* 10 *o'clock* he was seized again with the same intense burning pain in the dorsal region. This paroxysm was much severer and more prolonged than the others. There were no convulsive movements. Cupping was ordered; and at 11 *o'clock*, on raising him up in bed for the cups to be applied, he had a fourth paroxysm. He fell over on the shoulder of an attendant, exclaiming, "Oh, such pain!" and immediately became unconscious as if in syncope. Face deathly pale; eyes fixed; muscles relaxed; pulse weak; respiration interrupted. The face and lips soon became livid; right pupil larger than left; radial pulse imperceptible. He then took three or four long, sighing inspirations, and died at 11.30 a.m., despite the application of ammonia to the nostrils and the use of Marshall Hall's method of artificial respiration. He did not exhibit petechiæ or any other spots.

Post-mortem Examination Six Hours after Death.—No rigor mortis. Upon removing the calvarium, about four ounces of blood and serum flowed out. The veins over the brain were congested with fluid blood. There was a moderate amount of sub-arachnoid effusion, and the ventricles contained about an ounce of serum. The spinal cord and its membranes appeared healthy and not congested. Thorax: The lungs were intensely congested; otherwise healthy. About eight ounces of serum in both pleuræ; the pericardium contained two ounces. Heart slightly hypertrophied; no insufficiency of the valves; but the mitral and tricuspid valves were thickened. Abdomen: All the abdominal viscera healthy, except the kidneys, which were in a state of acute congestion. The urine contained albumen. Blood was everywhere fluid and dark.(k)

List of References to Cases of Cerebro-Spinal Meningitis.

Dr. Packard,	*Am. Journal of Med. Sciences*,		October, 1863.
Dr. Wales,	,,	,,	January, 1864.
Dr. Jenks,	,,	,,	January, 1864.
Dr. Atler,	,,	,,	July, 1864 (10 cases).
Dr. Stillé,	,,	,,	July, 1864.
Dr. Levick,	,,	,,	July, 1864.
Dr. Gilbert,	,,	,,	July, 1864.
Dr. Edes,	,,	,,	July, 1864.
Dr. Liddell,	,,	,,	January, 1865.
Dr. Burns,	,,	,,	April, 1865 (11 cases).
Dr. Black,	,,	,,	April, 1865 (4 cases).
Dr. Woodward,	*American Medical Times*,		April 9, 1864.
Dr. Frothingham,	,,	,,	April 30, 1864.
Dr. Watson,	,,	,,	May 7, 1864 (3 cases).
Dr. Woodward,	,,	,,	May 14, 1864 (3 cases).
Dr. Lente,	,,	,,	July 9, 1864.

ROUGH NOTES ON SYPHILIS.—No. I.

The general impressions which we have formed, from personal observation, of the ordinary course of syphilitic disease are these:—

That there is an interval—a period of incubation—of from one to three or four weeks first of all; that this is followed by a lesion at the point of implantation of the virus; that a hardening process is *commonly*, although not *invariably*, set up at this part, and in the neighbouring glands, with generally, although not by any means necessarily, some disintegration of tissue, more or less ulcerative in character; that this induration is a twofold product—viz., of constitutional infection with some local changes—a perverted nutrition—induced by the retention of the virus in, and its action upon, the part. This comprehends the primary stage. Then follows another interval of four to eight weeks on the average (a kind of secondary incubation), during which the morbid principle appears to become multiplied; the lymphatic glands and system are being slowly affected, and then an exanthem occurs, with or without congestion of the throat, and sometimes catarrhal symptoms; that, just prior to the period of this outbreak, and contemporaneously with it, there is general malaise, often attended with a slight rise in the temperature in the evening. This is the secondary stage. Beyond this it becomes a question of a recurrence of the secondary manifestations in mild cases, and of the occurrence of other forms, or of tertiaries, in the severe.

From three or four years' continuous observation of the disease in the same subject, we have become more and more impressed with the cyclical character of the evolution of syphilitic manifestations. The so-called relapses belong to the nature of the disease, and our own observations here are strongly corroborative of those of M. Diday. In the mild forms the tendency is for the disease to disappear—wear itself out—in one, two, or three years, during which time there are occasional manifestations of the syphilitic phenomena, and then the patient's health—apparently—becomes re-established. This tendency to self-limitation we believe to be irrespective of treatment; but then we have been unable to test the *permanency* of the natural or artificial cures by a very prolonged observation of the patients, or by their marrying and begetting healthy offspring.

It follows from this description that we regard true syphilis as having a close connection and alliance with the contagious exanthemata. Constitutional syphilis depends upon an animal poison; it is contagious; one attack gives immunity from another, quite as much as one attack of small-pox or scarlatina is protective against a second. The evolution of the manifestations conform to the type of the contagious exanthemata group, in being characterised—by a period of incubation after exposure to contagion—a multiplication of the poison—a general outbreak or manifestation, frequently preceded by febrile commotion—a more or less definite course—the disease capable of being grouped into varieties, according to its degrees of intensity—the severity of the manifestations liable to be influenced by individual peculiarities—and the disease itself often inducing such modifications of nutrition, ill-health, and cachexia as to induce various morbid changes and actions, which are as much the offspring of a lowered health and depressed power as of the direct action of a virus, conforming to the sequelæ stage of the contagious exanthemata, in which the "dregs of a fever" poison, and the depression and debility engendered by its action, cause various kinds of morbid processes.(l)

The exact interval between the date of contagion and the first appearance of a lesion is most difficult to determine. There are so many disturbing causes—the false statements and erroneous impressions of the patients—the probability of multiple sources of infection from different exposures within short periods—the occasional commixture of the local with the true syphilitic ulcers, or the appearance of induration at late dates in any kind of lesion;—these are disturbing causes which offer almost insuperable difficulties. If we assume the earliest manifestation of induration in the chancre or glands as the epoch at which the true character of any given sore becomes stamped upon it, then, we must undoubtedly hold that Ricord's dogma as to the appearance of the chancre within a *few days after contagion* is erroneous, for the interval between exposure to contagion and the manifestation of induration is occasionally very long, and it is, we believe, invariably much longer than Ricord states. Even where the exact source and date of contagion is pretty positive, it is not by any means improbable that some local lesion—excoriation or ulceration—may have been contracted, which was not the product of the syphilitic virus *per se*, although such virus may have subsequently manifested itself at that seat. If a man inoculates the most trivial crack or abrasion with the acrid, purulent, or catamenial discharges of a prostitute, he may contract an inflamed ulcer, which shall have healed up perhaps, before any sign of a syphilitic infection be manifested. A great many trifling ulcers, inflamed erosions, and pus-discharging sores, present themselves in actual practice which do not conform to the descriptions given of the characters of the soft or hard sore,

(k) Dr. Liddell in the *American Journal of the Medical Sciences*, January, 1863, p. 21.

(l) These rough notes were written many months ago, and we scarcely need call the reader's attention to the similarity between these views and those entertained by Mr. Hutchinson. We are disposed to give more prominence to the action and effects of a syphilitic virus in the "tertiaries" than he has done.

and which seem to us to be simple venereal ulcers—the product of illicit intercourse certainly, but not at all necessarily the result of a specific poison, any more than a purulent urethritis is the result always of a direct gonorrhous contagion. The genital organs are liable to various diseases and local lesions just as other parts are, and promiscuous intercourse exposes these organs to such accidents. Many of these minor venereal affections cannot be exactly classified: you cannot tell what they are, or how they have arisen. One thing is quite certain, that, although very many are local affections merely, you cannot *tell what any one of them may become*, nor how often the syphilitic poison obtains an entrance through such portals, to manifest its action there, on the inguinal glands or system of the patient afterwards. These trifling lesions may be innocent enough in their nature, or fraught with bad consequences to the patient's subsequent health. What we desire to say, however, is this—that an explanation may be found, in these occurrences, of the appearance of local lesions without any of those intervals mentioned by authors; the syphilitic disease being engrafted on a simple lesion, and manifesting itself at a later date. Many cases of true chancre present themselves in practice in which one fails to trace the long intervals laid down by authors.

THE WEEK.

THE UNION CHARGEABILITY BILL.

The debates in Parliament on the proposed alteration in the area of rating for the support of the poor have been largely charged with references to Medical authorities and appeals to Medical science. The principle of the new Bill is, as the *Times* succinctly describes it, to make the area of rating the same as the area of management. The anomaly of relief administered according to one fixed standard in an aggregate of parishes called a Union, the whole extent of which is equally dependent for manual labour on the relieved class, whilst the necessary funds are provided in a different proportion by each parish in that Union, is so great that we can only wonder that reform has been postponed so long. The evils that the system has led to, need not the evidence of Dr. Hunter's or Mr. Simon's report to prove their reality. It is clear that, according to the parochial system of rating, labourers working but not living in a parish exact from the parishioners no poor's-rates for their support, whilst the contrary is true of labourers who live in another parish whether they work there or not. It must follow that ratepayers will naturally endeavour to obtain the former state of things and to avoid the latter. Thus it is in many parishes cottages are quietly got rid of. When they fall down they are not rebuilt, and any excuse that presents itself for demolishing a labourer's cottage is welcomed. The results, as the Profession well know, are overcrowding, the aggregation and consequent deterioration of the population in towns, immorality, and epidemic disease. Papers before Parliament state that, whilst the number of inmates per house has decreased throughout England, there are 800 parishes in which the people have increased, whilst their dwellings have become fewer. A system by which, in the same Union, one parish may be rated at ¼d. in the pound whilst the neighbouring parish is rated at 5s. 9¼d. must necessarily produce such effects. Mr. Simon's and Dr. Hunter's figures, we see, are called in question by Mr. Henley. We have no doubt that Mr. Simon will be able to give that gentleman a most satisfactory reply, and we are therefore content to leave the defence of their report to its authors. But we may say that facts which thoroughly confirm its main conclusions have come to our knowledge from various sources, and we have not the least doubt that it is substantially true. The pertinacity with which the progress of the Bill has been opposed is not to be wondered at. People who have hitherto supported their labourers at the expense of their neighbours find the arrangement inexpensive and agreeable, and are not anxious to change it. We believe that the new measure, by equalising the poor's-rates over considerable areas, would remove from the ratepayers of each smaller area all selfish inducements to restrict the number of the poor who live on it, would stem the tide of population which has long set into the towns, would, by equalising and scattering the labouring class, promote their well-being and diminish the force and frequency of epidemic visitations, and would, by the better health of the poor so obtained, diminish the aggregate of poor's-rates throughout the land.

THE ST. GILES'S WORKHOUSE INQUIRY—THE CASE OF GIBSON.

The following is the most important portion of the letter from the Poor-law Board to the Guardians of the St. Giles's Union on Mr. Farnell's report in reference to the case of Richard Gibson:—

"The Board have very carefully considered the depositions of the several witnesses who gave evidence at the investigation, and they consider that it has been clearly established that the deceased was left in a disgraceful state of neglect as regards his personal cleanliness for some time before his death. It appears that in addition to being neglected in this respect, he was kept in a ward intended for convalescents, which is not provided with the conveniences necessary for bed-ridden patients; and it is further to be inferred that he was not supplied with suitable and sufficient nourishment and stimulants.

"For the neglect of the deceased's personal condition, the Board consider that the paid nurse, Mrs. Elson, who is responsible for the conduct of the pauper nurses acting under her directions, is principally to blame, and that Dr. Craig, being responsible for the Medical treatment of the deceased, is properly chargeable with the neglect to obtain for him the stimulants and extra diet which his state rendered necessary.

"The Board find that it is alleged in extenuation of the neglect of duty on the part both of Dr. Craig and Mrs. Elson, that no complaint was made to them or the master of the workhouse, either by the deceased himself or by any other inmate on his behalf. It also appears that Dr. Craig, a week before the death of Richard Gibson, was himself suffering under premonitory symptoms of typhus fever, by which he was laid up two or three days after Gibson's death.

"Dr. Craig alleges that he visits every patient daily; that he went to the bed of Richard Gibson every day, but did not speak to or examine him so often; that he examined his leg once a week, and ordered dressings for it, but did not see that the dressings were applied. Dr. Craig further states that he thinks that the diet allowed to the deceased was sufficient, but it appears that he was not allowed meat every day until about a fortnight, nor any beer until four days, before his death; and that no food was supplied to him between four in the afternoon and eight o'clock the following morning. The Board have not failed to observe that in the evidence given before the coroner by Mr. Beale, who made the post-mortem examination of the deceased, he states that 'the cause of his death was independent of the filth on his body;' and that death was owing to 'the effusion of serum on the brain.' It appears, moreover, that the ulcer on his leg, for which the deceased had been principally under Medical treatment, was better, and had been reduced to a small size.

"Although the Board think that in justice to the Medical officer and the nurse this statement of Mr. Beale should be borne in mind, they still are of opinion that Dr. Craig, by failing to ascertain the personal condition of the deceased, and neglecting to order for him such articles of nourishment as he required; and that Mrs. Elson, by omitting to insure proper attention to his personal comforts and cleanliness, have so gravely neglected their duties that the Board would not be justified in permitting either of them to continue in the offices which they at present hold. The Board, therefore, request that the directors will communicate this decision to Dr. Craig and Mrs. Elson, and require them at once to resign their respective offices as Assistant-Medical Officer and nurse at the workhouse.

"On perusing the deposition of Mr. Rankley, the master of the workhouse, the Board observe that he states as follows:—'The infirmary has always been considered to be under the special care of the Medical officer of the workhouse and the

nurses.' The Board consider it necessary that it should be distinctly pointed out to Mr. Rankley that, as the chief officer of the workhouse, the infirmary, as well as all other parts of the establishment, are under his general superintendence, and that he is responsible for the good management of the sick wards equally with the other portions of the workhouse.

"The Board, therefore, cannot absolve him from blame for the neglect which has occurred in this case, and will in future hold him strictly responsible for the state and management of the infirmary.

"I am, Sir, your obedient servant,

"ENFIELD, Secretary.

"To Mr. T. D. Robinson, Vestry Clerk,
Broad-street, St. Giles, W.C."

PARLIAMENTARY. — THE FULHAM GAS WORKS — THE UNION CHARGEABILITY BILL—CATTLE DISEASES—SEWAGE UTILISATION.

On Thursday, May 11, in the House of Lords, the Bishop of London called attention to the proposed additions to the Imperial Gas Company's works in the neighbourhood of Fulham and Chelsea. The extension of these works was likely to prove seriously detrimental to the health of the neighbourhood, and, therefore, to the value of all the property within reach of the unhealthy influences which the extension of the gas works would entail. He trusted that their Lordships would not allow this Bill to pass, and hoped if it had passed through committee a motion would be made to throw out the Bill on the third reading, and thus prevent a great public evil from being inflicted on the metropolis.

After a few words from Lord Ravensworth to a similar effect, the subject was dropped.

In the House of Commons,

On the order for going into Committee on the Union Chargeability Bill,

Mr. Bentinck moved that it be an instruction to the Committee, "with a view to rendering the working of the system of Union chargeability more just and equal, to facilitate in certain cases the alteration of the limits of existing Unions." He argued that the Bill would inflict great injustice, by transferring a great burden from the towns to the country districts. He called on the House not to sanction a measure based on such a principle.

Mr. Packe seconded the motion.

After a debate in which the principles of the measure rather than Mr. Bentinck's motion were discussed, the House divided. The numbers were:—

For the motion	118
Against	193
Majority against the motion . .	—75

On the question that the Speaker leave the chair, the debate was continued by Mr. Thompson moving that the Bill be referred to a Select Committee. This was seconded by Mr. Ferrand. The discussion of this motion was finally adjourned by Sir G. Grey until Monday.

In the House of Commons on Monday,

Sir J. C. Jervoise asked the Vice-President of the Committee of Council on Education whether Her Majesty's Government intended to institute any measure with a view to obviate the loss, inconvenience, and alarm attendant on conclusions, unsupported by demonstration, as to the so-called dangerous communicable disorders in man and beast.

Mr. Bruce said that as the Government did not admit the accuracy of the statements in question, nor that the conclusions contained in the report were unsupported by evidence, but, on the contrary, were based on the most ample evidence, they were not prepared to institute any such measure as the hon. baronet had indicated.

The adjourned debate on the Union Chargeability Bill was resumed by

Mr. Henley, who recapitulated all the circumstances connected with the introduction of the Bill, and complained that the report of Mr. Simon and Dr. Hunter, on which it was founded, was published at such a time that the House had no opportunity of considering it, though it was used by the newspapers as the subject of "sensation" articles, which excited a prejudice against the proprietors of the land. The report itself read as if it had been "done to order," and he thought some of the assertions it contained were both painful and monstrous. He cited a mass of statistics to show the condition of the midland counties, and to prove that the statements of the report were unfounded, and the descriptions of the destruction of cottages exaggerated. The House had no certain information on the subject, and such assertions as those in the report demanded further inquiry; he, therefore, cordially supported the amendment referring the bill to a Select Committee.

Mr. Bruce reminded the House the object the bill was intended to effect had been advocated by the best writers of the last half-century, and it could not be denied that the demolition of cottages had been going on for thirty or forty years. He could not follow Mr. Henley through the statistics he had quoted, but he contended that if the report had never been made the measure would not the less have been necessary.

After a number of speakers had been heard, Mr. C. Villiers said the Bill had been introduced on the recommendation of the Committee which sat for three years to inquire into the general administration of the Poor-law. The original promoters of the reform of the old Poor-law always believed that the substitution of the union for the parish rating was essential to the success of the new system. On these grounds the Bill had been introduced. The demand for inquiry was only made as a means of delaying the measure. But this course would not be approved by the farmers, who were distinctly in favour of the Bill. They did not consider the law of parochial settlement an advantage to them. The report that had been so much condemned he believed to be a valuable document. But the Bill was not founded on it. He had never seen the report till after the Bill was brought in, but he had received many assurances that the statements of Dr. Hunter were quite accurate. He read several communications confirming those statements as to the evils caused by insufficient cottage accommodation. He described how much had already been done in the same direction as the change now proposed. He trusted the House would accept the measure, and concluded by asking Mr. Thompson to withdraw his amendment.

Mr. Thompson, as the dissolution had been announced for the second week in July, and to refer the Bill to a Select Committee would therefore be useless, hoped the House would permit him to withdraw his amendment.

The House, however, insisted on dividing, when the following numbers appeared:—

Ayes	266
Noes	93
Majority against the amendment .	—173

In the House of Lords on Tuesday,

Lord Ravensworth moved the second reading of the Sewage Utilisation Bill, briefly explaining its chief provisions and the powers sought to be granted by it. The Bill was entirely permissive in character, merely enabling the local authorities of towns and parishes to take such steps as they might deem expedient for distributing over their land the sewage of their respective districts, which had hitherto found its way into and poisoned streams and watercourses.

The Bill was read a second time.

FROM ABROAD.—THE OPHTHALMOSCOPE IN THE DIAGNOSIS OF HYDROCEPHALUS—MORTALITY OF FRENCH TROOPS IN ROME—PRODUCTION OF SEX—WET-NURSING IN FRANCE.

M. BOUCHUT has recently read a paper at the Academy of Sciences in which he gives an account of the application of the ophthalmoscope to the diagnosis of chronic hydrocephalus in young children. How difficult this often is prior to the head having attained a size capable of removing all doubts, is familiar to all; while even enlargement of the head itself may arise from another affection accompanied with convulsions, and often confounded with commencing hydrocephalus,—viz., rickets confined to the cranium. Cephalic auscultation having proved insufficient for diagnosis, M. Bouchut resolved to have recourse to the ophthalmoscope, as in chronic hydrocephalus the circulation and nutrition of the eye undergo notable modifications in consequence of the compression produced by the presence of fluid. In proportion as the fluid increases in quantity, the following changes are observable:—1, greater vascularity of the papilla and retina, together with dilatation of the veins, which retain their habitual colour; 2, an increase in the number of the veins of the retina; 3, partial or complete serous infiltration of the papilla; 4, atrophy of the retina and its vessels; 5, more or less considerable, and sometimes complete, atrophy of the optic nerve. These lesions vary with the

duration of the disease and the amount of effusion, and are the consequence either of compression of the sinuses preventing the blood returning into the cavernous sinus, giving rise to the œdema of the retina, or of compression of the optic nerves within the cranium. These lesions, with the exception of œdema of the papilla, do not prevent the child from distinguishing objects. The most important fact, however, is that these changes are not observable in rickets. In 22 children, from 3 to 5 years of age, examined by M. Bouchat, and in whom little deformity of the body existed, while there was increased size of the head with persistence of the anterior fontenelle (some of them having suffered from convulsions, and others not having exhibited any symptom referable to disorder of the nervous system), no change in the papilla, or disorder of the venous circulation of the retina, could be detected.

The French Emperor may draw an additional argument for the removal of his troops from Rome from the fact that the climate is ill suited for them. From the Statistical Report on the French Army for 1863, just published, it appears that, while the mortality is only 9·22 per 1000 for the troops stationed in France and 12·29 in Algeria, it rises to the high figure of 17·92 in the Roman States. The general mean mortality is 10 per 1000. The deaths from disease are 8·30 per 1000 in France, 10·99 in Algeria, and 16·98 in Italy, the general mean being 9·03. The general mean of deaths from accident is 0·52, and from suicide 0·45 per 1000. Passing the various important affections in review, as typhoid and pernicious fevers, pneumonia, phthisis, dysentery, etc., the Roman States maintain their unfortunate predominance, the mortality being from twice to five times as great as in France and Algeria. In typhoid fever the deaths rose to 54 per cent., and in pernicious fever to 67 per cent.!

M. Thury's ingenious hypothesis on the production of sex has been for some time before the world, and has, we believe, from practical men engaged in breeding, received some confirmation. According to the Genevese Professor, every ovum passes through two phases or degrees of maturation, and accordingly as fecundation takes place at the commencement or towards the termination of such period females or males are produced. M. Coste described to the Academy of Sciences some experiments he has made in the matter with regard to multiparous animals—viz., fowls and rabbits—and the results are in no wise confirmatory of the doctrine laid down by M. Thury, the sexes being sometimes intermingled and at others the reverse of what might have been anticipated.

There is certainly one circumstance in which they do *not* "manage these things better in France"—viz., the nursing of young infants. With ourselves the employment of wet nurses is almost a mere sign of fine-ladyism, except in cases in which the mother's health forbids her suckling; but in France the middle and shopkeeping classes make it a rule to divest themselves of the trouble, duty, and pleasure of bringing up their own infants, and consign them to hireling nurses living at a distance. Such infants are in some respects worse off than those brought up at the public expense, as the nurses to whom these latter are consigned are submitted to a system of vigilant inspection. M. Alexander Mayer, shocked by the evils of the system, and evidently seeing no hope of obtaining its radical abolition by inducing mothers to take upon themselves the duties they thus consign to ignorant peasants, proposes that a Society for the Protection of Infants should be organised, one of whose chief objects would be the formation of "maternal colonies" in the vicinity of large towns, in which suitable nurses, together with healthy cows, should be maintained under efficient supervision. Prizes are also to be given to nurses who best fulfil their duties. We need not more fully describe the project, which is painted in all the glowing colours in which most French projects are depicted, and promises so many advantages that it is doubtful whether one half of them could be realised. A far simpler plan would be the organising a plan of supervision of existing nurses through the agency of the provincial Practitioners who reside in their vicinity. Whatever we may think of the remedy, there can be no doubt of the magnitude of the evil, thousands upon thousands of new-born infants being sent from Paris and the large towns under the charge of ignorant and often designing women, the parents having no security for their good treatment or even their identity.

NOTES ON CONTINENTAL MEDICAL SCHOOLS.—BOLOGNA, PADUA, AND VENICE.

(From a Correspondent.)

The following are some rather desultory notes of a tour in the North of Italy, in which some of the most celebrated of her Medical Schools were visited. The gifted country which in the seventeenth century took the lead in the *renaissance* of anatomy and rational Medicine, as decidedly as in the two previous centuries she had in the revival of classical literature and art, has long been outstripped by her younger competitors, and almost entirely neglected by them. But, under the impulse of liberal and national institutions, great improvements are now taking place; and those of our Profession who may be travelling in Italy will not regret it should they pay at least a passing visit to the Universities and Hospitals. English Doctors are always sure of a kind and courteous reception.

The University of Bologna, the oldest in Italy, was crowded by students of civil law from all parts of Europe long before the Faculty of Medicine was founded in the fourteenth century; but it speedily acquired fame as a school of anatomy, and there dissection of the human body was first practised in the Middle Ages. Madonna Manzolina was one of the lady professors of Bologna, and lectured on anatomy; and the celebrated Malpighi was one of her successors. At present, the Medical faculty is the most flourishing, and to it more than half of the 700 students of the University belong. Professor Tommasini, who so much raised its character for clinical Medicine, is now removed to Pavia. The great Hospital was founded in the middle of the seventeenth century, and there is a smaller one appropriated to clinical cases. The anatomical lectures at the University are well attended, and illustrated from the very fine collection of wax models in the Natural History Museum. This is not so extensive as that at Florence, and none of the models are equal to some of the best at Guy's Hospital; but it is large and well arranged, and the pathological department is particularly good. The elegant attitudes, elaborate headdresses, and even necklaces, of some of the figures are, to an English eye, amusing enough. There is a very poor collection of wet preparations.

Ferrara, formerly the second town of the Romagna, is now one of the most deserted in Northern Italy. Celebrated for the brilliant court of the Este dynasty, and for the residence of Tasso and of Aristo, its Medical school never rivalled the neighbouring ones of Padua and Bologna. The Hospital now contains only 150 beds. It is, however, remarkably clean and well ventilated, and within its walls is the dungeon in which Tasso is said to have been ten years confined as a madman. In the University library is a series of anatomical drawings from dissections by Cavani, in the sixteenth century.

Padua, though still under Austrian rule, is a busy city, and its Medical school perhaps the most distinguished in Italy. Vesalius, Fallopius, Fabricius ab Aquapendent, Spigelius, Sanctorius, and Morgagni, all were Professors at Padua. The University is a noble building, and the broad stairways and open loggia are covered with the shields of students from all parts of Europe, who have studied there for more than three centuries, the illustrious Harvey among them. The great hall is a very fine room, and there the Senate hold their annual admission to degrees as in ancient times. A still more interesting place is the Anatomical Theatre, the oldest in Europe, built by Fabricius in 1594. This venerable building was altered during the present century to admit more light, but still retains its original form and the actual benches used in the sixteenth century. The seats rise very steeply in almost a complete circle around the professor's chair. In an adjoining room are preserved the chair of Fabricius, the skull of Signoroin, a former Professor of Surgery, and portraits of

most of the distinguished men of the University. The museum is not remarkable from a Medical point of view, but contains one of the finest collections of fossil fishes in the world, and also the astronomical instruments of Galileo, who was Professor at Padua for sixteen years. The Spidale Civile is a large building, containing 500 beds. There are smaller schools for Ophthalmic Surgery and Midwifery in other parts of the city, and a Foundling Hospital which dates from the end of the eleventh century, and is consequently the oldest in Europe. Professor Vauzetti is a great admirer of British Surgery, and has introduced Mr. Syme's amputation at the ankle with great success. When the writer visited the Hospital he was shown a case of fibrous tumour of the uterus, accompanied with great and continued hæmorrhage, in which the Professor had incised the neck of the uterus as recommended by Mr. Baker Brown, and the result was remarkably good. He has also performed ovariotomy more than once, but not yet successfully; as too often happens on the Continent, the operation is not undertaken until the case is almost hopeless. Excision of joints has also been introduced at Padua, and, as with us, has proved most valuable in the case of the elbow. Dr. Pinali is now trying hypodermic injection of quinine in cases of sciatica and facial neuralgia believed to depend on marsh poison, and generally with good effect. The internal arrangements of the Hospital, beds, and diet are good, and the ventilation much better than in the great Hospitals of Paris and Vienna. Professor Vauzetti's clinical lectures are especially admirable, and the students are numerous and zealous.

The Medical School of Venice has never attained great celebrity, but the great Civil Hospital there is well worthy of a visit. It occupies a magnificent building close to the great church of SS. John and Paul, which was formerly one of the "Scuola" which in ancient Venice were such useful and admirable benevolent institutions. The façade is a good specimen of the richest *renaissance* architecture. The entrance is through a noble columned hall, beyond which lies a great court with the wards around it. There are 1200 beds, with separate departments for the various Medical divisions, and also one for Jews. The wards have, many of them, most beautiful carved and painted ceilings. One, a magnificent hall, contains no less than 130 beds, with ample space between them, and the richly-carved wood ceiling is without any central supports. The chapel is also sumptuously adorned with marbles, and contains a very fine picture by Tintoretto. The students are principally those who have taken their degree at Padua. M. Asson, who belongs to the Hebrew community, M. Naunás, and Dr. Minich, are among the officers of the Hospital. The last-named gentleman especially, is particularly courteous to English visitors, and, like Professor Vauzetti, speaks French fluently. As in most of the Italian Hospitals, the cleanliness and abundance of light and air contrast very favourably with those of France and Germany. There is every indication that under the present wise and liberal Government Medical science will revive in Italy. One characteristic is remarkable in all the Hospital officers—a readiness to learn from all quarters, and what to an Englishman is very gratifying, a high appreciation of our own teaching and practice.

REVIEWS.

The Philosophy of Health; or, an Exposition of the Physiological and Sanitary Conditions conducive to Human Longevity and Happiness. By Southwood Smith, M.D. Eleventh Edition, Revised and Enlarged. London: Longmans. 1865. Pp. 396.

Dr. Southwood Smith was one of the pioneers of sanitary reform in this country, and his book was designed not to teach technical hygiene, but, by enlightening the popular mind respecting the structure and functions of the human body, to warn them as to their dealings with so delicate and intricate an organisation. The present edition, published under the direction of a grandson of the author, has undergone considerable improvement, and several chapters relating to the nervous system have been added.

The book is so well known that it is unnecessary for us to review it at length. We shall, however, make a short extract containing Dr. S. Smith's definition of health; and we do so because in these statistical days we are very apt to lose sight of its true nature while busying ourselves about its measure:—

"As long as the actions of the organic organs are sound—that is, as long as their processes are duly performed—the impression communicated to the sentient nerves is in its nature agreeable; is, in fact, *the pleasurable consciousness which constitutes the feeling of health.* The state of health is nothing but the result of the due performance of the organic organs."

Handbook of Dental Anatomy and Surgery, for the use of Students and Practitioners. By John Smith, M.D., F.R.C.S., Surgeon-Dentist to the Royal Infirmary, Edinburgh, etc. London: John Churchill and Sons. 1864. Pp. 136.

Concise and practical, we can recommend this little book to the students in Hospitals, and to young Practitioners who are making their earliest essays in dentistry. To such one of the most useful chapters is that upon extraction, and the use and appropriate selection of the forceps, key, or elevator. We warn them, however, against the final chapter, upon the use of anæsthetics. The less they are employed in dentistry the better; and when chloroform is administered we would say, "Do *not* administer it in the manner Dr. Smith advises you." If you give it at all, take your time over it.

Vital and Economical Statistics of the Hospitals, Infirmaries, etc., of England and Wales for the Year 1863. By Fleetwood Buckle, M.D., L.R.C.P., Lond., House Surgeon and Secretary of the West Norfolk and Lynn Hospital, etc. London: John Churchill and Sons. 1865. Pp. 78.

Dr. Buckle, in this pamphlet, gives us the statistics for one year of 117 Hospitals and Infirmaries in England and Wales, distributed over four extensive tables. In the first he gives the number of cases treated, the rate of mortality, the average cost of in and out patients and per bed, with the total expenditure, the cost of the various articles of diet, medicine, etc. The number of persons on the staff of each establishment is added. Table 2 shows the operations performed during the year, with the results and rate of mortality. Table 3 is a list of diseases for which a large number of patients were treated. Table 4 shows the operations performed and their results. The diversity of arrangements in the several institutions is very striking. Thus at Lynn the cubic space allowed to each inmate is 350 cubic feet, while in some London Hospitals 2000 cubic feet is not regarded as excessive. So, too, with the diet and the cost per head. We have no doubt that these tables will be frequently referred to as a ready source of information upon a variety of interesting matters relating to Hospital economics.

Observations on the Functions of the Liver, more especially with Reference to the Formation of the Material known as Amyloid Substance or Animal Dextrine, and the Ultimate Destruction of this Substance in the Animal Economy. By Robert McDonnell, M.D., M.R.I.A., Surgeon to Jervis-street Hospital, etc. Dublin: Fannin and Co. 1865. Pp. 39.

Taking into consideration the circumstances connected with diet, etc., under which the amyloid formation in the liver varies, and the long determined difference in composition between the portal and hepatic venous blood, the author considers that this material is transformed into an azotised protoplasma (fibrine being in his view a result of disintegration of tissue and not a nutritive material). The following extract expresses his views:—"May it not be that the liver does for the adult what divers tissues do during the development of the fœtus? May not this great organ form, with the help of the amyloid substance secreted in it, also a nitrogenous compound, just as the muscles of the fœtus convert the amyloid substance contained in them into the highly nitrogenous materials of muscular tissue? May not, in fact, the amyloid substance of the liver be the basis of an azotised protoplasma, forming a constituent of the blood of the adult animal, as the amyloid substance of muscle is the basis of the material from which the evolution of muscular tissue is accomplished? A general consideration of the functions performed by the liver leads one to answer these questions in the affirmative. For if it be true that the blood which enters the liver is rich in fibrine and albumen, and that these materials are so completely changed within this organ that little or none of them leave it by the hepatic vessels, what becomes of them? It is true their hydro-carbonous constituents may be thrown off as bile; but what of the nitrogen contained in them? If it does not escape by the bile ducts it has no other mode of exit save by the hepatic vessels.

The author conceives it to be re-united with the hydro-carbonaceous amyloid substance, and to leave the liver as a newly-formed proteic compound, partly, perhaps, as globuline, and partly as a material in its reactions resembling casein or albuminose."—P. 25.

First Help in Accidents; being a Surgical Guide in the Absence or Before the Arrival of Medical Assistance. For the use of the Public, especially for the Members of both the Military and Naval Services, Volunteers, and Travellers, etc. By Charles H. Schaible, M.D., Ph.D., Royal Military Academy, Woolwich. Hardwicke, London. 1864. Pp. 226.

Such a little book as this, by diffusing some common knowledge of Surgery, is calculated to be of considerable service, not only where Medical aid is difficult to obtain, but in those cases where prompt action alone will save life in certain accidents. Everybody, for example, should know what to do to check hæmorrhage; and if every one need not know how to put up a fracture, all ought to be sufficiently informed to avoid doing mischief. Dr. Schaible has, we think, succeeded very well in the task he set himself. The following titles of his fifteen chapters will give an idea of what the book contains:—Dressing of Wounds—Bleeding, Source and Arresting of—Wounds: their Varieties and Treatment—Bruises and Contusions—Burns and Scalds—Effects of Cold and Heat, Frozen Limbs, Sunstroke, etc.—Sprains, Dislocations—Fractures or Broken Bones—Of the Lodgment of Foreign Bodies in the Throat, in the Gullet, or in the Air Passages—Of Poisoning—Of Suffocation—Of the Signs of Real Death—Of Transport of Injured Persons and of Invalids—Hygienic Rules for Walking and for Marches; Accidents which may Happen to Soldiers on March—Resumé.

Reports of the Inspectors of Factories, for the Half-year ending 30th October, 1864. Presented to both Houses of Parliament. 1865.

The most important portion of the Report is that which relates to those trades newly brought under sanitary supervision by the Factory Acts Extension Act of last year. The Act applies to the manufacture of earthenware, lucifer matches, percussion caps and cartridges, and the employments of paper staining and fustian cutting. The last of these seems one of the most wretched trades it is possible to conceive, and Mr. Baker's account of it will show that Government had not taken up the subject too soon. Under this Act masters have the power of making rules for the preservation of cleanliness, ventilation, etc., in their own establishments; but both Mr. Redgrave and Mr. Baker say that this part of the enactment is, for various reasons, inoperative.

Lunatic Asylum Reports for 1864.

Dr. W. P. Stiff, the Superintendent of the Nottingham Asylum, reminds parochial officers of the necessity of complying with the requirements of the law in the removal to an Asylum of a dangerous lunatic, who, being not a pauper, has no relation or friend to take care of him. In this case the order for admission to an Asylum must be given by *two* justices. He mentions an instance where an action being brought, in consequence of irregularity in this matter, damages and costs to the extent of £900 were inflicted upon a relieving-officer. Mr. G. S. Saunders, of the Devon Asylum, has some observations in his report upon the subject of the use of thermometry in diagnosis, prognosis, and treatment—especially where patients in the Asylum wilfully throw obstacles in the way of stethoscopic investigations. At the Northampton Asylum, Dr. Edwin Wing has been using the bromide of potassium in the epileptic cases, and he belives with some good results. He says, "The number of epileptics in this establishment has averaged about 140, being nearly equally divided between each sex; and as proof that I have not exaggerated the beneficial results of the use of the medicine, I may add that, during the last five months of 1863, 1012 fits were recorded as having happened on the male side, whereas during the first five months of 1864, when they were under treatment, the number of fits was 706, thus giving a decrease of 306 in five months. On the female side the beneficial results were not so marked, but still the decrease was 157—viz., from 1127 to 970. The mere diminution in the number of fits, however, is not the only happy effect of the drug, as it undoubtedly exercises a most powerful influence on the nervous system, and often soothes the irritability of epilepsy when no other medicine will take any effect, and has thus tended to lessen materially the number of minor accidents, such as black eyes, bruises, etc., which so often disfigure the pages of Asylum registers." Dr. Thurnam (Wilts Asylum) deplores the want of uniformity in the statistical tables drawn up by the superintendents of Asylums. We are pretty nearly tired of repeating the same complaint. The Association of Medical Officers of Asylums for the Insane ought to take this subject up. It is really sad to see the uselessness of the tables in the annual reports when one cannot but feel that a vast amount of labour has been expended upon them. The following observations on the "cottage system" and the "associated" system we take from Dr. Fox's report on Burlington House:—

"In many respects there is a striking analogy between the treatment which is applicable to the insane and that which is adapted to the education of the young, and in no instance is this more evident than in the benefit which an insane person derives from attrition with those who are similarly affected. Here by force of example, there by ironical remarks—at one time animated by *esprit de corps*, at another by active benevolence—patients act upon each other, assert their privileges, and even enforce such regulations for the welfare of the community as are equally beneficial to the individual. For these reasons we don't hesitate to express our preference of the plan of association over that which is called the "cottage system;" but just as a public school is not found to be applicable to every boy, so the mixed society of an asylum is not fit for every description of mental derangement. To prevent the weakly from being oppressed, the shy and effeminate from becoming a mope, or the patient, whose first faint symptoms of insanity consist in acoustic or visual illusion, from acquiring too much familiarity with more painful phenomena, it is desirable that a separate method of treating such persons shall be provided, and yet that they shall be within reach of the larger community and able to participate in some of the social resources of an asylum."

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, May 13.

In my last letter I gave a short account of the opening, by His Royal Highness the Prince of Wales, of our International Exhibition of Arts and Manufacture, 1865; I shall now proceed, according to promise, briefly to describe some of the objects in the same most likely to interest your readers.

Resisting, if possible, the attractions of the sculpture hall and picture galleries, we find, in the North-East Gallery of the Winter Garden portion of the Exhibition, Section II. of the British Department, devoted to Chemical and Pharmaceutical Processes, and Products generally. One of the most striking collections in this department is that of Messrs. Johnson, Matthey, and Co., Hatton-garden, London, who exhibit a rich display of the precious metals and their preparations. Conspicuous among these is a large platinum boiler for the concentration or rectification of sulphuric acid. This boiler, of the value of £1500, is stated to be capable of rectifying to the full strength three tons of sulphuric acid per diem; it is soldered by the patent autogenous process—that is, with platinum,—whereby the extra expense of gold is avoided, and is stronger and more durable than vessels soldered in the old fashion. There are also a platinum alembic, value £350, for the separation and refining of gold and silver; a platinum syphon, value £120, for sulphuric acid apparatus; a platinum pyrometer, platinum tubes, crucibles, etc.

In the same case is a model of an ingot of pure platinum, which was melted for, and exhibited in, the Exhibition of 1862. The weight of the ingot was 3200 ounces, its value £3840. A note is added that no heat that can be obtained by the use of fuel will melt platinum, even the heat of smelting or glasshouse furnaces has no effect upon it—hence its great value for chemical purposes. But by the new process perfected by Mr. St. Clair Deville, consisting in the use of the heat of combined gases, under particular conditions, it can be melted with facility. The model is considered worthy of preservation, as it is not likely that such a mass of fused platinum will ever again be produced.

Some very beautiful specimens of magnesium, produced under Mr. Sonstadt's patents, are exhibited in the same case,

for the "Magnesium Metal Company." These are a mass of pure distilled magnesium, weighing 134 ounces; an obelisk of pure magnesium metal (a solid casting), weighing 162 ounces; turnings of the same metal, weight 13 ounces; steam valve of the same metal, weighing 27 ounces; a coil of pure magnesium wire, one mile and six yards in length, weighing 47 ounces; and a coil of ribbon of the same, 4800 feet long, weighing 40 ounces.

The manufacture of magnesium, as now conducted in Manchester, may be divided into three stages—1. The preparation of anhydrous chloride of magnesium from the native carbonate of magnesia; 2. the decomposition of the resulting chloride of magnesium, by heating to redness in a crucible five parts of the chloride with one of sodium; 3. The purification of the magnesium so produced by distillation. The principal application which has as yet been made of the new metal, as it may be called, is in the production of a brilliant light, displaying colour as in sunshine, and admirably adapted for photographic purposes. In Surgery the magnesium light is now freely used in examinations with the speculum, and it has recently received a new application in connexion with the laryngoscope. The metal itself is white, of a silvery lustre, which it preserves in dry air; in a moist atmosphere it oxidises and becomes dull, like zinc. Its specific gravity is 1·350.

In a pamphlet left in the Exhibition, and from which I have drawn the foregoing particulars, it is calculated that whenever magnesium shall be demanded in large quantities it will be cheaply produced. Even already the price of the wire has been reduced to one penny per foot.

In an adjoining case are exhibited some very beautiful crystals of nitrate of silver, nitrate of silver in sticks and points, the new fused sulphate of zinc point, in ebony holder. etc., etc.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 9.

Dr. ALDERSON, President.

A PAPER, by Mr. HENRY LEE, F.R.C.S., was read on

THE SURGICAL TREATMENT OF CERTAIN CASES OF ACUTE INFLAMMATION OF THE VEINS.

The author stated that in Mr. Arnott's admirable paper on "Inflammation of the Veins," published in the fifteenth volume of the Medico-Chirurgical *Transactions*, he had drawn the inference that the dangerous consequences of phlebitis bear no direct relation to the extent of the vein which is inflamed. He had there proved, by an excellent collection of cases, and by his observations on those cases, that death in cases of phlebitis does not take place from the inflammation extending to the heart, but from the entrance of some morbid product into the general circulation (pp. 44 and 61). In a paper by Mr. Lee, published in the thirty-fifth volume of the Society's *Transactions*, he had endeavoured to show that the material which obstructs the cavities of veins in cases of phlebitis is derived from the blood itself, and is not, in the early stages of the disease a secretion from the lining membrane of the vessels; that the veins become extensively inflamed only in cases where coagula have previously formed; and that the purulent-looking fluid often found in the cavities of inflamed veins is derived from the changes which under the circumstances take place in the fibrin of the blood. The distinction which he wished to establish between the process by means of which fibrin is deposited from the blood, and that by which lymph is secreted from the lining membrane of a vein, was of primary importance, not only with regard to the pathology of this class of diseases, but also with regard to their Surgical treatment; for it must be obvious that if the material which occupies the cavities of the vessels in cases of phlebitis were secreted by the inner coats of the veins, it would adhere firmly to that membrane, and would be found lining equally the whole circumference. It would not be displaced by the force of the circulation, nor by any other mechanical means likely to be employed. Moreover, the morbid process would extend by continuity of action, and would not be arrested by any Surgical interference. If, on the other hand, the material found in the veins were derived from the blood, it might be expected to adhere slightly only to the walls of the vessels, to be attached to one part only of those walls, and to be removed easily by any mechanical force. It would be deposited in uncertain quantity, and at irregular intervals, leaving portions of the lining membrane between those intervals free from deposit, and of its natural appearance. The deposit would often, as had actually occurred in some of the cases related by Mr. Arnott, terminate abruptly at the entrance of a fresh vessel; the reason of this abrupt termination being, as it appeared to Mr. Lee, the greater velocity and force of the circulation in the common trunk than in that which is partially obstructed. Now, the appearances actually observed on post-mortem examinations in cases of phlebitis all belonged to the latter and not to the former class, and the conclusion necessarily followed that the disease extends, as far as its severer symptoms are concerned, not by continuity of action in the lining membrane of the vessels, but by means of their contents, often in a more or less perfectly coagulated state. If that were the true course of the fatal symptoms in phlebitis, it appeared surprising that more attempts had not been made to arrest the progress of the disease by Surgical treatment. Such attempts, however, had not been entirely wanting. Hunter remarked that when inflammation takes place beyond the orifice (of a vein) so as to alarm the Surgeon, he should immediately make a compress upon the vein at the inflamed part, to make the two sides adhere together; or, if suppuration has taken place, then the compress must be put upon that part of the vein just above the suppuration.(a) Now, as lymph was not effused in the early stages of phlebitis from the lining membrane as a secretion from its inner surface, the adhesion produced by Hunter's method of treatment could be formed by coagulum of blood only. This would not, under ordinary circumstances, become organised; it would adhere to one side only of the vessel, and it would constantly be liable to become displaced. Such a bond of union, although it might for a time prevent the morbid contents of a vein from entering the general circulation, could scarcely be looked upon as affording a permanent bond of union between the sides of the vessel. In cases where the affected vein is seated superficially, a much more certain and effectual way of closing its canal and of barring the entrance of its contents from the general circulation might be adopted. This method, which when properly performed Mr. H. Lee believed to be free from danger, was adopted in three out of four of the following cases. The fourth case was given as an illustration of Mr. Hunter's method of treatment. It would, the author thought, be obvious that, although Mr. Hunter's method might perhaps have been successfully adopted in the first case, it could not have been used with any reasonable chance of success in the second and third. Four cases were then read in which, in severe cases of phlebitis, the current of blood was artificially arrested between the inflamed vein and the centre of the circulation. In one instance a pad was placed over the upper extremity of the basilic vein, and retained in its position by a bandage. In two cases a needle was passed under a healthy and unaffected portion of the vein, and pressure was made by means of a figure-of-8 ligature; and in one case the vein above the seat of the inflammation was divided subcutaneously, the two divided extremities being secured by acupressure. Of these different plans of effecting the same object, Mr. Lee preferred decidedly the latter. In any future similar case it was that to which he should have recourse. By the operation of subcutaneous section a permanent union was effected, because that union took place between the opposed portions of cellular tissue on the outside of the vessel. Such a union was vascular, and, therefore, not liable to be broken down. By it no suppuration need be excited, and the needles used for the purpose of acupressure might be removed at the expiration of two, three, or four days, when the union would be complete. Union could not be ensured within the same period by the pressure of a needle placed under the vein. If the needle be removed at that time, the current of blood would be liable to be re-established through the vein; if it be left, suppuration might be excited on the outside of the vessel: this might lead to the coagulation of the blood both above and below the part where the vessel was compressed, and the coagula thus formed might undergo the very changes which produced the serious symptoms for which the operation was undertaken. In one of the recorded cases this appeared in some measure actually to have happened, for although the current of blood through the vein was arrested, yet suppuration took place both above and below

(a) Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge p. 29.

the needle last introduced. In another case, on the contrary, where the vein was divided, no trace of inflammation extended beyond the divided part. In both these cases the products of the diseased actions were expelled from the interior of the veins by the process of suppuration; but had the flow of blood through the vessels been allowed to continue, some of these same morbid products would have been carried in the course of the circulation, and would have produced their effects in other and distant organs.

Mr. Moore had been so much impressed with the danger of applying ligatures to varicose veins that he always denuded the vein by cutting down upon it to avoid the danger of transfixing it.

Mr. Savory bore testimony to the interest of the paper; but objected to the point of view from which Mr. Lee regarded the subject. He was startled to find that while Mr. Lee, at the commencement, referred to the admirable paper of Mr. Arnott, he was altogether silent on subsequent researches. Are these to be ignored? Is Virchow's masterly work, for example, to be set aside? With the present paper before them, he thought he was entitled to ask Mr. Lee what he meant by phlebitis? Upon what evidence does he assume the existence of phlebitis? In his view, what are the characters presented by phlebitis upon dissection? Does he regard the formation of clots in a vein as evidence of phlebitis? Indeed, what effect has phlebitis upon the interior of a vein? Is no distinction to be drawn between phlebitis and thrombosis? To what changes may these conditions ultimately lead? These questions have supreme interest in reference to the great subject of pyæmia. Will Virchow's views stand the test of a scrutiny as severe as that to which he has subjected the doctrine he has laboured to overthrow? Evidence appears to be yet wanting to show not merely the coexistence of disintegrated fibrin and abscesses scattered in distant parts, but that these bear to each other the relation of cause and effect. A great question still awaits an answer—and, by the way, must be answered before a satisfactory opinion can be formed of the plan of treatment adopted by Mr. Lee—What relation, if any, does phlebitis hold to thrombosis on the one hand, and to pyæmia on the other?

Mr. Curling said the paper presented some points of much interest, but he thought Mr. Lee had taken too mechanical a view of the mode of treatment which he advocated. There was no evidence, moreover, that the cases detailed were of so serious a nature as Mr. Lee supposed. He (Mr. Curling) had seen cases of a similar kind in which no such treatment was employed, and no bad effects followed. In these cases of phlebitis, when pyæmia resulted, it arose from causes not mentioned by Mr. Lee, such as a bad atmosphere, contagion, &c. Mr. Curling thought that too much fear was entertained of dealing with veins in a state of disease when the patient was in circumstances favourable to health.

Mr. Henry Lee, in reply, said his paper was upon the surgical treatment of acute inflammation of the veins after that disease had already been produced. He had purposely abstained on the present occasion from considering the best mode of operating for varicose veins, or from dwelling on the pathology of phlebitis. Those subjects had been fully discussed on former occasions, and some of the conclusions arrived at were recorded in the *Transactions* of this Society. As, however, the two subjects mentioned had been introduced to the notice of the Society, he might be allowed to say that in the operation for varicose veins it was, in his opinion, a dangerous practice to lay bare the coats of the vein. It was an operation that had been adopted by some of the older Surgeons, and had often led to dangerous and even fatal consequences. The question which Mr. Savory had been good enough to ask—namely, whether the lining membrane of veins was liable to ordinary inflammation, and whether lymph could be thrown out upon its surface, was one of primary importance with regard to the pathology of this disease. All recognised the results of inflammation of a vein. After it had existed some time the coats of the vein became thickened; they could be felt as a hard unyielding cord below the skin; and if removed from the body and cut transversely, they would remain open like the coats of an artery; at the same time the cavity of the vein was filled with coagula, or with the fibrin of the blood more or less decolorised. Now, the great question at issue was, Does the inflammation of the vein produce this coagulation of the blood? or does the coagulation of the blood produce the inflammation of the vein? Is the lining membrane of the veins subject to spontaneous inflammation like the serous membranes of the body, and does it, like them, when inflamed, secrete lymph? Now he (Mr. Lee) ever since he had given his attention to this subject, had held that the lining membrane of veins was not at all analogous in its pathological relations to the serous membranes. Being non-vascular, it was not, like them, liable to attacks of spontaneous inflammation, and especially it was not capable, like them, of secreting coagulable lymph. When a serous membrane was inflamed, the lymph secreted united with the lymph on the opposed surface, and the cavity was closed where such a union took place. If the veins were liable to such mode of action, the circulation in our bodies would be constantly and permanently obstructed. But Nature had wisely ordained otherwise. The lining membrane of the veins, even under great irritation, would not secrete lymph; and the obstruction in veins was derived entirely from the materials of the blood. These observations applied to the disease in its earlier stages. During the later stages, when the parts had become altered by long-continued diseased action, the lining membrane of the veins might secrete lymph or pus like other parts. It was so with regard to the cartilages of joints, which might be taken as a rough illustration of the present subject: naturally they contained no vessels, and they could not secrete lymph; but after having undergone changes produced by long-continued disease, they might become permeated by vessels, and then they would secrete lymph and pus like other inflamed parts. In the early stage of the disease, he (Mr. Lee) had never seen a case in which lymph was effused on the lining membrane of a vein, and he held that in all cases of acute phlebitis the severe symptoms depended upon some morbid matter which had entered the cavity of the vein. If a portion of a vein were isolated from the rest of the circulation, and closed at two points by acupressure, the part of the vessel thus isolated might be cut or irritated in any way, and no symptoms of general irritation would be induced; whereas it was well known, from the writings of Sir B. Brodie and some of the older Surgeons, what serious and fatal consequences would occasionally follow operations on the veins when such a precaution was not taken. When Ambrose Paré suggested the ligature of divided arteries as a safe and comparatively painless mode of preventing hæmorrhage, it was long before his doctrine was generally received; and it will not be, therefore, surprising if a considerable interval should elapse before the simple mode of preventing hæmorrhage on the one hand or absorption on the other, from divided veins by acupressure, comes into general practice. But he (Mr. Lee) could say now, from a very considerable experience in operating upon varicose veins, that it was a plan perfectly effective and free from danger. When properly performed, it not only prevented any symptoms of general irritation from the usual operation of varicose veins, but when from any accidental circumstance inflammation of a vein had arisen, it would (as had been proved by the cases now read to the Society) prevent the extension of the inflammation along the inflamed vessel. This it did, of course, by preventing the transmission of the irritating contents of the vessels, upon which alone he (Mr. Lee) believed the symptoms to depend. With regard to the cases related being instances of genuine acute phlebitis, such as, without some preventive treatment, generally led to a fatal termination, he had only to appeal to the symptoms observed. When a severe rigor occurred in these cases, followed by a profuse perspiration, and the pulse continued from 120 to 140, he need not say that the gravest consequences were to be apprehended.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, March 8.

Dr. Barnes, President, in the Chair.

Dr. Tyler Smith exhibited a portion of a Dermoid Cyst, with teeth attached, passed per rectum from a lady who had for a year and a half previously evacuated by the same canal a quantity of hair.

A paper from Mr. Rouse, of New Zealand, was read, describing peculiar Marks on the Neck of an Infant born before his arrival, and which had not been touched. There was much difficulty in getting the child to respire; and the marks were so similar to those made for the purpose of infanticide that, had not the mother been very anxious for a live child, and it was certain it had not been touched, and had not the thick coating of vernix caseosa been perfect, he should have put these marks down to attempts at strangling.

Mr. Harris exhibited a Deciduous Bag, with a small opening at one end, expelled some days before delivery at full term. There was nothing in or after the labour to explain its nature. As there was considerable difference of opinion as to its origin, Dr. Meadows and Dr. Graily Hewitt were asked to examine it and report.

Mr. Roper read a short paper on Labour in Primiparous Women late in Life, in which he questioned the commonly received opinion that labour after forty-five years of age was necessarily or commonly difficult; and quoted Dr. R. Lee's cases in support. He believed that the soft parts which oppose the head were rather lax and wasted after the age mentioned, besides which the uterus acted with more vigour than in multiparæ at that age.

The President said he had recently read a paper by Dr. Matthews Duncan, in which it was shown that the weight of the child diminished in women who had passed the age of thirty. This circumstance would help to account for the comparative facility of primiparous labour at a late period of life.

The President showed a number of Outlines of Children's Heads, illustrating the changes of form imparted by various modes of delivery. They were made by running a pencil around the head laid on a sheet of paper; and, in some instances, correction was made by measurements of the diameters of the head by means of the callipers. In this way the forms the head assumed in difficult labour, terminated by forceps, craniotomy, and by turning in contracted pelvis, were strikingly manifested.

Dr. J. Braxton Hicks, F.R.S., read a paper on

TWO CASES OF FACE PRESENTATION IN THE MENTO-POSTERIOR POSITION; WITH REMARKS.

The author began by pointing out that *à priori* there was no anatomical reason which rendered it absolutely impossible that spontaneous delivery should be effected with the chin posterior in face presentation, even within the range of normal pelvis and head, as represented by some authors. Quotations from the works of nearly all the English authors were given to show the variety of opinions upon the subject. Smellie's case delivered by the forceps was recited, with his opinions and advice upon the treatment of such cases. Two cases given by Prof. Braun were quoted, in one of which the fœtus was delivered by the natural powers, and in the other by the forceps, the chin coming over the perineum first. The author supplied another case in which, after ineffectual efforts to alter the position, he delivered the child alive by the forceps, without any detriment to the mother. The chin appeared first, coming over the perinæum. The child was large and the pelvis normal. He also gave another case, where the face descended partly exterior to vulva so readily that, although the chin made the anterior rotation at the last moment, it seemed highly probable that it could have been born by natural powers had rotation been difficult. The state of our knowledge of face-presentation was then summed up as follows:—That although in the majority of cases the chin rotates forward during the descent in face-presentation, whatever was the position it occupied originally, yet in some rare cases the chin passes through the outlet obliquely; while in others the rotation cannot be accomplished at all, either by nature or art. Under these circumstances, in some very rare instances delivery takes place spontaneously, though the greater number of this rare class require the use of the forceps, by means of which either the chin over the perineum, or the vertex beneath the arch of the pubis, might appear first. The author thought, from a consideration of the foregoing cases of Smellie, Braun, and his own, in all of which the children were born alive, that provided the chin could not be brought anteriorly, then the head should be brought down in the most practicable mode, chin or occiput first, and not necessarily with the occiput first, as recommended by Smellie.

The President signalised the value of this memoir as tending to give precision to, and extend our knowledge of, labour with face-presentation. His own experience had proved to him that such labours were not so uniformly favourable as was commonly taught. Difficulty might occur at two stages: 1st, at the brim; in this case he deprecated the forceps and craniotomy, and recommended turning as giving the child the best chance. 2ndly, in the pelvis; difficulty might arise here in the way indicated in the paper—viz., from the head retaining the position in which it entered the cavity. The proper rotation depended upon a due relation between the head of a live child, or one recently dead, and the pelvis. In Dr. Hicks's case the child was alive; it was, therefore, probable that the pelvis was large in proportion. In such a case he should not despair of turning if art or nature failed to rotate the chin. In cases of due relation of pelvis and child, birth with the chin posteriorly was almost impossible; for in proportion as the face descended, there was a rapidly widening base of a wedge, formed by the occiput bent back upon the child's trunk, which could not pass the pelvis.

Dr. Meadows exhibited a specimen of Imperforate Bowel, in which the colon ended at about an inch from the anal orifice, to which it was connected by means of an impervious cord, the anus being itself perfect. Attempts were unsuccessfully made during life to reach the bowel by the anal orifice, and the child died on the twenty-second day after birth.

Dr. Bathurst Woodman read a description of a fœtus, delivered by Dr. Gayton, in which the anterior parietes of the abdomen were absent, the viscera being covered only by peritoneum; the anus and rectum were absent; the imperfect penis was divided. The bladder had no outlet except the urachus, which was still pervious. The rest of the organs were as usual, except that the foramen ovale was closed by a membranous septum. The fœtus lived a few seconds after birth.

THE PATHOLOGICAL SOCIETY.

Tuesday, April 18.

Dr. Peacock, President.

Dr. Playfair brought forward a case of

INVAGINATION OF THE INTESTINES IN AN INFANT FOUR MONTHS OLD.

The child was constantly vomiting and passing blood per rectum. There was an elongated tumour in the left hypochondrium. Opium was given and insufflation was attempted, but without benefit. The child died next day. There was a large mass of small intestine prolapsed through the ileocæcal valve, and occupying the whole of the large intestine as far as the entrance of the rectum. Dr. Playfair observed that the failure of the insufflation was no argument against the treatment, as the prolapsus was so great that no treatment could have succeeded.

Dr. Cayley produced a specimen of

CANCER (MEDULLARY) FROM THE SUPRA-RENAL BODY.

There was cancer of many other organs. The cancer was only a tubercle occupying but part of one capsule, yet a good deal of sallowness of complexion had been noticed.

Dr. Ogle brought forward a specimen, which he believed to be unique of its kind, of

CANCER OF ONE SUPRA-RENAL CAPSULE IN AN INFANT AGED 3.

The tumour was as large as a cocoa-nut. The patient was brought to the out-patient room at St. George's Hospital. She had an enormous development of hair on the organs of generation and other parts of the body, and from birth had been of a dark gipsy colour, as indicated by a water-coloured drawing which was exhibited. There was a tumour in the left hypochondrium, which appeared during life to be the spleen. Persistent vomiting set in, and continued for a day or two before death. After death it seemed that the cancer had been confined to the supra-renal capsule and to the liver. The symptoms of the case have been already published in the *Lancet*.

Mr. Callender doubted whether the tumour had really originated in the supra-renal capsule; but

Dr. Ogle stated that, on anatomical examination, it appeared that the supra-renal capsule was not found elsewhere, and that the deposit really did occupy this organ.

Dr. Greenhow remarked that in none of the cases of cancer of the supra-renal body elsewhere published, had there been the discoloration of the skin and the constitutional symptoms of Addison's disease. In Dr. Cayley's case he remarked that the discoloration was not the same as that seen in the true Addison's disease.

The specimen was referred to Mr. Callender and Mr. Partridge, in combination with Dr. Dickinson and Dr. Ogle.

Dr. Cayley showed a

TUMOUR OF THE BRAIN FROM A CHILD AGED 2.

The child was observed to droop her head, and to have rigidity of the right arm and leg. This was followed by rigidity of the other arm and leg, convulsions, and soon deafness, and the lower half of the right cornea ulcerated. After death a large

tumour was found near the crura cerebelli—consisting of fine fibres and granular nuclei—much resembling the cerebral substance to the naked eye, and of the kind which has recently been called glioma.

Dr. R. Bennett exhibited a specimen of

GASTRO-COLIC FISTULA.

There was a large ulcer in the transverse colon, from which the ulceration had extended to the great curvature of the stomach. There were two or three smaller ulcers in the neighbourhood, in some of which perforation had nearly taken place. There was no evidence of cancer. It seemed quite evident that the ulceration began in the intestine and spread to the stomach. The disease began with vomiting and constipation, rendering it probable that there was intestinal obstruction. There was a little pain, referred to the course of the colon, but none in the stomach. She suffered most from vomiting, which did not come on immediately after food. The vomiting was always of the same kind—viz., spumous, sour, yeasty fluid, of a light yellow colour, with no fœcal odour. It was somewhat relieved by creosote. There were no sarcinæ. The motions soon became almost natural in form, colour, etc. She eventually died from asthenia.

Dr. Murchison referred to the rarity of ulceration extending from the colon into the stomach, and stated that in all recorded cases hitherto this ulceration had been found to be cancerous. He mentioned that in most cases the communication is indicated by fœcal vomiting and the passing of undigested food by the motions.

Dr. R. Bennett stated that the edges of the ulcer were examined by the microscope, but that no elements of cancer were found.

Dr. Gibb exhibited

DRAWINGS OF THE LARYNGOSCOPIC APPEARANCES OF A CASE OF PRIMARY CANCER OF THE LARYNX,

affecting the epiglottis and parts above the vocal cords. The symptoms were hacking cough, dysphagia, especially with fluids, but no alteration of voice. There was an enlarged gland under the jaw. Dr. Gibb showed drawings of the parts at an earlier and later stage of the disease, showing the progress of the cancer to the destruction of the epiglottis and one of the vocal cords, producing aphonia. A post-mortem examination verified the results of laryngoscopic investigation; but the permission to remove the parts was refused. Dr. Gibb remarked that he knew of eight or nine cases in which cancer had begun in the larynx, two of which had been published in the *Transactions* of this Society.

Dr. Ogle showed a drawing of a

PECULIAR CONDITION OF THE FINGER-NAIL,

from a woman, a patient of his, who had laboured under neuralgia of the arm after a blow, which had caused abscess at this part; and who suffered from pain and numbness in the affected finger. The epidermis of the finger grew thickened and hardened, and the nail increased in size and become nodulated on its surface, jagged at its edges, and irregular in figure. He referred to the large growths of the hoof observed in horses in whom the nerve has been divided as probably indicating a pathological condition analogous to that which obtained in the case of his patient; also to the remarkable condition of the skin (excessive development of epidermis, and roughness and dryness of the surface) often noticed in paralysed limbs. Dr. Ogle also adverted to the remarkable and quick growth of nails in paralysed limbs.

Dr. Ogle also showed two specimens of

SOFTENING OF THE SPINAL CORD, IN ONE OF WHICH THERE WAS SUPPURATION WITHIN THE THECA VERTEBRALIS,

in insane patients who had suffered from general paralysis, attended in one case by epilepsy. For the opportunity of exhibiting these specimens, Dr. Ogle had to thank Dr. Boyd, of Wells.

Dr. Murchison showed a specimen of

EMBOLISM FROM A CASE OF TYPHUS FEVER,

in which rapid gangrene had attacked the whole limb, from the higher part of the thigh downwards. He noted that there were two states of the leg seen after typhus—viz., the ordinary "white leg," from obstruction of the veins, and gangrene of the feet, from embolism in the arteries. In the present case both conditions seemed to be combined. On post-mortem examination the aorta was found plugged just above the bifurcation, and the plug extended down the left common and external iliac down to the middle of the femoral artery, the clot being in some places discoloured and adherent. The femoral vein was also plugged. There were two large blocks in the spleen, and extensive blocks in the kidneys, and the right renal artery was obstructed.

Dr. Murchison also showed a

SPECIMEN FROM A PATIENT WHO DIED OF PERFORATION OF THE BOWEL AFTER TYPHOID FEVER ON THE FORTY-SIXTH DAY.

The patient had recovered on the twenty-fourth day, but had had a relapse followed by the symptoms of perforation—viz., peritonitis and rapid sinking.

Dr. Lichtenberg exhibited

AN ANEURISM OF THE AORTA WITH RUPTURE INTO THE RIGHT AURICLE,

in a man who had suffered primary amputation of the arm at the German Hospital. He was convalescent from this when the symptoms of the fatal cardiac disease showed themselves.

Dr. J. Pollock showed

AN ANEURISM OF THE AORTA, IN WHICH RUPTURE WAS THOUGHT TO HAVE OCCURRED INTO THE PULMONARY ARTERY.

It was somewhat doubtful whether the rupture had not been produced in the post-mortem examination, but during life the aneurism had made so much pressure on the pulmonary artery as to have obliterated two of the valve-flaps.

Dr. Pollock also showed

A KIDNEY COMPLETELY WASTED, SO THAT NO TRACE OF THE NORMAL TISSUE WAS LEFT.

The only cause seemed to be an abnormal condition of the opening of the ureter from the pelvis of the kidney, which was replaced by a slit-like or valvular opening. The other kidney was much diseased, and the patient had suffered from epileptic fits.

HARVEIAN SOCIETY OF LONDON.

Thursday, March 16.

Dr. J. C. Langmore, President.

Mr. William Adams mentioned that he had frequently had to treat cases of

INFANTILE PARALYSIS,

and that in some instances he had been able to restore the power of locomotion where it had been supposed to have been irretrevably lost. Infantile paralysis came on frequently during teething, at the age of 1 or 2 years. Both legs or both arms are paralysed suddenly or in the course of a few hours, or only one limb may be affected. Sir B. Brodie used to say that unless this paralysis is naturally recovered from in six months, it is hopeless. In three to six months there is usually the greatest amount of recovery, the rectus muscle of the thigh often being the last to recover. As to the pathology of the disease, Mr. Adams confessed that he knew nothing of it. The most recent German writers on the subject attribute it entirely to the muscles; and Rilliet and Barthez recorded only two post-mortem examinations. In these, as well as in the one made by Mr. Adams, no appearance could be made out to account for the disease, and children do not die of it. Consequently, the cause of it is not investigated. If Practitioners were but aware of this fact, they would probably make the necessary examinations. It must be remarked that natural recovery of the muscular powers may progress from six months up to three or four years, during which time a series of events takes place—namely, contraction of all the joints. Mr. Wilkinson had lately brought him a child with great contraction of the knee joints. The muscles around the hip joints are usually the first to recover. A child was sent him from Clifton, of the age of from 6 to 7, which had never stood. It had contraction of the joints, arms, legs, and trunk, and Mr. Adams was able to promise the parents of the child that it should walk in three months. Dr. Brown-Séquard had requested Mr. Adams to see a young lady, aged seven years, in consequence of paralysis of both legs, and in three months this child was able to walk with steel supports. If a child could use the psoas and iliacus muscles, it could be made to walk, and this was the practical test. It should be laid down on the floor, and if it can draw up its knees success is certain. With regard to treatment in the early stages, he had known counter-irritation down the spine used, but the chances were that no treatment would do much good. When the child has paralysis with flaccid muscles, rubbing and warm clothing are of use. Galvanism of both legs under water is also useful, notwithstanding that many Physicians and Surgeons disparaged this remedy, and said it had been tried and found to be valueless. He (Mr. Adams) used two tin boots, filled with warm water, in each of

which the little patient's foot is placed, and galvanism is applied. Dr. Gull had written some valuable papers on galvanism in the "Guy's Hospital Reports." The nutrition of the limb must, if possible, be maintained. Dr. Junod's boot for exhausting the air was once in much repute, and is now, perhaps, too much neglected. A paralytic patient of his could always warm the leg in ten minutes by this apparatus; the boot has no bad effects, but is liable to get out of order. It is, doubtless, a most useful remedy in many cases of paralysis. In some cases of infantile paralysis, the rectus muscle remains paralysed for life and the leg swings; but this can be compensated for by mechanical means, so as to enable the child to walk.

OBITUARY.

DEATH OF DR. VALENTINE MOTT, OF NEW YORK.

At the age of eighty, a great American Surgeon whose name is as well known here as that of almost any of our renowned Surgical worthies, the man who first tied the innominata—Valentine Mott—has gone to the world of shadows. His name will ever be a prominent one in the history of Surgery. The remark of his biographer in the *New York Herald*, "*He never made a mistake in his life*," will excite a smile—a mournful one—among our readers, who know so well that the only men who never mistakes are they who never have anything to do, and that the truth of the old proverb, *humanum est errare*, must be occasionally illustrated in the lives of men who practise a conjectural art. But all will acknowledge that few men in any country have successfully performed so many capital operations. Seven successful ligatures of the subclavian, sixteen amputations of the lower jaw, extirpation of the entire clavicle, forty-six ligatures of the common carotid, seven of the external iliac, and fifty-two of the femoral, with one hundred and sixty-five lithotomies, and nearly a thousand amputations, constitute a Surgical career of almost unequalled magnificence.

This venerable Surgeon, who died on the 26th of last April, was born at Glen Cove, Long Island, on the 20th of August, 1785. The family in America sprang from the parentage of a wealthy English gentleman, who established his residence on Long Island as early as 1667, and was mentioned in the old record of the island as a rentier.

Young Mott received a good classical education at Newtown, Long Island. Before attaining the age of eighteen he commenced the study of Medicine under Dr. Valentine Seaman, a kinsman. He graduated at Columbia College, after which, in November, 1806, he visited London, and entered Guy's Hospital as a pupil to Sir Astley Cooper, who soon kindled in young Mott a desire to emulate his tutor. His genius and inclinations soon attracted the special attention of his master, and between the matured greatness of Sir Astley and the expanding abilities of young Mott there was thus established a reciprocation of admiration which terminated only in death. Mott remained at Guy's about two years. Having there laid the foundation of his subsequent success, he visited Edinburgh, where he attended a course of lectures, after which he returned to London and resumed his attendance at Guy's and St. Thomas's Hospitals. It was his original design to complete his curriculum at Paris, but the interdiction of intercourse between the two countries, despite all necessary passports and private letters in his possession, compelled him to abandon the project, and he returned to America in the autumn of 1809. Upon his arrival he immediately commenced the practice of his Profession in the city of New York. In 1810 he was made Demonstrator of Anatomy to the late distinguished Dr. Wright Post, who was Professor of Anatomy and Surgery in Columbia College, and in the spring of 1811 he was elected Professor of Surgery. When entrusted with this important position he was not quite 26 years old. In 1814 Columbia College (Medical Department) was merged into the College of Physicians and Surgeons, and Dr. Mott was retained in the Surgical chair. In that year he was appointed Surgeon to the New York Hospital—a position which he held for some years. In 1826 he was Professor of Surgery in Rutgers College. Subsequently we find him again Professor in the College of Physicians and Surgeons. During this extended career Dr. Mott performed some of the most remarkable operations known in the history of Surgery. His first great achievement was in 1816, when he successfully performed an amputation at the hip joint. In 1818 he performed the difficult and delicate operation of placing a ligature around the brachiocephalic trunk or arteria innominata, only two inches from the heart, for aneurism of the right subclavian artery. This was the first operation of the kind in history, and the patient lived twenty-six days after. The New York papers say that when Sir Astley Cooper heard of this wonderful achievement of his pupil, he remarked, "I would rather be the author of that one operation than of all I have ever originated."

Besides these operations, and the numerous capital operations to which we have already alluded, in 1827 he tied the common iliac artery. It was the first time this operation was performed in any country, and was perfectly successful. The subject of it, in 1856, was still living, his life then having been extended nearly thirty years. On the 17th of June, 1827, he extirpated the entire clavicle for osteo-sarcoma. This operation originated with him, and has been performed but twice since—once by Warren, of Boston, and once by our own Travers. The subject, a distinguished clergyman of the South, was still living a few years before the Civil War broke out which is now so near its close.

In 1834 Dr. Mott visited Europe for relief from his arduous labours, remaining seven years. In 1841, immediately after his return to this country, he associated himself with Professors Pattison and Revere, then of Philadelphia, and Paine, Draper, and Bedford, in founding the University Medical College of New York. The first winter it opened with 300 students, by far the largest class ever inaugurating any Medical College in any country. To the great name of Dr. Mott, more than to any other influence, was this extraordinary success mainly due. The College was the idol of his heart, and he held its Presidency and Professorship of Surgery till 1849, when he retired from both. The effect of his retirement was so severely felt that in 1851 he resumed his connexion with the College, and filled the honourable post of Emeritus Professor of Surgery. So important was the name of Mott to the vitality of this institution, that, out of the city of New York, it was by the Profession, oftener than otherwise, designated as "Mott's School," in contradistinction to the two other Medical Colleges. Dr. Mott (with Drs. Stevens and Isaac Wood) was one of the projectors of the New York Academy of Medicine, in which he held the position of President. In 1856 he was Senior Consulting Surgeon to the City, to Bellevue, to St. Vincent's, to the Jews', and to the Woman's Hospitals. He had conferred upon him more honorary distinctions than any other Medical man in America. He received the degree of LL.D. from the Regents of the University of the States of New York in 1849. Besides being an Honorary Fellow of the Medical societies of the States of New York, Rhode Island, Massachusetts, New Jersey, Louisiana, etc., he was Foreign Associate of the Imperial Academy of Medicine of Paris, a distinction held at the time by but one man in Great Britain (Marshall Hall), and one in America (Mott). He was also Honorary Fellow of the King and Queen's College of Physicians of Ireland, Fellow of the Royal Medico-Chirurgical Society of London, of the Royal Medical Society of Brussels, and of Athens, of the Chirurgical Society of Paris, and he was Knight of the Fourth Order of the Mejidid of Constantinople, etc., etc. The King and Queen's College of Physicians of Ireland was founded in 1646, and during the last two centuries it has conferred Honorary Fellowships but about twenty times, and one of these was upon Mott. Dr. Mott's "Velpeau's Operative Surgery," his "Travels in the East," and his various Surgical papers contributed to American periodical Medical literature during the last forty years, are enduring monuments of his capacity as a writer; but his greatest merits were in Operative Surgery.

The loss of Dr. Mott to Medical and Surgical science will be severely felt. At the time of his death he unquestionably stood in America at the head of his Profession, and the richest legacy he has left are the hundreds of well-educated pupils throughout the country, alleviating the sufferings of humanity by disease, accident, or the casualties of war.

Up to the day of his death he maintained a close intimacy with Mr. Hammond, the late Director of the Medical Department of the Army, who was so infamously ill-used by the present Secretary-at-War, Stanton, and whose cause was supported in these columns in a manner which, we are proud to hear, was heartily commended by Mott and highly valued by Hammond and the Medical Profession generally in the Northern States. Neither President, Ministers, Senate, nor

Congress, are in these States representatives of the wealth, refinement, or education of the people. Universal suffrage has raised to political power a class of men with whom the *gentlemen* of America will not associate. If a man of education does enter Congress, his former associates look upon him as losing caste, partly by joining a lower order of men, and partly because he can only do this by courting the popularity of the mob. In such a state of things, it is no wonder that an independent man of science and the Profession which he represents must be beaten by any official who uses his power without scruple; nor is it surprising that Hammond and the Medical Department had to yield to the vulgar bully, Stanton. But Mott stood by him and the Department to the last, and the papers contributed by members of the Sanitary Commission, edited by Hammond, form an addition of great value to the literature of Military Surgery. The contributions of Dr. Mott to this volume are on "Pain and Anæsthetics," and on "Hæmorrhage from Wounds, and the Best Means of Arresting it." Both are popular rather than scientific essays, but extremely well adapted for their intended purpose. Of other work done by the United States' Sanitary Commission, and of the manner in which its great purposes were accomplished, it will be our duty and pleasure to write on some less melancholy occasion.

We have only to add a copy of the resolutions which were unanimously agreed to at a meeting of the New York Academy of Medicine called after the death of its late President:—

"Resolved, That this Academy, in assembling to do honour to the memory of Dr. Valentine Mott, who has just passed away in a ripe old age, recognise the fact that since its first organisation no member has been taken from among them who has filled a larger space in public estimation as a Physician and Surgeon than their deceased associate and late honoured President.

"Resolved, That our common country has reason to cherish the memory of Dr. Mott, not only as the greatest Surgeon ever produced in America, but as one who has taken rank with the first of this century in any part of the world; as one whose reputation was, indeed, world-wide, and whose name is known and revered wherever our Profession are found.

"Resolved, That this Academy are deeply sensible of the debt of gratitude our Profession owes to our late associate, from the legacy he has left us, of great improvements in Surgical science and art—improvements by which we are now enabled to save many valuable lives, which, without them, must have been lost, and which, in all future time, will be recognised as among the greatest achievements performed by any of its members.

"Resolved, That as it is not possible in this manner to testify our sense of the high character of Dr. Mott, as a citizen as well as a Surgeon, we will appoint one of our members to pronounce an eulogy on the deceased, and make a more fitting and enduring memorial of his character and virtues, and that at the meeting of the Academy held for the purpose citizens generally be invited to attend.

"Resolved, That we tender to the family of the deceased our warmest sympathies for the bereavement they have suffered, but hope and trust that, conscious as they must be, that although the head of the family has been taken from them, he has filled up the full measure of an useful and well-spent life, they have all the consolation possible in their affliction.

"Resolved, That we will attend his funeral in a body, and that we invite the Surgeons of the army and navy, and the members of our Profession generally in this city and its vicinity, to unite with us in paying this last tribute of respect to the memory of our lamented colleague.

"Resolved, That a copy of these resolutions be communicated to the family of the deceased, and that they be published in the daily papers."

MEDICAL NEWS.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their First Professional Examinations during the recent sittings of the Examiners:—

John Brooke, Unwin, Sussex; Tom Bates, March, Cambridge; William John Naismith, Sultanpore, India; James Robinson, Lancashire; Richard Green, Boston, U.S.; William Cunninghame Stirling Hunter, Dundee; John Alexander, Caithness; Christopher Allcock, Nottingham; William Henry Clarke, Birmingham; Wolfred Nelson Cote, Plattsburgh, N.Y.; Edwin Shelton Jones, Carnarvonshire; James Affleck, Ayr; John Affleck, Dumfriesshire; Alexander Hamilton, Dundee; W. K. Farrelle, Longford; H. S. Cribbes, Killin; John M'Rae, Ross-shire; G. R. Gilruth, Edinburgh; W. E. Wyllys, Somersetshire; John G. Braytun, Cumberland; Donald Campbell, Perthshire; Robert Pattie, Dumfriesshire; W. E. Stainton Stanley, Cumberland; Henry M'Laurence, County Londonderry; James W. Cox, Annan; Thomas F. Martin, County Louth; Thomas James Kane, Galway; Emerson J. Reynolds, Dublin; George M. Sinclair, Haddington; Richard W. Waring, Cavendish; James L. H. H. Porteous, Haddingtonshire.

And the following gentlemen passed their Final Examinations, and were admitted L.R.C.P., Edinburgh, and L.R.C.S., Edinburgh:—

Joseph Leman, Buckingham, Canada; Frank Godfrey, Salisbury; Thorburn Paterson, Mid-Lothian; James Hickinbotham, Birmingham; James Simpson, Cumberland; William Scobie Mackenzie, Sutherlandshire; John Fothergill, Westmoreland; John Burton, Walsall; Charles O'Hara, County Fermanagh; William Smyth, County Tyrone; Henry Robert Smith, Berwick-on-Tweed; John Johnstone, Liverpool; Henry Patchett, Lancashire; William George Washington Thompson, Ballymoney; John Raby, Cornwall; George Bell Murray, Annan; John Thompson Richardson Wotherspoon, Dumfriesshire; David Abercromby Burt, Fifeshire; Robert Shiels, Edinburgh; James Benson, County Roscommon; James Lindsay Mason, Montreal.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary Examinations for the Diploma, were admitted Members of the College, at a meeting of the Court of Examiners on the 11th inst.:—

Benjamin Lamb Powne, L.S.A., Billingboro', Lincolnshire; Wm. Lively Shepard, Gray's-inn-road; and Robert David Broughton, Ruyton, near Shrewsbury, students of St. Bartholomew's Hospital. Thos. Gray Pratt, March, Cambridgeshire; Thomas Hamilton Spilsbury, Sierra Leone; and Henry Edward Harrison, Great Ormond-street, of King's College. Thos. Joseph Faweitt, and Anthony Bell, Newcastle-on-Tyne, of the Newcastle School; Richard Bugden, Tenterden, Kent, of the Westminster Hospital; David Shoolbraid, Duff Town, Banffshire, of the Aberdeen School; John Cremonini, Bilston, Staffordshire, of the Birmingham School; Edward Butler Rutledge, Ingatestone, Essex, of the London Hospital; and Oliver Dillon Thomas, Pontypool, of the Middlesex Hospital.

It appears that six candidates out of the sixty-two who offered themselves for examination were referred back to their studies for six months.

The following gentlemen passed their Primary Examinations in Anatomy and Physiology on the 16th inst., and when eligible will be admitted to the Pass Examinations:—

Michael Perry, William Square, Julius Lawrence Levy, and William Overston, Students of St. Bartholomew's Hospital; Nicholas Hall and Arthur Tudor Humphreys Trevor, of King's College; Frederick Sydney Coombe and Frederick Adams Dawson, of St. George's Hospital; Thomas Charles Croose Wheateraft and Joseph Randle Buck, of Birmingham; Sydney Griesbach and Lionel Hirst, of Leeds; Matthew Wilson Kennedy and Joseph Stanislaus Meagher, of Dublin; Henry Leigh Mallory and John Heyes Anderton, of Manchester; George Yeats, of Aberdeen; Richard Harris, of Guy's Hospital; and William Jones Williams, of Edinburgh.

It is stated that no less than seventeen candidates out of the thirty-seven who presented themselves for examination were referred back to their studies for three months, having failed to acquit themselves to the satisfaction of the Court, and that another candidate was referred for six months, having been detected copying from a book. At a meeting of the Council on the 15th inst., Mr. Thomas Seccombe, of the Royal Navy, was admitted a Fellow of the College by election, his Diploma of Membership bearing date May 12, 1843. On this occasion Messrs. Adams, Annandale, and Agnis attended, and received from the hands of the President the respective Jacksonian Prizes and Special Honorarium recently awarded to them for the excellence of their essays.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their Final Examinations and were admitted Licentiates of the College during the recent sittings of the Examiners:—

Henry Sydney, Kent; David James Brakenridge, Perthshire; James Taylor, County Antrim; John George Thornley, Londonderry; Thomas John Denton, Yorkshire; John Burns Gibson, Ayrshire; Robert Jameson, Ayrshire; Bernard Doyle, County Down; Alexander Angus Halley Knight, Berwickshire; John Chiene, Edinburgh; Roderick M'Laren, Dumfries; Robert Main Mackelvie, Wigtownshire; James Keith Anderson, Arbroath; Andrew James Duncan, Bengal; Douglas Glendinning, Dumfriesshire; Frederick William Adolphus Skae, Edinburgh.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, May 11, 1865:—

Henry Whiting, Southend, Essex; George Fortescue Webb, Dawlish, Devon; William Nuttall, Bury, Lancashire; Morden Wright, St. Bartholomew's Hospital; Jarvas Wright, Knutsford, Cheshire; Herbert Wood, Ashton-under-Lyne; Edward Ingram Bostock, Horsham, Surrey; John Tasker Evans, Fore-street, Hertford; Josiah Allen, Ripley, near Derby; David Howell Thomas, Swansea; Ernest Last Fyson, Exning, near Newmarket; John Thomas Langley, Ganarew, Monmouth; Charles Edward Covey, Basingstoke; James Burdwood Watson, Havant.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ANDREWS, CHARLES, M.D., has been elected Medical Officer for the Fulham Union Workhouse.

BROWN, COLVILLE, M.D. Edin., has been elected Medical Officer for the Berwick-upon-Tweed Union Workhouse.

CHURCH, W. S., M.R.C.P. Lond., has been elected Physician to the Royal General Dispensary, Bartholomew-close.

COGAN, CECIL C., M.D. St. And., has been elected one of the House-Surgeons to the Royal Kent Dispensary, Greenwich.

CREED, THOMAS, M.D. St. And., has been elected one of the Surgeons for the District of Greenwich, Royal Kent Dispensary.

EDWARDS, HENRY, M.R.C.S. Eng., has been appointed Medical Officer for the Llandaff District of the Cardiff Union, and for the Workhouse and Industrial Schools.

EVE, RICHARD W., M.D. Aberd., has been elected one of the Surgeons for the District of Deptford, Royal Kent Dispensary.

FREEMAN, R. T., M.R.C.S. Eng., has been elected one of the Surgeons for the District of Deptford, Royal Kent Dispensary.

EE, SAMUEL J., M.B. Lond., has been appointed Assistant-Physician to the Hospital for Sick Children, Great Ormond-street.

ACQUES, J. T., M.R.C.S. Eng., has been appointed House-Surgeon and Apothecary to the Leicester Infirmary and Fever House.

MILLER, JOHN N., M.B. Lond., has been elected one of the House-Surgeons to the Royal Kent Dispensary.

MOON, FREDERICK, M.B. Lond., has been elected one of the Surgeons for the District of Greenwich, Royal Kent Dispensary.

MOORE, WILLIAM W., M.D. Edin., has been elected Assistant-Physician to the Sussex County Hospital, Brighton.

ALMER, HENRY R., M.R.C.S. Eng., has been elected one of the Surgeons for the District of Greenwich, Royal Kent Dispensary.

ROBERTS, R., M.R.C.S. Eng., has been elected one of the Surgeons for the District of Deptford, Royal Kent Dispensary.

ROGERS, C. E. H., M.R.C.S. Eng., has been appointed House-Surgeon to the Retford Dispensary, Notts.

COTT, WILLIAM, M.D. St. And., has been elected one of the Surgeons for the District of Greenwich, Royal Kent Dispensary.

AYLER, CALEB, M.D. St. And., has been elected one of the Surgeons for the District of Deptford, Royal Kent Dispensary.

AYLOR, Dr. JAMES, has been appointed Assistant Medical Officer to Barnhill Poorhouse.

WALSH, RICHARD, L.R.C.P. Edin., has been elected Medical Officer to the Clogheen Union Workhouse, Co. Tipperary.

DEATHS.

BRYCE, THOMAS, L.F.P.S. Glasg., at St. Andrew-square, Glasgow, on May 7.

CONSIDINE, Dr. WILLIAM, at Mobile, Alabama, on February 8, formerly of Rathmines, Dublin.

ALLOGLY, THOMAS, F.R.C.S.I., at Clogheen, Co. Tipperary, on April 2, aged 73.

KIRKWOOD, ALEXANDER, M.D. Edin., of Berwick-on-Tweed, on April 2.

LYONS, F., M.D., at South-terrace, Cork, on May 6.

ROBINSON, D., Surgeon, at Milu's-bridge, near Huddersfield, on March 29, aged 74, formerly of Longwood.

SADLER, THOMAS, L.S.A., at Bath-parade, Cheltenham, on March 20, aged 55.

ECCOMBE, WILLIAM, M.R.C.S. Eng., Staff-Surgeon, at Hobart Town, in February.

LOAN, CHARLES F., M.D. Edin., at Sandgate-street, Ayr, N.B., on May 1.

UTLEFFE, ROBERT B., Surgeon-Major H.M. M.N.I., at 27, Chepstow-place, Bayswater, on May 10, aged 53.

WILKINS, WILLIAM W., Surgeon, at Icknield-street West, Birmingham, on April 1, formerly of Madras.

WILMOT, J. H., M.D., Staff-Surgeon, at Ahmedabad, Bombay, on April 7.

ST. BARTHOLOMEW'S MEDICAL COLLEGE, 1864-5.—The following scholarships and foundation prizes have been awarded as follows:—*Senior Scholarship in Medicine, Surgery, and Materia Medica*—1. W. L. Shepard; 2. T. Cuddeford; 3. J. O. Adams. *Senior Scholarship in Anatomy, Physiology, and Chemistry*—1. W. J. Garrett; 2. W. Square; 3. F. H. Haynes. *Wix Prize*—H. Rundle. *Hichens Prize*—E. W. Berridge. *Practical Anatomy, Sen.*—Foster Prize: H. C. Upton; F. H. Haynes and R. B. Moore (equal); J. A. J. Timmins and J. Quick (equal); W. B. Burn, F. H. Lovell, and W. Square (equal); 9. W. H. Tattersall. *Practical Anatomy, Jun.*—Treasurer's Prize: L. Newton; 2nd prize. C. Wade; 3. J. Kirkman; E. B. Crowfoot and W. Thurston (equal); 6. E. Angove; 7. H. J. Butlin; 8. L. Clapham.

MESSRS. THOS. HAWKINS AND J. J. MOREWOOD have addressed the ratepayers of London, stating that twenty years ago they offered to drain the metropolis "on a plan which the Board of Works is carrying out;" that they proposed to do it for an annual charge of £30,000 for twenty-five years, whereas the present cost is £200,000 a-year, which will have to be paid for forty years or more; and that Government "again and again approved their plan," but, after "an incessant intrigue," the Board of Works "usurped their plan and their place." They also protest against the proposal to give the engineers of the drainage works a gratuity of £10,000, and "have petitioned Parliament for an inquiry into their own rights and the ratepayers' wrongs."

PATHOLOGICAL AND OBSTETRICAL SOCIETIES OF DUBLIN.—Dr. Churchill, who happens this year to be President of both the above Societies, received the members and other guests at a *conversazione* at his house in St. Stephen's-green, on the evening of Thursday, the 11th instant. Among those present on the occasion were some of the many visitors from Great Britain and the Continent, who were attracted to Dublin by the opening of the International Exhibition. The President successfully followed the example of one of his predecessors in dispensing with those microscopic and other objects of interest usually exhibited on such occasions, for which, indeed, in so crowded an assembly, there would scarcely have been room, while conversation was the more animated and not the less interesting from being left to take its own course. After an adjournment to the refreshment-room the guests separated, having had a most agreeable opportunity for Professional and social intercourse.

COLLEGIATE ELECTIONS.—The Fellows and Members of the College will no doubt be surprised to hear that Mr. James Moncrieff Arnott, F.R.S., twice President of the College of Surgeons, a member of the Council and Court of Examiners, and representative of the College at the General Council of Medical Education and Registration, and the most indefatigable and painstaking worker in the College, with which he has been so long and so honourably connected, is about to resign not only all these lucrative appointments, but also all others he holds in this metropolis, and to retire into the country. A large accession of property and the state of health of an attached daughter is the reason assigned for this step. As an examiner he will no doubt be succeeded by Professor Hilton, F.R.S., an appointment which will give general satisfaction. For his seat in the Council there will of course be a contest; already the names of Messrs. Turner and Ransom, of Manchester, and McWhinnie, of London, are mentioned. Mr. Ransom, it is expected, will retire in favour of the superior claims of his distinguished townsman. The retiring members of the Council are, as far as at present known, Messrs. Quain, of University College, and Shaw, of the Middlesex Hospital, who, it is stated, will offer themselves for re-election. The resignation of Mr. Arnott saves Mr. Wormald, who would otherwise have had to offer himself for re-election. He will therefore deservedly succeed to the President's chair, and his friends will wish him a continuance of robust health to enjoy the dignity he has so well earned by his independence and sterling honesty of principles. At the Westminster Life Office, it is stated, Mr. Campbell De Morgan will succeed Mr. Arnott, unless a Physician should be considered more desirable. The members will be glad to hear that it is proposed to invite them to another *soirée* at the College before the annual election in July next.

ROYAL MEDICAL BENEVOLENT COLLEGE.—The thirteenth annual festival in connexion with this College was held on Saturday last at the Freemasons' Tavern, the Right Hon. Earl Granville, K.G., in the chair. There are at the present time resident in the College, at Epsom, twenty-four pensioners, aged Medical men or their widows, each of whom is provided with three comfortably furnished rooms, an annual allowance of three and a-half tons of coals, and a pension of £21 a year. There are also resident in the College 200 boys, the sons of Medical men. The foundation scholars, numbering forty, are educated and maintained gratuitously, while the remainder are charged £40 a year each for an education of the highest class, board, washing, use of books, etc. There are also some day scholars, not necessarily the sons of Medical men. The accounts for the past year exhibit a balance of only £310, the total receipts having been £11,892 18s. 10d. After the usual loyal toasts had been honoured, Dr. Babington proposed "the Army, Navy, and Volunteers." Admiral Burney responded for the Navy, and Mr. J. L. Propert for the Army and Volunteers. The toast of "the Church," proposed by Mr. Scourfield, M.P., was acknowledged by the Rev. G. Pocock. In proposing the toast of the evening, the noble chairman dwelt upon the merits which the institution possessed, and the claims which it had upon all who desired to see suffering and affliction alleviated. The institution had been founded by those whose work was exceedingly laborious, and its success might be attributed to the earnestness and zeal which the friends of

this excellent charity had displayed. There was, probably, no Profession in which accident and chance exercised so large an influence as that of Medicine; for, while some of its members soon attained distinction and wealth, others, through no fault of their own, would remain in obscurity, still working for the good of their fellow-creatures. No Profession, therefore, had more claims for sympathy upon every class of the community. The noble lord concluded by appealing to the company for that support which the institution so eminently deserves. In acknowledging the toast of "the Chairman," proposed by Sir Charles Locock, Earl Granville expressed the satisfaction which he experienced at occupying the position of president of an institution which was calculated to confer so many benefits upon the distressed and suffering. Several other toasts followed. The subscriptions amounted in the course of the evening to nearly £1000.

British Museum.—The annual accounts of the British Museum have been issued. The expenditure for the past year has been £97,533, and the estimate for the current year is £100,164. Year by year additions are made in all the departments, and 1864 has been no exception from the rule. An extensive collection was obtained of the remains of human industry of a very early period, discovered in a cave on the banks of the Aveyron, in France. The Bishop of Newfoundland has presented to the zoological department a mummy specimen of the great auk, which was found in a deposit of frozen guano in Newfoundland, pressed flat, with the flesh converted into adipocere. With the exception of the extremities of the toes this example is perfect in every respect, even to the pen feathers on the wing; the beak is as perfect as on the day when the bird died. It is especially of interest on account of the belief that the bird has lately become extinct. Professor Owen has to acknowledge nearly 13,000 additions to the department of natural history. The Rev. H. B. Tristram has presented a large number of specimens of animals collected in Syria and Judæa, among which may be identified the "hare," the "coney," the "chamois," and other animals of Scripture. Among the additions to the department of geology, the most interesting, in relation to questions as to the antiquity of man and the cranial and dental characters of primitive races, are the partly petrified remains of the men who inhabited the limestone caverns of the south of France at the period when chamois, boquetin, wild horse, reindeer, the great extinct ox, etc., existed, and especially the reindeer, abounded in that part of Europe, and when, the use of metals being unknown, the primitive implements were chipped flints, by means of which diverse weapons and instruments, including needles, were manufactured from the bones and antlers of the beasts captured and killed for food. On some of those bone instruments the reindeer and horse had been delineated in outline with much truth and spirit, and these are probably among the earliest examples of the graphic art. While these evidences expand our knowledge of the relations of the human species with quadrupeds locally or absolutely extinct, others have been received indicative of the continuance of species now extinct to a more recent period than we had previously evidence of. Among such specimens are the valuable donations by the Hon. W. O. Stanley. The jaws and teeth of the northern elephant (*elephas primigenius*) were discovered with remains of red deer, stumps of large trees, hazelnuts, and alderberries, in a bed of compact peat, about three feet thick, covered by a deposit of blue clay of varying thickness, overlaid by a sandy deposit with shells of existing and neighbouring marine species, all cut through in excavating the harbour at Holyhead. But, among the evidences of a past animal existence, perhaps the oldest, geologically, are of highest interest. The Museum has been enriched, by a donation from the directors of the Geological Survey of Canada, with fossils of crustaceous and testaceous rank from the Cambrian or Lower Silurian shales, and more especially with a beautifully etched section of the still Lower Laurentian marble, exhibiting evidences of the protozoal foraminiferous organism called "Eozoon Canadense," which, at the present phase of geological science, is the most ancient fossil organism known. These are, indeed, valuable donations; but the one great gift for which Professor Owen cries out is the gift of space for the proper exhibition of the treasures that are thus accumulating in Bloomsbury. At present all that can be done with valuable acquisitions that flow in is to stow them where they may be safely kept, in hope of a time when they may be exhibited under proper conditions of light and access, or else to displace other articles to make room for the new arrivals to be seen.

Testimonial to Sir John Liddell, K.C.B., late Director-General of the Naval Medical Department.—On Tuesday a deputation of the following Medical officers waited upon Sir John Liddell, at his residence in Chester-square, and presented, on the part of a large proportion of their brother officers, a handsome service of plate:—Dr. Bryson, Medical Director-General; Inspectors-General of Hospitals and Fleets Wilson, Nisbet, Hilditch, Sir James Prior, Salmon, Kinnear, Smart; Walter Dickson, Medical Inspector H.M. Customs; Staff-Surgeons Baynes, Bernard, Grigor, Donnet, and Domville, hon. secretary. The testimonial (consisting of a handsome candelabrum and four richly chased fruit stands) was consequent upon his retirement from office, a fact which was no sooner known than a simultaneous desire was manifested on the part of naval Medical officers to convey to Sir John Liddell some signal mark of sympathy and regard, and of the high estimation in which he was held by those over whom he long and honourably presided. "Actuated by these feelings, local meetings spontaneously assembled at the several ports, and on the 4th of March, in union therewith, a general meeting was held in London, under the presidency of Dr. Wilson, Inspector-General, which was numerously attended by every class of the naval Medical service. It was there resolved to give effect to the desire so generally shown of recording their admiration of the great Professional and administrative qualities evinced by the late Director-General throughout a long and distinguished career, and their grateful sense of his strenuous and successful efforts to elevate the status of naval Medical officers, and to maintain the honour and efficiency of the department." The candelabrum (manufactured by Hancock, of Bond-street,) is in the form of an oak tree, with six spreading branches, the extremity of each so formed as to hold a light, and the centre supports a richly cut dish. The base is triangular, artistically representing rocks covered with moss. On each side is left a space for inscriptions, arms, orders, etc.; and surrounding the tree are three draped female dancers, holding wreaths, garlands, etc. The whole rests upon a plateau, the border of which corresponds with the base of the centrepiece. The inscription is as follows:—"To Sir John Liddell, Knight Bachelor of the United Kingdom, Knight Commander of the Most Honourable Order of the Bath, Knight of St. Anne of Russia, Knight of the Redeemer of Greece, late Director-General of the Medical Department of the Navy, and an honorary Physician to the Queen. In token of esteem from Medical Officers of Her Majesty's fleet, 1865." The four fruit stands are of the tazza shape, with richly chased border. The act of presentation was confided to Dr. Wilson, as an old and esteemed officer, and in doing so he gave expression to a terse address:—"Sir John Liddell,—We are here to present you this testimonial to the value of your services (as a Medical officer, especially as chief Medical Officer of the Navy), on your relinquishing the toil and trammels of office, and retiring to the calmer engagements and amenities of private life. We are rather a small party, but we represent a large body of our brother officers, who have co-operated with us cordially and successfully in bringing about this good work—and a good work it assuredly is, in every sense, since the material is good, the workmanship exquisite, *opus superabat materiam*, and the object excellent—namely, that of showing the estimation in which you are held by the Medical Officers of the Navy. It is not well to praise a man to his face, and I am not here to praise you; but I affirm that your conduct throughout, whether toiling in the ranks as an ordinary member of the corps, or conducting its concerns as Director-General, has been such—being discriminative, faithful, and fearless—as to deserve, nay demand, some such demonstrative recognition as this. And now let me express the hope, the hope of us all, that you may have health and long life to contemplate, with the satisfaction which it must excite, this beautiful product of artistic skill, considering it, as it is, a permanent proof of regard, an abiding and eloquent certificate of merit." The late Medical Director-General replied:—"Dr. Wilson and Gentlemen,—I accept with pleasure the splendid testimonial that you have generously conferred upon me, which is very gratifying, as it will be an enduring testimony not only of your approbation of my conduct while at the head of the Medical Department of the Navy, but as a proof of the goodwill and kindly feeling of the corps, whose interest and honour I have striven to uphold. I assure you that I appreciate cordially the value of this beautiful specimen of art, which is creditable to your taste, not so much for its intrinsic worth,

which is great, but far more for your good feeling of regard on my retirement from the public service. It is true that my shortcomings, of which I am very sensible, have been great, and that I have not succeeded in attaining all the good I tried to accomplish; but I trust that the corps will feel that I used every honest endeavour to render the best services to all that circumstances enabled me to make."—*Army and Navy Gazette.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Will "A Naval Medical Officer" send us his name and address in confidence?

Dr. Collis's excellent work on Tumours shall be reviewed next week.

Zeta.—We cannot recommend any particular Practitioner. Consult any respectable Medical man in your own neighbourhood. Your case is thoroughly understood.

New Articles of Diet for the Sick.—We have received samples of *Extractum Carnis, Liebig*, from Van Abbott's Dietetic Depôt, No. 5, Princes-street, Cavendish-square.—Also, a packet of *Cerealina*, a new material for puddings, gruels, etc, from Richmond Keith, Ingram-court, Fenchurch-street.—Also, a sample of *Oxygen Water* from the Oxygenated Water Company, Limited, 39, Long Acre.—All these shall be noticed immediately.

Lisbon Wine.—In reply to a correspondent who asks about this wine, the author of the *Report on Cheap Wine* says:—

"It is virtually extinct as an article of commerce under its own name, because, such is the hypocrisy of the age, no one would venture to offer a friend a glass of Lisbon unless he called it sherry. Lisbon wine, as I recollect it, was a sweetish, pleasant wine, of no high character; but it is years since I tasted it." The other day, being at my own wine merchant's, I was told that they lately had rummaged out an old stock of obsolete wines, as Lisbon, Calcavella, etc., and I eagerly asked for some. "Oh, no," was the reply, "they were not saleable, so they were medicated, and made into sherry."

A new set of Classes for the instruction of Medical students in the subjects of the Preliminary Classical and Mathematical Examinations, and the Matriculation Examinations of the University of London, is opened at the St. John's College, St. John's-wood, London, N.W., of which the Rev. Dr. Alston is Principal.

Chemists and Druggists Bill.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—This Bill is, as you observe, likely to injuriously affect the practice of most Medical men. Being suggested by the General Medical Council, and eagerly supported by the trade, there is every prospect of its becoming law. The Parliamentary Committee of the British Medical Association have endeavoured to mitigate its effect on the Profession by suggesting the insertion of the following clauses:—

"To Clause 17, which saves the rights of Medical Practitioners, it is proposed to add—'And it shall not be lawful for any person registered under this Act to prescribe for any patient, or undertake the treatment of disease, or in any way assume to act as a Medical Practitioner, and every chemist and druggist so offending shall, upon a summary conviction, forfeit or pay a sum not exceeding £10.'

"As Clause 19 insert the following:—'No patent, quack, or other medicine shall be sold, unless a sworn certificate of its composition be lodged with the Registrar appointed under this Act, and a copy thereof be open for inspection in the shop or place in which such medicine is sold, and any person or proprietor of a shop, selling any secret remedy, shall, on summary conviction for each such offence, be liable to a penalty not exceeding £20.'"

A petition in support of these clauses was presented by Sir Fitzroy Kelly, M.P., to the House of Commons on Monday, the 15th inst., a copy of which I send you. I am, &c.

13, Finsbury-square, E.C., May 16. Septimus Gibbon, M.B.

"Chemists and Druggists Bill.

"To the Honourable Commons of the United Kingdom of Great Britain and Ireland, in Parliament assembled.

"The humble petition of the Metropolitan Counties Branch of the British Medical Association

"Sheweth,—That two Bills, entitled 'Bills to Regulate the Qualifications of Chemists and Druggists,' are now depending in your honourable House.

"That chemists and druggists are neither qualified by law nor competent by education to practise Medicine.

"That injury to health, and not unfrequently loss of life, result from chemists and druggists undertaking the duties of Medical Practitioners.

"That the sale of patent, quack, and other secret medicines has an injurious influence on the health of the community, more especially on the infantile portion of it.

"That the traffic in secret remedies, which is repudiated by the qualified Practitioner, enables the unqualified pretender and the uneducated quack to victimise Her Majesty's subjects to an incredible extent, as well in person as in purse.

"Your petitioners therefore humbly pray that in the said Bill adequate provision may be made:—

"1st. For preventing the registered chemists and druggists from practising Medicine and Surgery.

"For preventing the sale of any patent, quack, or other medicine, unless a sworn certificate of its composition be lodged with the registrar appointed under the Bill, or be otherwise made accessible to the public.

"And your petitioners will ever pray, etc.

"Signed on behalf of the Branch Association,

"Charles F. J. Lord, President.
A. P. Stewart, M.D.,
Alexander Henry, M.D.,
Septimus Gibbon, A.B. and M.B.,
} Hon. Secretaries."

COMMUNICATIONS have been received from—

Dr. Henry C. Andrews; Mr. Thomas Hawkins; Mr. J. C. Wilkinson; Mr John Brickwell; A Naval Medical Officer; Inquirer; Mr. James Robertson; Royal Institution; Mr. W. Fairlie Clarke; Dr. W. Spalding; Mr. Callender; Royal Medical and Chirurgical Society; Mr. H. Haden; Dr. George Ellis; Mr. C. R. Thompson; Dr. W. H. Aldersey; Dr. R. Stewart; Zeta; Apothecaries' Hall; Mr. Alex. Fiddes; Mr. C. De Morgan; Dr. R. Lawson Tait; Mr John Scott; Dr. Alexander Robertson; Western Medical and Surgical Society.

BOOKS RECEIVED.

A Letter to the Members of the British Medical Association on the subject of their Future Journal. By Robert B. Carter, F.R.C.S.

*** Mr. Carter desires to suppress the *British Medical Journal* and establish a periodical of a popular character.

Is the Pleasure Worth the Penalty? A Common-sense View of the Leading Vice of the Age. By Henry Butter. London: Job Caudwell.

*** Of course, if young people did but *think*, they would agree with the author of this useful pamphlet.

The American Journal of the Medical Sciences, April, 1865.

Homes Without Hands. By the Rev. Hy. Wood. Part 17. London: Longman and Co.

A Dictionary of Chemistry. By H. Watts. Part 26. London: Longman and Co.

Ellis's Dissections. Parts 14 and 15. London: Walton and Maberly.

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 13, 1865.

BIRTHS.

Births of Boys, 1008; Girls, 991; Total, 1999.
Average of 10 corresponding weeks, 1855-64, 1791·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	580	587	1167
Average of the ten years 1855-64	598·8	589·1	1187·9
Average corrected to increased population..	..	..	1306
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	5	3	..	7	11	1
North ..	618,210	4	1	3	2	17	12	5
Central ..	378,058	1	..	1	1	10	4	2
East ..	571,158	..	3	5	1	12	12	5
South ..	773,175	2	9	10	1	11	10	9
Total ..	2,803,989	8	18	22	5	57	49	22

APPOINTMENTS FOR THE WEEK

May 20. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

Royal Institution, 4 p.m. Alex. S. Herschell, Esq., "On Meteorology."

22. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

23. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.

Royal Institution, 4 p.m. Professor Frankland, F.R.S., "On Organic Chemistry."

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Robert Lee, "On Uterine Polypi." Mr. Henry Lee, "On Amputation of the Leg by a Long Rectangular Flap." Mr. C. Hunter, "On the Hypodermic Administration of certain Medicines." Dr. Wynn Williams, "On Tuberculosis."

24. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

25. Thursday.

Operations at St. George's, 1 p.m.: Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.: West London Hospital, 2 p.m.

Royal Institution, 4 p.m. Professor Frankland, F.R.S., "On Organic Chemistry."

26. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

Royal Institution, 8 p.m. Dr. H. Bence Jones, F.R.S., "On the Determination by Spectrum Analysis of the Rate of Passage of Crystalloid Substances into and out of the Tissues of the Living Body."

ORIGINAL LECTURES.

LECTURES ON CHEMICAL AND MECHANICAL DISEASES AND THEIR RELATIONSHIP.

By H. BENCE JONES, A.M., M.D., F.R.S.

Lecture V.

DISEASES OF SUBOXIDATION.—ON GOUT.

(Continued from page 434.)

On the Treatment of Gout.

In the present state of our knowledge the treatment of gout may be divided into two parts: first, the specific; and second, the expectant treatment. Each method has its own advantages and disadvantages, and by the right use of both proceedings the greatest good with the least harm may be attained.

The specific treatment aims to get rid of the attack as soon as possible; that is, to put an end to the pain at once; to stop the fibrinous and crystalline thickening of the joints, and to allow the patient to return to his usual mode of life in the shortest possible time.

The disadvantages of this treatment are, first, that the specific sometimes acts more violently than is intended; and secondly, that cutting short an attack leads more quickly to a return of the disease, because the usual mode of life is that which has caused, and therefore will again cause, the gout; and thirdly, that the urate of soda existing in excess in the serum and diffusing into all the textures, where it is oxidised, if stopped in its active oxidation in any part, is more liable to set up a process of active oxidation in the fibrous textures of some internal organ, as the stomach, the brain, or the heart.

The expectant treatment aims to keep the gout fixed in the extremities until the textures and blood are freed as much as possible from the urates by oxidation, and to effect a long-continued change for the better in the usual mode of life, at least during the illness; and from both these causes a long interval is likely to intervene between the fits of gout.

The disadvantages of this treatment are, first, that the patient may get very feeble from the long-continued inflammation and confinement, and that out of this other ailments may thus arise; secondly, that the joints, in consequence of the duration of the inflammation, may become much more thickened by fibrin and urates than they otherwise might be, and that thus also the general health may give way from the loss of exercise.

The value of the specific treatment is seen when some more important organ than a joint is attacked by violent gouty or rheumatic inflammation. Then, to avoid irreparable injury to the organ, the specific inflammation must be stopped as quickly as possible. Acute inflammation of the eye furnishes by far the most striking example of the use of colchicum. By the specific treatment the eye may be saved; by the expectant treatment it will be lost; and the activity of the specific treatment must bear a direct proportion to the intensity of the inflammation. In a slight attack the expectant treatment alone may be required, but in a violent outburst the most energetic specific treatment, even with the help of local or general bleeding, will scarcely be able to preserve the sight of the inflamed eye.

The specific treatment consists in giving colchicum, veratria, sabadilla, and different quack medicines the composition of which is unknown, but which probably contain one or other of these remedies.

By far the most popular specific is colchicum; and if the action of this substance was fully known the action of all the other gout specifics would be understood.

There is no question that the alkaloid colchicine is the active substance in colchicum; and, though this substance is not yet isolated and analysed, there are good grounds for belief that it closely resembles veratrine, perhaps as closely as quinine does cinchonine.

Colchicine $= CxHyN_2Oz.$
Veratrine $= C_{64}H_{52}N_2O_{16}.$
Strychnine $= C_{42}H_{22}N_2O_4.$
Quinine $= C_{40}H_{24}N_2O_4.$
Cinchonine $= C_{40}H_{24}N_2O_2.$
Morphine $= C_{31}H_{19}NO_6.$

It is very evident that the analyses of these different alkaloids gives no clue whatever to their Medical properties; and so the analysis of colchicine will give no explanation of the mode of its action. But, however much these alkaloids differ in their action, they all have this in common, that they act energetically on the nervous system.

The problem to be solved is, how does colchicum stop the excessive oxidation set up in the parts where the urates are most liable to accumulate, partly, perhaps, in consequence of the non-vascular nature of the textures?

That colchicine acts as a diuretic, and throws the uric acid out of the blood, is not capable of proof, and if it were would not give any explanation of its action on the joint. That colchicine promotes the oxidation of the uric acid by directly furnishing oxygen, as peroxide of lead might do, is contrary to all chemical probability. There remains the unproved assumption that colchicine, like these other alkaloids, acts on Dr. Liebreich's protagon that the alkaloid has a chemical action, by actual contact with the nerve substance of the blood vessels, where the gouty inflammation is going on, causing such an action on the vessels that the inflammation ceases.

This assumption makes the action of colchicine comparable with the action of veratrine, strychnine, and morphine, all of which act with intensity on the nervous substance; and this assumption leads to a conjecture as to the action of quinine, that it also may act on the nerves of the blood-vessels, stopping the internal congestion, on which the external rigor of ague depends. The deafening and prostrating effects of large doses of quinine can arise only from an action on the auditory and cardiac nerves, and the arrest or prevention of an ague fit can best be comprehended by the assumption that quinine acts on the nerves of the capillaries, stopping congestion; whilst colchicine acts on the same system of nerves, stopping inflammation.

M. Roudanowski has stated to the Académie des Sciences that, after poisoning animals by strychnine, nicotine, opium, and chloroform, he has detected by the microscope changes in the nerve cells or in the myeline; but his observations cannot yet be received as conclusive.

In M. Laville's specific, veratrine is probably the active alkaloid; most probably a small amount of morphine is also dissolved in the wine with which it is prepared. It is said to be made from sabadilla seed, but whatever the source or nature of the alkaloid, it must have an action corresponding to colchicine, and the good and the harm from this specific cannot be much more nor less than the good and the harm of colchicum. It cuts short the attack, and thus saves the injury to the joints from the continuance or severity of the inflammation; but it does this by stopping the oxidation of the urates in the textures, and hence a relapse or renewal of the inflammation more quickly and easily takes place.

Moreover, like all other specifics, it gradually loses its effect when it has been used in many attacks, and one at the least of those who have been its most public supporters have abandoned it for some fresh, though far less potent, remedy.

Used in half-drachm doses every four hours, or one drachm doses twice or thrice daily, it acts often most decidedly. If anything, it causes less action on the stomach, and more action on the bowels than colchicum, and from the disposition to drowsiness which it frequently occasions, probably the irritative action is moderated by some opiate.

There can be little question that colchicine used by subcutaneous injection into the neighbourhood of the inflamed part would put an end to the attack; but the danger of an overdose would, perhaps, be greater than when taken in by the stomach, and the benefit derived from its use would not compensate for the fear of its abuse. It would probably act more quickly and more strongly than when taken into the stomach, but this rapid relief would be gained at much greater risk to life from the alkaloid acting on the nerves of the heart and causing dangerous syncope. Moreover, relief from pain and time for the full action of the colchicine when taken by the mouth may be obtained by the subcutaneous injection of one-fourth or one-third of a grain of acetate of morphine in ten or twelve minims of water into the neighbourhood of the inflamed joint.

Late one evening I was sent for to a gentleman suffering with a most violent attack of gout in the knee; the heat and the pain were excessive. There was some swelling and some redness. The attack had begun in the previous night, and had increased in intensity all day. I injected the third of a grain of morphine into the inside of the thigh near the knee, and gave a drachm of Laville, ordering another drachm to be taken when he awoke. He slept for upwards of six hours without waking, and he seemed very certain that but for the injection

the night would have been passed in even more agony than the day. After four drachms of Laville the attack subsided, and the following night no morphine was required.

In sciatica the use of the subcutaneous injection is most beneficial; sometimes almost whilst giving the morphia the pain subsides, and in eight or ten minutes drowsiness comes on, and sound and continuous sleep follows; but the alkaloid acts more strongly than when taken into the stomach, and an overdose may easily be given, and the poison is beyond the reach of an antidote.

The expectant treatment consists in preventing the accumulation of the urates in the serum and textures, and in promoting its elimination and oxidation.

The accumulation of urates is greatly to be prevented by a strict diet, chiefly as regards the quantity of animal and vegetable albuminous food that is eaten.

The elimination of urates is best effected by washing the serum and textures—that is, by increasing the flow of urine by means of water or diuretics. When the serum is comparatively free from urates, then the urates in the textures diffuse back into the blood and may be thrown out.

The oxidation of the uric acid in the textures and blood can be effected directly or indirectly by air, diet, and medicine.

So that the expectant treatment consists of diet, to prevent accumulation of urates, and to promote its oxidation; diuretics to promote its elimination; and air and medicine to promote its oxidation.

During and after an attack of gout, when thickening of the joints exists, medicines that promote the absorption of the effused fibrin and serum are very useful. Of these iodine externally and iodide of potassium with alkalies internally are the most efficacious. Iodine, perhaps, acts indirectly as an oxidiser.

But first of the diet:—

Let us suppose that the minimum diet of health may be represented by 10·5 grammes (162 grains) of soluble nitrogen, and 240 grammes (3696 grains = 8 ounces nearly) of soluble carbon—

If 1 ounce of meat when dry contains 108 grains of nitrogen and 33 grains of carbon; or,

If 1 egg contains 118 grains of nitrogen and 62 grains of carbon,

And 1 ounce of butter contains 355 grains of carbon,

And 5 ounces of dry bread contain 232 grains of nitrogen and 464 grains of carbon,

And 21 ounces of arrowroot contain 3633 grains of carbon,

Then it is easy to see that 2 ounces of dry meat, or 2 eggs, or 5 ounces of bread will give more nitrogen than the system requires to repair ordinary losses, and the excess may have to be thrown out, partly in the form of urates, when the oxidation is insufficient to produce urea.

If 2 ounces of dry meat or 2 eggs only are taken, about 10 ounces of butter would be necessary to furnish the fuel and power for the system, or an equivalent quantity of fat must be absorbed from the stores deposited in the cellular tissue. Or, if 5 ounces of dry bread only were eaten, then above 9 ounces of fat must be taken up in twenty-four hours; but 2 ounces of dry meat, or 2 eggs, or 5 ounces of bread, requiring the wasting of the body by 9 or 10 ounces of fat daily, could not long be endured. Moreover, these quantities of nitrogenous food produce more uric acid than a less nitrogenous diet would do.

If a little more than 21 ounces of dry arrowroot were taken daily, this would supply more carbon than is lost in the daily oxidation. The excess of carbon must either be deposited as fat, or must take away the oxygen, so as to leave none free to act on the nitrogenous substance that is passing out from the albuminous textures. Hence, with carbonaceous diet in excess, the whole of the uric acid from the tissues might pass off through the blood unoxidised.

It follows, then, that in gout a minimum of albuminous food should be taken in order to produce the least uric acid; and a minimum of carbonaceous food in order to allow the uric acid to be oxidised as much as possible.

If a pint of ordinary beef-tea, free from fat, contains 46 grains of nitrogen and 160 grains of carbon, and if an ounce of dry arrowroot contains 363 grains of carbon, then $3\frac{1}{2}$ pints of beef tea and 9 ounces of arrowroot will contain the full amount of elements that are required even in health for the system, and far less than this would be desirable when the minimum production of urates is required.

Secondly, as to air.

In oxygen the energy exists without which all our heat and all our power, and, indirectly, if not directly, all our growth would stop. The nitrogen of the air probably only dilutes the oxygen to the strength we can bear. Some experiments of M. Regnault's show that in less dilute oxygen more of this gas is not inhaled than in our atmosphere. M. Pettenkoffer will probably give us more accurate knowledge of this subject, and enable us to see the amount of intermediate oxidations going on within the body by comparing under natural conditions the total amount of oxygen that goes in with the amount that comes out in the carbonic acid and water that are the products of the ultimate oxidation only.

The use or uselessness, in the treatment of gout, of the inhalation of oxygen and of ozone can be determined only by the most careful experiments. At present, voluntarily increased rapidity of respiration by exercise (blowing the fire, in other words) is likely to add more oxygen to the blood than strengthening the mixture of oxygen in the air.

The oppressive and debilitating effect produced by the respiration of air heated to the temperature of the blood proves that diluting the oxygen by expansion produces a very decided effect on the oxidising action in the body. The hotter the air, the less will be the amount of oxygen in a given space; and the colder the air, the more oxygen will the lungs obtain. Moreover, the diffusion of the gases in the vesicles and the bronchial tubes must be greatly influenced by the different temperatures of the different parts of the column of air. The purer the air, the less carbonic acid, and the less mineral, vegetable, and animal impurities will it contain in the form of dust. Any increase in the amount of carbonic acid in the inspired air produces a chemical impediment to the escape of carbonic acid from the blood, and the passage of smoke and dust into the air vesicles themselves mechanically interferes with the actions of solution and diffusion on which respiration depends.

When there is reaction, cold air (or cold water) promotes oxidation; but continued external cold directly or indirectly causes contraction of the vessels of the surface, and drives the blood within; and hence the greatest oxidation takes place by keeping the circulation free on the skin and extremities by the warmest possible clothing by enveloping the inflamed part in cotton and oil-silk, or in flannel.

Thirdly, on the action of medicines in promoting oxidation, elimination, and absorption. For indirectly promoting oxidation the two most potent medicines we possess are alkalies and iron.

Alkalies assist in the oxidation of organic substances, not by giving oxygen, but by promoting the formation of vegetable and animal acids, and ultimately forming carbonates out of the burning matter. Familiar instances are the saponification of fats, the use of caustic potash in Trommer's test for sugar, the use of lime in Moore's test; the use of potass in Liebig's method of determining the amount of oxygen gas by pyrogallic acid.

Hence caustic alkalies, potass, soda, magnesia, are more efficacious as oxidisers than carbonates, and carbonates more potent than bicarbonates. But even bicarbonates, when heated with organic substances, lead to the formation of organic acids, which displace the carbonic acid, and thus promote the oxidising action. Thus diabetic sugar with sulphate of copper and carbonate or bicarbonate of potash in the cold gives no reduction, but when heated to 212° the reduction is evident. Ammonia is at least partly oxidised in passing through the system, and therefore it is of no avail in the treatment of gout as an oxidiser, though it may be used to neutralise acid in the stomach, or to act as a temporary stimulant.

Iron indirectly is an oxidiser, by its power of drawing oxygen into the blood. The great object of giving iron as medicine is the formation of blood-globules. For this hæmatoglobulin itself would probably be the best preparation, as being nearest in composition to the substance ultimately formed; but hitherto all attempts to prepare even hæmatin in quantity as a medicine have failed, and dried colouring matter of the blood is the simplest substitute. The reduced metal, the oxide, the carbonate, or some vegetable salts, are usually given, and all with good effect. The large amount of iron that passes off in the fæces and urine shows how little metal attains the intended object. In ten minutes I have found a solution of sulphate of iron passing out in the urine, and in twenty-four hours in the fæces. Hence very small doses of hæmatoglobulin would probably be equivalent to the large doses of other iron medicines which are given. In the active state of gout iron of any kind is inadmissible; in the passive state it becomes a most efficacious remedy.

All the salts of the organic acids that pass through the

stomach into the blood, as, for example, the acetates, tartrates, citrates, are oxidised and pass into the urine and textures as carbonates; and hence all effervescing saline draughts may be considered as acting in the tissues as the carbonates of the alkalics act; that is, they promote the formation of organic acids in the textures; and these acids pass by the absorbents, and by the veins back into the blood, to be oxidised and thrown out by the urine and by the skin.

The mineral waters, reputed good for gout, are mostly dilute solutions of alkali—*e.g.*, Vichy water. Generally the stronger the water the more efficaciously it acts, but the action of the water itself must not be disregarded—*e.g.* Buxton; the water diffuses not only into the urine, making that more dilute, but it dilutes the serum of the blood, and diffuses into the textures, dissolving deposited urates, and hindering fresh deposition of crystals. Thus water alone in sufficient quantity acts not only as a diuretic, but as a dialytic remedy, and in gout the action of the water of mineral waters might be still more exactly defined as urilytic. The water takes the uric acid as urates from the textures and carries it to the blood to be oxidised, and thrown out as urea and carbonic acid.

In the gouty deposits, however, there is another deposit—namely, fibrin, which is by no means soluble like the urates, for water and alkaline carbonates have but little action on deposited fibrin. How far iodine, bromine, and mercury possess the power of indirectly or directly oxidising fibrin has yet to be determined. In the present state of our knowledge, nitrate of potass is of all remedies the one which can pass most readily into the joints, and can exert a solvent action on the fibrin that may be deposited there.

On the Secondary Mechanical Diseases that arise from the Wrong Chemistry of Gout.

The accumulation of urates from the want of oxidation in the textures, and the deposition of fibrin in and around the joints, gradually produce more or less complete loss of motion. In extreme cases after each attack of gout, a lower degree of locomotion is reached by the patient. The stiff fingers and toes are followed by stiff ankles and wrists, and these by stiff elbows and knees, which generally fix the patient in the sitting position. Then the hips and shoulders become affected, and the jaws will scarcely open to allow solid food to pass. Ultimately, even the neck loses much of its mobility.

These different stages may be reached gradually and successively; or many stages may be passed through in a single attack. When once a joint has become fixed, very little liberty of motion is afterwards regained, but by persevering endeavours to extend and to flex the joint, in spite of the pain which the attempted motion causes, more use of the limb may be got than at first sight might be thought possible. As soon, however, as a fresh attack of gout comes on, far more motion usually is lost than had been regained.

The consequences that result from the more or less complete loss of motion may be divided into two classes. The first are mechanical, and the second chemical, and these are so connected the one with the other, that it might perhaps better be said that the effects are mechanico-chemical and chemico-mechanical.

The mechanico-chemical effects may be seen in almost every texture of the body.

In the skin the inability to relieve the pressure of one part on the other or of any part on the surrounding matter causes fresh irritation, and then ulceration; so that sores will form wherever the pressure is greatest.

In the cellular tissue the uniform position causes the veins to become distended, increased effusion into the cellular tissue occurs, and the absorption of fluid is diminished, and œdema in the legs and sometimes in the arms may be observed.

In the glandular organs the loss of exercise causes diminished flow of blood through the textures, and hence diminished secretion of bile, urine, saliva, occurs.

The chemico-mechanical effects of complete loss of motion are seen in increased loss of oxidation and nutrition in all the vascular and non-vascular structures of the body.

In the skin dry or moist eczema very frequently occurs.

In the muscles the muscular fibre so wastes and fatty matter so takes the place of contractile texture, that even if the joints were free to move, the muscles themselves are so changed in chemical composition that they become ultimately unfit for work.

Then the tendons contract, and the shortened muscles drag the limbs and extremities into outrageous distortions.

In the blood vessels and cornea, atheroma and the arcus senilis, even in comparative youth, give evidence of the low degree of nutrition and oxidation that is taking place in the textures.

In the glandular blood vessels—as, for example, in those of the kidney—the same alteration occurs. Some of the components of the urine remain in the blood, while the albumen of the blood passes into the urine. Thus one of the consequences of the gout tends to reproduce the cause of the gout.

The very bones undergo changes of nutrition from the ossicles (a) of the ear to the thigh bones, at first thickening in parts, with increased vascularity, whilst elsewhere increased earthy deposit gives an ivory hardness; afterwards absorption may occur in places, so that the trochlea of the humerus or the neck of the thigh-bone may be more or less completely absorbed, and the form of the bones may thus be entirely changed.

At first the nerves and the brain seem the only parts of the body unaltered, but increased sensibility aggravates the sufferings of the patient. Then comes great irritability, with want of decision; then loss of perception or false perceptions amounting to hallucinations, of which the patient himself may be perfectly conscious. If the strength of nutrition returns, all these symptoms may entirely disappear, showing that no permanent alteration of the nervous centres has occurred.

Thus the original chemical disease of suboxidation of the urates may cause such an entire loss of mechanical power that not even a crumb of food can be raised to the mouth or a fly can be driven away from the skin, and death would soon result from the debility of starvation, if external force was not made to compensate for that which cannot be produced within.

But gradually the textures deteriorate and the fluids stagnate, and debility or dropsy mechanically put a stop to the sufferings which the wrong chemistry had originally produced.

ORIGINAL COMMUNICATIONS.

SURGICAL INQUIRIES.—No. III.

THE SURGICAL BEARINGS OF THE TISSUE, OR CELLULAR PATHOLOGY.

By FURNEAUX JORDAN,

Surgeon to the Queen's Hospital, Lecturer on Anatomy at Sydenham College, Birmingham.

I USE the word tissue or tissue-element pathology in preference to the term "cellular" pathology, because of the important modification which is being made in our views of the structure and origin of the tissue, and by no one more than by Professor Beale. At the same time, the word "cell" (without here implying the necessary existence of a cell-wall) still remains as the most convenient to apply to certain morphological elements which everywhere prevail in the tissues, in the glands, and in the embryo, and which are allowed to be the chief centres of action in normal nutrition, secretion, and development.

My object in this inquiry is to show the better adaptation and the more universal applicability of the tissue-germ pathology to the phenomena of Surgical disease and injury. To do this with advantage, I must first review the main evidences in its favour, and glance, at the same time, at the defects of the exudation theory.

To the genius of Goodsir is due the increasing recognition of the inherent activity of the cell, but to Virchow belongs the merit of showing that all specific action in pathology belongs to the tissue elements, and that no specific action is exercised by the vessels or nerves.

The only action which vessels possess shows itself in a diminished supply of blood. It is also impossible that nerve influence can be essential to inflammation, because, now that we recognise the division of the axis cylinder of nerves, the assumed pathological influence must necessarily be transmitted to the whole area to which the given nerve is distributed. But, in fact, pathological activity is always most marked where the cause (acting on the tissue elements) operates most intensely. Indeed, there is proof of overwhelming completeness that vascular and nervous influence are not necessary to pathological action. The cornea, cartilage, certain papillæ of the skin, and the abundant substance of the umbilical cord, are all seats of typical forms of inflammation, and yet are

(a) Pathological *Transactions*, vol. ii., p. 321.

totally devoid of vessels and nerves. Again, inflammation constantly occurs in parts, the nerve supply to which is suspended either by disease or injury. The argument which Mr. Paget (a name I shall never mention without unqualified regard) advances in favour of the nerve theory admits of another, and, I think, a more probable explanation. In working for some hours with the microscope, Mr. Paget found the closed eye congested; this he attributes to the irritation of the retina of the used eye. But if any one will close firmly both eyes for a short time, both will become congested as in sleep; and, on the contrary, any microscopist who keeps both eyes open will find, after several hours' work (I know this from experience), that if there be any irritation at all it is in the eye most used.

Mr. Paget, with his rare honesty, recognises the cellular pathology in the so-called non-vascular structures. Is it not an anomaly, however, to suppose that the tissue elements determine pathological action, which they are equally capable of determining everywhere, in the cornea and cartilage, etc., only, and that in other localities the vessels and nerves are the determining agents? It is difficult to see why a pathology which interprets all active processes in all organs (and which is based on and progresses with the most modern histological research) should be rejected for a theory which is confessedly inadequate to explain inflammation in certain localities.

The tissue pathology teaches that all specific action lies in the tissue elements. One specific action is the production of new tissue elements; hence the dictum that every cell (tissue element, endoplast, germinal, and formed matter, etc.) is the product of a previous cell. There is no shadow of evidence to show that cells can be originated in a structureless fluid exuded from the blood. But, as in the plant, all cells are produced from cells—(and surely the plant with its physiology and pathology, its tumours, possibly its inflammation, scrofula, and cancer is, notwithstanding the absence of a controlling nervous system, of more interest to the pathologist than the crystallising and physical processes of inorganic bodies)—so in the diseased tissues of the animal, cells divide and multiply, and the result will be in accordance with the subsequent changes which the young products undergo. This production of young cells can be seen. It is possible for every one to see in an abscess the gradual production of pus cells from the tissue (mostly the several forms of connective tissue) cells. At one spot may be seen the nucleus dividing. At another the cell also may be seen actually dividing with portions of the already divided nucleus in each segment. Close to a cluster of young cells mark the site of a former cell. At a point midway between the healthy tissue and the central true pus the cell is half a connective tissue cell and half a pus cell. The transitions are gradual, and can be easily traced.

Before closing these general remarks on the scope and characters of the tissue pathology, I would briefly observe that the existence of dyscrasiæ is in opposition to the idea of a blood pathology. The blood in its normal and in all its abnormal states is utterly dependent on the states and actions of the solid organs and on the characters of the ingesta. The blood is the very reverse of an independent, permanent, self-making, self-renewing, and self-regenerating fluid. Local disease or persistently injurious food can alone give rise to diathetic taint.

The symmetry of disease, which Mr. Paget regards as a bulwark of the "humoral" pathology is to me one of the strongest evidences of a tissue-controlling pathology. The tissue elements in corresponding or symmetrical sites may be fairly regarded as absolutely similar, while arterial blood is everywhere the same. Just as physiological nutrition is symmetrical, and is determined by the tissue elements and not by the blood, so pathological activity is also symmetrical, and is also determined by the tissue elements. I do not deny that the blood may be the means of carrying a contagious fluid which shall stimulate identically similar cells to similar action, because I do not deny the existence of dyscrasiæ or noxious agents in the blood, but it must not be forgotten that such such agents are (as is the blood itself) derived from sources external to the blood. Cancer does not originate in the blood, but when a local cancer has arisen by a direct descent from tissue cells, the blood may carry an infectious fluid from it which will stimulate tissue cells elsewhere (often symmetrically, as I have several times seen) to take on cancerous action. The blood may be a medium of conveyance, but nothing more. It can do or originate nothing.

Inflammation is the key to all pathology. In consequence of some cause acting on, or in, the tissue elements, they (the cells, or corpuscles of germinal and formed matter) absorb an increased quantity of material, and become larger and opaque. An excellent illustration of this stage is seen in the interstitial keratitis of hereditary syphilis, which disease, curiously enough, rarely proceeds further. I have seen the opaque contents of the corneal cells (there is an excellent microscopic delineation of this disease in Dr. Chance's admirable translation of Virchow), of several years' duration, absorbed in a few weeks under the influence of mercury. This enlargement, as will be inferred, is not necessarily permanent, as the absorbed material may disappear. On the other hand, if enlargement proceeds beyond a certain limit, especially if rapidly induced, local death is the result. Should the inflammatory action proceed, formative or divisional activity of the cell-structures ensues. The nuclei enlarge and become elongated, the centre is next constricted, and soon two nuclei are seen. If nucleoli are present, similar changes will first occur in them. Lastly, the cell-wall also divides. Virchow observed that as early as the second day, in the vicinity of a thread seton, two or more cells may be found with straight partitions between them, each cell having a nucleus. Mr. Turner, a most able observer (see *Edin. Med. Journal*, 1864, and numerous notes in his edition of Paget's Pathology), considers, as a result of his careful examination of pleuritic adhesions, that the young cells he saw were formed within the old cell-wall, and that, by the liquefaction of the latter, the former were released. The progress of histology will, doubtless, throw great light on this question. The accelerated or retarded division, as well as the varying quantity, of formed material (adopting for the moment Dr. Beale's views), would, I think, easily explain the apparent discrepancies of different observers.

At this stage also the inflammatory process may cease. The clusters of young cells (granulations superficial or deep) simply become young connective tissue. In this way arise most of the enlargements which in this country have been called hypertrophies. Typical Surgical illustrations of this formative inflammation are seen in the thickening of the synovial membrane, which Brodie described as gelatinous degeneration, in the slow enlargement of bones, and in the formation of most polypi.

Should the inflammatory action proceed, the proliferation of the cells continues more or less rapidly, and the intercellular substance diminishes in corresponding degree. When pus is formed, the multiplying tissue elements become round, with a bi-partite or tri-partite nucleus, and the intercellular substance is completely liquefied. A more rapid and severe inflammation chokes the sources of nutritive supply by the precipitate crowding of its young products, and death occurs either of molecules (ulceration, phagedena) or of the mass (sloughing, gangrene).

The hyperæmia which attends upon inflammation is a purely secondary phenomenon, and is called into existence by the increased nutritive requirements of the active cell changes.

Exudation is not found; indeed, there is no room for it in many inflammations. In inflammation of certain surfaces, however, there is undoubtedly an exudation of fibrine or mucus, according to the surface affected, but the exudation is a local product—a product of the tissue elements. It is washed to the surface by means of the serum, which exudes from the vessels as a result of obstruction, and the exudation carries with it the loosened young germs of the proliferating process which are present in large numbers in the inflamed tissue of the surface. Mr. Turner has fully traced the steps of the production of these from the connective-tissue corpuscles at the inflamed and denuded surfaces. The lymph which is found on inflamed serous surfaces is simply the surplus quantity which the lymphatics have been unable to remove. The absorption of this local product into the blood gives rise to hyperinosis.

I must turn now from this Medical aspect of the question to the more express objects of this inquiry. *Pus* has already been seen to be a young tissue. Its direct origin from the tissue cells has been traced by observers so competent and numerous that I should have some hesitation in dwelling on the fact, were it not that every student's Manual of Surgery still teaches the spontaneous origin of pus-cells from an imaginary homogenous lymph. Every one can repeat the simple experiment of Virchow; if an ulcer be wiped clean, pus-cells quickly appear, but not a trace of lymph, chemically or microscopically.

The reparative process has always excited the interest of Surgeons. The mere number of the processes of repair, as at present widely taught ought naturally to create a suspicion

that the simplicity and uniformity of Nature have escaped the detection of past schools of pathology. The cellular pathology offers not a theory merely, but demonstrates beyond cavil the fact of proliferation of the tissue-cells adjacent to every wound and ulcer. Every wound, on the surface or not, whether cut, or torn, or crushed, or punctured, every broken bone, simple or compound, heals by one uniform simple process. New cells are produced from the old tissue cells in the vicinity of the injury and become cicatricial tissue; it may be in a few hours, without pain, or tenderness, or suppuration, or it may be after months or years with pain, suppuration, and all the accidents which are apt to thwart the beneficence of repair. It appears to me to be a strong confirmation of Virchow's view as to the seat of inflammation being in the connective tissues that the structures produced by reparative action are invariably connective tissues. Besides connective tissue epithelium only (in open wounds) is formed in repair, and here is another significant circumstance—namely, that the young epithelium is never formed except at the margins, that is, where the old epithelium is present. Virchow believes that epithelium may be formed from connective tissue cells, but I cannot avoid the conclusion that in ordinary repair the new epithelium is entirely descended from the old marginal epithelium; and hence arises, I consider, the difficulty which occurs in the central healing of large surface wounds. This difficulty is less explicable on Virchow's theory, and is perfectly unintelligible on the exudation view, seeing that the fibrine-yielding (?) vessels lie under as well as at the margins of the granulating surface. The young connective tissue I need scarcely say forms from the granulations which spring from the connective tissue which everywhere is present in every possible wound.

The process of granulation has been already referred to; it appears to me that Virchow's experiment of wiping an ulcer is as conclusive against the development of cicatricial tissue as it is conclusive against the formation of pus from lymph. No lymph is ever to be found; what, then, is the origin of cicatricial connective tissue and epithelium? It has been said that the intercellular substance of the cellular pathologists is the lymph in which the cells arise. This supposition is signally refuted by the fact that a granulation, as depicted by the exudation pathologists themselves, consists of cells only at the very time, moreover, when the supposed lymph is just exuded and most abundant. The intercellular substance appears at a later period when the necessity for lymph has passed away. Another consideration touching granulations has often occurred to me: if repair is effected by a fluid exuded from the blood in which cell-forms spontaneously arise, why should granulations exist at all? That clusters of cells (granulations) should occur from the proliferation of previous cells is inevitable, but what is the necessity for the grouping of the free-formed cells in a stratum of lymph?

There is one mode of union commonly taught, chiefly because it has received the sanction of the justly great authority Paget. It is called immediate union—union without time, material, or process. I must not at present dwell on this topic, because it is not necessarily linked to any particular pathology. But, merely remarking here that the little masses of induration in Mr. Paget's best illustration could have been produced by no other means than inflammation, I would ask if the histological difficulties are not insuperable. Suppose the breast to have been removed, as in Mr. Paget's case, does a nerve tube become instantaneously continuous with a capillary, or does a globule of fat stick on the end of a muscular fibre in an equally short period of time, or, rather, in no time at all? No doubt two wet surfaces may stick together so intimately that the process of repair is effected in the most favourable manner possible, but the very fluid (whether derived from the blood or the tissues, or both) which wets the surfaces must itself prevent instantaneous repair. The painless and rapid union of two surfaces of young tissue-germs will explain all facts and contradict none.

The possibility of the organisation of blood-clot could never have obtained credence had it not been for the existence of an exudation pathology—the exudation pathology itself being based on a now exploded exudation physiology. If an exudation which comes from the blood can be organised, why can it not be organised while still in the blood? The question is a fair one. But if no exudation can ever be found undergoing organisation, and if, also, wherever organisation is going on cell multiplication is indisputably active (it is for the exudationists to explain this, on their hypothesis, unnecessary, surplus, and purposeless phenomenon) the organisation of blood-clot becomes as doubtful in theory as it will be found to be unsupported by fact. The supposed illustrations, seeing that blood-clot in the living body is of every-day occurrence, are remarkably few in number and indefinite in character. To students it is not a living fact, but a tradition resting on one or two esteemed names. The simple explanation of every supposed case is this, and I do not hesitate to say that a re-examination of every specimen extant will give it confirmation; the blood-clot has excited cell action in the adjacent structures to which it is adherent, the resulting young tissue has extended into the clot and temporarily incorporated its elements. Thus all the organised elements are continuous with and outgrowths from the adjacent attached surface.

The tissue pathology, embracing, as it does, the well-ascertained facts of modern histology, the tubular communications of cells, for instance, and especially the continuity of the connective tissues (Reichert), teaches in theory what really best comports with the facts of practice—namely, the continuity of disease in apparently different tissues, and also the common origin of apparently different diseases when occurring in the same tissue. Taking the latter point first, it is common for circumscribed abscess, diffused abscess, cellulitis, ulceration, and gangrene to be regarded as distinct and well-defined conditions. Instances no doubt occur with well-marked physical differences, but even in these there are no abrupt lines of demarcation, and the great majority of cases in practice are intermediate conditions. In both circumscribed abscess and diffused abscess there are the same gradations from healthy tissue to pus. In one the gradations are marked and rapid, the pus is in a single and larger collection: in the other the gradations are less marked, the collections of pus small and multiple—hence the term diffused. Death of tissue (sloughing) is limited in abscess, especially in the circumscribed; in cellulitis it becomes a marked feature. Here again, however, there is every intermediate stage between pus and slough, as there is between granulation tissue and pus. I have made incisions into tissue which was yellow, but solid and succulent, and I have watched such tissue become partly slough, partly granulation substance, and partly pus. In short, the same little piece of tissue presented every result of the inflammatory process, and each result was inseparably blended with the others. Ulceration, again, is merely cell action going on from tissue elements to granulations, from granulations to pus and slough or *débris*. The action may be slow and slight, as in indolent ulcer, or it may be rapid and severe, as in sloughing phagedæna. The difference between ulceration and abscess, or cellulitis, is thus merely contingent and physical. The induration which constitutes an early phenomenon in cellulitis, abscess, and ulceration is due to the rapid and abundant proliferation of the cells of the connective tissue. On the exudation view of these diseases the earlier stages should be soft, because at such times the exudation is most fluid and most abundant. The absence of all lines of demarcation in pathology, which cannot but have an important bearing on treatment, is a subject to which I can now merely allude. On another occasion I shall again consider this eminently practical question in Surgery, and adduce evidence of, I believe, unexpected intermediate pathological conditions.

I turn now to the other and allied proposition, the continuity of disease in the several forms of connective tissue. In abscess of the connective tissue over a bone there is no doubt that the periosteum and bone are also more or less implicated. I have seen marked osteitis in two instances recently after a few weeks of suppurative synovitis, which osteitis would no doubt have speedily recovered had the synovitis been capable of recovery. Seeing that bone, periosteum, and cartilage are directly continuous structures (the differences being chiefly chemical) it is impossible that inflammation should arise and proceed in one without implicating the others. If inflammation is apparently most active in the periosteum, the bone and medullary tissue on the one side, and the connective tissue on the other are invariably affected. The connective tissue inflammation is chronic, showing itself in increased tissue in chronic osteitis; it is acute and suppurative in acute osteitis; in the latter instance the suppuration occurs before the bone or periosteum slough—that is, before they become foreign bodies.

Inflammation of bone does not differ from inflammation of the softer varieties of connective tissue. The inflammatory products are direct conversions of the bone cells. With increased growth of cell contents and division of nuclei there is absorption of the intercellular calcareous substance which

permits of greater freedom of cell proliferation. The young cells may secrete fresh intercellular substance and throw out tubular branches, giving rise to condensation or sclerosis. Or the cell action may proceed to the formation of granulation substance, and later of pus, mixed with dead particles of old basis substance, and then caries is said to be present. Or if the granulation process be more localised, and proceed more completely to pus-cell formation, the circumscribed caries is called abscess of bone. If these processes occur on the surface we speak of them as ulceration of bone. Lastly, if cell action be rapidly induced, we get earlier and larger sloughing and the expression necrosis is used. Death is slower and implicates only small fragments in inflammation of the well-nourished cancellous tissue (caries), and more rapid and extensive in the lowly nourished compact tissue (necrosis); yet it must not be forgotten that all these processes merge into each other, and are always more or less combined—indeed, the so-called caries and necrosis are absolutely identical, and differ only in degree. I recently exhibited a femur at the Midland Medical Society which illustrated continuously with each other every result of bone inflammation, new bone, sclerosis, caries, abscess, necrosis, and ulceration.

It would be easy to take every branch of Surgery, and show how much better all pathological phenomena are explained by the tissue-element theory. How, for instance, in retinitis the changes occur in the connective tissue of the retina, and hence the appearance of extensive disease to the ophthalmoscope, as pointed out by Libreich, with comparatively little functional impairment; how that in the Hunterian chancre the induration is due entirely to cell growth; how the atheromatous patch which precedes aneurism is an inflammatory cell growth, clearly traceable, by the microscope, at the inner aspect of the middle and outer aspect of the inner arterial tunics which degenerates fattily, and which eventually, with the covering epithelium, is washed away, leaving a weakened spot which may be gradually dilated into an aneurismal sac; but at present I must be satisfied with pointing out some of the principal Surgical bearings of the tissue pathology, and conclude with one or two further remarks.

Microscopic observation leaves little doubt that tumours in their origin and growth are allied to inflammation in its earlier stage. No necessary or constant constituent can be pointed to in cancer. Practically the mere variety of cell forms and appearances is the most valuable diagnostic feature, and this probably depends upon varying but rapid rates of growth. Virchow considers that the cancer cell is mostly analogous to the epithelial cell, and Buckhardt and Turner have depicted epithelial cells from the ureters precisely similar to the supposed cancer cell. When a cancer forms there is first a rapid proliferation of connective tissue cells, the resulting young cells present the "indifferent stage" of Virchow, then they grow to the cancer elements in obedience to some principle at present quite unknown. Cancer, like pus and tubercle and tumours generally grows by the addition of the granulations of peripheral cells to the exterior. The life of cancer cells, although not so short as the life of pus cells, is of brief duration, hence the more or less early disintegration of the central or first formed cells of the cancerous mass.

Of tubercle I need say little here, except that it is of inflammatory and cellular origin. It begins as a granulating process, the young cells are early arrested in their growth, become dwarfed and shrivelled up, and speedily become subject to fatty degeneration, which occurs in the portions which are oldest, central, and furthest removed from the sources of nutrition. In the meninges the granular and cellular characters of tubercle are alike unmistakably evident. In bone the so-called tubercle is invariably inspissated dried pus, as Reinhardt has shown it to be in the lungs.

Treatment.—Whenever an advance takes place in pathology we must be content to wait patiently for its effect on treatment. Advances in pathology do not necessarily effect advances in treatment, because treatment at present rests on empirical more than on pathological grounds. No doubt activity of cell action can be to some extent controlled by lessening the quantity of the ministering fluid. Drugs, too, have marked influences on local tissue change.

The cellular pathology which attaches greater importance to local disease (every possible disease having primarily a local origin) necessarily teaches the great importance of local remedies. It also teaches, on grounds which have been already referred to, the desirability of greater uniformity of treatment.

Both experience and pathology teach, it appears to me, that all wounds of bone and soft parts alike should be treated alike. The treatment of wounds of soft parts should also be uniform. Neglecting, say in contused wounds, to bring the parts together as in incised wounds, because of the fallacy of different modes of union, has protracted many a weary convalescence and aggravated many a hideous deformity. In Surgical treatment, it is happily possible to call into exercise the most powerful agents known in therapeutics—rest and pressure. The influence of pressure in Surgical affections has yet to be appreciated; there are few cases, however, in which it may not be applied with advantage. Even in acute inflammations (abscess, cellulitis, erysipelas, ulceration, sloughing phagedæna) the beneficial effects of poultices and other applications are more than trebled by the outside application of a bandage or a layer of shot (in a bag) as position and locality may require. In chronic inflammation, as in all active cell formation (as distinguished from passive cell action or degeneration), pressure is invariably useful. Pressure, more than any known agent, will control or arrest cell or tissue-element action. To devise the best modes and degrees of pressure will be no inconsiderable part of the great work of future Surgery.

The previous observations have been based on the results of the numerous workers in the tissue pathology and in recent histology (especially of connective tissue), Virchow, Goodsir, Donders, Von Wittich, Kölliker, Lockhart Clarke, Redfern, Simon, Haldane, Turner, Stirling, Weber, His, Billroth, Böttcher, Rindfleish, and others. It is, however, even more just to them than to myself to say that for many facts, illustrations, and deductions I alone must be responsible.

CASES OF REFLEX PARALYSIS, WITH OBSERVATIONS.

By ALEX. ROBERTSON, M.D.

Physician to the Town's Hospital and City Parochial Lunatic Asylum Glasgow.

In no class of diseases have the investigations of late years been attended by more satisfactory results than those pertaining to the great nerve centres. More especially does this hold true in regard to the morbid conditions of the spinal cord and its intra-cranial prolongation. Our knowledge of the functions of the several constituents of these parts, through the combined labours of physiologists and pathologists, has been steadily advancing; and step by step with this advancement have we been enabled to distinguish between their respective disorders, and, in many cases, to localise with much precision the exact seat of the morbid changes.

An important group of so-called functional derangements, comprehending the reflex forms of paralysis, has been separated from the others by general consent, inasmuch as they are believed to have their origin in some peripheral excitation, and to be unaccompanied by any decided alteration in the central organ, though there may be, as suggested by Dr. Brown-Séquard, an anæmic condition of the segment or zone of the cord over which the morbid influence conveyed by the afferent nerves extends. I have said that they are separated from the others by general consent advisedly, for there are not wanting pathologists who maintain that they should be classified with the organic forms, and that structural changes have not been observed in those cases where post-mortem examinations have been made, simply because they have not been properly looked for. It is certainly difficult, if not impossible, to prove that morbid conditions of the microscopical elements of the tissues may not have been present; but the burden of proof should rest with those who hold the affirmative. Besides, a strong reason for believing that the central change, if any, is slight, rests in the fact of the speedy recovery from the palsy when the irritating cause is removed. Nor, though a decided central alteration were found in every case, would it invalidate the doctrine that it was due to the irritation in the course, or at the distribution of the nerve, which was transmitted to the centre, and induced there, by reflex action on the vaso-motor nerves, an abnormal contraction of the bloodvessels, with its necessary consequences, impaired nutrition and functions of the part affected. And should such defective nutrition be to a great extent or of long standing, serious organic changes could scarcely fail to be produced.

The first of the two cases that I have to submit illustrates one of the rarest forms of derangement of the central nervous

system – reflex hemiplegia. I shall shortly narrate the history and leading symptoms.

On the 16th of last November, about 8 a.m., I was called hurriedly to see J. C., an Hospital sick nurse, who was reported to have been seized with a shock of palsy. I was rather surprised at this message, as the woman was not old, 41, and, although delicate looking, had certainly not the aspect of one disposed to apoplexy. Besides she had been attending to her duty the day before, and made no complaint. I found her in bed, quite calm, and intelligent as usual, ready to answer all my questions, which she did with promptitude, and manifested not the least mental confusion or excitement. She told me that when a child of about seven or eight years of age she took "nervous fits" three or four times a-day for three years; that afterwards she got quite well, but since then has been of a nervous disposition. About ten months since became affected with giddiness and ringing in the ears, and one morning was seized with numbness of the left side, which troubled her for about two months, when she recovered completely; but the latter symptom returned for a few days in the month of May, again leaving her in her ordinary health. For several years has occasionally suffered from severe pain in the left hip, extending down as far as the knee, which was aggravated on both of the occasions referred to. Believes that this pain is connected with constipation of the bowels, as she always experiences relief when they are free. About eight days ago, and she thinks owing to anxiety about her family, she had a return of the symptoms, especially of the numbness of the side; but they were not so severe as to unfit her for her work. However, at 1 o'clock this morning the pain in her left haunch, which had been annoying her a good deal for some days, became excruciating, and, as before, extended down the back of the thigh as far as the knee. At the same time she felt that she had partially lost the power of the left arm and leg. Suffered severely all night; but, about an hour since, at her own request, another nurse gave her a soap and water injection, clearing out a quantity of impacted fæcal matter; and in three minutes she was almost free from the pain in the thigh. Says that now the numbness continues, and affects also the same side of the face. Cannot hold small articles, such as a needle, in her hand; the sense of touch, however, when tested by compasses, is not much impaired as contrasted with the opposite side. Feels the left side colder than the right, though no difference is observable. Has no other abnormal sensation. Retains some power of grasping with the left hand, but it is decidedly weaker; can move the leg in bed in all directions, though not so freely as usual; and when she tries to walk she drags it after her. Has full power of bladder, and has been passing a moderate quantity of healthy urine. Sight of both eyes, particularly the left, is impaired; but this is not recent, as it has been failing for some years. Considers it is due to constant sewing, by which she earned her livelihood before she became nurse; pupils are natural. The other special senses are in their normal condition, and so also is the power of swallowing. There is no distortion of face nor impairment of speech; protrudes tongue correctly. Menstrual discharge is not now flowing, but has been seldom free from it during the last three months. Heart sounds natural; pulse 100, small and soft. Tongue is clean, but is troubled with flatulence, and has a poor appetite. Is of a nervous temperament, but possesses considerable vigour of mind, and is not easily excited. The bowels were acted on freely, and afterwards had a draught of tr. assafœtida and tr. valerian ammon., of each ʒss., in mist. camphor ʒj., every four hours.

On the 18th, the third day after the seizure, the report bears that she had greatly improved, and was attending to her duty, being able to walk nearly quite well, though not free from numbness of the left side. Prescribed tr. ferri. muriat., gtt. xv.; quinæ. sulphat, gr. j., thrice daily, with full diet. From this time her recovery continued, and she acted as nurse till she left the establishment about six weeks afterwards.

She called at the Hospital in the beginning of April, when she told me that she had been working regularly at her employment as a seamstress since she left, and had continued free from paralytic symptoms, except on several occasions after an unusually hard day's work, when the numbness and loss of power returned in a slight degree, but passed away after a few hours' rest. She incidentally mentioned that when she had the serious attacks above described, an intensely itching eruption had broken out on her head, which lasted about a week, and produced an unusual quantity of scabs during its continuance; she also remarked that the left side of her face had often been swelled a little without any cause that she knew of, and was quite sure that the right had never been affected in the same way.

Remarks.—Here, then, we have severe sciatica arising at intervals from a recognised cause,—impaction of the lower bowel; but on the last occasion the morbid impression produced on the lower part of the spinal cord had been very severe, and the woman's system, naturally a susceptible one, was more than ordinarily so, owing to her mental anxiety, and the drain on her vital powers from the prolonged menstrual flux; hence, probably, the reason why the impression was transmitted upwards along the cord to the medulla oblongata, producing a partial hemiplegia, which like the sciatica, was confined to the left side. The effects of the treatment pursued support this view of the case; for instant relief from the pain was experienced, and the paralysis quickly passed away after the removal of the apparent exciting cause of both—the impaction of the bowel. It may be suggested that some of the symptoms indicated hysteria; and that the case might be classed under the hysterical hemiplegia described by the late Dr. Todd in his lectures on paralysis. But the leading features of that disease were wanting; and besides, some cases of palsy which have been held to be of this nature would probably have been more correctly viewed as reflex in their origin. The eruption on the scalp, attended by increased exudation, and the fulness of the left side of the face, are very interesting, as they indicate that the paralysing influence had produced a decided impression on the trunk of the cervical sympathetic. It is also worthy of notice that the anæsthesia was more pronounced than is usual in this kind of paralysis, as not infrequently sensation is unimpaired.

I have now to record a case of paraplegia arising from an eccentric cause.

J. R., aged 30, clerk, admitted May 22, 1864. Nearly two years ago was convicted of embezzlement, and was sentenced to eighteen months' imprisonment. When he had completed about ten months of his term, his health began to give way, —he got nervous, slept indifferently at night, his appetite became weak, and he began to pass small worms in his stools, which have troubled him ever since. Though he was ordered a generous diet, with metallic tonics, cod liver oil, etc., and had local treatment for the worms, he did not improve in any respect. About three or four months since felt his legs becoming very weak, much more so than his arms; and when his period of confinement had expired, a fortnight ago, this weakness had increased so much that he was unable to walk above a few steps at a time. About a month after he began to lose the power of his legs he noticed that he could not pass his urine with the same freedom as before. Since then this difficulty has varied much in degree, being sometimes much less than at others; but latterly it has increased so much that at present he has completely lost the power of his bladder, and has passed no water since yesterday. Is an intelligent, well-informed man; and gave a clear statement of his symptoms. Has a pale, nervous, depressed aspect; complains of dull headache, and says he has been subject to it during his confinement. Special senses are correct; and pupils, though rather open, contract readily under light. Motor and sensory power of the upper extremities and body generally are and have been unaffected. Has no pain in back. Sensation is perfect in lower extremities; and can also walk some steps, but very soon gait becomes tottering. Is not subject to starting of his legs, nor can reflex movements be produced by tickling. Complains of great itching about anus and scrotum. Pulse only 52; skin rather cold. Urine had to be drawn off for several days by the catheter; but then he became able to pass it himself, though slowly and with difficulty. Was ordered full diet; to take twice daily a pill containing strychniæ, gr. $\frac{1}{20}$; ferri sulphat., quinæ sulphat., āā gr. j.; extr. aloes, aq., gr. $1\frac{1}{2}$. To have an enema twice a-week of tr. ferri muriat, ʒij.; aq. calcis, ʒviii. Cold douche to spine, and surface afterwards to be thoroughly rubbed. The continuous galvanic current was also passed repeatedly between the lower part of spine and the hypogastrium. Under this treatment he improved; but there was great variation in his progress to recovery. Thus, on June 8, I find recorded in my note-book, "That his urine had again to be drawn off by the catheter, though he had been passing it himself for some days previously. Itching at anus is very troublesome." Again, on the 24th of the same month, the entry is:—"Bladder and legs have recovered their power to a great extent; but the stools are not yet free from thread-worms, though they are fewer, and the itching is much less." From this date he progressed

favourably; and on August 2 he was dismissed cured. His condition on dismissal is reported as follows:—"Worms are now quite away. Has been walking about for some weeks, and feels strong on his legs. Bladder has recovered its tone; but has a feeling of heat in urethra when he passes urine. Is returning to his occupation as a clerk."

Remarks.—This is a characteristic case of reflex paralysis. 1st. There is the obvious cause, the ascarides in the rectum, existing for some months before the paralytic symptoms set in. 2nd. The incomplete loss of power, and the variation in its degree, corresponding very much with the varying intensity of the local irritation. 3rd. There was no anæsthesia; and there was an absence of abnormal sensations in his legs. 4th. There was no pain in the course of the spine. 5th. It passed away entirely as soon as the disease upon which it depended was cured. 6th. One peculiarity is to be noticed:—The bladder was more than usually affected; but the paralysis differed materially in its character from that arising from ordinary organic causes; as, though complete on several occasions, it was not continuous, but recurrent; and generally it was only partial.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

SAMARITAN HOSPITAL.

CASES OF OVARIOTOMY.

(Under the care of Mr. SPENCER WELLS.)

(Continued from page 493.)

Case 5.—Solid Ovarian Tumour—Ascites—Prolapsus of Uterus and Vagina—Ovariotomy—Death Twenty-seven Hours After.

On March 23, 1864, a married woman, 29 years of age, called on Mr. Wells with a letter from Dr. Woodhouse, of Hertford. She was the mother of three children. The two youngest were twins, and three years old. She had a flushed, hectic aspect, and was considerably emaciated. There were some varicose veins in the right thigh, but no œdema of the legs. The digestive system was out of order. Sleep was troubled. There was a good deal of cough, especially at night, and some mucous expectoration. Respiration was prolonged, and the right side of the chest was somewhat duller than the left. The second sound of the heart was feeble; but there was no abnormal bruit. The heart itself was somewhat displaced. The girth at the umbilical level was 40½ inches; the distance from the umbilicus to the ensiform cartilage, 12½ inches; to the symphisis pubis, 8 inches; and to either ilium, 11 inches. All the abdomen below a line seven inches above the umbilicus was dull on percussion, and was occupied by a lobulated tumour, whose lobules were hard, resistant, and freely moveable on each other, the interspaces being filled with ascitic fluid. The integuments of the abdomen were œdematous, and marked with lineæ albicantes. There was no tenderness on pressure. Crepitus was heard on the right side. The ensiform cartilage was tilted forward by the pressure of the tumour. The catamenia were absent. They had first appeared when the patient was 12 years of age, and had always been very abundant until October, 1862, when they suddenly disappeared. They came on again in scanty quantity in the summer of 1863, and since then they had been absent. Leucorrhœa was constant. The uterus was dragged upwards, so that its vaginal portion was almost effaced. It was moveable, and its cavity was three and a-half inches in length. There was no history of hereditary disease. The patient had been brought up in the country, and had done ordinary household work. She occasionally had suffered from oppression in the chest. The first sign of the present illness was the sudden amenorrhœa in October, 1862. Very shortly after this, an abdominal tumour was discovered, and it rapidly enlarged.

The patient was admitted into the Samaritan Hospital on the 18th of April, 1864. She was suffering from dyspnœa, and the urine was very scanty—only eleven ounces in twenty-four hours—specific gravity 1035, and free from albumen. It was evident that a very large abdominal tumour was surrounded by fluid which was free in the peritoneal cavity; and it was arranged that an exploratory incision should be made as soon as the state of the chest permitted. But as the dyspnœa increased, and there were physical signs of increasing accumulation of fluid in the left pleural cavity and more displacement of the heart to the right side, Mr. Wells evacuated four pints of ascitic fluid by a fine trochar on the 18th of May. Some slight relief was afforded, but there was little alteration in the state of the chest, and increasing dulness on the right side down to the third rib, with crepitation from the third to the fifth, pointed to consolidation or condensation of the upper part of the right lung. It was agreed to tap again, watch the state of the chest, and hope that any relief obtained by removal of the ascitic fluid would be a favourable indication for the removal of the tumour.

On the 10th of June Mr. Wells accordingly tapped, and again removed four pints of ascitic fluid. Considerable relief followed; the signs of pleural effusion, displacement of heart, and condensation of right lung gradually diminished. But on considering the question of ovariotomy with her husband, they decided to wait, as Mr. Wells could not assure them that the case was a favourable one. She was discharged June, 1864, and returned to the country, where Dr. Woodhouse kindly watched her. He wrote in October to say that her general health had improved, and that the state of the chest was more satisfactory, but that she was unwilling to submit to operation. She went on pretty well during the winter, but increase in the size of the abdomen, and greater suffering in the early part of this year, made her again anxious for relief, and on the 29th of March, 1865, she was re-admitted to the Hospital. Respiration was now tolerably free in both lungs; there were no signs of effusion of fluid into the chest; the heart's sounds were normal, and the pulse much stronger than formerly. The girth at the umbilical level was 47 inches, the distance from the umbilicus to the ensiform cartilage 17 inches, to the pubic symphisis 9 inches, to the right ilium 16½ inches, and to the left ilium 15 inches. The ensiform cartilage was much pushed forward by the tumour, which appeared to move freely under the abdominal parietes; the umbilicus protruded; there were dilated veins in the walls of the abdomen; the right loin was dull on percussion, the left tympanitic; there was prolapsus both of the anterior and of the posterior walls of the vagina, and part of the mucous membrane was ulcerated. A very thin layer of ascitic fluid covered the tumour, which filled the entire abdomen. Limited fluctuation was to be felt to the right of the epigastrium. The uterus, when replaced, appeared small and moveable.

Mr. Wells performed ovariotomy on the 3rd of April, with the able assistance of Mr. Fergusson and Dr. Wright. Drs. Kœpl, of Brussels, Prieger (Kreuznach), Marion Sims, Woodhouse, and others were present. Mr. Clover gave chloroform. The incision extended from two inches below the ensiform cartilage to four inches above the pubes. It was twenty inches long in the distended parietes, but after the tumour was removed it was only thirteen inches long. There were no adhesions, except to the omentum, a piece of which of about the size of the palm of the hand adhered to the upper and front part of the tumour. It was easily separated. There were two or three pints of reddish serum in the peritoneal cavity, which also contained a good deal of yellowish lymph, which appeared to have been originally contained in some of the cysts of which the tumour was composed. The removal of the tumour was first prevented by a sort of pedicle formed of a thick, cord-like process of fibrous tissue (hypertrophied ovarian ligament). This was secured in a clamp and cut. The true pedicle was a close, broad attachment to the left side of the uterus. Holding the Fallopian tube with a vulsellum, Mr. Wells cut away the tumour, shaving it off, as it were, from the angle of the fundus uteri. There was very free hæmorrhage, which was first checked by a hæmorrhoidal clamp; two vessels close to the Fallopian tube were then tied with silk, the ends being cut short, and as oozing still continued, the whole bleeding surface was transfixed and tied in two portions with a common ligature, whose ends were fixed to the clamp. A good deal of bloody serum and some clots were sponged out of the abdominal cavity. The wound was closed by one hare-lip pin at the umbilicus, and another half-way between the umbilicus and the ensiform cartilage, and then by a number of deep and some superficial sutures of silk.

The tumour weighed thirty-seven pounds after four pounds of blood and fluid had drained away from it. It thus originally weighed forty-one pounds, and besides this there were four pounds of ascitic fluid, making a total removal of forty-five pounds. Mr. Wells showed the tumour to the Pathological Society on the 4th of April, and it was afterwards examined by Dr. Harley, of University College, and by Dr. Ritchie, who reported it to be "an immense ovarian tumour,

characterised by the number and comparative minuteness of ts loculi and by the diversity of their contents. No two loculi agreed in size or in the kind of contained fluid. The largest loculi were no larger than two closed fists, and were not near the surface of the tumour, but, on the contrary, deep in its substance. Very few of the cysts contained clear serum; several were filled with gruelly ovarian fluid; but the great majority of them contained a fluid in which were suspended flakes of fibrine in various stages of fatty degeneration. The lining membrane of some of the smaller cysts was puckered in folds. Many cysts were flattened in such a way that they could contain little or no fluid, and their agglomeration gave a solid consistence to that part of the tumour where they abounded."

The patient rallied well. An hour after the operation her pulse was 116. In the evening the pulse was 128. Four ounces of urine were passed. At midnight she was in a profuse perspiration, or rather transudation, but quite cheerful and free from pain. Next morning the pulse was 140; there was considerable tympanites; a fair quantity of high coloured urine had been passed. Mr. Wells gave five grains of quinine by the mouth, and double that quantity by the rectum, and fixed a tight bandage round the false ribs. Champagne was given freely, and beef tea was injected into the rectum, but the patient sank and died twenty-seven hours after the operation.

At the examination made eighteen hours after death, it was found that the wound was accurately united and contracted to thirteen inches in length, four below and nine above the umbilicus. The clamp was quite secure on the pedicle, and the tied omentum was well fixed to the abdominal wall by the harelip pin. Stomach very much distended, pushing up the diaphragm to the nipple. Intestines not much distended. Scarcely any marks of peritonitis, except some recent lymph over anterior surface of liver. Peritoneal surface of the wound thoroughly united, so that none of the stitches were seen. Four to six ounces of red serum in pelvic cavity, together with a few small clots. Ligatures passing from left side of uterus, and a round cord-like elongation from the left broad ligament, passed between the lips of the wound, and were fixed to the clamp. Uterus healthy, four inches long; right ovary healthy; bladder and vagina healthy. A mass of fatty fibrine as large as an apple in left broad ligament. Liver large and fatty; gall-bladder filled with gall-stones, 55 in number; heart healthy, some red coagulum in it, but no fibrinous deposits; lungs emphysematous, otherwise healthy; old adhesions at right apex; tissues not at all ex-sanguine.

Case 6.—*Adherent Multilocular Cyst—Polypus Uteri—Stricture of Rectum—Four Tappings—Ovariotomy—Recovery.*

Mrs. B., aged 42, had been a cook for sixteen years. She married when she was 27, but never became pregnant. Twenty years ago she had an attack of rheumatic fever; seven years ago went to live at Durham, and a year later she began to complain of pain all over the bowels, and of a swelling and hardness, which commenced in the right iliac region, and gradually extended over the abdomen to the left side. No notice was taken of the increasing enlargement for a period of three years. In June, 1861, she became an out-patient at the Durham Hospital, and was treated medicinally without deriving much benefit. In December, 1863, finding her tumour steadily increasing, she consulted Dr. Watkin, of Durham, who recommended her as an in-patient to the Durham Hospital. She was received under the care of Mr. Stoker, who tapped her (February 3, 1864), evacuating nine gallons of clear, thin fluid. The tapping was repeated with similar results on June 28 and on October 26. On January 31, 1865, she was again tapped, but the fluid was somewhat thicker, and not so copious.

About this time the patient was recommended to come to London by Dr. Watkin, to consult Mr. Spencer Wells, and she was admitted into the Samaritan Hospital under his care on March 30, 1865. She was of a quiet, cheerful disposition, and her constitution did not seem much broken down. Both legs were œdematous. She vomited after eating, this being evidently due to mechanical pressure of the tumour on the stomach. Her lungs were healthy, and there was no trace of disease of the heart. The urine was rather scanty, but contained no albumen.

The girth at the umbilical level was 39 inches, the distance from the umbilicus to the ensiform cartilage was 10 inches, to the pubes 9 inches, and to either ilium 11 inches. The abdomen was occupied by a fluctuating tumour, which reached upwards nearly to the ensiform cartilage. The right loin was tympanitic, the left dull. The abdominal parietes were thin, but could not be seen to move on the tumour. The catamenia for the last twelve months had lasted over a fortnight or three weeks, and had been rather abundant. On examination, Mr. Wells detected a small mucous polypus in the cervix. This he removed on April 6. The uterus was four and a-half inches long; its situation was normal. No tumour could be felt per vaginam. Mr. Wells wrote down as his diagnosis,—"Large ovarian cyst, principally simple; probably of left side, though history points to right; some attachment to abdominal wall. Large uterus, which is not very intimately connected with cyst." Ovariotomy was performed on April 11, 1865, in the presence of Drs. Reinhardt (Munich), Seidener (Crimea), Marion Sims, etc. Dr. Parson gave chloroform. The incision, five inches long, was made midway between the umbilicus and the pubes. Adhesions were rather extensive, but were easily broken up. The sac was evacuated and withdrawn. The pedicle rose from the right side of the uterus; it was three inches long, and as broad as two fingers. It was secured in a middle-sized clamp, and kept outside without traction. The left ovary was of the natural size, perhaps rather harder than usual. The wound was closed with deep and superficial sutures of silk. The weight of the tumour was five pounds. Twenty-two pints of fluid were also removed at the operation. The patient rallied very well. For the first two days there was some pain, but there was no sickness nor tympanites, and the urine was clear and abundant. The clamp was removed on the eleventh day along with the last of the deep stitches. On the thirteenth day constipation and pain were complained of, and on examination Mr. Wells detected a fibrous stricture, hardly admitting the point of the finger, in the rectum about an inch from the anus. This, on inquiry, was found to have existed long before the ovarian disease began, as she had not been able to pass a solid motion for many years. This stricture was dilated by laminaria tents, and she left the Hospital in good health on May 15, passing solid fæces more freely than she had done for several years. She called on the 23rd, looking perfectly well, and said that the obstruction in the rectum had quite disappeared.

(To be continued.)

KING'S COLLEGE HOSPITAL.

OVARIAN TUMOUR, TAPPED THREE TIMES PREVIOUSLY—OVARIOTOMY—RAPID RECOVERY.

(Under the care of Mr. FERGUSSON.)

The following points of interest are attached to this case—viz., the returning of the stump of the pedicle into the abdominal cavity, instead of its being held by a clamp and kept out of the wound, the remarkably little discharge from the wound, and the very rapid recovery which the patient made without a single bad symptom.

Esther A., aged 26, single, admitted February 28, 1865. Very delicate from a child; when 13 years of age she noticed some abnormal swelling in the abdomen; about five years ago she had a severe attack of pain, accompanied by sickness and cough; after this she remained very weak, and has since had pain (though not constantly) of a dull aching character in the right side of the abdomen; she has had no pains in the thigh.

Since this attack the swelling in the abdomen, which has not been on one side more than on the other, has been gradually increasing. She commenced to menstruate at 17 years of age, and has always been irregular, no pain accompanying the discharge; for the last two years she has not menstruated till seven weeks ago, since which time, without any intermission, there has been a bloody discharge from the vagina.

She has been tapped three times, the first time two years ago; on this occasion twelve quarts were drawn off. The second time was a year ago, when the same quantity of fluid was drawn off, and the cyst injected with tr. iodinii. This was followed by a good deal of pain and fever; it enlarged again rapidly, and in seven months was re-tapped, and a large quantity of fluid drawn off. After this a large, apparently solid, tumour was left, which she wished to have removed. It has increased very slowly latterly, and has increased uniformly.

On admission there was dulness over the whole surface, except in the left hypochondriac, lumbar, and iliac regions. Fluctuation distinct, especially over the left side; on the right side fluctuation is less distinct, and it is not communicated

from the other side. It is harder on the right side. There is no tenderness. She is a moderately healthy-looking woman. Tongue clean and moist; bowels regular; pulse 80; respiration 20, easy. She has lately suffered from pain in the right hypochondriac region.

On March 10 Mr. Fergusson operated as follows. He first made an incision of about five inches in the median line below the umbilicus. It was then found that no adhesions existed in front, and that there were two cysts. A large trocar was thrust into the larger cyst (left), and about six quarts of a dark brown liquid were drawn off. From the smaller one on the right side two quarts of a lighter coloured and very viscid fluid were withdrawn. The cyst was then withdrawn easily, it being attached by a very long narrow pedicle. The pedicle was transfixed with a needle and double ligature, the ligature divided and the needle withdrawn, and each half of the pedicle securely tied. The cyst was then cut off, the pedicle returned into the cavity of the abdomen, and the ligatures left hanging out of the wound. The edges of the wound were brought together with sutures, and a pad and bandage applied. The cysts proved to be simple, and did not communicate.

13th.—Had a good deal of retching after the operation, but this soon ceased. Slept pretty well last night. Pulse 126. No headache; tongue clean. Has very little pain.

14th.—Pulse 104; going on well; appetite good; slept well.

15th.—Pulse 100; has very little pain, and no tenderness in abdomen. Dressings removed; very little matter came out. The wound strapped. Was sick this morning; tongue clean; good appetite. Is ordered a little fish.

16th.—Pulse 96; feels much better; has no sickness, and very little pain; bowels not open since 11th.

18th.—Pulse 86; feels very well.

24th.—Ligature from pedicle came away to-day; wound nearly healed.

April 6th.—Convalescent; gets up every day; wound not quite healed.

12th.—Discharged well.

For the notes of this case we are indebted to Mr. Miles A. Wood, the dresser at the time.

THE LONDON HOSPITAL.

CLINICAL LECTURE ON A CASE OF COMPOUND DEPRESSED FRACTURE OF THE SKULL, WITH A WOUND OF THE SUPERIOR LONGITUDINAL SINUS.

By Mr. JOHN ADAMS, Surgeon to the Hospital.

Donacio L., a Malay, aged 24, a sailor, was brought into the Hospital on April 19, having fallen from the main-top-gallant mast, a height of about thirty feet, by which he sustained a compound fracture of the skull. A large wound of the scalp across the vertex of the skull revealed an extensive fracture, the bone being depressed to a great extent, but not deeply. He was sensible, and gave his name when asked, but he was labouring under severe shock, for his skin was cold and clammy, and his pulse was feeble and slow. A small quantity of stimulant was given, and he was placed in bed and kept warm. On further examination, after enlarging the wound, the fracture was found extending about three inches and a half in length, in a semi-circular direction, within two inches of the edge of the squamous portion of the left temporal bone across the vertex of the skull, and along the mesial line for ome distance in the track of the sagittal suture.

Mr. Adams determined to raised the depressed bone if possible, and he inserted an elevator in the fissure between the edges of the fracture; but on prising up the bone a quantity of dark blood flowed out, which apparently came from the surface of the dura mater. On a further attempt to elevate the bone, an immense gush of dark blood occurred, at once indicative of a laceration of the superior longitudinal sinus. All further attempts at the raising of the fracture were now discontinued, as the hæmorrhage was so copious as to compromise the patient's safety. The bleeding was checked by the introduction of a piece of lint between the edges of the fracture, but was only completely arrested by the raising of the head. To prevent the risk of any further loss of blood, a sponge was confined by the aid of a bandage carried beneath the chin, and the bleeding did not recur. A pint of venous blood had escaped, and the patient was of necessity exceedingly weak; it was, therefore, requisite to give him brandy, which raised his pulse, which was beginning to sink rapidly. His head was ordered to be kept raised, and a nurse was ordered to watch him and to apply further pressure in case of necessity.

April 20.—He was restless and weak, moaning continually during the night. He was nourished with beef-tea and a small quantity of brandy, and some saline medicine and ammonia were ordered. The wound was not touched.

21st.—He had passed a better night. As his bowels had not been opened, three grains of calomel were given him.

22nd.—He is not quite so well this morning; his pulse is hard and very slow, about 50 per minute, and his tongue is white, furred, and indented by the teeth at its edge. As the calomel had not acted, a dose of salts and senna was given. The wound looked healthy, and the plugs of lint were removed.

23rd.—His bowels were much purged during the night, and he got no sleep; the surface of his body was cold, and his pulse continued weak and slow. He was troubled much with cough, and his general sensibility was apparently unimpaired.

From the 24th to the 27th he progressed very favourably, the wound was granulating healthily, his consciousness was perfect, and he amused himself by reading.

28th.—He was seized with a violent shivering early this morning, and this recurred in the evening, but not to the same extent, but his pulse rose first to 80 per minute, and after the second fit of shivering to 120 per minute.

29th.—Much worse; pulse low and feeble, and general debility and listlessness are very apparent. He was ordered ammonia, æther, and camphor, a mutton chop, and ten ounces of wine.

May 1.—Obviously worse: his fæces and urine are passed involuntarily. He afterwards became very low—refused all food; his pulse was 150 per minute. He had no signs of hemiplegia, and becoming from day to day gradually weaker he died apparently from exhaustion on the 5th of May.

Sectio Cadaveris.—On raising the scalp the fracture was found to have extended in an oblique direction from the left temple to beyond the right parietal eminence, and thence it passed irregularly along the sagittal and lambdoidal sutures, leaving a triangular piece of bone inclosed between these three lines. The dura mater on the left side under this piece of bone, was covered with a layer of dark, fœtid, semi-fluid lymph, bearing every appearance of the residue of effused blood partially absorbed and putrid. The superior longitudinal sinus had been opened, and was now blocked up beneath the fracture with dense fibrinous coagulum. The pia mater and the arachnoid in the neighbourhood were of a dark greenish hue, and the underlying brain substance presented a dirty grey appearance. The fracture extended across the middle fossa of the skull on both sides, and the back part of the ethnoid bone was fractured.

This case, Gentlemen, is rather unusual in some respects, and deserves our attention because it involves some questions of a practical nature. We may first consider it as one of compound depressed fracture, with very slight symptoms of cerebral compression. Surgeons of deservedly great authority have laid it down as a rule that in all cases of compound depressed fracture of the skull, whether symptoms of compression exist or not, it is desirable to raise the depressed bone to its proper level; to this I by no means demur, as it is obviously the Surgeon's duty to place the fractured bone in as nearly a natural position as possible, provided this can be done without violence. But I would not advise you to follow this plan implicitly, for I have seen many cases where the bone has been found depressed extensively—I do not mean deeply—in which success has attended a strictly anti-inflammatory treatment, the bone being left *in situ*. I therefore advise you to follow Brodie's advice in such matters, to this effect—where you can raise the bone without much force, do so by all means; but do not employ the trephine or any description of saw, and thus tear away the bone from its bed of dura mater, unless the bone is deeply depressed or indented into the brain-substance. If symptoms of pressure exist, the rule to raise the bone is peremptory. Were there any symptoms of pressure in this case? I thought so, or I should have left the case alone. You will remember that when I saw the patient he was becoming insensible, and his pulse was very slow; and, although I could not detect any hemiplegia or dilated pupil, I nevertheless thought these signs quite sufficient to justify me in using the elevator. For, in cases of depression, or wherever there is a force compressing the brain, you must not expect to find all the stereotyped symptoms of compression existing together; as

unconsciousness, slow pulse, dilated pupil, hemiplegia, stertorous breathing, incontinence of fæces, and retention of urine, and think that you can by the trephine or any other means relieve your patient. No; such a combination of unfortunate conditions indicates an absolutely irremediable state of things, from which no patient can recover; and you had almost better let him alone rather than hasten his death by your trephining.

Still, do not allow me to discourage you in any attempt to prolong life. I only want to guard you against unwarranted expectations in severe cases of this description. The cases which are amenable to treatment are infinitely more simple, and if hemiplegia is clearly perceptible, even in the absence of all other symptoms, if the seat of pressure can be detected, "lay on the trephine," as the old Surgeons say, and remove the source of the mischief. During my attempt to raise the bone a small quantity of dark blood escaped, and I thought I had got in hand a case of hæmorrhage upon the surface of the dura mater; and so I had, unquestionably; but on a further attempt to elevate the bone an enormous quantity of blood escaped, and I concluded that the superior longitudinal sinus was wounded. No doubt this had been lacerated by the fracture along the sagittal suture; but I dare say I increased the rent by my attempts to raise the bone. There is, however, nothing that need disconcert you in an opening into a sinus. It is certainly not a pleasant circumstance; but the bleeding, if it takes place on the outside of the dura mater, may always be controlled by suitable position and topical pressure, as in the case before us. There are numerous cases on record of wounded sinuses which have completely recovered. When fatal, their fatality depends in some cases on the loss of blood, and in others on pyæmia and its concomitant results. When the blood is poured into the arachnoid cavity it is almost invariably fatal. I do not know that I can say more on this case to guide you in the general management of cases of such severity as the one before us. Every case must be treated according to existing symptoms, and I cannot advise you to obey any rule implicitly. It seems to me that we shall come to as correct an understanding of cases as it is possible to do if, in forming an opinion of the true pathological condition in all cases, we regard well the physiology of the parts implicated in Surgical accidents or in diseases; and the inference I would have you draw from this instance is, that, although the brain had undoubtedly suffered from general concussion, yet no amount of compression existed sufficient to obscure its functions altogether. I need scarcely direct your attention to the shivering fits, which clearly indicated some pyæmia, although no further examination of any other organ was made to verify the opinion.

There is, however, one other remark to be made, that, notwithstanding the enormous amount of injury the skull had sustained, the brain discharged its functions tolerably well, and the true spinal system of nerves were not at any time seriously compromised.

MIDDLESEX HOSPITAL.

CASE OF SCRIVENERS' CRAMP—RECOVERY BY REST TO THE HAND AND TONICS.

(Under the care of Mr. HULKE.)

A TALL, fair, copyist, aged 26, apparently in perfect health, came to the out-patient room May 16, 1864, with spasm of the flexor muscles of the thumb and forefinger when she tried to write. She said that for five years she had been in the habit of writing continuously from 10 till 5 o'clock, and sometimes as late as 11 p.m. A year ago she found a difficulty in holding her pen, and this difficulty had increased so much, that now on taking her pen it was jerked irregularly over the paper by an involuntary, irregular, spasmodic contraction of the thumb and fore and second fingers. She could, however, use her hand without trouble in dressing, and manage her knife and fork.

Writing was entirely forbidden, and she was directed to douche the hand, and take cinchona. Already, on the 23rd, there was some improvement. A trial to write was less spasmodic. In June the improvement had become decided. By the following September she could write a short letter fairly and evenly, her thumb and fingers were under almost complete control, and there was scarcely any irregularity in their movements, even when sustained.

In the following January she wrote a clear, regular hand, and took a situation as governess.

At the same time that this patient was under Mr. Hulke's care, a tailor came to the Hospital affected with a similar cramp; when he tried to sew his thumb and forefinger were involuntarily flexed on the palm. The sequel of this case is unknown, as he neglected to return.

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Medical Times and Gazette.

SATURDAY, MAY 27.

THE COLLEGE OF SURGEONS' ELECTION.

THE approaching election of the Council of the College of Surgeons will now shortly take place, and the Fellows of the College, on whom the choice of representatives depends, will do well to be careful that the trust imposed upon them is well fulfilled, in order that the duties of the College to the Profession at large shall be faithfully, and at the same time liberally, carried out.

Mr. Arnott, on his retirement from his seat in the Council, as well as from the Board of Examiners, carries, we believe, with him the good wishes and the respect of the Profession generally; although occasionally having to differ from this gentleman's political views, yet we hold him to be an honest representative of a conservative system, which doubtless has done good service in its way. He retires from active life with the just honours due to an upright, straightforward man.

The Council, therefore, will have another duty to perform in choosing from their own body a representative for the General Council of Medical Education and Registration. The filling up Mr. Arnott's place in the Court of Examiners will cause the vacancy in the Council of the College for which the contest, to be decided by the Fellows, is shortly to take place. It appears, up to the present time, but two principal candidates come forward; the one, Mr. MeWhinnie, a London Surgeon, the other, Mr. Turner, of provincial celebrity; the energy, therefore, with which the Provincial gentlemen will urge their claims will be a very good test of the interest they take in the management of the College affairs. The want of unanimity of action displayed by country practitioners in their support of a provincial candidate has often been a matter of surprise to us, and we have often called attention to it in these columns. If they are content that the College of Surgeons of England is to be almost entirely controlled by elections from the various London Hospitals, well and good; we then have no more to say on the matter; but surely it cannot but be a reflection upon our provincial schools that we get no representative from our large and justly celebrated schools of the northern and midland counties. A little more union among the Fellows must necessarily lead to a more just representation of their claims; and in these days of rapid communication and travel, both by telegraph and rail, it is unfair to suggest that absence from a town residence would be assigned as a reason for neglect of the business of the College. We fear that the privilege to which we consider

all Fellows equally entitled is greatly negatived by the fact that personal attendance is necessary on the day of election; and this circumstance alone forms a most important reason why the whole system of voting should be thoroughly altered, and that the privilege of voting by proxy should be as soon as possible conceded to all the Fellows of the College. This is obviously a point for the provincial men to insist upon, and, doubtless, if they will return any country councillor who will pledge himself to carry out these views, the thin edge of the wedge will be driven further home. The newer members of the Council display a greater liberality to their fellow Professionals, and it is most certain that from the new infusion of younger blood the alterations proposed must take their origin. Let the provincial Fellows insist well on this point. Mr. Turner, of Manchester, has, at the last dinner, announced himself as a reformer, in the "virtuous and legitimate meaning of the appellation," and we feel sure that this gentleman's expressed sentiments are a genuine interpretation of his intended mode of action. We heartily wish his perseverance success. Messrs. Quain and Shaw retire, but offer themselves for re-election. We shall see whether they have come up to the mark in the estimation of the Fellows. We should like to have seen a little more of the scientific element infused into the composition of the College Council, and we confess to some regret in observing the names of Bishop and Gulliver absent. The mention of the name of the latter gentleman recalls to our mind the complete absence of any representative of the interests of our public services. This should not be.

Fellows should remember that if they have not signed the bye-laws of the College they are not entitled to vote. They will be able to comply with that condition at the next meeting of the Council.

We have suggested these points to our readers for their consideration during the next month. A number of provincial gentlemen are expected to support the chair at the annual dinner, when Mr. De la Garde, of Exeter, will preside; and on these occasions of general meeting surely some plan might be arranged with a view to carry out reforms which must originate with the great body of the Fellows.

MODERN DERMATOLOGY.—No. V.

Mr. Milton(a), whose work on diseases of the skin has only just come into our hands, treats very fully of eczema, more than a third of his whole book being devoted to its consideration. He altogether denies the vesicular nature of the complaint, and reminds us that he was at least one of the earliest to do so, having put forward his views on the subject in a paper read at the Medico-Chirurgical Society four years ago. He defines eczema as "a non-contagious inflammation of the papillæ of the skin, attended with increased nervous sensation in these parts, augmented and abnormal action of the perspiratory ducts, the contents of which often exhibit pus globules and plastic lymph, and increased secretion of very imperfectly formed epidermis, standing nearer to erythema and pityriasis than to herpes or impetigo, though capable of being complicated by both; divisible in its natural state into two great forms, the acute and chronic, between which it is not always easy to draw a clear and positive line of separation, instances out of both divisions of cure, under the same form of treatment being numerous enough." The affected surface is "weeping," not covered by vesicles; in true eczema, he says, "a portion of the skin becomes red, inflamed, and uneasy, stiff, and itching, but rarely swollen, except when the complaint attacks the ear. The cuticle rapidly dies, and is cast off, or torn by scratching. To this succeeds a discharge of serum, which, judging from the appearance of the orifices whence it exudes, is poured out by the sudoriferous ducts. When the process is more slow, the falling of the cuticle is succeeded by a cuticle thicker and coarser in its texture, and gradually assuming the look of a soft scale." In mode of treatment Mr. Milton agrees very closely with Mr. Wilson. Lowering means he rejects altogether. "Antiphlogistic treatment failed in every case of severe eczema, so far as any curative power, or any power of preventing relapses, was concerned." "It is rarely necessary to prescribe more than a gentle aperient and febrifuge." Iodide of potassium he has found useless, "except when there was rheumatism;" then it is of great service, especially if combined with colchicum. Cod-liver oil "is one of the most valuable remedies in eczema, as in so many other skin diseases. . . . and if the patient is to derive lasting benefit from its use, it should be given quite three to six months." Arsenic he gives only in the last stage of the disorder: "when the skin remains red and tender, with a quick reproduction of unhealthy cuticle or scabs, great itching, and a strong tendency in the disorder to stand still, this, and this only, is the stage for which I would recommend it, and here I think arsenic is invaluable." But his favourite remedy is iron, which he gives in large doses—"during the first year or two of life, one or two drachms of steel wine two or three times daily;" in older children, the saccharine carbonate, "or the tincture of the muriate, in doses of five to fifteen minims;" and in adults of middle age or in the decline of life, "a drachm or more may be given at a time." If pure and carefully prepared, and when "properly aided by food, exercise, baths, and aperients, it may be safely said that few, if any, cases of eczema will, in the long run, resist its influence." Mr. Wilson also, as we have seen, gives iron, but combines it with arsenic. If, after a full trial of steel, the disease persists, Mr. Milton would give cod-liver oil and arsenic; these failing to cure, he recommends the biniodide or bichloride of mercury—"from an eighth to a sixth of a grain once, twice, or three times a day." Mr. Startin also, we believe, relies greatly on the bichloride of mercury for the cure of eczema. Whatever course of treatment be adopted, says Mr. Milton, it must be steadily persevered with, and success will follow; but if the "guiding principles of treatment are every now and then to be abandoned for the sake of meeting some complication, or in deference to some theory, or out of dread of some imaginary danger, then good-bye to all chance of a cure."

For external treatment Mr. Milton adopts very nearly the same means as Mr. Wilson. Of tar and creosote he speaks in terms more graphic than elegant—"nearly every writer recommends them, and I believe few use them. In creosote I confess at once I have very little faith; I never saw any particular benefit from it in any skin disease. Tar makes such a filthy mess that I doubt if it will ever come into general use, and how Hebra can get his private patients to rub in a mixture of tar and cod liver oil quite passes my comprehension."

Mr. Milton devotes considerable space to the consideration of the question, "Is it ever dangerous to cure eczema?" and answers it with a decided negative. "I always," he says, "do my best to cure eczema at once, under whatever circumstances I meet with it, and in no instance have I ever seen any ill effects from checking the discharge."

Mr. Wilson differs from most modern dermatologists in the sense in which he uses the term psoriasis. MM. Bazin and Hardy and Dr. Hillier employ it as synonymous with lepra, and indeed almost discard the latter term, and describe lepra vulgaris, etc., as varieties of psoriasis. Dr. Hillier says, "Psoriasis is a convenient term to employ for a distinct and well-defined disease, including what Willan intended by lepra, or lepra of the Greeks, and all other varieties of skin disease, in which the cutis is reddened, thickened, and covered with an increased formation of epidermic cells, adherent to each other and to the skin, but rubbed off without much difficulty, and not characterised at any stage by vesicles, pustules, or ulceration."

(a) On the Modern Treatment of some Diseases of the Skin. By J. L. Milton, Surgeon to St. John's Hospital for Skin Diseases. Pp. 116. London: R. Hardwicke.

Hebra and other German dermatologists employ the term in the same way. Mr. Wilson, on the contrary, confines the use of it to signifying a form of chronic eczema, "squamous eczema of the trunk and limbs," as pityriasis is squamous eczema of the scalp; "that state of skin in which the integument is red, coarse, thickened, wrinkled or smooth, brittle, dry, itchy, and desquamating;" while to designate lepra and its varieties, vulgaris, guttata, etc., he revives the old term *Alphos*, which he makes do duty for the lepra and the psoriasis of the other dermatologists; and while the French dermatologists regard lepra or psoriasis as "*the dartre* of persons of a sanguine temperament," Mr. Wilson separates it from the "eczematous affections," and forms a distinct class of "Alphous affections." His class of "Leprous affections" embraces the "consideration of the true or ancient lepra, the elephantiasis of the Greeks, and all the varieties of this grave disease—the principal forms being included under the heads of lepra and vitigo."

Much inkshed and some confusion will probably be excited by this proceeding of Mr. Wilson's; but such a multiplication of synonyms has obtained in the nomenclature of squamous diseases of the skin, with such consequent confusion, that one cannot wonder at Mr. Wilson's going back to Celsus and other ancient writers and attempting to restore the limited nomenclature of their days. As the part at present published of his "Handbook of Cutaneous Medicine" does not include the class of "alphous affections," we cannot give any exact account of his differential diagnosis between psoriasis and alphos, but in the last edition of his larger work it stands thus. In alphos "the hypertrophy of the skin is the greatest; the patches are circular in form, elevated above the level of the surrounding parts markedly, healing from the centre, never attaining a large size; the scales are thick, regular in structure, and the disease is more amenable to treatment than *psoriasis*, in which the hypertrophy is less, the patches irregular in form, less elevated, healing irregularly, always attaining a large size, the scales being thinner, irregular in structure, the disease being less amenable to treatment." Dr. Tilbury Fox observes, "Regarding these differences as those of degree, not kind, I shall describe lepra and psoriasis under the term lepra, recommending, with Mr. Wilson, the adoption of alphos." Mr. Wilson would probably in the diagnosis between the two diseases give considerable weight to the history of the disease, especially as regards its outbreak and the parts of the body it most affects, lepra, or his alphos, notoriously attacking by preference, and most persistently lingering in, the parts of the skin where the epithelium is thick, especially the elbows and knees. All the dermatologists allow that alphos is non-contagious, and that its hereditary tendency is well established. But very little is known as to its etiology. Mr. Wilson says, "The cause is a special poison, the nature of which is obscure. I have stated my belief, and I see no reason to change that opinion, that the leprous poison is in its essence and origin *syphilitic*—that it is, in fact, a manifestation of the syphilitic poison after transmission through at least one, and probably through several generations;" and in support of this opinion he adds, "I have published one example, and seen several, of a real lepra (alphos) vulgaris in the children of a man who was under my care for the remote effects of syphilis, and who appeared besides to have had congenital syphilis." Dr. Tilbury Fox agrees with Mr. Wilson in this opinion as to the cause of the disease. The French dermatologists, we have already said, consider it to be the *dartre* of the sanguine temperament. Devergie states that of 200 cases, 162 were of this temperament; but this really amounts to very little more than a statement of an universally admitted fact—viz., that the disease, in the vast majority of cases, appears in strong, apparently healthy persons. All classes are liable to it, and it has been attributed to an immense variety of influences—climate, humidity, changes of temperature, mode of life, gastro-intestinal irritation, chlorosis, arthritis, drinking cold water when heated, cessation of established discharges, diet, mental states, certain occupations, etc., etc.—into the effect of all of which Hebra has very carefully examined, and has arrived at the conclusion that none of them can be truly counted as causes. Dr. Hillier says, "It is usually stated that psoriasis is caused by a great variety of conditions; but there is little evidence of the truth of these statements. It would rather appear that it may occur under very varying conditions, and that the cause is not known." In this journal, vol. ii., 1864, p. 93, will be found a statement of the views of Dr. Wertheim, of Vienna, on the production of the disease. "Having observed that the arms of such patients (with psoriasis) become, after a few days, the seat of a fungous growth, mostly of the species known as the penicilium glaucum, while that of other patients did not," he injected an emulsion of the fungus into the crural veins of some dogs. Twenty-four hours after the injection isolated red spots, slightly elevated, appeared upon the extremities, and a repetition of the injection rendered the spots more active. Similar results resulted from injecting an emulsion of yeast from beer. "On examining the eruption, which, in its seat, symmetry, shape, and progress, presented many analogies with psoriasis, microscopically he found it to be the result of obstruction of the cutaneous capillaries by the vegetable elements injected. Applying this observation to psoriasis in man, he regards the entrance of parasitic vegetable elements into the circulating system as the cause of the cutaneous lesion, and explains the greater prevalence of the disease in man (245 males to 25 females, according to Devergie) to their consuming more of alcoholic beverages than women do." We are not aware that any other dermatologist has accepted this hastily-formed theory; and certainly it seems to have very little claim to serious consideration. The presence of the penicilium is accidental in, and by no means peculiar to, psoriasis; it, like other substances, only mechanically obstructs the capillaries; and "anatomically, psoriasis is hyperæmia and exudation into the upper layers of the cutis, with an increased production of epidermic cells" (Hillier). Can a mechanical obstruction of the capillaries cause this in twenty-four hours?

In the treatment of alphos, most dermatologists recommend some form of arsenic as *the* remedy. In his lately-delivered address on skin diseases, Mr. Wilson says:—"There is one disease—namely, alphos—in which arsenic is the only known remedy. In this disease there is no disorder of the general health, and the medicine may be commenced without previous preparation of the patient;" but this rule must not be indiscriminately applied; there are many exceptions to it. As Mr. Wilson states in his larger work, "the leprous patient may suffer from other diseases, these are apt to constitute so many complications of lepra, and may require to be relieved before the special treatment is commenced, or, at any rate, consentaneously with it." In a person predisposed to the disease, any disturbance or lowering of the general health, as excess in wine or food, overwork, hyperlactation, disorder of the stomach from any cause, etc., will bring on an outbreak of the eruption; in such cases the first indication is "the removal of complications, together with the regulation of the assimilative organs," and the treatment must consist of "gentle aperients, salines, bitters with alkalies, bitters with mineral acids, colchicum, etc." By these means the patient may be restored to health without the use of arsenic or any other remedy specially directed against the skin affection. Mr. Wilson's remarks on this point are well worth attention, and will apply to the treatment of many other diseases besides that in question. "Occasionally," he observes, "the effects of this treatment are very remarkable. With the improvement in the general health, the lepra is always improved, and sometimes will get entirely well without specific remedies. The Practitioner must not, however, in this event rush to the conclusion that the remedies have cured the lepra, and will, therefore, cure it again. . . . . The Medical man allays the constitutional disturbance, and the lepra gets well—not by the virtues of his medicine, but spontaneously. It is the

failure to see this fact in its true light that imports so many remedies and suggestions into the treatment of lepra—remedies which flourish for a week in the periodical in which they first appear, then probably languish for a year in some annual abstract of delusive cures, and then are forgotten for ever, and deservedly so, not even leaving behind them the appreciation of that small, thin streak of truth upon which they were founded."

The general health being restored or undisturbed, there is, as we have remarked, according to most authorities, "but one reliable remedy"—arsenic. But here again we will quote a caution given by Mr. Wilson:—"Arsenic will cure lepra with certainty; but neither arsenic nor any other known medicine will prevent it from returning again. Sometimes, after a thorough dispersion by arsenic, the eruption never reappears; but more frequently it recurs the following year, or after a lapse of several years."

English dermatologists most generally prefer Fowler's solution; some few employ the liquor arsenici chloridi (P.L.); it is of rather less than half the strength of the liquor arsenicalis, and does not seem to possess any decided advantage, though it may, perhaps, be sometimes useful to be able to give it in combination with the nitro-muriatic acid. Bazin gives arseniate of ammonia or of iron; Hardy the arseniate of soda; he also very strongly recommends the tincture of cantharides and the balsam of copaiba; but Dr. Hillier observes: "I have had so little occasion to be dissatisfied with arsenic that I have not given cantharides a good trial;" and Mr. Wilson also says: "In the presence of so excellent and certain a remedy as arsenic, it is difficult to find an opportunity for making trial of these other medicines." Dr. H. Bennett, Biett, and some others, have recommended the combination of arsenic and cantharides.

As to local treatment, Mr. Wilson is of opinion that "for the cure of lepra it is useless; but various indications present themselves which render local treatment for the relief of irritation of the skin advantageous and necessary;" while with Hebra it is a very different thing. Dr. Tilbury Fox says, "Hebra believes it (local treatment) to be the *sine quâ non*, the *alpha* and *omega* of treatment. The French Physicians hold the medium view. I confess that local means serve to advance the recovery very much." Tar, in some form or another, is the most general favourite of local applications, and after that the oil of juniper, or *huile de cade*. "Tar may be used alone, or in the form of an ointment, with equal parts of lard. Hebra advises its employment in the form of a soap, or equal parts of soft soap, spirits, and tar may be used." The scales must be first removed, by water dressing or other means, and then the stimulating remedies rubbed firmly and freely into the skin. Dr. Tilbury Fox advises, for local treatment, "baths—hot vapour, sulphur, and alkaline; the former and the latter are useful in detaching the scales and allowing the proper action of other remedies, and also induce the skin to return to its natural action. When the patches have been denuded of their scales by maceration or bathing, the best application is tar, either with glycerine or alcohol; generally about equal parts make a proper application. The tar should be applied at night, or night and morning, for some time. The oil of juniper, or *huile de cade*, is efficacious." Sometimes soothing measures are necessary, as glycerine, oxide of zinc, and aq. calcis as a lotion, or alkaline baths and lotions. Hebra has also found the hydropathic treatment decidedly beneficial in some cases. Most dermatologists, however, appear to agree more nearly with Mr. Wilson than with Hebra, and to hold that "the local treatment of lepra is not to be regarded as curative; it is simply palliative; the cure must come from within, from that improved and altered state of the blood which results from the proper administration of arsenic."

Her Majesty has been pleased to appoint Horace Watts, Esq., M.D., to be Colonial Surgeon for the Falkland Islands. —*London Gazette*, May 23.

HOSPITAL FOR LADIES.—INSULT TO THE MEDICAL PROFESSION.

There are two ways of rising above one's fellows in Medicine. One is the exceedingly troublesome, laborious, and expensive method of abandoning the small fees of general practice, and devoting the earlier and better years of life to a prolonged studentship. Such is the fate of men who "keep about the Hospital" when their usual term of study is past, who are found doing all sorts of work in museums, laboratories, Hospital wards, and dissecting-rooms; and if such men succeed to Hospital appointments, and if thereby the Hospital appointment seems to be the mark of a scientific worker, it must be recollected that such men have fairly raised themselves to begin with, and that the appointment acquires half its prestige from the character of the men who have heretofore filled it. But it is possible to conceive of another set of men, who try to make themselves famous, not by rising above, but by endeavours to depress and vilify their brethren.

We do not know the names of the gentlemen who are attached to a new "Hospital for Ladies" in Soho-square; but we are sure that they will thank us for giving them the opportunity of repudiating all connexion with the latter set of "distinguished specialists," and of disclaiming all complicity with a foolish and offensive paragraph in *The Times* of Monday. This paragraph claims for the new Institution the credit of being the first to throw open comfortable wards for ladies of limited incomes; whereas a highly respectable Home for invalid ladies has been in existence in Harley-street for many years. The ground upon which the new ward for ladies claims public support, is—not merely charity to necessitous gentlewomen—but the ignorance of the Medical Profession!

"The misfortune is," we are assured, "with regard to most of the maladies of women, running, as they do, through every degree, from simple headache to palpable wasting away, that so little is known of them by the Profession generally"!

Not content with this insolent libel on the Medical Profession, the writer goes on to invent an ideal state of society; he *finges* (if we may coin a word) a set of men in respectable positions eager to send their wives out of doors, and destitute of female relations and nurses, to perform the commonest ministrations to the sick!

"In the ideal state of society it would, of course, be the duty of the husband, when failing health arrives, to take his place by the wife's pillow and to tend her lovingly, as he himself was tended. But is this possible? Not to descend to the case of the working classes, with whom such a cessation of labour would involve a stoppage of wages, and consequent withdrawal of the very supplies of which the wife, or sister, or daughter stands most in need, there are thousands of men in respectable, even influential positions, who would find themselves as much incapacited from regular attendance by the sick bed as they would be out of place if they actually were there."

Then follows that absurdest of views, that people are better off, and better attended to, in Hospitals than in their own homes; just as if the "eminent Doctors" who hold Hospital appointments lived within the walls, and were always within beck and call.

"For the most part, heads of families can and do pay heavy Doctors' bills, but they never can insure that those for whom they would gladly coin their blood receive that attention which their case requires. The remark has a good deal of truth in it that poor people if they could only stay long enough in Hospital, have a better chance of recovery than the rich, because they are surrounded with every Medical appliance, are under the supervision of an experienced staff, must submit to the rules of the establishment, and, should a crisis arise *there is no time lost in sending for a Doctor—he is at the bedside in an instant*. What an ease it would be to many a father's, brother's, husband's thoughts if he could feel that one of his flock,—it may be his only female companion,—instead of pining in solitude and ill-health at home, half-cared for by the servants, and *visited by the Medical man at hours suiting his own con-*

venience, was in a private ward, comfortably fitted-up, and rendered by payment as much her own for the time being as any furnished apartment, with the advantages of the *best Medical advice* and the attendance of skilled nurses! There is another view of the subject. At present one of the most untoward events that can happen in a household is for the governess to fall sick. In the first place, illness, with its concomitants of Professional visits, is never agreeable; and servants continually refuse to wait upon invalids who are not strictly members of the family."

The tone of the entire article entitled "Hospital for Ladies," in Monday's *Times*, is unjust towards the general Medical Practitioner, whom it charges with ignorance of a very common class of female maladies. It looks like a puff of the gentlemen attached to the new Hospital, whose merits, be they great or little, cannot be enhanced by any attempt to depreciate their brethren. It tends to depreciate English home habits, and to promote the custom of sending away the sick amongst strangers. It promotes still further the prevalent curse of gratuitous Medical attendance; and it fosters the unchristian habit of not regarding governesses, and other persons occupying a similar position, as part of a family, but as mere tools or drudges, to be worked whilst well, and turned out when sick to the tender mercies of an advertising "charitable" institution.

THE WEEK.

THE NAVAL MEDICAL SERVICE.

In our last issue we noticed the fact that a distinguished body of Naval Medical Officers had waited on Sir John Liddell, late Director-General of the department, and presented him, in the name of a large number of the corps over which he had lately presided, with a handsome testimonial of their esteem. Such spontaneous offering to a chief on withdrawal from public life is as honourable to the donors as to the recipient, and we doubt not that to the former it will afford a pleasing recollection through life. The sense of disappointment which Sir John Liddell so freely expressed, in returning thanks, at his want of success in carrying out his reforms of the Medical establishment of the Royal Navy, must be cordially accepted by the corps as the assurance of there having been no "want of will" on his part to efface those inequalities which depreciate the Navy Medical officers. Nor should the corps be depressed that an officer of his standing and distinguished services admits his inability to counteract the opposing influences of a Board composed of officers of the so-called executive class, who, with a petty jealousy, conceive their prerogative invaded by the just progress of the non-combatant element of the Service. Rising, as the Medical Profession is, in general society, it will not calmly look on while a portion of its body—hitherto as much distinguished by Professional acquirements as by the high social position some of its members have attained—is withered by the neglect of the naval authorities and deteriorated by the admission into the rank of junior officers, of a large proportion of men whose chances of success in private life may be judged as very small, after the ingenuous report of their practical qualifications rendered by the examiners appointed by the Admiralty. We do not hesitate to state our belief that not merely the naval service, but the entire Profession has had a benefit conferred by that Report, and we should regret to find that on the score of expediency this faithful guardianship of the portal of admission to the navy had been set aside or weakened by the substitution of any less severe scrutiny. The disadvantages the united services of navy and army suffer have been thoroughly investigated by a Committee of the Royal College of Physicians, who being thus introduced fully to a knowledge of the real state of things, have expressed opinions thereon that have seemed too strong to the minds of the Fellows of the College who have not assisted in the inquiry. We have already expressed our opinion of the conduct of the College in this matter. We do not concur in the desirability of the leading body of the Profession, which holds most direct relations with the Government offices, avoiding a Collegiate expression of opinion on the ground that it may, in the slightest degree, involve their relationship, and we regret that for reasons of policy the report of their Committee, which cannot be controverted, should be retarded in its effect. We are constantly receiving letters of complaint from Naval Surgeons concerning the manner in which the Naval Warrant of 1859 has been frustrated; and if any corroboration was necessary of the literal correctness of the Committee's Report, as far as the navy is concerned, our portfolios could amply afford the same. We believe, however, that the words of Sir John Liddell—"I have not succeeded in attaining all the good I tried to accomplish"—will sink deeply into the mind of the service, and will suffice to show the timid and uninformed sections of the Royal College of Physicians that the Naval Medical Department requires reforms which its late worthy chief was unable to establish, and that, therefore, the case stands in need of the helping hand from the Profession which they are supposed to represent.

DEATH IN A BOX.

We have received an account of a coroner's inquest lately held at Liverpool, which, as a tale of marvel and mystery, might have challenged the powers of the late Edgar Poe to surpass it. To say that the solution of the mystery, which appears to have been accepted on very scanty evidence by the coroner's jury, was an impossible one would, perhaps, not be justifiable; but on the face of the tale it must strike any Professional reader as most improbable and unsatisfactory. The facts are shortly these:—The deceased was a married woman, and an inveterate drunkard. She was short of stature, five feet high, and very thin. Her husband stated that he last saw her alive on Friday afternoon. She was then drunk. He had put her out of the house, but she got a ladder and effected an entrance into her husband's premises by climbing over the wall of an adjoining yard. In getting over the wall, she was seen by her husband's brother to fall "head first" upon a barrel of ginger-beer bottles, and then upon the flags. He saw her roll about, and when she got up she seemed hardly to know the way into the house. The brother, however, heard her go upstairs, and he saw her soon after asleep in his bed. The brother and husband slept together that night, and they heard her snoring. Nothing more was seen of her, according to the evidence of the husband, until between three and four o'clock on Saturday. He states that he then found her dead in a clothes box in his bedroom.

"He went to the box and tried the 'hasp,' and found that it was broken. He then caught hold of the lid, and found that it was loose. On opening the box he found the deceased there. He could not see her flesh; he could only see her back. She had a cloth jacket on. Witness put his fingers on her back, and found it was quite stiff. Her face was down at the end of the box. She was doubled up."

The box measured 2 feet 1½ inches in length, 1 foot 6 inches wide, and 1 foot 5 inches deep. The deceased woman is said to have been wedged in the box, with her head and knees underneath her body.

These are the main facts of this most curious case. The inquiry into the mode of death seems to have been conducted by the police in the loosest possible manner. Although warned by the Surgeon, Mr. E. Taylor Gibson, who was called in, they took the body out of the box, had it straightened, and washed. They then directed Mr. Gibson to make a post-mortem examination, and he, without receiving the Coroner's order, incautiously complied. For this he was reprimanded and mulcted of his fee by the Deputy Coroner. Mr. Gibson seems not to have formed a very clear idea of the cause of death:

"He found on each temple a bruise—the only external marks of violence. On opening the skull he found ecchy-

mosis under each of these bruises. The brain was greatly congested. Falling from the wall as described would account for the ecchymosis, and in his opinion 'the cause of death was from falling,' combined with the congested state of the brain."

On being cross-examined by the Deputy-Coroner, he said that he could not say whether the congestion of the brain was produced by the fall or by suffocation from confinement in so small a space. His theory was that she had got into the box herself, although neither he nor any other witness explained how a person under such circumstances, with the head and limbs bent under the body, and the back uppermost, could have replaced the lid of the box. Mr. Gibson afterwards, in cross-examination, allowed that suffocation was the cause of death, and the jury returned a verdict of "Found suffocated." The jury, it will be observed, appended to their verdict no word of doubt as to the mode in which the woman got into the box, although to us it seems almost incredible that a woman with her clothes on could have coiled herself into a space scarcely more than two feet long, a foot and a half broad, and a foot and five inches deep, have replaced the lid, and then placed herself in the position in which she was found. This theory seems to have satisfied the Coroner's jury and the Deputy-Coroner, for the only doubt the latter expressed was as to the worth of the Medical evidence. To us the Medical evidence only seems to have shared the unsatisfactory and inconclusive character of the whole inquiry.

THE MERCHANT SEAMEN AND GREENWICH HOSPITAL.

(From a Correspondent.)

The Seamen's Hospital Society have, by the advice of their Medical officers, elected to abandon the *Dreadnought*, and to find a home on shore. It is well known that the Lords of the Admiralty have decided to empty Greenwich Hospital, and to create a system of out-pensioners' allowance. In a very short space of time that immense mass of buildings, with the exception of the Hospital proper, will be unoccupied. The claims of merchant seamen to the benefits of Greenwich Hospital have been always superlatively great, for the mercantile marine of Great Britain has, directly and indirectly, subscribed many thousands of pounds to the institution in question, and has received no kind of equivalent help therefrom. We hear, nevertheless, from unquestionable authority that the Seamen's Hospital Society have purchased a site for their building close to the walls of Greenwich Hospital, and from the Greenwich Hospital Commissioners, and we cannot refrain from commenting on the manifest injustice that has necessitated such a proceeding. The funds of the *Dreadnought* were, from 1845 to 1854, assisted by a grant from Government of a percentage from the Merchant Seamen's Fund, and afterwards by a certain proportion of the unclaimed wages and effects of deceased merchant seamen, which aid amounted to an annual income of £1500. But in 1854 this sum was withdrawn from the Society, since which time no Government help has been given to the support of the *Dreadnought* Hospital, though an annual sum of not less than £9000 is paid into the Exchequer from unclaimed wages and effects of deceased merchant sailors. A Hospital established for the exclusive benefit of the mercantile marine of this country ought, surely to have some claim upon such a source of revenue. The *Dreadnought* is burdened with an expenditure not incidental to other Hospitals, having to bury, at the expense of the institution, the large majority of those who die within its walls. It is, therefore, a paramount duty on the part of the Admiralty either to grant to the Seaman's Hospital Society a liberal annual payment from the unclaimed wages' fund, or (and which seems the natural course) to offer to them a part of Greenwich Hospital. That noble pile would then be restored to its original and intended uses, and we should then have a home for sick sailors worthy of the nation and its commercial prosperity.

PARLIAMENTARY.—THE BRITISH MUSEUM—THE UNION CHARGEABILITY BILL—IRISH LUNATICS—MR. SIMON'S AND DR. HUNTER'S REPORTS—THE SALARY OF THE MEDICAL OFFICER OF THE PRIVY COUNCIL—THE NOXIOUS VAPOUR ACT.

On Thursday, May 18, in the House of Commons,

The Chancellor of the Exchequer, in reply to Mr. Augustus Smith, said no Bill for the removal of any part of the collections in the British Museum would be introduced till the House had had an opportunity of discussing its main principle; no plans or estimates could be prepared till the questions pending between the Board of Works and the trustees had been settled.

The House went into committee on the Union Chargeability Bill.

On Clause 2, Mr. Henley moved amendments which would have the effect of repealing the Acts authorising the removal of the chargeable poor "to any other union or parish, or to Scotland and Ireland." The abolition of this system, he said, would be a great boon to the poor. No inconvenience had arisen from the successive limitations that had been enacted of the power of removal. They had been gradually approaching the point of abolition, and might now as well do away with the system altogether.

Mr. Ayrton spoke in favour of Mr. Henley's amendments. The present system had demoralised the poor to such an extent that on any given day there were in England, though so rich a country, more than a million of paupers on the relief books. He hoped the Government would consent to the proposal, or, if there were any practical objections to including it in the present Bill, would undertake to accomplish it by a separate measure.

Mr. C. Villiers acknowledged that the proposal of Mr. Henley had taken him by surprise; he had not expected to hear such views from him. Considering that Mr. Henley had always opposed such changes, he had a right to doubt the character of the proposition. The public would also require some explanation of it. He believed it was intended to create alarm in the country as to the extent to which this Bill would go, and, by an amendment, get rid of the measure altogether.

Mr. Henley wished the House to take notice that the Government admitted his proposal to be a sound and good one, but that it was rejected because it came from the Opposition side of the House. He certainly had always advocated the parochial system, and still thought it the best; but, the House having decided by a very large majority to abolish it, was there any inconsistency in his proposing that the Law of Settlement should go with it? He denied that he had taken the House by surprise, as he had placed his notice on the paper before the recess.

After a few words from Sir R. Knightley and Mr. Gilpin, The Committee divided. The numbers were—

For the amendments	110
Against	184
Majority against the amendments . .	74

Mr. Kekewich then proposed an addition to Clause 2, enacting that after the 25th day of March, 1866, no persons shall be removable from any parish or union in which "they shall have resided for one year," next before the application for the warrant for such removal.

Mr. Locke said such a provision would inflict great injury on the poor parishes of the metropolis.

Mr. Villiers admitted that one year's residence was sufficient to entitle a man to a settlement, and would not oppose the amendment of Mr. Kekewich. As to the inequality of the rating in the London parishes, it was an evil generally acknowledged. The remedy, of course, was a readjustment and better distribution of the rate, on a principle similar to that of the present Bill. He should be glad to introduce such a measure for the metropolis if it had any chance of success.

The words proposed by Mr. Kekewich were added to the clause, which was then agreed to.

The remaining clauses were passed, and the Bill, with amendments, was ordered to be reported.

On Friday,

Mr. McEvoy, in calling attention to the number and treatment of lunatics in Ireland, said of 16,600 lunatics 8000 were confined in gaols, workhouses, and lunatic asylums. The management and treatment of lunatics, therefore, became an important question. There were at present in the gaols 669 who had been committed as dangerous lunatics; and a very large proportion of these had remained in prison for a con-

siderable period. The retention of lunatics in gaols had been condemned by the inspectors of both lunatic asylums and prisons. In the first place, the health of the lunatics was not sufficiently looked after, and the discipline of the gaol was very much impaired. The last report of the inspectors of lunatics recommended that the Irish system should be assimilated to that of England. It was a most improper practice to commit lunatics to gaols or to confine them in workhouses—they should be sent to proper lunatic asylums, where there would be a prospect of a large number recovering their reason.

Sir R. Peel said the hon. member was doubtless aware that Government were doing their best to remedy the want of proper lunatic asylums in Ireland. When the six new asylums they were building, in addition to the sixteen already in existence, were completed there would be no want of accommodation for lunatics, and, except in the metropolitan districts of Dublin, there would no longer be any necessity for confining them in gaols or in workhouses. Even under the present arrangement, whenever a lunatic was certified by the proper Medical officers of the gaols to be dangerous, he was, if possible, at once removed to a lunatic asylum. The Government were devoting the most anxious attention to that subject, and in the course of less than three years every one of the district asylums, with the single exception he had mentioned, would be completed, and there would be every accommodation for all the dangerous lunatics who either now or who might hereafter be committed to gaols.

Mr. Blake thought that, considering the importance of placing dangerous lunatics under proper treatment in the earliest stages of their malady, the magistrates in Ireland should have the power of sending them in the first instance to the asylum instead of the gaol.

Sir C. O'Loghlen concurred in thinking it would be desirable, when the district asylums were completed, that magistrates should be empowered to commit dangerous lunatics direct to those institutions.

In Committee of Supply, on the vote of £13,824 for the department of the Privy Council,

Sir J. Jervoise observed that he did not think the country got value for the £1500 paid to the Medical officer of the Privy Council. Considerable sums had been spent on experiments connected with vaccination. He thought that the experiments and reports of the Medical branch of the Department were superficial, and the conclusions come to not very satisfactory.

Colonel Dunne wished to know was this Medical officer the gentleman who had made the very elaborate report which had been used by the Government in the recent debates on the Poor-laws, and who seemed to have a very slight acquaintance with truth. If so, the salary ought to be stopped. In referring to that report, his observation was founded on the statements made by hon. members in the course of the debate.

Mr. Bruce said that the document referred to by the hon. and gallant member had not been prepared by the Medical officer of the Privy Council, but by a gentleman specially employed for the purpose. He was not, however, prepared to admit the justness of the criticism passed on that report. On the contrary, after a conference which he should have with Dr. Hunter on Monday, he expected to be able to state that gentleman's reason for those statements which had elicited the accusations made against him. He alluded more particularly to those of the noble lord the member for North Leicestershire. With respect to Dr. Simon, he must say that he did not know a more able or a more hardworking man. Year after year increased attention was paid to sanitary matters, and valuable reports were made by the Medical branch of the Privy Council Department.

Sir W. Jolliffe thought that the Medical branch was a useful one; but at the same time he was of opinion that the department would do well to exercise a little more vigilance with respect to the reports, in order that those documents might not excite the criticism, not to say ridicule, of the House.

Mr. F. Powell wished to know how the special report was to be paid for. How did it appear in the Estimates? He was not prepared to join in the remarks which had been made adverse to it, because the more clear and bold the colouring of pictures relating to the domiciliary arrangements of the poor the better. He felt sure that a state of things far more disgraceful to our civilisation would be found in our manufacturing districts than that reported in the agricultural neighbourhoods. As an owner of property in the former districts, he had found himself continually foiled in his efforts to provide for the manufacturing classes dwellings more favourable to decency and comfort by the ignorance of the very people for whose welfare he had expended his money. It was of no use to furnish their rooms with the means of ventilation if the people would never open the windows; when he had made arrangements for ample and separate sleeping accommodation a large portion of the space so provided would be used for the purposes of lumber and storage, and the whole family would crowd into one room. Instead, therefore, of reporting adversely upon the condition of the agricultural districts, he hoped that the Medical officer would give an impartial description of the existing state of things in both agricultural and manufacturing districts.

Mr. Bruce said the scheme alluded to by his hon. friend was included in the contingent expenses under the Public Health Act, 21st and 22nd Victoria, cap. 97, which amounted to £7000, including £2000 for the National Vaccine Establishment, and £2000 for vaccination inspection. He might also mention that the Report alluded to contained a great many particulars with reference to an outbreak of fever at Manchester, and that all the reports which had hitherto appeared had treated the subject of our large towns at considerable length. He believed that Dr. Hunter had been most unjustly charged with presenting a report in which his adverse criticism was the result of animus.

Mr. Hunt believed that Dr. Hunter's inquiries would lead to more accurate reports if some notification of his intended visit to any part of the country were made by that gentleman, so that persons in the neighbourhood might have an opportunity of furnishing him with correct information and of rebutting charges made by interested parties.

Colonel Dunne was unable himself to judge of the accuracy of Dr. Hunter's Report, but a distinguished Member of the House had said that it was incorrect, and that statement was echoed on both sides of the House.

The vote was then agreed to.

In the House of Lords on Monday, May 22, on the motion of Lord Kinnaird, the order for the second reading of the Metalliferous Mines Bill was discharged.

At the suggestion of Lord Granville, the Sewage Utilisation Bill was referred to a Select Committee.

Lord Derby called the attention of the House to the Report of Dr. Angus Smith on the results of the Noxious Vapours Act. The facts stated in the Report were, he said, very remarkable. They proved that though the Bill had been in operation less than a year, it had been very successful. He read several of the scientific details of the Report, showing the quantities of deleterious gases that, by the provisions of the Act, had been prevented from passing into the atmosphere, into which they were before allowed to escape. These results, he argued, were very encouraging, as proving what could be done by applying the discoveries of modern science to the processes of manufacture. No subject better deserved the consideration of a Government, or the efforts of statesmen, than how to effect these changes by means of legislation, as it was possible, without injury to manufacturers, to improve agriculture and benefit the health of the people.

Lord Stanley of Alderley admitted the good results of the measure, but feared there were difficulties in the way of extending similar legislation to other kinds of manufactures.

In the House of Commons,

On the order for considering the report of the Union Chargeability Bill, as amended,

Mr. A. Bruce justified the statistical facts referred to, and replied to the objections which had been urged by Mr. Henley to the Report of Dr. Hunter on the subject of the demolition of cottages, the correctness of which he defended, though not all the expressions in the Report.

Mr. Henley explained the remarks he had made upon the Reports of Mr. Simon and Dr. Hunter. The latter, he said, had brought a broad charge against the rural landlords of driving out people by the demolition of cottages. That was the charge he (Mr. Henley) had endeavoured to meet, and he did not think that Mr. Bruce's explanation had altered the case. He referred to other matters in the Report of Dr. Hunter, which he thought evidence of unfairness. The view he took of the motion before the House was that it was a protest against the exemption of certain species of property from a fair share of the burden of the poor.

Mr. Portman pointed out instances of inaccuracies in Dr. Hunter's Report.

The discussion, which had wandered a good deal from the

subject of the motion, was continued by Lord Henniker, Sir H. Verney, and Mr. Scourfield.

Mr. Villiers, after noticing the erratic character of the debate, and replying to criticisms upon the Report of Dr. Hunter, who, he believed, had understated the case, said he had not depended upon that Report; there were authorities without number in favour of the Bill.

FROM ABROAD.—FRENCH OPINIONS ON JENNER—PROCESS OF DEGLUTITION—THE FRENCH SCIENTIFIC CONGRESS.

One of the most attractive discourses upon the History of Medicine, now weekly delivering at the Paris Faculty of Medicine under the name of "Conferences," was that of M. Lorain on the life of Jenner. It was immensely applauded by the crowded audience, but the Medical critics are not quite agreed in their appreciation of it. M. Tartivel, in the *Union Médicale*, believes that M. Lorain only did justice to his subject in the eulogium he passed:—

"Jenner bears no resemblance to the discoverers of our time. His was the glory to close the last century with the greatest and most useful discovery that has been made in Medicine; and yet he never dreamed of assuming the air of a demigod or of procuring statues to be raised to himself while living, and it is doubtful whether he would have willingly seen his photograph in the print-sellers' windows. He was truly a great man, and, had Diogenes met him, he would have extinguished his lantern. He was simple and modest, and when his name had become celebrated all over the world he had the good sense to remain a country doctor. He traversed fields, plains, mountains, and valleys, whether on foot or on horseback, going from village to village, hamlet to hamlet, farm to farm, visiting his patients, whether farmers, peasants, or shepherds, mingling with the practice of Physic the cultivation of natural history, and enriching the museum of Hunter, his illustrious master, with numerous specimens met with during these excursions. Thus went on his way this wise and happy man in perpetual and intimate communion with the soul of nature, observing, meditating, and dreaming, incessantly spelling the mysterious letters of that great book which is always open, and in which so few know how to read. One day he perused in it the discovery of vaccination, and that day he saved from death thousands more than ever fell before a Cæsar or a Napoleon. And yet the name of Jenner is well nigh entirely unknown to that great swarm of mankind which seems to have far more regard for those who crush than for those who save it. Tardily statues have been raised to him, but the mother who is so anxious to have her child vaccinated is ignorant of the very name of the man to whom she owes the benefit."

M. Guardia, speaking of this lecture in the *Gazette Médicale*, holds somewhat different language:—

"Louis Valentin, an enthusiastic admirer of Jenner, does not hesitate to place the discovery of vaccination above that of the circulation; but it is only a panegyrist who would not be staggered by so bold an approximation. For my part, I cannot see any possible comparison between Harvey and Jenner. The former furnished an unanswerable demonstration of an extremely complex fact, of which only a portion had been made out before his time, while the latter substituted only one virus for another, being advertised of this long before by the experience of the country people, by frequently repeated reflections, and by popular tradition. . . . Jenner has recounted in his own fashion, not to say arranged and somewhat travestied, the history of his discovery. M. Bousquet, one of his panegyrists, has had the courage to blame him for the compromises, and concealments more worthy of a casuist than of a man who ingenuously recognises what he owes to others. Not having the habitude of academical euphuisms, I may say that I believe that Jenner was too jealous of his glory, and too frightened of losing by dividing it. There is a littleness in his obstinacy in vindicating the priority of, and the exclusive property in, his discovery. After reading all that he has written on vaccination, and well reflecting upon this, I must regard him as somewhat vain-glorious and boasting. He never ceases to speak of the benefits of vaccination, and finds little difficulty in chanting his own praises in every variety of tone. Jenner, whose simplicity and *bonhomie* have been so much spoken of, certainly did not err from excess of modesty. He was much bent on his own ideas, sustaining and defending them with obstinacy, and, like the authors of systems, he willingly believed that after him there would remain nothing else to be done. . . . M. Lorain has somewhat too much lamented the lot of Jenner, whose merits do not seem to him to have been sufficiently recognised and recompensed. Is this not pushing sympathy a little too far for a man who was spoiled by fortune? Nothing was wanting to Jenner's ambition, and the most insatiable self-love could not desire greater recognitions than he received. The British Parliament decreed honours to him, which in free countries are only accorded to the great. Europe and America voted him considerable subscriptions, while from his grateful fellow-countrymen he received in money about a million francs. Numerous medals were struck in his honour during his life, and since his death three or four statues have been raised, one of which stands by the side of that of Wellington in one of the principal squares of London. What more could be desired? And was it well of Jenner, thus loaded with fortune's favours, to complain to the Emperor Alexander of the ingratitude of men?"

With respect to Jenner's statues, we may observe that the only one we know of, first erected in Trafalgar-square, was, on the remonstrance of the members of the clubs in its neighbourhood, removed some time since to what we suppose was considered the more congenial vicinity of the children and nurserymaids in Kensington-gardens.

M. Guinier, of Montpellier, has been making some auto-laryngoscopic demonstrations in Paris, with the view of proving that the generally received views of the process of deglutition require some modification. He says that it can be easily seen that the alimentary bolus passes directly, without any preliminary falling back of the epiglottis, on to the flooring formed by the contraction of the glottis. In the same way, liquids employed as gargles penetrate beneath the epiglottis, and come in direct contact with the intra-laryngean mucous folds and the cordæ vocales. It follows that the simple contraction of the cordæ vocales suffices to prevent the pasaage of foreign bodies into the trachea. This contraction is automatic, and brought by reflex action into relation to the sensation produced by the contact of a foreign body with the mucous membrane of the supra-glottal regions, and especially the epiglottis, which thus becomes an organ endowed with special sensation.

If any of our readers would like a pleasant summer's visit to Normandy, we would recommend them to bear in mind that the thirty-second meeting of the French Scientific Congress will commence at Rouen on the 31st July. There is a special section for Medicine, at which the following subjects are proposed to be discussed:—1. The influence of manufacturing crises on the public health. 2. The causes and remedies of the mortality of children in manufacturing towns. 3. Does crossing of races give rise to sterility or degeneration of species? 4. The effects of the abuse of alcoholic drinks upon the product of conception, and the frequency of nervous diseases in the children of persons given to such abuse. 5. The diagnosis of apparent death. 6. The preservative power and regeneration of the vaccine virus. 7. The hygienic questions arising from the passage of a course of water through a large city. 8. Twin births, their causes, and the vitality of the infants which result. 9. The diseases to which the weavers other occupations of Rouen are more especially liable. 10. Is it possible to educate the deaf-dumb by any other methods than those employed in the special establishments devoted to their instruction? 11. The reforms and ameliorations required in the public provision for the poor. 12. The increase of insanity; is the present number of asylums sufficient, and what changes are required in their organisation? 13. What are the causes of the epidemics which prevail at Rouen, and why is it that the plague, which was of such frequent occurrence in the middle ages, has not reappeared during two centuries?

Académie de Médécine.—M. Gubler has just been elected into the Section of Therapeutics and Materia Medica by 55 out of 77 members present. By this election the full number of the Academy of 100 members is made up, there being no vacancy in any of the eleven sections of which it is composed.

REVIEWS.

Guy's Hospital Reports. Edited by Samuel Wilks, M.D. Third series, Vol. x. London: John Churchill and Sons. 1864.

It would be absurd to praise Guy's Hospital Reports. Every one turns to them with the assurance that he will there find the results of laborious work given in the most convenient form and expressed in the truest language.

The present volume well supports the credit of its predecessors. It opens with the "Fourth Decennial Report of the Guy's Hospital Lying-in Charity," collated from the Records by Dr. Braxton Hicks, and presented by the Obstetric Physicians. The Report is very carefully drawn up, and to those who interest themselves in obstetric science must be very valuable, were it only for the statistics given of the comparative frequency of the various accidents and complications to which labour and the puerperal state are liable.

The Report has, however, a more general value, for it throws light upon a question which has more than once given rise to prolonged discussion and even to angry dispute; the question whether lying-in Hospitals are or are not a public benefit.

From October, 1854, to the end of September, 1863, 14,871 women were delivered at their own homes. Of these 44 died, giving a maternal mortality of 0·29 per cent. If we compare this with the returns of lying-in Hospitals, we may form some idea of the mortality induced by the crowding together of puerperal women.

	Were Delivered.	Died.	Mortality per cent.
In the Lying-in Hospital at Vienna from 1851 to 1859 inclusive .	73,600	2527	3·4
In Queen Charlotte's Lying-in Hospital from 1828 to 1863 inclusive	7,736	202	2·6
In the Dublin Rotundo from 1828 to 1861 inclusive . . .	63,621	924	1·45
Guy's Hospital Charity, at patients' own homes, from Oct., 1854, to Sept., 1863 . .	14,871	44	0·29

The excessive mortality in the Lying-in Hospitals must be due entirely to Hospital complications, for it is evident that patients under the constant supervision of the Medical attendant must be better treated than those who too often delay sending for Medical assistance until it is too late. A sufficient illustration of this is given in the Report before us. Out of 18 cases of eclampsia, some of which were evidently hysterical, 5 mothers died, 2 of them being undelivered. In Vienna, out of 23 cases of uræmic convulsions which occurred in 1859, 6 died. Again, taking the mortality of the children, we have an example of the same evil consequence of delay, or of the inexperience of the students, for out of 43 cases in which the funis presented or was prolapsed, 30 children were born dead, or nearly 70 per cent. In Vienna, out of 58 cases, only 14 children were born dead, or about 24 per cent.

Following Dr. Hicks's Report is a paper by Mr. Bader, recommending the treatment of granular conjunctivitis by the inoculation of pus. Mr. Bader uses various kinds of pus—sometimes pure gonorrhœal matter—and has evidently taken some pains to devise means of having this desirable matter always at hand when wanted.

Dr. Habershon contributes two papers. In the first he lays down some general rules for the administration of arsenic in the three forms of disease in which arsenic is of service; viz., (1) miasmatic poisoning, (2) diseases of the skin, and (3) some diseases of the nervous system. Dr. Habershon's second paper is an interesting report of two cases of Addison's disease.

Mr. Bryant offers us "A Clinical Report on Inflammation and Tumours on the Breast," in which he enters at length into the question of diagnosis of the nature of mammary tumour. Mr. Bryant's section "On Innocent Tumours of the Breast" forms a capital sequel to the paper which Mr. Birkett published in the first volume of the Reports, "On Adenocele of the Breast." Mr. Bryant shows that adenocele of the breast is most frequently met with during the period of greatest functional activity of the mamma, while cancer is met with after the functional activity has commenced to decline. Adenocele is more frequent in the unmarried; cancer more frequent in the married. Accurate rules are laid down for the clinical examination of the diseased mamma, and the value of various diagnostic symptoms, such as retraction of the nipple, discharge from the nipple, enlargement of the lymphatic glands, etc., is descanted upon. Mr. Bryant's paper is very complete.

Mr. Towne continues his papers upon the stereoscope. Mr. Cooper Foster reports a case of intestinal obstruction, which seems again to open up the question of exploratory incisions into the abdomen in cases of internal strangulation. Dr. Hilton Fagge gives the details of a case of aneurism of an artery which, arising from the internal iliac, ran down the back of the thigh and terminated in the popliteal, and was the main artery of the thigh and leg. Mr. Birkett contributes two papers; the first is a report of a remarkable case of disease affecting the shaft of the tibia, the second is a detailed report of cases of inguinal hernia depending upon abnormal conditions of the vaginal process of the peritoneum. Both of these papers are worthy of their distinguished author. Dr. Taylor presents us with three papers on those subjects of Medico-legal interest in which he delights, and in which he stands unrivalled as an authority. Mr. Cock selects some interesting aneurisms from among the cases which have come under his care during the last twenty years. Dr. Owen Rees makes some valuable clinical remarks on calculous disease. Dr. Braxton Hicks contributes a paper upon the glandular nature of the proliferous disease of the ovary. He agrees with Mr. Spencer Wells that many cases of multilocular ovarian tumour are to be looked upon as cases of adenoma of the ovary. He differs in some details from Dr. Wilson Fox as to the progress of growth of ovarian disease, and he corroborates an opinion which was first advanced by Dr. Charles G. Ritchie in the pages of this journal, that some forms of ovarian disease are probably produced by parthenogenetic development of an ovum while still contained in its Graafian follicle.

Dr. Pavy contributes a most valuable paper on "The So-called Amyloid Degeneration,"—a subject which is closely allied to physiological inquiries, in which it is well known that Dr. Pavy is deeply interested. Dr. Pavy's paper gives the result of the work of others as well as of his own, and will be read with profit even by those who have not hitherto paid any great attention to the subject.

Two cases of "Chronic Impairment of Hearing Improved after Scarlet Fever," by Mr. Hinton, and a paper on "Certain Abnormal Conditions of the Bones," by Mr. Durham, complete a volume which is profusely illustrated, and whose arrangement does credit to its able editor, Dr. Wilks. Mr. Durham's paper is particularly good, and affords the best account we know of that obscure disease, *Mollities ossium*, and of the chemical and microscopical characters of the altered bones. A General Index to the ten volumes of the Third Series of Reports completes the work.

GENERAL CORRESPONDENCE.

THE JAMAICA INQUEST.

Letter from Mr. Alex. Fiddes.

[To the Editor of the Medical Times and Gazette.]

Sir,—In an article in your journal of the 25th March, headed "Colonial Medical Ethics," you have been pleased to make some comments on the proceedings at a coroner's inquest held in this city on the body of Richard Bailey, who died in the Public Hospital after an operation for the removal of a broken catheter from the urethra, and in reference to the evidence given by the Medical witnesses at this inquiry, you express an opinion that the antiquated "code of Dr. Sangrado and Cuchillo still regulate Professional relations in this quarter of the world."

Admitting that Professional relations here are not so pacific as they might be, I can assure you, nevertheless, that these are not so bad as you have been led to suppose; but be that as it may, I have to remark that neither myself nor any of the eight Medical Practitioners who were examined at the inquest are in any way responsible for the Professional disagreements which have lately occurred. These have arisen entirely from the extraordinary conduct of one individual, who, in relation to the Public Hospital, has for the last five or six years set aside the civilities and courtesies of Professional life, and if you will take the trouble to refer to the published documentary testimony which I herewith transmit, you will not fail to perceive that it was my determination to uphold the etiquette of the Profession against the assaults that were being made

against it, which lately compelled me to throw up my appointment of Surgeon to the Hospital, and that it was the same feeling which actuated my colleague, Dr. Dunn, in obliging him to refuse the continuation of his services as a Medical officer of the institution.

With regard to the conduct of myself and of the other Practitioners in the City who gave evidence at the inquest on Richard Bailey, I have only to observe that neither I nor any of them are blameable for the unfortunate result of that inquiry. The inquest was demanded by the inspector of the Hospital, and I, with all the members of the Profession in the city, was summoned by the Coroner to give evidence thereat. The testimony which was there adduced was no doubt damaging to Drs. Bowerbank and Anderson, the principal Medical officers, but it was impossible for any Medical witness who had due regard for his own Professional reputation, and the sanctity of his oath, to help them out of their difficulty.

What are the facts of Richard Bailey's case? The patient, without any stricture or prostatic disease, but with a urethra sufficiently capacious to admit a No. 14 bougie, had a No. 2 catheter introduced into the bladder, and secured therein by tapes; there appears to have been considerable uneasiness thereafter, and in some way or other the instrument was broken; about four inches of it fell out, the remaining six and a-half inches remained in the urethra and bladder; this foreign body could be felt by external examination,, and a No. 12 sound was readily passed alongside of it into the bladder, yet no attempt was made to remove the broken instrument until after the lapse of nine days; and when a message had come down from Government making inquiry about the case, the patient was then subjected to a cutting operation in the perinæum, from the effect of which he died —at any rate, he sank a few days after the operation, the wound, on dissection, being found black and sloughy, and the coverings of the testes verging on gangrene.

Was it possible for any Medical man conversant with urethral Surgery to endorse the propriety of the practice which was adopted in this case? Was the introduction and retention of a No. 2 catheter in a morbidly wide and roomy urethra a justifiable measure? Was it proper to permit six and a-half inches of catheter to remain nine days in the urinary canal without making any attempt to effect the extraction of it? Was it in accordance with sound Surgical principles to open the urethra in the perinæum when the broken catheter might have been readily seized and extracted in a few seconds by means of an ordinary urethral forceps, or by one or other of the extracting instruments found in all well-appointed lithotrity cases? You state that the accident which occurred to the patient of Drs. Bowerbank and Anderson was one of no ordinary difficulty; but I would be glad to learn where the difficulty lay. Is it a matter of extraordinary difficulty to manipulate the blades of a urethral forceps in a canal of sufficient calibre to permit the passage of a No. 14 sound, and to seize the shank of a broken catheter lying a few inches distant from the urethral orifice? If so simple an operation cannot be readily executed, the art of Surgery must have reached a very low ebb; but neither I nor any of the eight Medical witnesses who were examined at Bailey's inquest ventured to endorse or confirm such a view, nor did any of the twelve jurors entertain it. These gentlemen, after a patient inquiry of seven days' duration, unanimously returned a verdict to the effect that Richard Bailey died from improper Surgical treatment. Such a verdict is, no doubt, a painful one to those more immediately affected by it, but it was impossible that the jurors could have arrived at any other decision. Nor will Dr. Bowerbank himself be much surprised at it, if he reflects that for the last five or six years he has openly and avowedly ignored the Professional qualifications of every Medical man who has been connected with the public Hospital during the last twenty years. It is curious that in the first month of his Hospital incumbency he should have encountered the untoward occurrences which Richard Bailey's death has entailed, and if the verdict which has been recorded upon it have no other good effect, it will at all events afford another illustration of the non-perfectibility of human nature, and prove a sufficient exemplification of the operation of retributive justice in the moral government of our planet.

I am, &c.,

Alex. Fiddes, Fellow of the Royal College of Surgeons of Edinburgh.

Kingston, Jamaica, April 24.

[*** The article to which Mr. Fiddes refers was an expression of our unbiassed opinion, formed after a careful examination of the evidence given at the coroner's inquest. Believing a great principle of Medical ethics to be at stake, we abstained from sitting in judgment on the Surgical treatment pursued in the management of the case. We considered this a question entirely apart from the main one suggested by the whole story. We are quite ready to acknowledge that the treatment of the patient does not receive our entire approval; but any Surgical deficiency displayed was only forced into general notice by the fact that it became a party weapon in one of those miserable feuds which more than anything else injure the Profession in the eyes of a keen-sighted public.—Ed.]

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 9.

Dr. Alderson, President.

Professor Harley read some notes of

TWO CASES OF INTERMITTENT HÆMATURIA; WITH REMARKS UPON THEIR PATHOLOGY AND TREATMENT.

The chief peculiarity presented in the cases described in this communication was that the urine passed at one period of the day varied from a dark chocolate colour to an almost purple blackness, whereas at all other times the secretion was, to all intents and purposes, normal. One of the patients was a Medical gentleman who had for many years been resident in a warm climate, where he had contracted malarial fever; the other was a Londoner who had never suffered from any true aguish attack, but in whose case the bloody urine was passed whenever he was exposed to cold. Indeed, according to the patient's own statement, during the last two winters his urine invariably became bloody about an hour after his suffering from cold hands or feet. Both patients appeared to suffer from hepatic derangement, the one whose attack could be traced to malaria being slightly jaundiced at the time the urinary symptom manifested itself. The other, although not suffering from true jaundice, had an exceedingly sallow, bilious appearance. As regards the pathology of these specimens of urine, the author remarked that had the morning's urine only been brought under the notice of the Physician, he could never have dreamt of the existence of any urinary affection; whereas had the midday specimen alone been subjected to his inspection, he could not have failed to suspect the existence of grave organic changes in the renal organs. Neither of these opinions could possibly be correct; the varying condition of the renal secretion clearly pointing to intense congestion of the chylopoietic viscera of a transient and periodic character. Professor Harley further pointed out the difference between the affection here described and the other form of disease with which it is apt to be confounded—namely, ordinary hæmaturia. The easiest way of establishing a correct differential diagnosis was, he said, that in ordinary hæmaturia the urine is not only coagulable by heat and nitric acid, but contains blood-corpuscles, which gradually become deposited on standing, and leave a clear, pale-coloured supernatant liquid. In this form of intermitting hæmaturia, as also in some cases of the non-intermittent variety, the urine, although coagulable by heat and nitric acid, contains few or no blood-corpuscles, and the colouring matter is not deposited on standing, but remains uniformly distributed throughout the liquid. Besides this, the urine contains numerous granular tube casts, and has an increased percentage of urea. Lastly, as regards treatment, it was shown that while the usual remedies employed in the treatment of hæmaturia failed to make the slightest impression on this form of disease, the employment of mercurials and quinine caused it rapidly to disappear.

A paper, by Dr. Wm. H. Dickinson, was read, entitled

NOTES OF FOUR CASES OF INTERMITTENT HÆMATURIA.

The case most fully reported was that of a man who had frequently been in St. George's Hospital. In the autumn of 1859 he was first attacked with his present complaint. One morning he was seized with shivering, nausea, and pain in the loins, and when he passed urine he found it was black and apparently bloody. From that time to the present he had

often been under observation at St. George's Hospital, and he had been in the hands of all the Physicians of that establishment, latterly under the care of Dr. Fuller. He had no constant ailment, but his health was broken by short attacks of hæmaturia. From the beginning of the disorder these had always been of the same character. They owned no other cause but exposure to cold. He usually got up and went to his work apparently well. In cold weather he was liable to be attacked with shivering, retching, and dull pain in the loins, at the same time yawning and feeling disposed to stretch himself. The testicles were retracted, and he had pain passing down the thighs. When he passed urine it was black and turbid, and was found to be highly albuminous, of great specific gravity, and containing an excess of urea; the microscope showed numbers of dark granular casts and a dark molecular deposit; no blood globules had ever been found. The urine retained these characters for two or three urinations. When he got warm it recovered its natural characters; and next day he was well, excepting that he was somewhat reduced by the attack. In continuous cold weather these attacks had come on for several successive days, but they had never lasted through the night. He had never had an attack in the summer, though once, in comparatively warm weather, it was brought on by his washing windows with cold water. Movement had no tendency to produce it; he was always better when taking exercise, as it kept him warm. The man had an anæmic and cachectic appearance. No organic disease could be discovered. While in the Hospital many plans of treatment had been tried, but none had appeared to prevent the recurrence of the complaint. Quinine proved inefficacious; mercurials were apparently injurious. While taking blue-pill, he had, for the first time in his life, an attack while in-doors. During the time he was under this treatment he had an attack of pneumonia, which was followed by peculiar symptoms of prostration, which it was thought must have proved fatal, but from which he eventually recovered. Three similar cases were briefly reported, two of which had occurred in the practice of Dr. George Johnson, and one in that of Dr. F. Cock, which gentlemen had communicated the facts to the author. In conclusion, Dr. Dickinson maintained that the disorder was essentially due to an alteration in the blood, a similar state of urine having been found during typhus, and also in man and animals after the inhalation of arseniuretted hydrogen. The points which the disorder has in common with ague were adverted to, but the absence of any periodical tendency and the inefficacy of quinine as a remedy were cited as essential differences. As to treatment, it was considered that as yet the disorder was beyond our reach; the most we could do was to palliate the effects of the loss of blood. Quinine was believed to be useless except in this respect; while the administration of mercurials, both on general principles and on the experience afforded by the above case, was believed to be detrimental.

Dr. Greenhow believed that the second case mentioned in the paper had been under his care in the Middlesex Hospital, and had been treated in every possible way, and with mercury and quinine amongst other remedies. He could not understand how the remedies employed by Dr. Harley of a similar kind had been so successful as to effect a cure in forty-eight hours. The boy who was the subject of this case was affected with hæmaturia at irregular intervals, cold being the chief exciting cause. The attacks were less frequent in summer than winter.

Dr. Fuller said that in his case he could not attribute any effects to the drugs or the modes of treatment employed. The patient did as well when no means of cure were resorted to; simply lying in bed was sufficient. The complaint recurred at irregular intervals, no cause, except cold, appearing to influence their occurrence.

Dr. C. J. B. Williams said that we could only arrive at the cause of these attacks from post-mortem evidence. The peculiarity of these cases was the severity of the attacks and their total cessation without apparent cause. In cases of intermittent fever, blood and albumen were occasionally found in the urine, arising from congestion of the internal organs during the paroxysms. It was interesting thus to see symptoms of Bright's disease in an early stage, and then pass off. It was also remarkable that the symptoms recurred sometimes with cold, sometimes without. It would seem as if there were some structural change of the kidneys which was unable to resist the influence of an influx of blood upon them, and their secretion became thus modified. Hæmorrhage from the nose it was known occurred from cold. In aguish countries the cold stage of intermittent fever sometimes produced epistaxis. Remedies did not seem to be of much avail in recurrent hæmaturia, as patients appeared to get well without treatment.

Dr. Harley explained that in the case alluded to by Dr. Greenhow the treatment consisted in the administration of a good dose of calomel, followed by a large dose of quinine.

Dr. Dickinson having replied, the Society adjourned.

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

At the monthly evening meeting, May 20, at the Scottish Corporation Hall, Fleet-street, Dr. Druitt, President, in the chair,

Professor Mapother, of Dublin, was received as honorary member.

Mr. Haynes Walton then read a paper entitled

REMARKS ON THE CONTAGIOUS AFFECTIONS OF THE EYE.

After some introductory remarks, he said:—The word contagious is used by the Profession for the most part as synonymous with infection, but some among them employ the latter in a sense that the former does not admit of—namely, that of contamination by anything injurious to the human frame from any source. I wish to express by it the communication of ocular disease from one individual to another. The direct effect of contagious influence on the eye appears only in conjunctival affections—*i.e.*, inflammation of the conjunctival membrane and of the meibomian glands, attended with puro-mucous and purulent discharge; but from this surface and single tissue implication, the organ of sight suffers more distress from permanent injury and from complete spoiling, than from all the other diseases which invade it. Yet only some of the forms of the contagious inflammations are recognised, and with scarcely any of them are rules for preservation sufficiently applied, by which I mean those that are really of practical application, for, as in everything of the kind, such treatment can never keep pace with our knowledge for the necessity of it. Nor are the morbific causes which originate them sufficiently taught. I regard all the puro-mucous and purulent diseases as contagious. In some instances the milder forms of some of them, together with the absence of severe ulterior consequences, have been perhaps the cause of this fact being overlooked, or but very partially recognised. If my friends should detect any discrepancy between my former statements and these, they must receive in explanation a wider field for observation and more accuracy in reading disease. Catarrhal ophthalmia, rightly so called, is too well known to require any careful description. It is enough for me to speak of it as conjunctivitis with a puro-mucous discharge, the eyeball proper being unimplicated. The general tendency of the affection is not to invade other ocular tissues. To trace it to an atmospheric origin is generally easy, but that it is contagious can unequivocally be shown. The commonest instances of the contagion are to be found among the poor, not only because of the close proximity of individuals, but of the auxiliaries to be found among their home dwellings that favour its conveyance, and the kindred disadvantages arising out of the communities which legislative enactments provide for them. These vital and physical causes greatly increase the extent of contaminating force. According, then, to the opportunity for this leavening influence, so, most assuredly, will be the propagation of the ophthalmia, and in recognising which we shall be the better prepared with our treatment. I have witnessed the contagion of catarrhal ophthalmia on a grand scale, I have personally inspected the individual suffering it has occasioned, and I can tell of the obstinacy of its duration. In the year 1861 I was sent for by the guardians of the Central London District Schools, which receives the pauper children of five unions, in consequence of an ophthalmic affection that existed, requested to examine the diseased inmates, and to make a Medical report. I may mention, in parenthesis, that the disease had existed prior to the year 1858, although I was not aware of it, and I get my information from this paragraph, which I take from a report made after my visit by a Committee appointed to examine into the state of this and other pauper schools:—"On a careful consideration of the information gained by their visits to these schools, the Committee regret that it is their duty to report that the children at the Central London District Schools present the least satisfactory general appearance, and that this arises principally, though by no

means entirely, from the prevalence of an ophthalmic affection. The Committee find that a very large proportion of the children are so affected, and have been so, both before, and continuously since, a similar Committee visited the school in 1858." There were many hundred children there; I believe some twelve or fourteen. I examined with care, taking notes as I went, two hundred of them affected with ophthalmia, and I well remember the long and tiresome job. I beg to draw attention specially to the fact, significant as I shall show, that there was catarrhal ophthalmia, and nothing more—mild in form, yet definite in symptoms. It had not in a single instance passed into the form of purulent ophthalmia,—the most fatal malady to which the eye is subject, and the cause of the greater proportion of blindness in the world. No part of the eye besides that immediately attacked suffered. In not a single instance was the cornea implicated,—no ulceration, no sloughing, no opacity. The conjunctiva alone and the meibomian apparatus were diseased. In a few instances I detected the remains of former eye complaints. It would be scarcely possible to find this number of pauper children under one roof without some marks of strumous ophthalmia. I was struck with the miserable appearance and stunted growth of the children in general; and the answer to my remarks respecting these was, that they could not be otherwise, as they were all bred and born on gin and sprats. I found the clothing very scanty, the diet meagre and badly cooked, and the supply of warmth insufficient. So excessive was the ventilation in the dormitories that, during the previous winter, sometimes the temperature fell to 32°, and with the fires and gaslights it was usually at 45°. I believe it has long been a prevalent opinion, and which has even been taught by some of our authorities, that this ophthalmia, as excited by atmospheric causes, is scarcely, if at all, contagious, as contagion is ordinarily conveyed without palpable inoculation, and other means cognisable to our senses, except it assume an aggravated or virulent form. I find, too, that this opinion was entertained by a Surgeon in London of the highest ophthalmic eminence, who visited the school in 1858 with reference to the ophthalmia. He says, in the Report of the Committee already quoted:—"Such a complaint is liable to assume more or less of an epidemic character, and may even become contagious." It has not, however, changed its type; it could never have been less than catarrhal ophthalmia; it could never have been more, and I do not think that any one will doubt the contagion; there could be no question about it. The fullest opportunity was afforded for it, because there was no precaution taken against the occurrence; the diseased and the healthy intermingled. The virus must have been frequently carried by direct inoculation of the recent secretion, as well as by the more general, but subtle, and less cognisable ways of the transfer of particles of poison through the atmosphere. If, therefore, it is proved that catarrhal ophthalmia can be a great curse in a large establishment, without actually spoiling eyes, should there not be much care bestowed in checking it and much supervision exercised? Besides, very trustworthy observers assert that slight circumstances may convert catarrhal into another and severer ophthalmia; and hence has arisen the scourges of this kind in past years in our fleets and armies. That the ophthalmia had not passed into a severe form after so long a time may be considered unusual, although not unaccountable, when the surrounding circumstances are examined. There were absent the conditions for such development. The children were not in the least crowded. There was not any foulness of atmosphere; on the contrary, the entire building was overventilated. The utmost cleanliness was observed in the whole detail of management, and the best Surgical measures were applied. It was very different, however, with the memorable ophthalmia of the workhouse schools of the Tipperary and Athlone Unions in 1851. I learn from the Report of Sir W. Wilde that in the Tipperary establishment the ophthalmia was introduced into the schools in a mild form, and, as I believe, of the catarrhal type, in the spring of the year, and in October it assumed a more violent and decided character. It there met with a hot-bed for growth and contagion. But it was to be yet further intensified in the workhouse. After Sir William had described the state of those who were seeking admission to this overcrowded and degraded place, as being worn out by previous want and privations of every kind, exhausted indeed to the last degree, he said—"The general health of the workhouse was very bad indeed. We had cholera, dysentery, fever, and small-pox, as well as several cases of gangrene and dropsy. There was no proper sewerage, neither was there sufficient water to cleanse the entire house or purify the privies, except what a horse brought daily from town." Being anxious to know what is the present state of the Central London District Schools, I wrote a few days ago to the gentlemen who was Surgeon there at the time of my visit, requesting certain information. These are his answers:—"1st. The ophthalmia no doubt originated through the admission of three or four hundred children from another school where there had been an outbreak. Secondly. I believe it has not disappeared. I resigned three years ago, as it made too great claim upon my time. A Surgeon now resides upon the premises. While I held the Surgeoney, my own Assistant, and two others specially engaged for the eye cases, devoted their whole time to the treatment of the children. About four or five hundred cases were at one time under treatment, most of them mild, some chiefly discoverable through the condition of the inner surface of the eyelid. I believe one or both of the ophthalmic assistants remained for a year or two after my resignation. 3rdly. The disease yielded to rigid separation of the diseased from the healthy, and mild astringents occasionally. These applications were injected thoroughly under the eyelids, and the utmost cleanliness was at the same time observed, carried out by a largely increased staff of nurses. 4thly. I regard the disease as only kept under, and circumstances might reproduce it at any time. It is the bane of these large pauper schools, and unmanageable when it once breaks out." It is now time to say something about treatment; and have I not been anticipated in this? Has not each of my hearers determined for himself, on his own conviction, the one, and the only one, remedy to be depended on? Who will not say, Remove contaminating influence? How this should be done effectually can only be determined when a multitude of other circumstances are examined and considered. It may happen that the separation of the sound from the unsound to the greatest extent afforded by any vast building might be inadequate; but migration of the one or the other to new premises absolutely required. I understand that all the hints which were given by other Medical men and myself as to the hygienic deficiencies were attended to, and all the ophthalmic treatment was carried out; but yet you hear the disease is not eradicated. It is, then, the question of prevention which is to be worked out; and fortunate will it be for the public if there should be enough vitality in the meeting of this evening from which shall spring some sources of investigation and observation to discover knowledge to be applied whenever such disease, or a still more severe one, rages, which shall stay the pestilence. I shall not waste our time in talking about ophthalmic treatment; that is almost beyond the question. Then there is scope for difference of opinion, and who is to arbitrate? But on the grand radical matter of isolation I suppose common-sense forces us to agree. I hope, Sir, that we shall have expressed presently the individual experience of many of the members on this point. For my own part I venture in all such epidemics these suggestions:—Absolute separation of the diseased persons from the healthy. Among the diseased also I should extend the classification, if severer cases occurred, for obvious reasons; and it may be wise to have several of these draughtings. The institution of a rigid convalescent system of probation, to prevent relapsing cases from doing mischief. A morning and evening inspection of the whole establishment, so that there may be the most timely removal of diseased individuals. The strictest attention to the withdrawal of any known or supposed exciting cause of the disease. The adoption of the highest hygienic measures among those who are under Surgical treatment, so that there may be the prevention of those circumstances and conditions that are likely to intensify the disease. I propose next to make some remarks about purulent ophthalmia in infants. This dangerous complaint is generally supposed to be almost entirely confined to the lowest ranks of life; a very erroneous impression, although among the poor its ravages are much greater from want of early recognition and proper treatment. I need not take any notice of its contagious nature, as it is seldom so propagated, except in Foundling Hospitals on the Continent, and in a few other uncommon ways, because of the isolation in general of the child, and the fact that the mother and the nurse exercise care about their own eyes from the notoriousness of the danger of the disease, and, in addition, the caution usually enjoined by the Medical attendant. It is to the origin—the infection, I suppose, I must call it here—that I wish to direct attention. It has been my impression for many years that the laws of preservation might be extensively and effectually applied, and,

besides, that the disease, when taken, might be divested of its severity, and its frightful ravages thereby averted. Let me inquire how infant purulent ophthalmia originates. Very, very often, by inoculation with leucorrhœal matter from the mother, by gonorrhœal inoculation from the same source, and sometimes we cannot tell how. Some supposed cases of it called mild are nothing of the sort, but merely catarrhal inflammation. I ought to tell you that the chief difference between these is, that in the purulent ophthalmia the palpebral conjunctiva is more quickly and intensely diseased, its papillary structure getting changed into the state we call granular; hence the mattery discharge and the amount of it. If any one takes the trouble to make inquiries about the state of the mothers of these diseased children, he will be astonished to find how often the leucorrhœal infection prevails. He must not always expect to get the truth by direct inquiries. I should like to ask this question of the Accoucheurs,—In any well-marked case of leucorrhœa is it practicable to wash out the vagina in the commencement of parturition, so as to prevent the transmission of the disease, and can the object be the better secured by the use of chemical agents? Although I lack information on this point, I can give valuable suggestions on another. Cleanse the eyes of children born under such circumstances at once and most carefully. Daily inspect them, and apply treatment when requisite without delay. I never saw an eye lost that I treated early—that is, before the cornea was affected. Hundreds of eyes would annually be saved if this watchfulness were adopted. What hints for those who have the charge of parish midwifery! Why not tell the mothers of the contingency, and get their watchfulness too? I have found that a premature child seldom escapes maternal infection. The last four cases of purulent ophthalmia that I have had in private practice have been from leucorrhœal matter. Two of the children were premature. Of course infection is not inevitable when leucorrhœa is present. It is here as in other things, infectious and contagious: the escapes cannot be accounted for. Infantile purulent ophthalmia, from the infection of gonorrhœa, is very much less common, and is almost entirely confined to the children of prostitutes. The remarks that I have made about prevention in the last-named form of the disease are equally applicable here, and it should be remembered that the gonorrhœal form is the more severe. I shall conclude by making some few and short remarks on the contagion of granular conjunctivitis. Granulation of the eyelid is the term generally used. This is the sequel for the most part of the purulent ophthalmia. The under eyelid is generally the more affected. Strictly pathologically speaking, it is chronic hypertrophy of the conjunctival villi, and I need not say any more on this head, nor describe the appearances, for everybody must be familiar with what I allude to. There is, too, an accompanying characteristic inflammatory state of the cornea, with more or less of haze or opacity, and redness of the tunics immediately around. This state of the eye is an unexpected source of frequent contagion. It is a deceptive state. I will explain. A true granular eyelid is seldom seen, except as a chronic disease, and it may be a very chronic one. Should there be still any purulent secretion, it is generally scanty and thin. Now the duration and the absence of well-marked pus generally prevent, in the minds of the Medical attendant and others, the idea of contagion. But there is a still more disarming state. The granular conjunctiva may exist along with the vascular state of the front of the eyeball, and without any purulent secretion. No one not versed in ophthalmic disease would suspect any contaminating danger. But the danger is merely masked. Apparently slight causes, atmospheric changes, fatigue, irritation from dust, or the application of irritating drugs, drunkenness, seem to reproduce the discharge, sometimes with all the former severity, and a patient supposed to be harmless may then inoculate many of those around him with purulent ophthalmia. This granular eyelid clings closely to the poor Irish. At our Ophthalmic Hospital we call it the Irish eye. It is always among the abodes of them in all countries, and I do not think that it is due, as some say, to peculiarities of Irish constitution, but to mere contagion. The Irish take it into our workhouses, schools, and prisons. Yesterday I saw a fine-looking girl in the street, about 14 years' old, selling flowers, with a pair of well-marked Irish eyelids. I alighted, and went to learn her history. She was born in England, of Irish parents, and lived in an Irish community. I offered to have her eyes attended to, but she thanked me with "No;" adding, "I have some eye-water, Sir." Here is a great scope for the application of preventive measures, and the special field for it is in those establishments which receive the poor, and in which there can be proper supervision and separation. I would subject the unfortunate possessor of granular conjunctiva to the same rules and regulations as if he were in an acute stage of purulent ophthalmia.

Remarks were then made by the PRESIDENT on the wide scope of the pathology of mucous inflammations, ranging, as they do, from the most trivial catarrh in man to gonorrhœa, with its subsequent rheumatic ophthalmia and articular rheumatism, and to glanders in the horse. He expressed his belief in the possibility of transplantation of most diseases of the class.

Dr. MAPOTHER spoke of the valuable observations of Mr. Walton on the contagiousness of granular lids.

Mr. LIDDELL adverted to general causes which make catarrhal ophthalmia epidemic; and

Mr. RENDLE gave a vivid and interesting account, which deserves separate publication, of his visits to the children at some pauper establishments, and of the extreme *coldness*, and other signs of low vitality exhibited by the children, and of the happy adaptation of means to end for the generation and propagation of contagious ophthalmia.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 23rd inst.:—

James Milward, Bristol; William Hawett, Wigan, Lancashire; and Henry Bowden Lyle, Ashburton, students of Guy's Hospital. William Cunningham Cass, Cowes, Isle of Wight, and John Pearson Hughes, Llandovery, S. Wales, of University College. Thomas Conry and George Percy, of Dublin; Charles Taylor Aveling, Shacklewell; and Charles Henry Spooner, L.S.A., Newington, of St. Thomas's Hospital. Theodore Fennell, Rain Hill, Lancashire, and Robert Gear Roper, City-road, of St. Bartholomew's Hospital. James Copland Worthington, Lowestoft, and John Roberts Dunn, Warbleton, Sussex, of the Middlesex Hospital. George Yeats, M.D. and C.M. Aberdeen, of Aberdeen. James David Charles Whiting, Upper Ebury-street, of St. George's Hospital. William Baines Dawson, Brentwood, and Thomas Albert Neame, Hungerford, Berks, of the London Hospital. David Charles Lloyd Owen, L.S.A., Smethwick, Birmingham; Edward Farrington Boult, L.S.A., Bath, of King's College; and William Young Martin, Little Hulton, Lancashire, of the Manchester School.

The following gentlemen were admitted members on the 24th inst:—

Charles Frederick Lethbridge, Torquay, Devon, and Albert William Walls, Bayswater, of University College Hospital. Vincent Edmund Noel, Devonport, and Henry Albert Reeves, Newbury, Berkshire, of the Middlesex Hospital. John Powell, L.S.A., Chichester, of St. Bartholomews; and John Edward Tilton, Stonehouse, Gloucester.

At the same meeting of the Court, Mr. John Frederick Mitchell, of H.M.S. *Lizard*, Sheerness, passed his examination as Naval Surgeon, his diploma of membership bearing date March 14, 1856. It is stated that out of the twenty-nine candidates who offered themselves for examination for the diploma, five were referred back to their studies for six months.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, May 18, 1865:—

John Hogan Quin, North-street, Leeds; John Lowe Price, Cheltenham; John King, Stratton, Cornwall; John Oakley, Shrewsbury; William Lively Shepard, Gray's-inn-road; Thomas Joseph Faweitt, Newcastle-on-Tyne.

The following gentleman, also on the same day, passed his first Examination:—

John Cremonini, General Hospital, Birmingham.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ARMSTRONG, J. F., L.R.C.P. Lond., has been elected Medical Officer for the Workhouse of Reeth, Yorkshire.

BRODRIBB, URIAH P., M.B. Lond., has been elected Physician and Surgeon to the Royal Portland Dispensary, Dorsetshire.

CAIRD, T. W., M.R.C.S. Eng., has been appointed Surgeon to the County Prison, Exeter.

FIDDES, DAVID, M.D. Aberd., has been appointed Examiner in Medicine in the University of Aberdeen.

Fletcher, James O., M.D. St. And., has been appointed Surgeon to the City Gaol, Manchester.

Gaye, Robert E., M.R.C.S. Eng., has been elected Medical Officer to the Paddington Workhouse.

Jones, J. T., M.B., has been elected House-Surgeon to the Brecknock County and Borough General Infirmary.

Leigh, George F., L.S.A., has been appointed Medical Officer for the Penistone Union Workhouse, Yorkshire.

Smith, James W. F., M.D., Aberd., has been appointed joint Lecturer on Clinical Medicine at the Royal Infirmary, Aberdeen.

Tweedale, Thomas, M.R.C.S. Eng., has been elected Medical Officer and Public Vaccinator for the Stainland District of the Halifax Union.

DEATHS.

Brook, William, L.S.A., at Stainland, Halifax, Yorkshire, on April 28.

Butt, William B., Surgeon H.M. Bengal Army, on board the *St. Lawrence*, on his voyage from India, on April 14, aged 38.

Dunlap, James, M.D. Edin., at Queen's-terrace, Windsor, on April 21, aged 63.

Graham, James M., L.R.C.S.I., at Cupar, Fife, N.B., on May 19, aged 80.

Kearns, John, L.R.C.P. Edin., at High-street, Kilkenny, on May 8, aged 46.

Williams, Thomas, M.D. Lond., F.R.S., at Swansea, on April 23, aged 47.

Walker, Ebenezer, M.R.C.S. Eng,, at Drury-lane, Wakefield, on May 6, aged 43.

Wood, James, M.D., F.R.C.P. Edin., at 19, Royal-circus, Edinburgh, on May 10, aged 80.

The Case of Richard Gibson.—In consequence of the letter from the Poor-law Board, conveying their decision in this case, Dr. Craig, the Assistant Medical Officer, and Mrs. Elson, the paid nurse, have tendered their resignations, which the Directors of the Poor have accepted; and Mr. Rankley, the master of the workhouse, has been duly admonished as to his future conduct in the discharge of his duties.

The Trial of Dr. Pritchard.—We learn that the trial of Dr. Pritchard, on the charge of murdering his wife and mother-in-law by means of poison, will take place at Edinburgh, for certain, between the 15th and 20th of June next—that is, if it does not commence on Thursday, the 15th, it will on Monday, the 19th, or Tuesday, the 20th. The Lord Justice Clerk will judge the case and take notes of the evidence, although two other Justiciary Judges, who have not yet been fixed upon, will also be on the bench. The Lord Advocate will conduct the prosecution.—*Glasgow Morning Journal.*

Herpes Zona.—If treated early, the pain and inflammation may be relieved in twenty-four hours by means of the following application:—Collodion, rendered elastic by the addition of castor-oil, 120 drachms; deutochloride of mercury, one grain. If the affection is more advanced, the mixture should be applied several days in succession by means of a pencil. It is useful also in preventing the fall of eschars, followed by sores, which are so painful in the aged.—*Rev. Méd.*, April 15.

Deaths from Trichiniasis.—By a letter dated Lubeck, May 9, we learn that the Senator Dittmers and all his family, consisting of seven persons, have been poisoned by smoked and uncooked ham, which was found to be loaded with trichinæ. Four persons have already succumbed. While on this subject, we wish to direct our readers' attention to a valuable and exhaustive report on trichiniasis, by Dr. Thudichum, contained in the last Report of the Medical Officer of the Privy Council.

The Hospital for Sick Children.—The thirteenth annual meeting of the governors of the Hospital for Sick Children was held on Wednesday at the Hospital in the large room used as a play-room for the convalescent children. The chair was taken by the Hon. A. Kinnaird, M.P. Among the friends present were Major the Hon. S. P. Vereker, Mr. F. H. Dickinson, Dr. Charles West, Mr. H. A. Bathurst, and others. The annual Report, which was read and unanimously adopted by the meeting, referred to the encouraging progress made by the charity during the past year, an increase of ten beds having been made. The annual subscriptions received during the year amounted to £1937 13s., which, with donations and legacies, including a munificent gift of £500 from Mr. R. W. Crawford, M.P., and of moneys placed at his disposal by the Hon. Rustomjee Jamsetjee Jejheebhoy, of Bombay, made the total income of the charity £6206 18s. 2d. The expenditure having been £4281 13s. 1d., the Committee were enabled to invest nearly £2000 towards the re-building of the Hospital. It was also stated by the Chairman that a further enlargement of the present wards is in progress, and fifteen additional beds will soon be opened, making a total of seventy-five beds for in-patients. A vote of thanks to the Chairman terminated the business of the meeting.

Excision of the Tongue.—A correspondent, an intelligent English student, in Edinburgh states that the woman upon whom Mr. Syme operated about eight or ten days ago did well until the evening of the 23rd, when at about 11 o'clock she died. Her death was most sudden and unexpected, Mr. Syme having considered her so far recovered as to request that she should try and leave her bed. It is the fourth case he has had, three of which have proved fatal. On the 24th Mr. Syme operated for axillary aneurism; he first made a small incision above the clavicle so as to admit the finger of an assistant, and thus press the artery against the rib, he then cut into the sac, turned out the clots, and tied the artery above and below the rupture. Mr. Syme is certainly a fearless operator, and a good Surgeon.

Medical Colonisation.—The gas-lighting, the water supply, the pavement, the houses and shops, etc,, being in tolerable order, the tenants were not long in taking possession; but the time of their stay, except in very few instances, was of very short duration. And it is to be remarked here, as we have noticed it in other localities, the publicans and those who are connected with medicine were the first to commence business; for in the metropolis, except under peculiar circumstances, business comes slowly to the newly-established Medical Practitioner, and it is often found to his advantage to begin in a recently built and improving neighbourhood. In the Caledonian-road, without taking into account the streets which lead into it, there are now either nine or ten Medical Practitioners and chemists. Public-houses are also a matter of much speculation; persons who have capital and a fair character purchase or take a lease of one of those large buildings which are reared in what seems to be a desert region, for the purpose of a public-house; for this a beer licence is easily got, and a trustworthy person is put in to manage, and in due course of time the proprietor applies for a spirit licence, and this, if the position is well chosen, is worth five or six hundred pounds, and often a very much larger sum. In some cases the speculator is satisfied with this amount of profit, and he disposes of it to some one who intends either to try to make a living out of the business, or to improve it, so that, as the locality improves, the sale of the goodwill, etc., would produce a larger sum in the market, and in this way, in the course of a few years, premises of this kind change hands with profit several times. In connexion with business of this kind, the sums advanced by the great London brewers, so that they may ensure the opportunity of supplying houses with ale, porter, etc., are enormous.—From an article entitled "How Metropolitan Neighbourhoods Grow," in the *Builder*.

St. Mary's Hospital, Paddington.—On Tuesday afternoon the ceremony of laying the foundation stone of the new wing about to be erected to this building was performed by his Royal Highness the Prince of Wales, in the presence of a large number of ladies and gentlemen. His Royal Highness was received on his arrival, shortly after 3 o'clock, in the board-room of the Hospital by the Vice-Presidents, Treasurer, Medical staff, etc., connected with the administration of the charity, and almost at once the Reception Committee passed in procession before his Royal Highness to the spot where the ceremony was to take place. Here the Prince was received with the utmost enthusiasm. An address was then read to his Royal Highness, which, after referring to the fact that the original foundation stone of St. Mary's Hospital was laid by the Prince's lamented father, the late Prince Consort, proceeded to observe that although St. Mary's was the youngest of the general Hospitals and Medical schools of London, it having been founded in a new and fast growing suburb, the requirements of the neighbourhood had already rendered increased accommodation absolutely necessary. Indeed, the applications for admission grew in number from day to day; the frequency with which urgent cases had to be refused the benefits of the charity afforded the strongest arguments in favour of the extension of the present accommodation. The new wing was to include a chapel, not now possessed, and the Governors ventured to hope that it would be agreeable to the feelings of his Royal Highness if the new wing should be called after himself—the Albert Edward wing, and the two wards receive the names of the Alexandra and Albert Victor wards, the latter to be exclusively devoted to the reception of children under the age of five years. Prayers having been offered up, Mr. Catherwood, the architect, presented the

Prince with a massive silver trowel. The bottle containing the coins and documents having been deposited in the cavity, the foundation stone, which was of polished granite weighing upwards of two tons, was duly laid by his Royal Highness amid loud cheers, the guard presenting arms. Prayers having been again offered up, and the Hundredth Psalm sung by the children, the presentation to his Royal Highness of purses collected by ladies and children in behalf of the Hospital funds having take place, the ceremony concluded with the National and Danish Anthems.

EXCESSIVE SLEEPINESS OF NEW-BORN INFANTS.—Dr. Bieraum observes that the normal condition of young infants is to sleep much, and that in the inverse proportion of their age. But sleep is sometimes observed in an excessive degree, not as the result of any material affection of the brain, but consisting in a mere functional exaggeration of the natural conditions. From these it is distinguished by its excessive duration and the little desire for sucking which the child manifests; and after the sleep has continued for some days after birth, so far from the child thriving, it falls away. He cites the case of a delicate, new-born, full-timed infant, which slept almost continuously during the first ten days after birth, and could only be awaked with difficulty, sucking only rarely and very inertly. Stools and urine were voided in a regular manner, but in small quantity. On the eleventh day the sleepiness began to diminish, and the desire for the breast increased; and the infant grew up to be a child of good mental and corporal powers. Dr. Bieraum feels surprised that this excessive sleepiness of young infants, which is now and then met with in practice, is not noticed in the books on children.—*Journal für Kinderk.*, 1864. No. 3, p. 242.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

THE ALKALINE TREATMENT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Permit me, through the medium of your valuable journal, to ask whether the carbonate of lithia taken in five-grain doses twice a-day, in combination with eighteen grains of bicarbonate of potass, if taken continuously for three months, can be injurious to the system generally in cases of chronic gout. Some of your Medical correspondents will doubtless be able to answer this question satisfactorily.

I am, &c. A CONSTANT READER.

Leamington, May 26.

GRIFFIN TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following subscription has been further received on behalf of the above fund:—Dr. W. W. Miller, Eye, 10s.; amount previously announced, £124 1s. 3d.; received at *Lancet* office, £9 9s.

I am, &c.

ROBERT FOWLER, M.D., Treasurer and Hon. Sec.

145, Bishopsgate-street Without, May 25, 1865.

THE NURSING INSTITUTE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In a recent number of your journal I read a very favourable notice of the above-named Institution. I see by the daily advertisements in the *Times* and other papers that the Committee undertake to supply "wet nurses." I should be glad to know the precise nature of that arrangement,—whether the wet nurses recommended through the Institute are married or single women, and whether any restrictions are attached to the recommendation;—such, for instance, as those which are judiciously incorporated into the rules of some lying-in institutions (that in Endell-street is one of them), requiring a certificate from the Medical attendant as to the urgent need of a wet nurse, as a means of saving infantile life, before authorising the employment of one from the Hospital. Viewing this subject in its moral and physical aspects, I need say no more to show the great importance of such inquiries as those which I have suggested.

I am, &c. M. A. B.

*** We must refer to the Secretary for information. We dare say that the common-sense theory is acted on, that a woman who offers herself as wet nurse cannot support her own baby; and that, by letting her receive good wages as a wet nurse, she may be able to provide for her own child while saving the life of that which she undertakes to feed.—ED.

CHLOROFORM APNŒA—USE OF ELECTRICITY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As chloroform begins to be used in the cure of aneurism by the compression plan, where the pain of the clamp has always been such a hindrance,—as chloroform is now almost universal in its applicability in Hospitals, in midwifery, in dentistry, etc.—and it is advisable to publish the best form of artificial respiration in accidents, I think you would be doing good if you stated that in such cases of apnœa, as well as in drowning cases, where the diaphragm and respiratory muscles are perfectly still, most excellent action may be at once instituted by the use of electricity in form of primary induced current (not the secondary current), and that it is in the "break" of the current the muscles contract,—not as usually believed, when the circuit is complete. It is also very important that the current should not be directed to the heart, as in a case in the *British and Foreign Review* this quarter, where it failed, but directed in the track of the phrenic, where, in animals, it never, or very seldom, fails to set up artificial respiration in chloroform apnœa. I believe I am right in saying the Faradisation "break" is the same exactly as the ancient electric jar discharge, of which elder Physicians and Physicists have wise old experiences; it is all-important the poles of the Faradisation apparatus should be moist, as the dry poles do not act on the muscles, but on the skin. The dry pole is valuable in curing specks on the cornea, bad ulcers of legs, etc.; but the moist pole acts well in aphonia, chorea, etc., by influencing, as in chloroform accidents, the muscles. I am, &c.

Sackville-street, April 18. CHARLES KIDD, M.D.

P.S.—It would not be worth while to insist so often on these points, but that in one or two discussions at Medical societies of late the widest and wildest errors and guesses were put forward, by instrument makers and others, as to other varieties of new-fangled galvanic action that might be useful by theory; whereas all readers of French and German literature well know that galvanism does not answer at all, as proved by the Duchennes (father and son), Du Bois Raymond, Matteucci, and, above all, by Lallemand and Duroy; but the Faradisation current has been well tested in hundreds of cases. It would be infinitely more important, in fine, to test electricity in the Hospitals than to rely on the supposed safety, where safety there is none, of specific inhalers for chloroform, by which the best French and German authorities on chloroform—Langenbeck and Giraldes—say it is an idle dream to think we can measure 3½ per cent., and insure safety with efficiency.

A GOOD EXAMPLE.

(*From a Correspondent.*)

The late Mr. W. W. James, of Exeter, has, we believe, left by will a legacy of £2000, which will ultimately, after certain members of his family have had a life interest in it, be handed over to the trustees of the Devon and Exeter Hospital, the interest to be divided annually among the Surgeons to that institution. This appears to us to be a wise as well as a generous bequest, and it will probably form the nucleus of a fund from which the Medical officers to the Hospital will receive, if not an equivalent for their services, at least an acknowledgment of them. We have often had occasion to speak of the excessive amount of unpaid labour which the members of our Profession are expected to perform at Hospitals and Dispensaries. There can, we think, be no doubt that the work would be better done, more heartily and zealously, if it were not altogether honorary, and that in this way the poor would be gainers if the Medical officers of our public charities received some remuneration. We hope, therefore, that the good example which has been set by Mr. W. W. James will not be forgotten, and that his far-seeing benevolence will find many imitators.

*** We fully agree with our respected correspondent that the principle that men should be paid for work done is a good one; but we do not think that the example of a member of the Profession who leaves a portion of his fortune to a Hospital, which he has served gratuitously during life, for the payment of his successors is one which will or ought to be imitated. Many a man leaves a legacy to a Hospital which had been much better left to his poor relations.—ED.

ON THE CHEMICAL EXAMINATION OF WINE.

By M. SCHLUMBERGER.

Wine, when it leaves the wine press, as must, is composed of the following parts:—

1. Water.	70	to 90	per cent.
2. Sugar.	15	,, 30	,,
3. Acid	0½	,, 1	,,
4. Other substances, gum, albumen, extractive, ashes	1	,, 2	,,

After fermentation, the must, as wine, contains still the same parts, with the exception of the greater part of sugar, which, during the period of fermentation, has become transmuted, one half into alcohol, and the other half into carbonic acid. The composition of wine is consequently as follows:—

1. Water.	80	to 90	per cent.
2. Sugar or Glycose	1	,, 2	,,
3. Alcohol	5	,, 15	,,
4. Acid	0½	,, 1	,,
5. Other substances, as gum, ashes, extractive, and different kinds of ether	1	,, 2	,,

A complete analysis of wine, embracing its finest component parts, is difficult, as the best chemists differ in opinion, especially with regard to the amount of sugar contained in wine.

To determine the amount of alcohol, different modes may be employed, but the most reliable will always be found to be distillation; to determine the amount of acid, potass, ammonia, soda, are now used, and, for greater convenience, the volumetric method is usually employed. For this purpose, solutions of soda are preferred to ammonia, on account of their immutability in preservation, and the facility of producing them in a pure state in the requisite standard. This may likewise be said of solutions of potass.

We are obliged to make, by a chemical analysis of wine, another distinction of substances, namely into those which form the greater quantity, or rather the real body of the wine, and those which, though they are, with regard to quantity, only slightly represented, give to wine its fine taste, smell, and real value, and are, figuratively speaking, the soul of the wine.

Body of the Wine.

Water. | Alcohol. | Sugar or Glycose. | Acid.

Aromatic Substances.

Extractive. | Ætherial oils.

The principal difference between the many thousand kinds of wine will be found chiefly in the taste, but not in the taste of the water, or alcohol, or sugar, or acid, but in that taste which emanates from the aromatic substances contained in wine. The taste of water, alcohol, sugar, and acid is the same in all kinds of wine; there is no difference in the taste of alcohol in Hock and Sauterne; the taste of the sugar in French and Spanish wines is the same as in Austrian wines; and lastly, no one will be able to distinguish a difference of taste in wine, acid, or water. But the aromatic taste in a hundred kinds of wine will differ as often. This taste emanates, is formed, and depends on the different kinds of grapes, the climate, the position, the condition of the ground, and a great many more or less important causes

Professor Mulder, in his celebrated "Chemistry of Wine," has placed together the wine-examinations of all known analytical chemists of wine; most of them only determine accurately the quantity of acid and alcohol contained in wine; and though these examinations differ widely from each other, yet curiously enough they all (with the exception of one) agree in the statement that the greatest amount of alcohol is found in port wine, where its quantum always varies between 17 and 21 per cent. Only Gingal, of Portugal, states most distinctly that genuine port wine contains never more than 12 per cent. ·75 (12¾ per cent.) of absolute alcohol, and that all those port wines are adulterated wherein more than the just-mentioned quantity of alcohol is found; consequently, how seldom is genuine and unadulterated port wine obtained!

With regard to the amount of alcohol, Madeira follows port wine, and differs very little from it. Liqueur wines are, as a rule, stronger than red wines; Turançon, Lachrymæ-Christi, Benicarlo, Malaga, Frontignan contain all from 12 to 15 per cent. alcohol.

The genuine French and Austro-Hungarian wines contain less alcohol—generally 9 to 17 per cent.: a good Bordeaux contains 10, 11, 12 per cent.; Burgundy, 9, 10, 11 per cent.; Voeslau, 11, 12, 13 per cent.; Champagne, 10, 11 per cent.; Hock, 7 to 12 per cent., but mostly 9 to 10 per cent., etc.

As it is easy to add alcohol to wine, the value of the wine cannot depend on the quantity of alcohol found; likewise, its value does not depend on the small quantity of acid, because acid may be neutralised by different means. (In the previously mentioned examinations the amount of acid varies between 4 and 7 per cent. per mill., but may on an average be accepted at 6 per cent. per mill.)

The extractive substances—the aromatic and volatile parts—are stated to be generally 1 to 2 per cent; but are exceptionally more. On their quantity, or, more correctly, on their quality, and the right proportion of their composition, depends alone the value of the wine; and all alcoholometers, hydrometers, and instruments to determine the amount of acid can therefore be considered only as auxiliary means to determine the value of wine.

I am, &c.

Voeslau, May, 1865. R. Schlumberger.

P.S.—With regard to the natural inherent amount of alcohol in port wine, I am disposed to doubt the correctness of Gingal's statement, and am of opinion that port wine, in proportion to other wines, may in good wine years contain about 15 to 16 per cent. of alcohol; but any amount beyond that I consider likewise an adulteration.

COMMUNICATIONS have been received from—

Dr. William J. Smith; Apothcaries' Hall; Royal Institution; Mr. Peeke Richards, Stockport; Mr. Brickwell; Mr. W. Fairlie Clarke; Western Medical and Surgical Society of London; Metropolitan Association of Medical Officers of Health; Dr. J. Cameron; Dr. Cobbold; M. A. B.; Dr. Fotherby; Zeta; A Constant Reader.

BOOKS RECEIVED.

The Fortnightly Review. No. 1. London: Chapman and Hall.

*** Edited by Lewes, and numbering George Eliot amongst its contributors. Very clever and very liberal; but not altogether "orthodox." The article on "Heart and Brain," by the editor, deserves perusal, as it is practical and suggestive: and it is a good thing for us when our terms and theories are overhauled by an acute thinker, in the Profession or out of it. We see, by the bye, that even so exact a writer as the editor uses the word "stimulus," which we thought almost peculiar to the Scots.

The "Flint Implements" from Drift Not Authentic. By Nicholas Whitley. London: Longman and Co. 1865.

*** A very acute criticism of the evidence on which the genuineness of flint implements rests.

The Book of Prescriptions, containing more than 3000 Prescriptions. By Henry Beasley. Third Edition. London: John Churchill and Sons.

*** Some new matter, in accordance with the P.B.

Introductory Lecture given at the Leeds School of Medicine, October, 1864. By Mr. Nunneley.

*** Well worth reading.

The Ophthalmic Review. No. 5.

*** Contains some interesting papers.

Notes on Cases of Tumour in the Mediastinum. By E. Symes Thompson, M.D.

*** A reprint from the *Medical Mirror*.

Lectures on Perfumes, Flower Farming, and the Methods of Obtaining the Odours of Plants. By Septimus Piesse. London: R. Hardwicke.

On the Food of Man in Relation to his Useful Work. By Lyon Playfair, C.B., LL.D., F.R.S. Edinburgh: Edmonston and Douglas. 1865.

On Enlarged Tonsils, and their Treatment without Cutting. By Morell Mackenzie, M.D. Lond., M.R.C.P. London: H. K. Lewis. 1864.

Selection of Documents and Letters in Testimony of the Cures Effected by the Electro-Chemical Bath. By J. F. Caplin, M.D. London: H. Baillière.

A Dictionary of Science, Literature, and Art. By W. T. Brande, D.C.L., and the Rev. G. W. Cox, M.A. Part 2. London: Longman and Co.

The Truth of the Conversion of the Turkish Funds, and of the Formation of the Great Book of the Ottoman National Debt. London: Davies and Co.

Notes for Students in Chemistry. By A. J. Bernays. Fourth Edition. London: Churchill and Sons.

Journal of the Scottish Meteorological Society, April. W. Blackwood and Sons.

The Fourth Annual Report of the Dispensary for Skin Diseases. 63, John-street, Glasgow.

On Consumption: its Prevention and Possible Cure. By Henry McCormac, M.D. Second Edition. London: Longman and Co.

The Edinburgh University Calendar for the Year 1865-66. Edinburgh: Maclachlan and Co.

Suggestions on Town Sewage, and its Application to Land by Gravitation. By Lucius H. Spooner. London: R. Hardwicke.

The Edinburgh Medical Journal, May, 1865. Edinburgh: Oliver and Boyd.

The Edinburgh Veterinary Review, May. Edinburgh: W. P. Nimmo.

The Dublin Quarterly Journal of Medical Science, May. Dublin: Fannin and Co.

The Geological Magazine, May. London: Longman and Co.

The Forty-ninth Annual Report of the Manchester Eye Hospital. 1865.

Medical and Surgical Review (Australasian). August, 1864.

Report of the Canterbury Dispensary. 1865.

The Sixth Annual Report of the Sussex County Lunatic Asylum, 1864.

The Seventeenth Annual Report of the Somerset County Pauper Lunatic Asylum, 1864.

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 20, 1865.

BIRTHS.

Births of Boys, 1083; Girls, 1109; Total, 2192.
Average of 10 corresponding weeks, 1855-64, 1743·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	622	546	1168
Average of the ten years 1855-64	602·9	550·0	1152·9
Average corrected to increased population..	..	..	1268
Deaths of people above 90	..	1	1

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	1	2	5	3	6	3	5
North ..	618,210	5	4	4	3	18	12	10
Central ..	378,058	..	1	3	1	12	2	4
East ..	571,158	2	1	4	..	10	13	2
South ..	773,175	4	4	8	..	14	13	4
Total ..	2,803,989	12	12	24	7	60	43	25

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·851 in.
Mean temperature	53·7
Highest point of thermometer	72·8
Lowest point of thermometer	39·2
Mean dew-point temperature	44·7
General direction of wind	S.W.
Whole amount of rain in the week	0·16 in.

APPOINTMENTS FOR THE WEEK

May 27. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's 2 p.m.; Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

Metropolitan Association of Medical Officers of Health, 7½ p.m. Dr. Clouston (of Carlisle), "On the Production of Dysentery by Sewage Irrigation."

Royal Institution, 4 p.m. Alex. S. Herschell, Esq., "On Meteorology."

29. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

30. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.

Royal Institution, 4 p.m. Professor Frankland, F.R.S., "On Organic Chemistry."

31. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

Hunterian Society, 8 p.m. Dr. Sutton, "On the Influence of Alcohol on the Development and the Prevention of Phthisis."

June 1. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Linnean Society, 8 p.m. Dr. Cobbold, "Remarks on the Best Methods of Displaying Entozoa in Museums;" also, "On the Question of Animal Individuality as Applied to the Helminths."

Royal Institution, 4 p.m. Professor Frankland, F.R.S., "On Organic Chemistry."

2. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

Royal Institution, 8 p.m. Professor Huxley, "On the Methods and Results of Ethnology."

Western Medical and Surgical Society, 8 p.m. Annual Meeting. Secretaries' and Financial Reports to be Read; Officers for next Session to be Elected; Practical Evening for Cases, etc.

ORIGINAL LECTURES.

ON THE ASSIMILATION OF SUGAR BY THE LIVER.

FROM

THE LECTURES ON PHYSIOLOGY.

DELIVERED AT

Guy's Hospital.

By F. W. PAVY, M.D., F.R.S.,
Assistant-Physician to the Hospital.

Part III.

I have now furnished you, gentlemen, with an exposition of my own results and the objections that have been raised to them.

From Brücke's analyses, which have been confirmed by Dr. Bence Jones, it seems that healthy urine contains a trace of sugar. I had premised that this should be so without knowing anything of Brücke's experiments and before Dr. Bence Jones' were made known. Looking at the diffusibility of sugar, and the fact that a minute quantity of it exists always in the circulation, I expressed myself thus in one of my Lettsomian Lectures which appeared in the *Lancet* for December 22, 1860:—"I should say, even, that the trace of sugar, which is natural to the blood throughout the body, is constantly being drawn upon by the kidney; but that the amount for removal is so small that it is not susceptible of detection in the urine. Did we possess more perfect means of detection than we do, I imagine a minute trace of sugar would be reckoned as a normal constituent of the urine."

It is a curious coincidence that Dr. Bence Jones' communication was read at the Chemical Society the very evening the number of the *Lancet* containing the above was passing through the press. Dr. Bence Jones, writing quite recently (*Medical Times and Gazette*, January 21, 1865), again states that he has satisfied himself by the most careful investigation that Professor Brücke is right in saying that healthy urine contains sugar.

Now, accepting it as proved that healthy urine contains a trace of sugar, I look upon such a fact as affording one of the strongest arguments that could be brought forward against the validity of the glycogenic theory. It is admitted that no appreciable destruction of sugar takes place in the lungs: therefore, whatever sugar is poured into the circulation from the liver and reaches the right side of the heart will also be found in the arterial system. It must hence be conveyed in due proportion to the kidney, and, on account of its diffusibility, must be in part eliminated with the urine in compliance with the laws of osmosis. Now, if from the minute quantity of sugar naturally existing in the blood, sugar can be shown to exist to a minute extent in the urine, what, it may be asked, would be the condition of the urine if the blood of the right side of the heart were strongly impregnated with sugar as was formerly supposed? I confidently assert that, under such a state of things, we must all have been diabetics. The state of the urine forms an index of the amount of sugar existing in the circulation; and let sugar to any considerable extent reach the general circulation, and it will be sure to determine a correspondingly saccharine condition of the urine.

Dr. Bence Jones, in his recent lectures in the *Medical Times and Gazette*, treats of diabetes as a disease of suboxidation. He seems to have carefully avoided saying anything about the subject of glycogenesis either one way or the other. After enumerating the different kinds of saccharine substances, and stating that they are not all able to pass as glucose into the urine, he says, "but they are all capable of being oxidised in the blood and textures into carbonic acid and water, whilst giving heat or motion or other energy to the body." Now, if from this we are to infer that Dr. Bence Jones is of opinion that the sugar we consume reaches as such the general circulation and undergoes oxidation as it is contained in the blood and is passing through the textures, I think his corroboration of Brücke's analysis stands directly opposed to him. I maintain that the trace of sugar encountered in healthy urine comes by the simple law of diffusion from the minute quantity of sugar always encountered, no matter what the diet, in healthy blood. The presence of this trace of sugar in healthy urine proves that the capacity for the destruction of sugar in the blood cannot be very great. Now, suppose saccharine food to be ingested, and that the sugar reached the general circulation; it would be carried to the kidneys as well as elsewhere, and what would be the condition of the urine under these circumstances? The ingestion of sugar, unless in very large quantity, does not give rise to the presence of sugar, such as is capable of being recognised by ordinary testing, in the urine; but I contend it would do so if the sugar reached the general circulation. Dr. Bence Jones treats of diabetes as a disease of suboxidation, and speaks about the oxidation of sugar in the system as though such a process had been actually proved to occur. He, however, adduces no evidence, and I must confess I am aware of none, that can be taken as showing that the sugar we consume is disposed of by undergoing direct oxidation in the body.

Indeed, my experiments, to which I will now refer, show that sugar is transformed by, or undergoes its first step of, assimilation in, the liver. I have found that from sugar amyloid substance is produced in the liver. This, I think, you will admit to be sufficiently proved by the tabulated results before us, to which I will proceed to call your attention.

Here, first, we have the condition of the liver under a purely animal diet. Eleven dogs were kept for some days prior to death upon a strictly animal diet, and the table shows that their total weight amounted to 158 lbs. 11½ oz., and the total weight of their livers to 85¼ oz. This gives to the liver the relative weight of the $\frac{1}{30}$th part of that of the animal. In other words, we have just over *half-an-ounce* of liver to every pound of dog. In the case of seven out of the eleven dogs an analysis was made for the determination of the amount of amyloid substance present, and the average given was 7·19 per cent.

Next, we come to five dogs kept for several days previous to death upon a vegetable diet. The food consisted of barley-meal and potatoes, or, where this was refused, of bread and potatoes. The weight of the five dogs amounted to 80 lbs. 7 oz., and that of their livers to 83¾ oz. This gives to the liver the relative weight of the 1-15th part of that of the animal. Or, in other words, we have over *one ounce* of liver to each pound of dog. It was ascertained that the amount of amyloid substance present in all the livers was large. A quantitative analysis, however, was made of only three, and the average given by these was 17.23 per cent.

Lastly, we have the table referring to four dogs under a diet of animal food with an admixture of sugar. About a quarter of a pound was the quantity of sugar that was administered daily. The weight of the four dogs amounted to 51 lbs., 12 oz., and the weight of their livers to 49 oz. This gives to the liver the relative weight of the 1-16½th part of that of the animal; or, in other words, we get just under an ounce of liver to each pound of dog. In the case of all four livers an analysis was made, and 14.5 per cent. forms the average of the amounts of crude amyloid substance obtained.

According to these three sets of results, therefore, the livers of the vegetable-feeding dogs were just double; and those of the animal feeders with the allowance of sugar, nearly double in relative weight the livers derived from the dogs under a purely animal diet. The amount of amyloid substance present varied correspondingly, the average per centage under the diets of vegetable food and the animal food with sugar being more than the double of that given by the strictly animal diet.

Let me now direct your attention to the results I have obtained upon the rabbit. The conditions of the experiments to be referred to were so simple and the effects so remarked, that I think but one interpretation can be drawn from them. The results, as you will perceive, are corroborative of those obtained upon the dog.

For the first experiment a couple of full-grown rabbits, as nearly as possible resembling each other, were taken. One of them was kept fasting, whilst the other was fed daily, through a gum-elastic tube passed down the œsophagus into the stomach, for three days, upon one ounce of starch and three-quarters of an ounce of grape sugar mixed with water, so as to be rendered sufficiently fluid for injection. On the fourth day both rabbits were killed, and here are the results that were obtained:—

	Weight of rabbit.	Weight of liver.	Amount of crude amyloid substance yielded by liver.
	lbs. oz.	oz.	
Rabbit fasting . . .	3 1	1⅗	1·3 per cent.
Rabbit on starch and grape sugar	3 4	2⅘	15·4 ,,

For the next experiment, two half-grown rabbits, likewise as nearly as possible of the same size and condition, were

taken. One of them was kept fasting, and the other, upon one ounce of starch and one ounce of cane sugar, administered daily for three days. The examination on the fourth day displayed these results:—

	Weight of rabbit.	Weight of liver.	Amount of crude amyloid substance yielded by liver.
	lb. oz.	oz.	
Rabbit fasting . . .	1 14	1	1·4 per cent.
Rabbit on starch and cane sugar	1 14¾	2⅜	16·9 ,,

With such results I think it may be looked upon as established that sugar derived from without is transformed by the liver into amyloid substance. It may be considered that we have here the first step in the assimilative process to which sugar is subjected in the animal economy; and should this step fail to be accomplished, the sugar would pass through the liver; and, reaching the general circulation, would occasion diabetes. But I do not say that sugar is the only source of the amyloid substance. It is quite certain that it is not so. There is still amyloid substance in the liver, notwithstanding saccharine and amylaceous materials may have been altogether excluded from the diet. I believe that the liver is capable of forming amyloid substance from the products of the retrograde metamorphosis of assimilated animal food and worn-out tissue. By this, materials would be brought into a condition for being turned to account in the system, instead of being discharged as useless.

I must not omit to refer to a property enjoyed by the amyloid substance which enables it to be retained in the liver cells, so that the gradual assimilative influence of the organ may be exerted upon it. Sugar, as I have already stated, is a substance enjoying great diffusibility. With its diffusibility, we may say it would be physically impossible that it could exist stored up in the liver cells whilst a current of blood was flowing through the capillaries around. In the amyloid substance, however, we have a body directly opposed to sugar in respect of diffusibility. It refuses altogether to pass through vegetable parchment or thick animal membranes. Hence it has no disposition to escape from the liver cells, and the circulation can take place around without carrying it away. Should it reach the circulation and be mingled with the blood it would be immediately transformed into sugar and occasion saccharine urine.

Having thus shown that sugar is transformed by the liver into amyloid substance, the next step is to determine into what the amyloid substance is converted. Upon this point, I will simply tell you that Dr. McDonnell has recently enunciated the opinion that it is united with nitrogen, and leaves the liver through the hepatic veins as a newly-formed proteic compound, partly, perhaps, he says, as globuline, and partly as a material in its reactions resembling cascine or albuminose. From the philosophical reasoning adopted, Dr. McDonnell's opinion is entitled to consideration, although I must confess my own investigations have led me to look in another direction for the product of the metamorphosis of the hepatic amyloid substance. It is due to Dr. McDonnell, however, to admit that as yet I have obtained no data sufficiently precise to justify me in entertaining anything more than a surmise upon the matter.

Diabetes I look upon as the result of a defective assimilating action of the liver. If the cases that fall under observation be attentively examined, they will be found to present considerable variation. In some a perfect exclusion of saccharine and amylaceous materials from the diet may be made, and still the diabetic shall pass a considerable quantity of sugar. I should say here that the saccharine principle comes from the unnatural transformation into sugar of the amyloid substance formed by the liver from products derived from animal food, and from the wear and tear, or disintegration of the tissues. In others —and this is the kind of case that is especially met with amongst elderly people—sugar disappears from the urine when restriction from saccharine and amylaceous articles of food is practised. Here there seems to be simply a want of power to assimilate the sugar and starch ingested. In a healthy person, when sugar and starch are taken, they are lost sight of in the system, because there is the power to transform them, so that they may be to the service of the economy. In such a diabetic, however, as I am now picturing to you, whatever sugar and starch may happen to be ingested will pass through the system and be eliminated with the urine, because there is the want of power to assimilate or transform them so that they may be turned to account in the economy. In other cases, again—and these are not so rare as perhaps may be thought for—there is the power to utilise a certain amount of sugar and starch, and this may be taken without occasioning the presence of sugar in the urine, whilst if the certain amount be exceeded sugar is immediately to be recognised in the urine.

I have met with several cases of the last form of diabetes that I have described to you. Such patients have come to me as ordinary diabetics. The diet has been restricted so as to exclude sugar and starch from the articles ingested. The sugar has disappeared from the urine, and after a time it has been found that a certain amount of ordinary bread and potatoes may be taken without rendering the urine saccharine. An excess, however, immediately affords evidence that the complaint has not completely disappeared. In one case—an exceedingly instructive one—the patient regarded himself as completely cured. He was able to take a mixed diet without passing sugar with his urine. All that was required to be attended to was, moderation in the consumption of bread and such-like articles of vegetable food. At an evil moment he was tempted to drink some cyder. Being thirsty, he drank off a pint; and within two hours, from the sweet taste experienced in his mouth, he felt sure his complaint had returned. His urine he soon afterwards brought to me to be examined, and the result showed that his suspicions were well founded. This patient, although several weeks have now elapsed, has never since been in so favourable a state as before. At first, notwithstanding that he fell back upon the restricted diet, sugar was present in the urine; and now, although there is no sugar under it, yet he cannot deviate from it without passing saccharine urine. It is hence evident how easily a relapse may be brought about by indiscretion in what is taken, where it may be even imagined that a complete cure has been effected.

The point remaining to be attained in the pathology of diabetes is to go one step further than we have done and ascertain the cause of the sugar failing to undergo assimilation as it ought to do. It has been for a long time known that puncture of the fourth ventricle produces a temporary diabetes. This has not, however, helped us to unravel the nature of diabetes, because it cannot be definitely stated in what way the effect is produced. Some years ago I discovered that injuring certain portions of the sympathetic system will likewise produce diabetes. A paper upon this subject appeared in the "Guy's Hospital Reports" for 1859. I found that injuring, amongst other parts, the superior cervical ganglion of the sympathetic rapidly produced a strongly saccharine state of the urine. At first, each time I experimented upon this ganglion I obtained the diabetic result. Somewhile afterwards, on several times repeating the experiment, I was surprised to find that if I obtained any effect it was but a very slight one: nothing to be compared to what I had obtained before. I have been at a loss to account for this difference until recently, when it occurred to me to use the fumes of puff-ball as an anæsthetic, instead of chloroform, whilst performing the operation.

I was in no doubt about a strongly-marked diabetic effect having been produced in my early experiments. In one case, indeed, I observed as much as 20½ grains of sugar to the fluid ounce in the urine within half an hour after the operation; and in another 34 grains to the ounce in less than two hours. I was not conscious that I operated differently to what I had done before; but yet there was the difference in the result. Reflecting upon the alteration which the administration of chloroform produces upon the calorific effect resulting from the division of the carotid portion of the sympathetic in the neck, it occurred to me as possible that the administration of chloroform might exercise an influence upon the result of my experiment. I cannot say whether I used chloroform in a manner to produce so full an anæsthetic effect in my early experiments as I do now. At all events, I have recently substituted for chloroform the smoke of puff-ball as an anæsthetic agent, and have found in several experiments that injuring the superior cervical ganglion has been followed, without exception, by the rapid production of strongly saccharine urine.

The inference first natural to be drawn was that the artificial diabetes was occasioned by an alteration in the state of the blood-vessels connected with the liver. I therefore resolved to ascertain how such an inference would stand when submitted to the test of experiment. I tied the hepatic artery, and still found that saccharine urine resulted after operating on the sympathetic. In one hour's time the urine contained 8½ grains, and in two hours' time 12 grains of sugar to the ounce. After ligature of the cæliac axis, also, sugar has appeared to nearly the same extent in the urine. One hour

afterwards there were 7·38 grains, and three hours afterwards 6·66 grains to the ounce. After ligaturing the portal vein as well as the hepatic artery, as was to be expected, there is no appearance of sugar in the urine.

With these experiments I do not see how it is reconcileable that the effect of the operation on the sympathetic can be in a direct manner attributable to an action upon the blood-vessels. It is only upon the coats of the arteries that we can conceive the sympathetic to exert any material direct influence, it being through the muscular element that it influences the circulation. Possibly the operation on the sympathetic may lead to an alteration in the quality of the blood that is passing to the liver, and so occasion the result. This is the most likely supposition that I can offer at present. Tying the portal vein so as to allow a stream of arterial blood only to pass through the liver occasions a saccharine condition of the urine; and injecting carbonate of soda into the circulation previous to operating on the sympathetic prevents the production of saccharine urine. Hence some justification is afforded for looking to the state of blood to supply the explanation required. The effect of the carbonate of soda thus ascertained by experiment in checking the production of saccharine urine after operating on the sympathetic tallies with the known therapeutic influence of the Vichy waters in diabetes.

ORIGINAL COMMUNICATIONS.

SEWAGE EXHALATIONS THE CAUSE OF DYSENTERY.

AN ACCOUNT OF AN OUTBREAK OF DYSENTERY IN THE CUMBERLAND AND WESTMORELAND ASYLUM, WHICH WAS CAUSED BY THE EFFLUVIA FROM A FIELD IRRIGATED BY SEWAGE.(a)

By T. S. CLOUSTON, M.D.,
Medical Superintendent.

The Cumberland and Westmoreland Asylum is built on a dry, sandy hill, about three miles from Carlisle. There are no manufactories or polluted streams near it. The subsoil of the land lying at the base of the hill on which it is built is a stiff brick clay. The water supply is derived from a small stream which arises from the drainage of neighbouring fields, and from several springs in those fields. The water was analysed before the site was determined on, and found to be very pure. The building is well ventilated, and the water-closets and drains were constructed on the most approved principles. Two of the soil drains, however, have frequently had to be taken up since the opening of the institution on account of being choked up when rags, etc., were thrown down the water-closets by the patients. The water from the baths and lavatories is not thrown into the sewage drains, it having been thought that the sewage would be too much diluted if mixed with it. The main drain conveys the sewage to a large vaulted close tank, 40 feet by 40 feet, and 6 feet 6 inches in height, situated about 150 yards from the nearest inhabited part of the Asylum,—a small detached block—and 200 yards from the main building. It was intended that the sewage should be pumped out of this tank into carts, and so distributed over the land. The solid part was to be allowed to accumulate in the bottom of the tank, and to be cleared out through a man-hole at the top at periodic intervals.

The Asylum was opened in the beginning of 1862, and has since generally contained over 200 patients. Many of those, as in all Asylums, are paralytics, weak epileptics, and maniacal patients, whose nervous energy has been greatly exhausted by previous excitement. Many of the patients are old and weak when sent from workhouses to the Asylum. There are about thirty sane people connected with it as officials, attendants, and workmen. The regular diet of each male patient consists of 24 ounces of animal food, 14 pints of milk, 16 ounces suet dumpling, 7 pints of oatmeal porridge, 78 ounces of bread, and 7 pints of tea per week. The females have somewhat less solid food, and coffee as well as tea every day. Extra diet of all kinds is given to the sick and weak. Stimulants are only given by Medical order, not even beer being a part of the regular dietary of the patients or their attendants. Each patient has from 500 to 900 cubic feet of air in the dormitories and single bedrooms, and more than this amount in their day-rooms.

(a) Paper read before a special meeting of the Metropolitan Association of Medical Officers of Health on May 27, 1865.

During the first two years after its opening, the mortality in the Asylum was not half the average mortality in all the other county Asylums. No epidemic appeared in the Asylum till the end of 1863, when there were two cases of typhoid fever, one of which proved fatal. A source of contamination of the water supply was at that time discovered and remedied. It consisted of the contents of a drain which received the slops of half a dozen cottages and the washings of a few hundred yards of a public road. No water-closets emptied themselves into this drain. The cases of fever were of the ordinary type in all respects, and the post-mortem appearances in the one that died were such as are ordinarily found in such cases. I attributed them at the time to the impure water. During the first two years after the opening of the Asylum, diarrhœa was not unusually common among the patients, not more than a dozen cases having been treated for it each year.

Towards the end of February, 1864, a patient who suffered from chronic pleurisy, and whose mental state was that of the most extreme dementia, was attacked by severe and prolonged diarrhœa, with some dysenteric symptoms. The dysenteric symptoms passed off, but the diarrhœa continued till he died, in June. This case attracted no unusual attention, until, in the beginning of April, three men were attacked with very severe dysentery within five days of each other. One of them was a general paralytic, in the last stage of the disease; the second had paralysis agitans in a severe form, and they both died within a week; the third was aged 81, and laboured under chronic mania, and he died in three weeks.

I shall describe the dysentery more particularly afterwards, however. It presented sufficiently marked and novel features to warrant a very full description of its symptoms and pathology. In the meantime I shall confine myself to the history and etiology of the epidemic as an epidemic.

On May 8 two men were attacked by the disease, one of them being an attendant, a young man in robust health, who had only been three days in the Asylum, and both ultimately died. No cases then occurred until June 3, when a woman was attacked by the disease, and, as she was previously phthisical, she very soon died. In the same month four other female patients were attacked, two of whom died. One of those who died was a deaf and dumb epileptic, of feeble nervous power; the other, an old woman of 65. Of the two who recovered, one was a woman who had been for a long time subject to severe dyspeptic attacks, accompanied by a tendency to diarrhœa, and the other was a previously healthy congenital imbecile. On July 2 a man was attacked and died. On July 6 two women were attacked by the disease, one of whom, aged 66, previously exhausted by chronic mania, died, and the other, a congenital imbecile, recovered. On the 13th, a man and a woman were attacked by the disease, both of whom died. They were aged 73 and 66 respectively, and the man was partially paralysed. Between the 17th and the 22nd four men were attacked, none of whom died; but one of them was attacked again on August 2 and died. The disease was apparently checked at first by astringents and opiates in this case. On August 2, and on the 4th, two cases were attacked and both recovered. On the 7th a woman was attacked and died. This woman had been previously in good bodily health. From the 18th to the 23rd of August three cases were attacked, one woman and two men. The woman (a general paralytic) died; the two men, one of whom laboured under phthisis, recovered. These were the last cases that occurred in 1864.

Of the twenty-six persons attacked nineteen had been inmates of the wards on the ground floor of the Asylum. Eleven of them had slept in bedrooms on the ground floor. All the women attacked had been inmates of this ward, except one who lived in the detached block near the sewage tank. I may mention, however, that in the wards on the ground floor the majority of the weaker, older, and paralysed patients reside, in order that they may have freer access to the airing courts.

On March 12, 1865, a woman was attacked by diarrhœa, which gradually passed into dysentery, with slight bloody and purulent evacuations; and on the 19th and 28th, within forty-eight hours four women were attacked with dysentery. All those five cases were in the ward on the ground floor. The four who were last attacked all died, although two of them had been previously in average health.

Altogether, therefore, thirty-one persons were attacked by dysentery, of whom twenty died.

During all this long-continued prevalence of the disease in the Asylum, I find from my prescription-book that diarrhœa

was much more common than in the two previous years, but this is, no doubt, partly accounted for by the extreme vigilance of the attendants in watching for and reporting at once all cases that had the smallest symptom approaching a bowel complaint, and its immediate treatment by me. No doubt I treated many slight cases of diarrhœa that but for the prevalence of the epidemic I should never have heard of. But making ample allowance for these, ordinary diarrhœa was much more prevalent than usual. There were no cases of very severe and continued diarrhœa, however, that would not yield to treatment by astringents and opiates. We shall see, when we come to describe the dysentery more particularly, that it seldom was preceded by long-continued diarrhœa, but in by far the majority of the cases appeared as dysentery almost from the beginning.

Cases of erysipelas were not more common than usual, and there was no other epidemic disease prevalent in the Asylum.

From the time when the first case of dysentery occurred, I endeavoured to discover the cause of the disease, well knowing that there must be a cause either in the unfavourable hygienic condition of the Asylum or in the food or water. The drainage was the first thing looked to. That, with the exception of the one drain that was frequently being obstructed to which I referred, was found apparently in a satisfactory condition. And the period when the patients were attacked with dysentery I found to bear no relation to the periods when the drain was obstructed and the ground opened to clear it out. The whole Asylum was thoroughly and specially cleaned, and the water-closets kept sweet. McDougall's disinfecting powder was used largely whenever it could be applied. The bread, water, and milk were analysed by Dr. Macadam, of Edinburgh, and found to be free from any obviously deleterious matter. The water was made to pass through a charcoal filter, and boiled before being used for drinking by the patients. All the feeble patients were sent up to the upper wards; they were all made to wear flannel shirts and drawers, and the ventilation was increased by opening the upper sashes of the windows during the night. All those prophylactic means proved unavailing. Still fresh cases occurred, and I confess that I was almost hopeless as to discovering the cause of the epidemic. The soup which the patients had as part of their dietary was discontinued. All the patients in the lower wards had twenty minims of dilute sulphuric acid administered to them three times a-day, because during the cholera epidemic it had been recommended as a prophylactic for bowel complaints generally, but one or two of them were attacked while taking the medicine. The dietary did not seem to be at fault, for many of the weakly patients had been on quite a different diet from the ordinary patients, and yet had the disease. The want of stimulants did not seem to be the cause, for many of those same patients had been getting stimulants of all kinds in considerable quantity.

Although in the asylum there had been no other epidemic disease while the dysentery prevailed, yet in March and April three of the inmates of a cottage a few yards from the asylum had typhoid fever. The first of the three attacked had not been staying at home except on the Saturday and Sunday nights previously, and he was never brought home, but taken to the next village. A month after he was attacked the two inmates of the cottage who had always been living there took the disease. They had frequently been to see their brother while he was ill, and at the time I resolved that for the future I should always adopt the same precautions in the case of typhoid fever as in diseases usually supposed to be infectious.

It had often occurred to me whether the dysentery might not be connected with the distribution of the sewage of the asylum. I mentioned that this was thrown into a large tank, and that it had been intended to pump it up into carts to be distributed over the land. But this was found to be impracticable from the large quantity of sewage. An opening was therefore made in the upper part of the tank, and the liquid part of the sewage which overflowed at this opening was conducted by open cuts to irrigate about three acres of grass land immediately below it. The opening through which the sewage escaped from the tank was only about six inches square. The irrigated field was about 300 yards from the female ward in which the greater number of cases occurred, and 350 yards from the corresponding male ward. The land had been drained shortly before the asylum was opened. The upper part of it had a sandy subsoil, and the lower and greater part of it had stiff brick clay under the soil. The direction of the cuts was often changed to make the sewage run on different parts of the field, but this was not done very scientifically.

The reasons which at first made me think the application of the sewage had nothing to do with the dysentery were these:—1st. The sewage had been so applied for two years previously, during which there had been no epidemic diseases of any kind. 2nd. Sewage had been applied in much the same way in many other places, and I had not heard of any epidemic diseases being produced. Jock's Lodge Cavalry Barracks are situated by the side of an immense extent of land which is always being flooded by all the sewage of Edinburgh, and they are said to be the most healthy barracks in the kingdom. How could the sewage from a building with 250 people do any harm, therefore? And at many asylums I knew the sewage to be used in the same way quite close to the building. 3rd. I had never heard of dysentery being connected in this country with sewage exhalations as a cause at all. 4th. I had never perceived any offensive smell at the house; and 5th. Although a very offensive odour was perceived near the irrigated field, yet I was inclined to hold the views of Professors Christison and Bennett, of Edinburgh, as to the general harmlessness of stinks.

In the month of August, however, an offensive odour from the sewage was clearly perceived at the asylum during several hot sultry evenings, and I considered it advisable to convey the sewage away from the tank in a covered drain to the boundary of the asylum farm, where it is thrown into a deep ditch and largely diluted with water. After that time no more cases of dysentery occurred in the asylum during the year 1864, and those at time labouring under the disease recovered.

The sudden termination of the epidemic coincidently with the removal of the sewage exhalations at a time of the year when dysentery is beginning to be most prevalent, afforded a very strong presumption that the effluvia and the epidemic of dysentery were cause and effect. The fact that the tank had not been thoroughly cleaned out for two years, and that the land was a stiff clay through which the sewage would not readily percolate, was strongly confirmatory in my mind of this view. But in order to apply what I considered to be a sure test, I made out a list of the days when the patients were attacked by this disease, and sent them to a meteorologist well known in the neighbourhood for the accuracy of his observations—the Rev. F. Redford—asking him to tell me the direction in which the wind was blowing on those days. The irrigated field was to the north of the asylum, and I expected to find that the wind had been blowing from that direction each day. I then thought that such a poison must be in operation up to the time when the disease begins. But the list was returned to me with only one day marked with a north wind. I then asked him to give me the number of times the wind had blown from the north during the fortnight previous to each outbreak of the disease. It had been from that direction in fifteen out of the twenty-two periods of attacks, and in almost all the cases it had blown for more than one day from that direction. But the seven remaining periods, which were all in July and August, when there had been no north wind, still puzzled me, until I remembered that it was during a sultry evening with no wind that the sewage smell had been perceived at the asylum. On a more careful examination of the meteorological record, I found that such evenings had preceded the outbreaks of the disease, not only in the seven cases unaccounted for, but also in many of the other cases when the wind had been blowing from the north during the day. A further examination showed that within a week of each outbreak of the disease there had been either north winds or hot sultry evenings, with no wind during the night. I also found that in the spring and early part of the summer when the outbreaks had occurred at one time on the male side of the house, and at another on the female side, and there were no calm evenings preceding, that the wind had blown from a point west of north before the male patients were attacked, and due north before the females were attacked. This was precisely what might have been expected, for the building stands east and west, and being a long building the wind would require to blow somewhat from the west to bring the effluvia to the male side. Indeed, it would seem that the number of cases attacked were in the ratio of the number of times the wind had blown from the north or the number of sultry evenings previously. Between April 5 and 14 three males were attacked, and the wind had blown from the north and north north west at least twelve times from March 26 till April 14; and from the beginning of March up to the 9th there had been several evenings quite calm, with a high barometrical pressure. This last condition I found to be very common during the fortnight preceding the attacks. It would

obviously tend to prevent the diffusion of the effluvia through the atmosphere, thus keeping it near the ground, and accounting for the great number of patients in the wards on the ground floor being attacked. Then on May 8 a male patient and the male attendant were attacked by the disease. I found that there had been four calm nights immediately preceding this date, and that the wind had blown twice from the north north west. Again, on June 3, a woman was attacked, and another on the 9th. I find that the wind had several times blown from the north previous to those dates, and that there had been several warm, calm nights. Certainly no conditions could be more favourable for such a poisen to produce its effects than when a warm night with a high barometrical pressure caused strong exhalations, while a gentle wind from the proper direction wafted them in through the windows I had caused to be opened to let in fresh air, to be breathed by my patients when they were asleep and most liable to their deleterious influence.

From the first of the season, up till July, when the direction of the effluvia would be determined chiefly by the wind, males and females were attacked at different times, according as the wind blew towards the male or female side of the Asylum; in July and August, when, through the sultry calm nights, with a high barometrical pressure, the effluvia would spread in all directions along the ground, males and females were attacked promiscuously.

Although I could no longer doubt that the sewage effluvia had caused the dysentery, yet I attributed this to the state of the sewage chiefly, and secondarily to the kind of soil to which it had been applied. As those who had houses further down along the stream into which the sewage was emptied objected to its being allowed to run there permanently, and as I believed, if it were properly applied, it would be harmless to the health of the inmates of the Asylum, I had the tank emptied and thoroughly cleansed, I was to have had the field better drained and levelled, and deeply trenched, so that the sewage might be spread over a larger surface, and applied more scientifically, and that the extra liquid might drain away. All this could not be done at once, and in the course of the operations the drain had to be taken up which conveyed the sewage from the tank. While this was up the sewage had to be accumulated in the tank when the wind was blowing from the north, and allowed to run off by a pipe from the bottom of it when the wind was blowing from other directions. But for one night this had been allowed to run on the land when, as I ascertained in the morning, the wind had been blowing towards the house. It had been nearly calm during the night, too, as I afterwards ascertained. In a week from that time those five cases of dysentery occurred. But another cause must have been in operation, for an obstructed drain was found near the ward in which the cases occurred, which had formed a little cesspool under the soil immediately below the windows of the ward. This can only have existed for a few days, until the soil was saturated and the water rose, as it did at last, into the water-closets. The drain was, of course, at once repaired, the soil removed, McDougall's powder thrown in, and fresh soil was substituted.

This outbreak of the dysentery was, therefore, in all points confirmatory of my previous conclusions as to the bad effects of sewage effluvia; but it showed that it was not necessary for that sewage to have been pent up in large quantity for a long time to become prejudicial to health. The sewage that was run over the land immediately before the dysentery broke out this time was fresh from the drains, the tank having been thoroughly cleansed out. The land to which it was applied had had no sewage applied to it for some time, but, in afterwards trenching this land, it was found that the sand from the upper part of the field had completely obstructed the drains through the clay, so that it had been, latterly at least, as if it had never been drained.

Shortly before this time one of the men employed by the asylum had involuntarily made himself the subject of an experiment showing the poisonous effects of sewage gases. He was putting a new tile in a drain, and happened to put his head close to its mouth, breathing a quantity of the foul air that emanated from it. For the next four days he felt languid, had no appetite, felt very cold at times, had a sensation of something in his throat which made him swallow, and often had the sensation of smelling the drain again. He then was seized with severe pain in the abdomen, as if his "inside were being twisted out." This was shortly followed by vomiting and severe diarrhœa. He says the matters vomited smelt of the drain, and the dejections were very fœtid and of the same odour. He then had a pinched look, his tongue was coated with a thick, dirty, yellowish fur, his breath was offensive, his pulse was quick and feeble, and he could take no food. The diarrhœa continued and became worse, till he could scarcely leave the water-closet, and the evacuations were slimy and mucous, and were slightly tinged with blood, while he had great straining at stool. During all this time the pain was very intense in the abdomen. He said he felt as if his inside were all going away. He had been taking Dover's powder from the time the diarrhœa became very severe, and he seemed to think that on the second day, when the blood appeared in his stools, the powders relieved the pain and lessened the diarrhœa; which continued in a less severe form, however, for two days longer, with no blood in the dejections. It then ceased, leaving the patient weak for another fortnight. The day after the diarrhœa ceased he had very great difficulty in micturition.

This man had not slept in the asylum, but three miles away from it; he had been in every respect a strong, healthy man previously, and there had been no cases of severe diarrhœa or dysentery in the asylum for four months previously. It therefore seems certain that the foul air he breathed from the drain was the cause of his illness; and we shall see, when I describe more fully the dysentery which occurred among the patients, how much his symptoms resembled theirs. This is, therefore, a most instructive case.

As to the extent to which diarrhœa prevailed among the attendants, and servants, and officials in the Asylum during the period when dysentery was prevalent, I find that at least a dozen of them had it in a more or less severe form. In some cases it was coincident with the outbreaks of dysentery among the patients. Many of them had never had such attacks in their lives before. It seems reasonable to infer that the poisonous effluvia which in the case of the patients and the one attendant caused dysentery, was got rid of more easily in the other cases, and merely caused diarrhœa, just as it did in the workman's case who breathed a whiff or two of the undiluted air from the drain. Another curious fact, that may have reference to the action of the poison, is, that at the time when the last five patients were attacked by dysentery this year two other women in the same ward in which they resided (that on the ground floor), who had had dysentery last year and recovered, were observed to lose their appetite, to become listless, and to cease to occupy themselves. They were both imbeciles, and could not describe their sensations; but this state continued a fortnight, when they again resumed their usual condition. All this time they had been getting quinine and iron. They had no diarrhœa. Does not this point to the influence of the same poison on persons who had become somewhat inured to its influence, and on whom, therefore, it had lost its full effect?

As the sewage effluvia had evidently produced the dysentery, I began to think that it might have had something to do with the typhoid fever too. The first inmate of the cottage attacked was only at home on the Saturday nights and Sundays. On the Saturday and Sunday nights, March 19 and 20 (he had been attacked on the 22nd), the wind blew from the east and north chiefly, and the nights were calm. This direction of wind would not bring the effluvia to the cottage, and it is unlikely that the calm would be so complete at that time of the year that the effluvia would spread in all directions; but on the previous Saturday and Sunday nights the wind had blown from the N.W. veering to the W.S.W., which would be the precise direction to bring it to the cottage. He would breathe the effluvia for two nights, nine days before he was attacked by typhoid fever. The other two inmates of the cottage were attacked on April 17, and up to April 9 from the 5th there had been calm nights with a high barometrical pressure, and the wind blowing from the N.N.W. They, too, had certainly been breathing the effluvia for four days and four nights eight days before they were attacked; and I also find that though there were no north winds in the fortnight preceding the time when the two patients were attacked with typhoid fever in the asylum on October 29 and December 1, 1863, yet in the fortnight preceding the former period there were seven perfectly calm nights, with very high barometrical pressure and five such nights in the fortnight before the latter date, which is certainly an unusual circumstance at that season.

I have endeavoured to find out the period of incubation of the poison, during which it was in the system before it produced the dysentery. If north winds and calm evenings had occurred singly, this might have been done accurately, but in most cases the effluvia was breathed for two or three days at a

time, and taking the period of fourteen days before each case was attacked, I find that in that time the cause had been in operation more than once. That the poison produced the disease in three days from the time of its first inhalation, I have positive evidence in the case of the attendant who had only been in the house for that time when he was seized with it. The sewage exhalations had been breathed by him during all that time. Then there were four days of incubation in the case of the workman who breathed the gas contained in the drain. One of the patients was attacked on June 18, and for three days before that the wind had been blowing briskly from the south west, so that in this case there must have been at least three days of incubation. Another case was attacked on July 13, and there had been no north winds, or periods of absolute calm, for five days.

In regard to the five cases attacked this year, it was six days from the time when the sewage had been running over the land during the night, with a north wind blowing, until the cases were attacked, but during the four succeeding nights there had been an absolute calm, so that any effluvia still rising from the ground would be breathed by the patients. And then there was the obstructed drain, which was obstructed up to the time when the patients were attacked. It would seem that the sewage poison took from three to six days to produce the dysentery after it had been inhaled. It is quite impossible to say that in some cases it may not have produced it in less time. My experience does not determine that point.

In one case the action of the poison seemed to be hastened by a dose of castor oil, which had been given to overcome constipation; for the ordinary purgative effects of the medicine passed into a severe and fatal attack of dysentery.

My friend the meteorologist informs me that the occasions during which the wind blew from the north before the outbreaks of dysentery were almost the only occasions on which the wind had been from the north.

(To be continued.)

RUPTURE OF THE EYE THROUGH THE SCLEROTIC.

By GEORGE LAWSON, F.R.C S.,
Assistant-Surgeon to the Royal London Ophthalmic and the Middlesex Hospitals.

Rupture of the Globe.—This is the most severe injury which can happen to the eye. It either destroys the eye at once, or else so impairs it that it seldom sufficiently recovers to be of much service. It is usually caused by blows on the eye with the fist, or with some blunt or semi-blunt instrument, or by the patient falling and striking his eye against some projecting object. The exact part at which the eye bursts will depend partly on the situation of the point which receives the force of the blow; still the locality in which the rupture takes place is so frequently the same that it must depend on more than mere accidental circumstances.

The split in the sclerotic is almost invariably near the margin of the cornea, following somewhat the direction of its curvature, about from one-sixteenth to one-eighth of an inch distant from it, and immediately anterior to the insertion of the recti muscles. The rent most commonly occurs in the horizontal diameter and upper region of the eye, in a line extending inwards from between the margin of the cornea and the superior rectus. The next most frequent site is towards the inner side, between the cornea and the internal rectus. It is comparatively seldom that it occurs to the lower or outer side of the cornea. If the rent is either to the inner or the outer side of the cornea, the split is more or less vertical, thus following the curve of the cornea.

In endeavouring to ascertain the reason why the rupture should so invariably take place between the insertion of the recti and the margin of the cornea, we must for a moment refer to the anatomy of the eye, and at the same time notice the support which the neighbouring parts afford it.

On looking at the sclerotic we shall find that this coat is thickest posteriorly, and that it gradually becomes thinner as it advances forwards, until it is thinnest immediately behind the insertion of the recti, but that between the insertion of the recti and the cornea it increases again in thickness. Now, the whole of the posterior, the strongest part of the sclerotic, derives a material support from the soft cushion of fat on which it rests, whilst its weakest portion is strengthened by the tendons of the recti muscles, so that the only part which may be regarded as completely exposed to the direct impulse of blows is between the insertion of the recti and the cornea.

There is, however, another reason which seems to account for rupture taking place so commonly in this situation.

In blows on the eye, the prominent cornea, the segment of a smaller sphere than that which forms the rest of the eye, is usually sufficiently strong to maintain its own integrity, but driven with force against the sclerotic, on which it is implanted, it acts almost like a wedge, and the part of that coat which is unsupported by the orbital fat, and unprotected by other tissues being superimposed, yields before its impulse and splits. When, however, the sclerotic is ruptured, as in Case 6, by a large piece of metal, or indeed by any foreign body, striking it with great force in its rapid flight past the eye, the seat of the rupture will be the part struck, and the line of the rent will indicate the direction of the course the body was driven.

The cornea itself may be, and is frequently, ruptured by blows on the eye, but the injury is usually less severe and the result less disastrous than in the cases we are now considering of rupture of the eye through the sclerotic. A blow to rupture the sclerotic must be direct or nearly so, and inflicted with great force—whereas a side or glancing one will split the cornea.

In rupture of the sclerotic, the injury is unfortunately not confined to the laceration only of this coat. The force which is required to produce it is so great that all the tissues within the eye suffer more or less. A detachment of the iris to a greater or less extent commonly occurs, and hæmorrhage takes place into the anterior chamber. A portion of the iris may be prolapsed through the wound, or, in some cases, even the whole iris may be detached from its great circumference and be shot out with the lens. The lens is usually dislocated. Most frequently it is jerked out through the wound, and escapes unnoticed; or it sometimes happens that it is seen lying beneath the conjunctiva, that membrane remaining entire over the rent in the sclerotic. Occasionally the lens is dislocated backwards into the vitreous, and perhaps, partially supported by a few filmy shreds of the suspensory ligament which still remain attached to it, it does not sink to the fundus, but floats backwards and forwards with the movements of the eye, and gives rise to as much irritation as the presence of a foreign body. The ciliary processes are usually more or less injured, and blood is effused from them into the vitreous.

The choroid is very frequently involved in the injury, and some of the vessels being ruptured, hæmorrhage, generally from its anterior surface, ensues, the clot, according to its size, producing a displacement of a portion or the whole of the retina, and a corresponding bulging into the vitreous. Occasionally, either from a rent in the retina produced by the injury or from a breaking through of its substance by the hæmorrhage from behind, blood clots are seen lying on its surface; or if in such a case the hæmorrhage continues, the blood is extravasated into the vitreous, breaking down its substance, and ultimately causing its complete disorganisation. But in addition to this, small filmy clots of blood will be often found between the choroid and the sclerotic, causing here and there small detachments of the one from the other. Vitreous humour may escape from the wound at the time of the injury, but unless the loss of it is very great the detachment of the retina and the hæmorrhage between it and the choroid cannot be considered as consequent on it. The displacement of the retina is in the very large majority of cases secondary to the choroidal hæmorrhage, and occasioned by it.

The primary hæmorrhage which a loss of vitreous occasions is almost invariably between the choroid and sclerotic, and is dependent on the giving way of the choroidal vessels from over distension, owing to the sudden withdrawal of the support which the vitreous had afforded. It is sometimes seen to follow the extraction of cataract in unhealthy eyes. The extravasations of blood between the choroid and sclerotic which are often found in cases of ruptured globe are generally limited in extent, and produced either by a direct laceration of the vessels from the blow which inflicted the injury or else by the blood from the anterior choroidal vessels forcing its way posteriorly through the thin tissue of the choroid and forming small clots between it and the sclerotic. Lastly, hæmorrhage may take place from a ruptured retinal vessel, but this is very rare. Such is frequently the condition of an eye after it has been ruptured by a violent blow. All the different textures may not be implicated to the extent described, though it is very usual to find them all more or less involved after such

a serious injury. Certain it is, that in the very large majority of cases the eye is irreparably lost.

(To be continued.)

ON TWO NEW SPECIFIC REMEDIES FOR GONORRHŒA.(a)

By THOMAS B. HENDERSON, M.D., F.F.P. and S. Glasg.

A CONTRIBUTION to the practice of medicine such as we have before us for the title of this paper needs little or no introduction. The paucity of remedies for gonorrhœa has been regretted, I believe, by almost every General Practitioner.

This complaint, from its occasionally intractable character, has sometimes proved, or threatened to prove, an *opprobrium chirurgorum*. Without doubt, ingenuity in prescribing the two specifics known to the Profession has been attended with great success. But even with the greatest skill and ingenuity they occasionally fail. Too often they sicken or nauseate the patient, and in delicate constitutions, if given in doses large enough to have a curative action, they always produce inconvenience and disorder. I believe, in consequence of these effects, many Practitioners dispense, or endeavour to dispense, with the use of specific remedies, treating their cases principally by local measures. The variety of these applications surely indicates a general want of proper remedies, each of the agents used being useful in a few instances only. Does it not seem strange that no addition has been made to the specific remedies known to the Profession since the re-introduction of Cubeb pepper by the late Sir Astley Cooper, now probably forty years ago, so graphically described in his "Lectures on Surgery," 3rd edit., p. 467-8.

The first of the medicines I have to introduce to Professional notice is the oil of yellow sandal wood. It is obtained by distillation from the wood of the tree Sirium myrtifolium, of the genus *Santalum*. It grows in the East Indies. One pound of the wood yields two drachms of the oil. Lindley writes: "This oil is said to be used to adulterate the oil of roses." Professor Redwood, in his supplement to the Pharmacopœia, on the authority of Dr. O'Shaughnessy, writes, "Sandal wood in powder is given by the native Physicians in ardent remitting fevers. With milk it is also prescribed in gonorrhœa." I have ransacked many works on Materia Medica and have not found even the name of yellow sandal wood.

In my experiments with this drug I have found it perfectly innocuous even in large doses. From twenty to forty minims three times a-day, diluted with three parts of rectified spirit, and flavoured with Ol. cassiæ or Ol. cinnam., is the ordinary formula I employ; water and a confection after. In cases of the disease at the first, second, or third stage, in susceptible persons, I have often seen the most marked suppression of the discharge within forty-eight hours. It has the great advantage of being a pleasant medicine, not liable to cause sickness, agreeable to the taste, and grateful to the stomach. It is a medicine as to efficacy, in my opinion, equal, and frequently superior, to Bals. Copaib. or Cubeb pepper. I have often succeeded with it when both had been fairly tried and failed. Besides, it is convenient and portable; and if the patient is delicate, or in bad health, or the system disordered, the possession of a remedy which will act as a stomachic medicine and cure the disease is, I think, to be highly valued. I have used it in many cases during the past five years. I have no theory to offer as to its mode of acting. My experiments have been numerous, but entirely of a practical character. The odour of the drug is slightly perceptible in the urine. Its action on the urethra is observed, in susceptible cases, within a few days after beginning its use. Almost every druggist keeps it for perfumery purposes.

The other remedy I have experimented on is the gurjun or gurgina balsam, or wood oil. It is the product of the *dipterocarpus turbinatus*, an immense tree growing in different parts of India. Incisions are made and heat by fire is applied to the root. One tree yields about 40 gallons in a season; distilled with water it yields 35 per cent. of volatile oil. Wood oil is a liquid of the consistence of olive oil, of a dark reddish colour and slight odour. Pereira gives a good account of this medicine when speaking of the adulterations of Bals. Copaib. In the new edition of Royle's Materia Medica, p. 319, it has the honour of occupying one line. Referring to the products of the dipterocarpæ, it is written, "There is a wood oil which contains a principle analogous to copaiba." In the other works of Materia Medica it is either not mentioned or only slightly noticed. The description of this medicine which caused me to try it for myself is contained in the valuable "Manual of Practical Therapeutics," by Edward John Waring, of the East India Company's Service, first edition, 1854, pp. 200, from which I beg to make the following extract:—

"Gurjun or wood oil tree is found at Chitagong, Pegu, the Tenasserim Provinces, etc. It is found abundantly in all the bazaars of India. By distillation it yields an essential oil, which in all its medicinal properties and actions closely resembles copaiba. Dr. O'Shaughnessy employed it in numerous cases of gonorrhœa and gleet; and the results seem perfectly conclusive, that in the treatment of these and other affections of the genito-urinary system the essential oil of gurjun is nearly equal in efficacy to copaiba. It generally causes a sensation of warmth in the epigastrium, eructations, and sometimes slight purging. It greatly increases the quantity of the urine, which has a terebinthinate odour. Dr. O'S. found that some obstinate cases of gonorrhœa and gleet, which had long resisted copaiba and cubebs, were cured by this remedy. E. J. Waring writes: 'In the few cases I have had an opportunity of trying it, the results have been uniformly satisfactory. It might be advantageously introduced into English practice as a cheap and efficient substitute for copaiba. The dose is 10 to 15 drops thrice daily.'"

It is now several years since I commenced to experiment with wood oil. I have only used it in cases where copaiba had been fully tried and failed. In every case it was successful within a week. No symptoms of inconvenience in any of the cases were produced. I gave it in what may be called large doses—a tea-spoonful two or three times a-day, uncombined. I have not been able to investigate its action further, as my supply became exhausted, and it is not easily procured in this country. I am thoroughly convinced it is an excellent medicine. I think it is probable this oil was introduced into England without there being a demand for it, and those holding it tried to get quit of it by mixing it with copaiba. Being detected, the cry has gone against its use in that way, and very properly so, fulfilling the old saying, "Give a dog a bad name," etc. That it can be procured abundantly at a moderate price I have no doubt; for at the International Exhibition, London, 1862, I observed several specimens, such as the following:—

INDIA—CLASS IV.

Sub-class Vegetable Substances used in Manufactures.

Gurjun Oil.	Wood Oil.	Wood Oil.
Chitagong.	Mangolore.	Capave.
	P. P. Coelho.	Moulmain.
5702 . . .	10,750 . .	. 5692.

It is not necessary for me to lengthen this paper by giving cases in which there was nothing remarkable further than the favourable result I have described. And I hope enough has been said to induce the Profession to make these two medicines the subject of their observation on fitting opportunities presenting themselves.

(a) Read before the Glasgow Medical Society, March 7, 1865.

ROYAL COLLEGE OF SURGEONS.—The Council of this institution has just approved of the following subjects for the prizes offered by the College for competition amongst its members:—For the Collegial triennial anatomical prize, to be awarded in 1868, the subject is "the anatomical structure of those parts of the eyeball which are contained within the sclerotic and cornea, with illustrations drawn from each of the five great divisions of the vertebrata." There are two subjects for the Jacksonian prize of the present year, the essays for which must be sent in on or before Christmas-day next,—viz., "the diseased conditions of the knee-joint which require amputation of the limb, and of those conditions which are favourable for excision of the joint; with an explanation of the relative advantages of both operations, as far as can be ascertained by cases properly authenticated." The second subject is "the relative value of the various modes of treatment of popliteal aneurism, illustrated by cases." There are also two subjects for prizes for the ensuing year 1866—viz., "Ovariotomy: Pathology and diagnosis of cases suitable for this operation, with the best method of performing it, and the results of recorded cases;" and "Fractures into joints: their modes of union, with the treatment and result; the dissertation to be illustrated by cases, preparations, and drawings." The terms and conditions may be known to intending competitors on application to the secretary of the College.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASE OF ASIATIC CHOLERA—RECOVERY.

(Under the care of Dr. WILKS.)

In calling this a case of Asiatic cholera, we simply imply that it was such a case as would have been so called during the prevailing epidemic of that disease. Dr. Wilks said that every year he saw one or two such cases, but seldom so early in the year as this, and he remarked that the patients, however ill they might seem, recovered. As regards treatment, Dr. Wilks did not speak confidently of any particular plan. Indeed, he said that he felt convinced that those Medical men who got the most credit for treating cholera really treated it worst. They did many things, but not much for the patient. They had many little expedients, but no general principle of action.

For the notes of the case we are indebted to A. B. Shepherd, M.A., Dr. Wilks' clinical clerk.

Samuel W., aged 33, admitted, under Dr. Wilks, into Clinical Ward, soon after noon on May 25. Was at his usual work at 7 a.m. this morning—hammerer to a blacksmith—when he was suddenly seized with profuse vomiting and purging. Says he had been quite well up to that time; had eaten nothing since his supper, consisting of bread and cheese and onions, at 10 p.m. the evening before. Soon after his admission he was attacked with cramps in his flanks and legs. On admission he was pale; his countenance anxious; his eyes sunken; his skin cold to the touch; tongue white, and it and breath cold; coldness of forehead, followed every now and then by heat and sweats; articulation abrupt; vomiting, purging, and cramps continuous; no urine passed; stools, consisting of white flocculi floating in watery fluid, alkaline when passed; vomit of the same "ricewater" character. Throughout the day his pulse and the thermometer indicated nothing abnormal. Ordered, acid sulph. dil., ♏xx.; tinct. cardam., ʒj.; æth. chlor., ♏xx.; aquæ ad., ʒss. Unâquâque horâ. Ice; arrowroot.

Very thirsty. Ordered to have as much water as he wished. About 6 p.m. his vomit became green; stools as before, and still alkaline; both and the cramp still continued; extremities colder; breath and tongue decidedly cold. Said the pressure of the clothes caused cramp, and threw them off. In this state he continued till 2 a.m. Between that time and 4 a.m. he passed no motions, and only three between 4.0 a.m. and 7.20 a.m., the time of the third. They were now acid, and he passed his urine with them; the two last slimy, of a mixed colour of black and green. He was sick only once during this time. Slept moderately well.

26th.—10 a.m.—More comfortable; no cramp, but pain from flank to flank. Still lies with his arms by his sides outside the bedclothes. Temperature 98° 4′; respiration 27; pulse 88. Has taken two cups of arrowroot. No sickness; no stools.

It is unnecessary to prolong this report in detail. The patient steadily improved. His skin was so sore that he feared to be touched.

KING'S COLLEGE HOSPITAL.

RIGHT HEMIPLEGIA, WITH COMPLETE LOSS OF SPEECH—PARTIAL IMPROVEMENT—ATTACKS OF EPILEPTIFORM CONVULSION—INCREASE OF PARALYSIS—FATAL RESULT—BRAIN HEALTHY—GRANULAR DEGENERATION OF SPINAL CORD.

(Under the care of Dr. LIONEL BEALE.)

When a patient loses speech and is paralysed on one side of his body, there must, one would think *à priori*, be some lesion of the higher part of his nervous system. The following case shows, however, that these two symptoms may exist without any discoverable alteration. The brain was quite healthy. This statement is not open to the objection which is often urged in similar cases, that the examination was not carefully and properly made. It is enough to say that the examination was made by Dr. Beale.

Although the patient could not put out his tongue when told, we must not infer that it was paralysed—*i.e.*, paralysed from disease of the lingual nerves or their nuclei. Patients who have what Trousseau calls aphasia and Broca aphemia frequently cannot put out the tongue when told. Indeed, these patients have, it would seem, a difficulty in executing any movement they may be told to perform, even with the muscles which are not paralysed.

For the notes of the case we are indebted to Dr. Morris Tonge, Medical Registrar to the Hospital:—

W. R., aged 44, married, silver polisher, was admitted into King's College Hospital, under Dr. Beale, on November 10, 1864, for chronic rheumatism. He had well-marked arcus senilis in both eyes. A few hours after admission he had sudden right hemiplegia, with almost complete unconsciousness, for several hours. The next day he was quite sensible, but unable to speak or put out his tongue, and the right arm and leg were almost completely paralysed. Reflex action was increased in the paralysed leg, but became normal after a few days. Face drawn to the left; pupils unequal. On the eighth day he had an epileptic fit, the right side being most convulsed, and the right pupil dilated and insensible to light. The palsy of the limbs and speech gradually improved. On the twenty-first day he put out the tongue, and on the twenty-sixth day he could move the right arm freely, and articulate pretty well. On the thirty-ninth day he had a fit affecting the left side. The next day he was sensible, but again unable to put out his tongue, and had much less power over the right arm. On the forty-second day he had two more fits, one affecting the right side. On the forty-sixth day he was quite unable to articulate, and the paralysis of the right arm and leg was all but complete. He passed his motions and urine under him throughout. Bedsores gradually formed about the hips and sacrum, and he lost flesh very much. He became gradually weaker, remaining quite sensible, and died on January 14, 1865, having been sixty-five days in Hospital.

Autopsy. — Sub-arachnoid fluid very abundant; slight opacity of the arachnoid. Brain and medulla oblongata very firm, and perfectly healthy. Several portions of the cord were found to be in a condition resembling that termed by Mr. Lockhart Clarke "transparent granular degeneration." They were of moderately firm consistence, and distinguishable from the healthy portions of cord by their translucence and reddish grey colour. Their position, was, roughly, as follows:—One in the left lateral tract at the commencement of the dorsal region; two in the middle dorsal region, one of them being in the right lateral tract; and the other lower down, involving the central part of the cord; and two in the lower dorsal region, both involving the antero-lateral tract, one of them on the right side. On microscopical examination, no healthy nerve-structure was seen in the diseased parts, which consisted of finely-granular fibres, granular matter, and numerous corpora amylacea. The minute vessels were in a state of fatty degeneration.

NORTH STAFFORDSHIRE INFIRMARY.

CASE OF PARALYSIS OF RIGHT SIDE OF BODY AND FACE, WITH LOSS OF SPEECH—FATAL RESULT—LARGE CLOT FOUND IN LEFT CORPUS STRIATUM AND THALAMUS OPTICUS.

The following case is worthy of record, as showing what happens as regards a patient's power of talking when he has extensive damage to his brain by a large clot. But as this patient only lived a few days, it would not be safe to use the case as a fact in the argument as to whether the faculty of language resides on the left or on both sides of the brain. Such cases should of course be recorded, in order to help to complete our knowledge of the pathology of language, but Physicians differ far too widely in their opinion as to the causes of inability to talk in recent cases to make it safe to use the case in an argument for or against M. Broca's views. What one would call a defect of speech, another would ascribe to partial insensibility. In the meantime, a faithful record of facts will have value when further investigation has cleared away the obscurity which at present renders it difficult even to differ in opinion with precision as to speech, language, etc. A fact well observed will have a proper value in time, although it may at first be misintepreted.

For the report of this case we are indebted to Mr. Dunnett Spanton.

John T., aged 40, widower, a carter, living at Longton, was

admitted into the North Staffordshire Infirmary on December 7, 1864, at 7 p.m. It was stated that the patient had always been a strong, healthy man, never having "had a day's illness in his life." He had been accustomed to moderate, but not excessive, drinking. There was no history of syphilis. He had been out, as usual, in the morning to cart sand, and, at about 2 p m., was found lying in the road insensible. After some delay he was conveyed to the Infirmary, a distance of about four miles.

On admission he appeared a strong, muscular man, of middle height. He was insensible, unable to stand or speak; there was complete motor paralysis of the right arm and leg, and right side of the face; no reflex action on tickling the right sole; there was no paralysis of the left side. Pupils dilated, left larger than the right; acting but little to light. Breathing loud and stertorous. Ordered to take two calomel and colocynth pills; the head to be shaved, and cold applied.

At 10 p.m. the patient was conscious and able to reply, in indistinct monosyllables, to questions. When pinched hard moved all his limbs, but the right arm and leg very slightly. Slight reflex action in right leg; pupils as before; respiration stertorous, 20; pulse full, soft, 80. Protruded tongue when desired, which deviated to the right. Urine dribbled away, was drawn off by catheter.

December 8.—Restless during the night. Now more conscious; still replying to questions by signs and indistinct monosyllables. Towards evening became very restless, with flushed face and hot skin. Less conscious, though he appeared to understand what was said, and would attempt to put out his tongue. When I pointed to his brow, and asked if he had pain there, said "Yes." Was ordered to be cupped at the nape.

9th.—Better; dozed a little after the cupping; more intelligent. Quite unable to move right arm or leg, which felt colder than left. Some sensation on pinching them. Paralysis of face as before. Pupils equal, large, act to light. Face flushed, with vacant expression. Bowels freely moved yesterday after an enema. Urine drawn off, containing a large amount of albumen; scanty. Ordered an effervescing mixture, with five grains iodide of potassium, every four hours; milk, beef-tea, and arrowroot.

10th.—To add half-a-drachm of nitric ether to the draught, and a blister applied to the head.

13th.—Conscious; unable to articulate, though sometimes making an attempt. Very restless. Right pupil larger than left; both sluggish. Breathing stertorous, rapid, heaving. Pulse small, 95. From this time he became weaker, and died comatose the following morning.

Post-mortem Examination made Four Hours after Death.—Rigor mortis moderate. Body well nourished. Head: Dura mater firmly adherent to the skull; natural in appearance. No thickening of arachnoid. Brain substance of natural colour; bloody points numerous. About six drachms of reddish serum in left lateral ventricle; less in right. On cutting into the left corpus striatum, there oozed out a semi-solid clot of dark blood, which was found to extend into the substance of the left thalamus opticus for three-quarters of an inch, being altogether the size of a Brazil nut. The surrounding brain tissue was very soft. The clot was about two lines beneath the surface of the corpus striatum and thalamus. The lining membrane of the ventricles presented a minutely granular appearance. The granules, under the microscope, appeared to consist of lymph. There was no plugging found in the middle cerebral artery. The vertebral and basilar arteries and the cerebral, in a few places, were atheromatous. Other parts of the brain healthy. Examined under the microscope, the clot was found to consist of blood, compound granular cells, and small branches of vessels. These were granular, and in some places appeared to be almost covered with rows of minute fat globules, which here and there were aggregated so as to form irregular, but distinct masses without any apparent investing membrane. No blood crystals were observed. In the healthy-looking brain tissue adjacent to the clot, the capillaries, chiefly about the $\frac{1}{1000}$th inch in diameter, presented the appearance already described; and surrounding them were minute extravasations of blood, though in some of them no blood corpuscles could be clearly distinguished. Chest: a small quantity of serum in pericardium. All the cavities of the heart and the pulmonary artery contained firm fibrinous clots, except the right auricle, in which was dark blood. Valves healthy. Left ventricle much hypertrophied concentrically, the walls being nearly an inch and a-half thick; the columnæ carneæ very large; the musculi papillares at least twice the ordinary thickness. The cavity was large enough only to contain one finger easily. Aorta atheromatous, the patches being large and thick. Lungs healthy. Other organs not examined.

BIRMINGHAM GENERAL HOSPITAL.

PARAPLEGIA FROM MORBID GROWTHS WITHIN THE VERTEBRAL COLUMN.

(Communicated by JAS. RUSSELL, M.D.)

Case 1.—*Syphilis—Paraplegia—Death—Node on Spinal Dura Mater—Nodes in the Liver.*

I am indebted to the kindness of my colleague, Mr. Crompton, for the opportunity of publishing the following case, as well as of examining the spinal cord:—

John B., aged 28, draper.

Sectio Cadaveris Sixty Hours after Death.—On the posterior aspect of the spinal cord, about the middle of the cervical enlargement, was a firm growth of regular ovoid shape, an inch and a quarter in length, by half an inch in breadth. It was closely connected with the dura mater on one aspect, and with the substance of the cord on the other, a distinct line of demarcation, however, subsisting between the growth and the nervous tissue. It had hardly indented the cord, although it had somewhat flattened its natural curved outline. The substance of the growth was homogenous, of a grey colour, and of the consistence of fibro-cartilage. The tissue of the cord was uniformly soft, beyond what would be explained by the interval between death and the post-mortem examination; but there was no morbid change perceptible by the naked eye in any particular part. By the microscope the growth was found to consist almost entirely of cell-like bodies without nuclei, of irregular shape, with some fibrous bands scattered among them. Many of the cells were nearly filled with oil globules, and a considerable number of similar globules and granular matter were scattered through different specimens. The entire cord, excepting the part beneath the adventitious structure, was perfectly healthy; the tubules were well formed, and did not manifest any tendency to break up. But in the portion corresponding to the morbid growth a very striking difference was observable; here the tissue presented a large abundance of granule cells, thickly dotting every specimen, and the tubules were, without exception, remarkably small. They were not broken, but were nearly empty of their natural contents. The minute vessels of the cord were healthy, though they were generally empty. Mr. Bracy informs me that the brain was firm and quite healthy. There was no unusual amount of subarachnoid or ventricular fluid; the vessels at the were also healthy. The only other organ in the body which exhibited evidence of disease was the liver; its surface was puckered, its capsule thickened in places, and it contained numerous masses scattered through its substance, chiefly towards the surface of what, from the description, I have no doubt were syphilitic nodes. The largest of them attained the size of a horse-bean. The bladder was surrounded by a large abscess, resulting from a false passage made through the urethra in unsuccessful attempts to pass a catheter before the patient was brought to the Hospital.

Mr. Bracy gave me the following history of the case:—The patient had lived in Ceylon, and there had contracted "a black chancre." When he entered the Hospital he had a circular ulcer, having the appearance of a secondary sore, on the outer part of the right thigh. Eleven months ago he returned to England, and, having come into possession of a considerable amount of ready money, abandoned himself to dissipation, and contracted gonorrhœa, of which he was cured, but renewed the disease, which had not subsided when he came into the Hospital. A few days before admission he lost the use of his legs very rapidly, the power of motion leaving them in the course of twenty-four hours, the limb at the same time becoming numbed. With these symptoms he experienced difficulty in expelling his urine, and the immediate cause of his being brought to the Hospital was the inability of his Surgeon to introduce a catheter. The sphincter ani was so completely relaxed that the anus formed a large opening, whence flatus and fæces continually escaped. He was pale, emaciated, and weak; was unable to move his lower limbs, though he retained some power over the toes of his right foot. In the course of a few days his urine flowed involuntarily. He regained some control over his right leg, and could just move his knee from the bed. He could move his arms quite well, and his ribs acted

freely in respiration. Sensation was unimpaired in the lower limbs. He died suddenly of apnœa eleven days after admission.

I add a few particulars of the following case as a companion to the preceding, though it appears probable that its place is among those cases, some of which have been narrated by Dr. Gull in the 39th vol. of the *Med.-Chir. Trans.*, wherein paraplegia is caused by inflammatory action propagated to the cord during the course of an attack of gonorrhœa along the veins or by means of the blood.

Mr. P., aged about 36. He has been of very dissipated habits. My friend and colleague in the case has known him ten years; he has never had to treat him for any venereal affection prior to the present occasion; he, however, tells me that about four months before the present illness the patient complained to him of some difficulty in "forcing out his water," a No. 8 catheter passed easily, and the symptom speedily subsided. Six weeks before I saw the patient he contracted gonorrhœa. four weeks afterwards, as the discharge was subsiding, he experienced slowly-increasing weakness in his lower extremities, together with numbness and a dulled sensation in the tips of his fingers. At the end of the second week he was almost helpless. He had also indefinite pains, which he called rheumatic, along the inner side and front of each leg, passing, as he specially stated, behind each inner ankle. This pain was usually so much aggravated about 5 a.m. that he was obliged to get out of bed. Some numbness was complained of in the soles of the feet, and at my visit there was present a feeling of tightness round the epigastrium. There had not been any cramps nor startings. Micturition and defecation were unaffected, but the bowels were costive. His spirits were depressed. I found the patient barely able to raise his feet from the bed, but without any increase of reflex sensibility; sensation was unimpaired, neither exalted nor depressed. The upper extremities were healthy. The muscles were firm. No pain was produced by pressure upon the vertebræ. The pupils were of medium size. The urine was free from albumen, free also from exudation cells; it deposited phosphates on boiling, and after standing presented a sediment of crystals of triple phosphate and of oxalate of lime. I have omitted to state that there was slight tenderness in the perineum. As I could not see the patient apart from his wife, who was ill in the same room, I was unable to prosecute my examination farther. A blister was placed over the lumbar region of the spine, and ten grains of iodide of potassium were directed to be taken three times in the day. In four days he had lost the pains in his legs, but motor power had further diminished, and he had some difficulty in expelling his urine. He was without pain. Pulse 84. Appetite good. Bowels continued costive. His chief complaint was of awakening in the night, very restless and uneasy. To continue the iodide of potassium. To take with each dose of the mixture, calomel, gr.j.; pulv. Doveri, gr. iij. I did not see the patient again, but five days afterwards my friend told me that slight salivation had commenced, and that motor power was returning in the patient's legs. From that time he slowly recovered.

Although I was unable to obtain a post-mortem examination in the following case, its nature was so evident from the external manifestations that it is worthy of mention in the present relation.

Case 2.—*Rapid Paraplegia—Speedily Fatal—External Tumours of a Malignant Character.*

Mr. H., aged 54. He has been out of health twelve months, and has been emaciating for some time past. Five months since he began to complain of pain in the right shoulder and arm, subsequently along the course of the right sciatic nerve, and afterwards along the course of the nerve on the left side also. Five weeks before I saw him he consulted his Medical attendant, when some enlargement at the outer end of the right clavicle was discovered; some weeks after similar enlargements were noticed in connexion with certain ribs of the right side. These enlargements, firm when first noticed, soon became soft, and increased with surprising rapidity. About a fortnight ago the patient lost sensation in his rectum, and the stools were passed unconsciously; his bowels also became obstinately costive. The urine then dribbled, and the bladder was distended. About the same time numbness was experienced in the lower extremities, with impairment of motor power. I found the patient quite unable to stand, though retaining power to kick his legs freely when on the bed; their muscles had wasted considerably. The arms were not affected, and the ribs moved in breathing. Sensation was greatly dulled in all parts of the body below the level of the thorax—dulled to an extent, apparently, disproportioned to the motor paralysis. I found the outer half of the right clavicle occupied by a soft, elastic growth of considerable size; a ridge of similar outgrowths from the second, third, and fourth ribs, at the point of junction with the cartilages, ran along the chest on the right side of the sternum. The skin was unattached to the tumours, and was free from vascular turgescence. In ten days paraplegia was complete; reflex sensibility was extinguished in the right and almost in the left leg; the bowels were greatly distended, and required severe purgatives; anæsthesia involved the base of the thorax; but the movement of the ribs continued free. The patient had no pain except in the lower part of the cervical spine; but when moved he complained of great pain in the hips. Nothing was apparent to examination in the vertebral column. The costal tumours had considerably increased in size; one of them extended across the sternum; the skin over them had become tense. He died four days afterwards, apparently from apnœa. Permission to examine the body was refused.

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Medical Times and Gazette.

SATURDAY, JUNE 3.

THE PROFESSION A POLITICAL POWER.

The near approach of a general election affords an opportunity to the Profession which we shall be sadly wanting in our duty to ourselves and to our calling if we let slip. The past history of the now moribund Parliament ought to have taught us a lesson. The Profession has seen its interests treated on every occasion with either unmistakeable hostility or, at the best, with civil indifference in the councils of the nation. We utterly disclaim all party feeling. In this journal we know neither Whigs nor Tories. But we should be wanting in our duty did we not state our mature conviction that the present Administration have omitted no opportunities of casting a slight on the status, the interests, and the influence of the body to whom the lives and health of her Majesty's subjects and servants are by law committed. It matters not to which department of Government we look, the same fact presents itself in unmistakeable colours. In the Indian Department Sir Charles Wood, had his design not been frustrated by the firmness and pertinacity of Mr. Hennessy, would have inflicted a fatal injury on the Indian Medical service. The faithless conduct of the Horse Guards in tampering with the Queen's Warrant has been smilingly acquiesced in by the Ministers at the War Office. The Greenwich Hospital Bill now before Parliament is an apt illustratiou of the mode in which the Naval Medical service is treate by the Lords of the Admiralty. The most impeccable and unimpeachable of Lord Chancellors lightens the labours of law reform and provision for his family by cultivating his forensic wit and amusing the House of Lords at the expense of the Doctors; and at the Poor-law Board the toils and responsibilities of Medical attendance on the poor are still appraised at fractions of farthings per head. We cannot say whether any other Government would show a more just appreciation of the value of our science or of the pretensions of its professors. But this we do affirm, that if the Profession of Medicine will but recognise the true value of their own political power, they may at once make it dangerous for any Government to treat them with either contumely or neglect.

If the Profession, however, wish to assert their political force, they must pledge themselves to no political section. With a common object before them, and laying aside all lay-political bias, they will immediately become themselves a powerful party. They should learn to look on the next Parliament as simply an arena where a battle is to be fought, which may result in placing their art in the position which it is entitled to occupy—in the vanguard of liberal callings, or in sinking it beneath the level of a respectable trade. No Minister in the present balanced state of political power could venture to set at defiance a body of highly-cultivated gentlemen so numerous as the Profession of Medicine if they once make themselves heard in Parliament. Let Medical men not only refuse their vote, but actively oppose the return of every candidate—be he Liberal, Conservative, or Radical—who will not pledge himself to Poor-law Medical reform; to the removal of the causes of just dissatisfaction in the Army and Naval Medical Departments; and to the proper recognition and remuneration of Medical services whenever they are rendered to the State; and we have no fear for the result. We need only remind our readers of the clerical organisation which has converted the overwhelming majority on Church-rates into an actual minority.

It is also most necessary that the Profession should have their special representatives in the House of Commons—men who have occupied positions in their own body, who are influenced by Professional feeling and are well qualified to judge on Professional questions. We are not forgetful of what was done by the late Mr. Wakley, nor ignorant of the services of Dr. Brady; but we do no injustice to the latter gentleman or to the memory of the former when we assert that the Medical Profession is not, and has not been, adequately represented in Parliament by members of its own body qualified to pronounce authoritatively on topics in which its honour, interests, or usefulness are concerned. We hail with pleasure the prospect of a change in this respect.

Sir Charles Locock is offering himself in the Conservative interest to the electors of the Isle of Wight; Mr. Mitchell Henry on the Liberal side is opposing the Blenheim interest at Woodstock, and Mr. Alfred Smee is soliciting the Conservative electors at Rochester. We heartily wish all these gentlemen success. Although they differ in politics, we know that they will each have at heart the interests of the body with which their names have been long honourably connected and in which their reputation has been made. It would be especially valuable to the Profession to possess such an advocate in the House as Sir Charles Locock, a man of such large influence, such excellent abilities, such unflagging energy, and such high personal character. Each of the three candidates would, if elected, worthily represent the Medical feeling of the day, and we hope that those of our readers, whatever their political creed, who have it in their power will vote for them.

Yet it must be remembered that three votes would make but a small show in the division list, but votes in the House are to be had in payment for votes on the hustings, and we believe that no body of men, with the exception, perhaps, of landowners, could return more votes to the hustings than the registered Practitioners of Medicine, Surgery, and Midwifery.

THE CHEMISTS AND DRUGGISTS BILLS.

It is sufficiently manifest that a chemist and druggist stands already on different footing from other persons as regards his facilities for carrying on an unauthorised Medical practice. He is known to be acquainted with the names of drugs, and is supposed to have some knowledge of their properties, and the uneducated portion of the public have but a very hazy notion of the distinction between the qualifications of a druggist and of an apothecary. They are quite unable to recognise the fact that an acquaintance with the British Pharmacopœia does not necessarily bring with it a knowledge of pathology and an aptitude for diagnosis.

Should either of the Chemists and Druggists Bills now before Parliament become law as originally drawn, the temptations and facilities to illegal practice will be greatly increased. The public will be impressed with the idea—erroneous, of course—that the examination and registration of druggists will guarantee the possession by them of a certain knowledge of the art of prescribing, and, indeed, it would almost seem that the establishment of such a guarantee is one of the objects of the promoters of the measures. It is, therefore, important that neither of the Bills should pass without provision being made against the extension of the illegal "counter practice."

The legitimate business of a druggist is two-fold—consisting first of the compounding of the prescriptions of qualified Medical Practitioners, and secondly, of the simple retailing over the counter, by the pound or ounce, of such drugs as his customers *may ask for by name*. Any departure from these two branches of trade—as, for instance, where the customer states the ailment for which a remedy is needed, leaving the selection of the drug and the magnitude of the dose to the chemist, is irregular, and at once converts the druggist into an unauthorised Medical Practitioner. To prevent these practices entirely would be impossible, for the public would never submit to a law which would compel uneducated persons, in the case of a trifling ailment, to provide themselves with the prescription of a qualified Practitioner, or else to indicate by name the medicine they require, instead of asking for "stuff good for a cough." Such a law would, we believe, be on the whole beneficial, but would be too un-English for that public which insists on its right to go if it pleases to the village schoolmaster for its law, or to the blacksmith for the extraction of its teeth. The suggestion of the Committee of the Medical Council is to add a clause to the effect that nothing in the Act contained shall entitle any person registered thereunder to practise Medicine or Surgery. It is not pretended by the Committee that this clause would in any manner modify the effect of the Bill, but it is said that "the members of the pharmaceutic body would thus have constantly before them the sentiments of the Legislature as to the principles on which the Pharmacy Act was founded." We would remind the members of the Committee that ordinary individuals care nothing for the "sentiments of the Legislature" unless backed up by a penalty attached to particular offences.

Perhaps no better method can be suggested of counteracting this mischievous tendency of an otherwise useful Act than that of giving to the Council of the Pharmaceutical Society a power of removing from the Register, either temporarily or permanently, the name of any druggist who shall, after due inquiry, be judged by such Council to have been guilty of illegally practising Medicine. The discretion thus given would get over the vast difficulty of drawing the line in the right place. We have sufficient confidence in the Council to believe that the power would be properly exercised; and if not, it would of course be still open to the Apothecaries' Company to proceed under their Act. It would be well, however, that the establishment of a Register should be accompanied by a simultaneous check upon any attempts to make an undue use of the *prestige* which registration will confer.

WORKHOUSE HOSPITALS.

We most cordially support the proposition of the deputation to the Hon. Mr. Villiers, a report of which will be found in another column. At the present time, the Poor-law Board is assisted by twelve inspectors, and as one of their most important duties is the supervision of Medical relief and administration of Workhouse Hospitals, it is strange indeed that none of them are themselves of the Medical Profession. It can be no reflection on a barrister to say that he is unable to form a correct judgment as to the dietary necessary in a Workhouse Hospital, or that he is

unqualified to express an opinion as to the arrangements provided for the performance of Surgical operations or the treatment of the sick; and we cannot but believe that the proposed addition of Medical men to the staff of inspectors will be received by the Poor-law Board as the most important help they can obtain in the difficult task they have before them of removing the shameful evils which have been shown to exist in the metropolitan workhouses.

The need of Medical assistance has indeed been frequently recognised by the Poor-law Board. Physicians of eminence have from time to time been employed to report upon the condition of certain workhouses, and the value of their reports forms the strongest argument that such inspection should be permanent and systematic. No other department of the public Medical Service is left exclusively to lay-supervision. The Hospitals of the Army and Navy are subject to the visits of Medical officers qualified by their rank and experience to supervise not only the nurses, wards, beds, and other details of Hospital management, but the manner in which the Surgeons' duties are performed. So, again, the Hospitals for insane are not left to the supervision of the laity alone, but are inspected by Professional Commissioners, who examine the practice of the Medical officers in charge, and require reports and other evidence that their duties are well performed.

In the Workhouse Hospitals no supervision of this kind is now carried on. The Medical officer may have exclusive and uncontrolled charge of 200 patients without responsibility to any Professional authority; and as they are in many cases most shamefully paid, it would be to look for superhuman excellence to expect that the machinery employed should always be perfect and require no supervision. The unpopularity of Workhouse Hospitals is sufficiently notorious, and there exists a wide-spread belief that neglect is to be found elsewhere than in the wards of St. Giles's.

A remedy is, therefore, urgently called for, and it appears to us that none can be more obvious than persistent inspection by competent Medical men. This can be accomplished by the Poor-law Board without any new legislation and without any violation of municipal principles. Boards of guardians would probably object to interference with their privileges; but they cannot be supposed to understand the administration of Hospitals. It is charitable to believe that it is ignorance, not inhumanity, on the part of parochial authorities, which fails to afford the sick pauper the comforts and advantages which are to be found in the institutions supported by voluntary contributions; and only let what is strictly necessary be laid before the guardians, on less impeachable authority than that of their own officer, and public opinion will support them in carrying out all that is required to make the wards sufficient, the beds comfortable, and the nursing as good as possible, considering the great difficulties which exist in obtaining qualified persons to act in that capacity. The Medical officers of workhouses would, we are certain, receive the visits of Medical inspectors to their Hospitals as a great benefit. They would no longer feel the burthen of undivided responsibility; they would have the opportunity of consultation in all matters of Professional difficulty; and they would at once have a powerful machinery for representing their wants and wishes at the Poor-law Board.

But the importance of a Medical element in the administration of the Poor-law cannot stop at a reform of the Workhouse Hospitals. The mode of providing medicines, the salaries of the Medical officers, and other important matters would necessarily be submitted to their judgment and control, and it is impossible to conceive that a greater boon could be conferred upon the Medical officers of the Poor-law than the appointment of some one at head quarters to represent the grievances under which they too often labour. Nor would the public fail to find the advantage of the valuable reports which an organised Medical staff would be enabled to present from time to time to the Poor-law Board. The statistics of disease amongst the extreme poor are altogether unknown, and the results of treatment in Workhouse Hospitals are not at present recorded in any tangible form, whilst no means exist for watching the progress of epidemics at all comparable to that which it is in the power of the Poor-law Board to institute, and which would be most properly confided to the Medical inspectors.

HOMES FOR GENTLEWOMEN DURING ILLNESS.

The promoters of the new ward for ladies at the Hospital in Soho-square certainly have no claim to a monopoly of doing good, so far as relates to the necessities of sick gentlewomen. Not only the Home for Invalid Ladies in Harley-street, but the Samaritan Hospital and Mr. I. B. Brown's Surgical Home for Women, admit ladies at a trifling weekly rate of payment. All of these Hospitals, however, keep up a monopoly of Medical attendance. Every patient who is admitted is compelled to place herself under the hands of the Physicians and Surgeons of the respective institutions, and to forego the services of every other Practitioner. Now, if it be really the welfare and comfort of the invalid ladies that is aimed at, and not the Professional advancement of the Medical officers, let these gentlemen say,—"We do not want a monopoly of benevolence, we do not want to ventilate our own names exclusively; we are willing to tender our services, but not to force them; ladies, though necessitous, may be indulged in their predilections for their own attendant; let any respectable Practitioner be at liberty to treat any patient, subject to certain rules, whilst the charity provides bed, diet, drugs, nursing, and all the comforts of a home." We are glad to tell our readers that such a Hospital is about to be opened in connexion with the Church Home for Ladies, 28, Delamere-terrace, Upper Westbourne-terrace, an institution under the guidance of Miss Hales, and approved by Drs. Walshe, Arthur Farre, William Fergusson, Greenhalgh, Gream, and other well-known names. We find in the prospectus,—

"The above Home is now open to receive ladies who wish to assist in parochial work. When funds are sufficient, this Home will also receive ladies in delicate health, or who require nursing, kind care, and attention in some illness. Many whose means are limited, and who may be lonely in the world, and are often sent up to London for advice, seriously ill, might be glad for the sum of a guinea a week to know of such a Home. Any lady may have her own Medical attendant, provided she pays the expense, etc."

We cordially wish every success to the new institution, and congratulate the founders on the liberality of their regulations.

As a proof that such an institution is needed,—that is to say, in which the sufferers may have the comforts of a home at small fixed cost, without the attendance of Medical gentlemen for whom, notwithstanding their eminence, they may chance to have no predilection,—a well-known Physician and contributor to these pages gives us the following anecdote:—

"About four years ago," he says, "I was sent for to see a single lady, a namesake and distant relative of my own, whom I had not seen for years. She was nearly 70 years old, but marvellously youthful looking, and proud of her good looks, and, as she did not get on very well with her family, had long lived a sort of wandering kind of life in lodgings at the West-end. She told me that she wanted to confide a frightful secret to me, as she soon did, by showing me an ulcerated cancer of the right breast, into which one could have put a hen's egg. She had carefully concealed this mortal sore from every living creature, and yet, as I learned, had been twice an inmate in a well-known home for invalid gentlewomen. On my asking how this could be, she said that she chose not to confess her hidden malady to the Medical officers of the institution, and described with the glee of female maliciousness what shifts she had been put to to hide it, and how she was obliged to destroy the rags, etc., which she applied to it. She spoke in high terms of the kindness received from the Physician, and from every other officer of the house, but often felt amused at

wondering what alteration the learned and amiable Doctor would have made in his prescriptions had he known what his patient really ailed."

THE GOVERNMENT AND THE NAVAL MEDICAL DEPARTMENT.

The recent debate on the Greenwich Hospital Bill has brought to light one of the most striking instances of injustice toward Medical officers in the public service, which even the history of the present Administration can furnish. We need only remind our readers that it is the intention of the Government by this Bill to make Greenwich Hospital less an almshouse and more a Hospital, in the modern sense of the term, than it has hitherto been. It has been found that under the present system the pensioners, shut out from all amusement and occupation, leading a life of enforced idleness, fall into vicious habits. Separated to a great extent from their homes and families, and bereft of the healthy interests and enjoyments of life, the veterans sink either into helpless vacuity or betake themselves to the alehouse or to worse places. The number of pensioners has hitherto been about 1600, but Greenwich Hospital is so little popular that there are at present above 50 vacancies. It is proposed to remedy this state of things by introducing a wide system of out-door pensions, which will allow the men to live with their wives and children and to contribute to the support of their families. Greenwich Hospital for the future is to be an infirmary for sick, infirm, and helpless seamen. Under the old system the number of cases in the infirmary has been about 300. It is proposed to raise the number of sick and infirm to 600. Such is a sketch of the general intention of the Bill, which we think is a good and wise one. Now, however, let us examine some of its details. By the contemplated changes a large yearly surplus will be left in the hands of Government, and it is proposed by the Admiralty to bestow this in the shape of good service pensions on various grades of officers. The Executive, of course, come in for the lion's share. Six post-captains, nine commanders, and thirty lieutenants are to be pensioned at the rate of £80, £65, and £50 a-year; in fact, the good-service pensions granted to lieutenants will be so numerous that 10 per cent. of that rank of officers on the active list must obtain them. The same bounty is to be extended to other grades of officers; nine masters are to have pensions of £50 a-year; fifteen paymasters are to receive £50 a-year; and nine warrant officers £25 a-year each. Even the chaplains are not forgotten, for certain livings belonging to the Greenwich Hospital estates are to be sold, and the proceeds are to furnish good-service pensions for naval clergymen. *Only to the Medical officers is no good-service pension to be granted.* This piece of glaring injustice speaks for itself. It is really unnecessary to prove its iniquity. One of the main features of the proposed reform, as stated in the minute of the Admiralty Board, dated November 28, 1864, is:—"To apply the consequent saving for the increase of out-pensions, and also, in part, to additional pensions *to the classes of officers who have hitherto been employed at Greenwich.* Not only have Medical officers been employed at Greenwich, but they have done their work so well there that the Royal Commissioners have reported that in the infirmary department "the dietary, the dormitories, the dress of the patients, the attention bestowed on their comforts, leave nothing to be reformed." "This establishment," they state, "is conducted in a manner which is worthy of a great national institution." Yet the class of officers to whose exertions the only perfect portion of the administration of Greenwich Hospital is owing are to have no participation in the bounty which is to be scattered broadcast to all other ranks. Paymasters have never, *as a class*, been employed at Greenwich Hospital, although a few have had clerks' offices given them in preference to civilians. The Government, therefore, has gone out of its way to give fifteen of these officers pensions, whilst the just claims of the Medical officers have been contemptuously passed over. Mr. Childers' reply to Mr. Hennessy's question in the debate of Monday last, was as remarkable for its sneering tone as for its want of honesty. No doubt the same staff of Medical officers will be still employed at Greenwich; but will not the same numbers of some other grades of officers who are to receive pensions be still employed there? It is true that the higher executive ranks will lose some posts, which, however, will be doubly recompensed by the pensions allotted to them. But with regard to the paymasters, for instance, there is a special clause in the letter of the Lords of the Admiralty to the Treasury providing that one or more of them shall be retained at the Hospital for performing the duties of clerks. The same is true with regard to the chaplains. There are at present two chaplains to Greenwich Hospital; the same number will be required under the new scheme.

There are at present but three good service pensions of £100 a year each for the whole Medical Department of the Navy, whilst it is proposed to give eighty pensions of £50 a year each to the lieutenants' rank. But we think we have said enough to expose the gross injustice which the Government have meted out to the Medical Department of the Navy on this matter. Our best thanks are due to Mr. Hennessy for his watchful care of the interests of our Profession on this as on former occasions, and we hope that our Medical brethren in King's County will remember, at the coming election, that he has proved himself a firm friend of the Profession. Lastly, we are not sorry to announce one fact which forms a suitable comment on the Government policy to the Naval Medical Department, and which, if it continue, must compel the attention not only of the Duke of Somerset and his coadjutors, but of Parliament itself. It is this: at the present time there is not a single candidate for an appointment as Assistant-Surgeon in her Majesty's Royal Navy on the Director-General's list.

SEWAGE DIFFICULTIES.

Dr. Clouston, Medical Superintendent of the County Lunatic Asylum, near Carlisle, has given to the Metropolitan Association of Medical Officers of Health the history of a series of cases of dysentery, typhoid fever, and diarrhœa, so clearly due to the irrigation of an adjoining field with the sewage of the institution, that all who are concerned in promoting schemes for a similar application of liquid sewage may well pause and ask whether it is so universally safe as is now commonly taken for granted. Thirty-one cases of dysentery and twenty deaths occurring in little more than thirteen months amongst about 250 persons is certainly a startling fact. Nothing, too, can be more clear than every link in the chain of evidence brought together by Dr. Clouston. The chief victims were, of course, the old and crazy and paralytic; so that fifteen of the twenty deaths might be put down to the conjoint agency of old age and infirmity; but at least one young and robust man was cut off. But this history, while it shows that sewage irrigation may be a most formidable poison, also shows the reason why. Sewage to be harmless must be absorbed by the earth. It requires a deeply porous soil, like that mentioned by Mr. Rawlinson in Lombardy, where beds of sand and gravel alternate, so that the water when it has lost its manure elements may find its way steadily downwards. But the land at Carlisle was not porous; it did not absorb; the drains which had been laid down became blocked, and the water instead of passing deep through porous beds, stagnated in the hollows of a clay surface thinly overlaid with sand, and returned in pestiferous streams to the Asylum. We fully accept Dr. Clouston's *dictum*, that it is unsafe to apply sewage to land with a stiff clay subsoil within 300 yards of human habitations, without the most deep and thorough tillage, and every other precaution, both with the land and the sewage, to ensure absorp-

tion by the soil, and uninterrupted drainage of superfluous moisture.

Now for a few words on sewage difficulties generally; because in this, as in many other cases, now that the general principle is accepted, people think there is no need of further thought, as if the details, the means of doing a very ticklish thing in such a way that it shall not be a nuisance, would come of themselves. It is not a very delicate subject, though a necessary one, so we may as well hold our noses, and plunge *in medias res*.

Assuming that the *water*-closet is a necessary evil in towns —though for villages, and for all cases where there is not a perfect water-supply, the *earth*-closets of the Rev. Mr. Moule seem preferable—the first question is, what shall be the immediate destination of the sewage, a river or a tank? If a river, it is of the utmost consequence that the sewage arrive quickly and before decomposition. As Mr. Rawlinson and Mr. Chadwick have shown, at Salisbury and elsewhere, *putrid* sewage, which has been festering in cesspits, badly-constructed sewers, etc., kills fish and befouls rivers. Fresh sewage feeds fish; the trout haunt the outfall of the sewer and become — so we are credibly informed—so fat as to fry without butter.(a) Yet to send sewage into rivers is a nasty and wasteful process, and very unsafe if water be taken for drinking purposes. True, as Dr. Letheby and Mr. Rawlinson affirm, water in motion becomes purified, by the growth of animals and vegetables, the action of the air, and the absorption of the banks and bottoms of rivers; but the principle of turning even fresh sewage into rivers is bad, and that of foul sewage worse.

Leaving the rivers, then, how is sewage to be applied to land? and here we have to notice that distressing habit of jumping to conclusions, of dogmatising on general principles, and ignoring details, that want of a practical way of dealing with subjects which makes sanitarians and abstract sanitary science, though founded on truth, so much the laughing-stock of men who have to put science into practice.

Now, we blush to say it, but some sanitarians really talk as if all that was required was to let the soil pipe of the house empty itself on the nearest lawn, or field, or garden. It is said, for instance, that during a sewage squabble at the watering place of Bournemouth, it was coolly proposed that the sewage of houses a very few yards distant should be emptied on a small field or pleasure-ground right in the middle of the town.

On this point we are glad to find that two of the ablest writers on the subject—Dr. Spencer T. Cobbold (b), the well-known helminthologist; the other, not a philosopher, nor natural historian, but one who is actually in the habit of applying sewage—Mr. William Menzies, Deputy-Surveyor of Windsor Forest and Parks(c), speak out and give us some wholesome truths.

It must be recollected that the *stercus humanum* is greedily explored by numbers of animals, pigs, ducks, κυνέσσιν οἰωνοῖσί τε πᾶσι. Dr. Cobbold shows with great force the dangers of a wide-spread invasion of disease due to parasites —from the old, familiar tapeworm, in its various forms, to the new Bilhazia, which invades the kidneys, and which has been detected here in the bodies of men and monkeys by the acuteness of Dr. John Harley. And Mr. Menzies, like a practical man, shows the danger of putting on the surface of land any sewage containing solids capable of lodging, festering on the surface, instead of soaking into the earth. The subject is so important, and our space this week so limited, that we must return to it in our next.

(a) See Rawlinson's paper in the Social Science *Transactions* for 1864, p. 497.

(b) "A National Sanitary Question. New Epizootic Malady: On the Probable Introduction of this Formidable Disease, and the Increase of Parasitic Diseases in General as a Consequence of the Proposed Extensive Utilisation of Sewage." By T. Spencer Cobbold, M.D., F.R.S., etc., etc. London: Groombridge. 1865. Price 6d.

(c) "A Treatise on the Sanitary Management and Utilisation of Sewage: comprising Details of a System Applicable to Cottages, Dwelling-houses, houses, Public Buildings, and Towns; Suggestions relating to the Arterial Drainage of the Country and the Water Supply of Rivers." By Wm. Menzies. Illustrated with numerous Drawings. London: Longmans. 1865. 4to. Pp. 84.

THE WEEK.

THE WESTMINSTER ELECTION.

Sir John Shelley and Sir De Lacy Evans have intimated their intention of resigning their seats for Westminster. Mr. John Stuart Mill appears to unite the suffrages of both Liberals and Conservatives. The latter willingly do homage to the profoundest thinker of the day, who, whilst advocating progress, seems the most determined enemy to mob law. It is generally understood that Mr. Edwin Chadwick intends to offer himself, in order to give his services in the discussion of those measures of reform in sanitary matters, in political economy, and educational questions which have occupied so large a share of his life. What electors require is not merely a man who agrees with their own special views, but one who has thought out and mastered the details of any given subject, so that, at all events, it shall be thoroughly sifted and ventilated before a conclusion is arrived at.

"THE EVILS OF ENGLAND."(d)

It is with the greatest pleasure that we call our readers' attention to the issue of a shilling edition of the little work which bears this title. It lays bare the very secret root of one-half of the social evils of our time—viz., misplaced philanthropy; that system of patches which consists in palliating evils instead of preventing them; which prefers building Hospitals for the sick to providing wholesome houses for the healthy; which allows every sort of evil from filth and idleness to flourish, and then provides "institutions" to remedy the mischief. The author's doctrine is this, that if a man will not work neither should he eat; that starvation is the natural penalty of idleness; and that they who step in and try to avert the penalty, without removing the crime, do but starve the honest labourer whilst trying to keep the idle one. Every penny given in idle charity, so miscalled, to the idle is so much robbed from the wage we might give to the honest worker. There are, however, hosts of people who fail in life, not through idleness or improvidence, but through *weakness*, bodily or mental—especially mental. Many of the small tradesmen in the metropolis end their days in the workhouse, neither through idleness nor dishonesty, but for want of enterprise and want of judgment or insight into probabilities. Their ordinary course of life is such that, what with rent, families, etc., they just pay their way and put by nothing. Many investments, also, are treacherous; they who venture nothing get nothing, and they who venture everything too often lose all. Hence public as well as private provision should be made for the cripples of our social system, but in such a way as to be no premium to the idle, nor yet to encourage jobs for officers and *employès*.

There are twenty subjects at the least—such as druggists' practice, quack medicines, waste of time, of manure, of life, of health—on which we should be glad to quote the author's opinions; we will only mention his dicta on Foundling Hospitals, because, spite of the repeated exposure of the folly and mischief and immorality of such institutions, there are sentimental philanthropists who from time to time revive the idea of setting them up in the vain hope of preventing infanticide:— "The proportion of child murders is greatest in the cities cursed with these establishments." It is in vain to try and set aside the order of nature. Infants "ought to be lying upon mothers' laps; they ought to be pressed to mothers' breasts;" and there is absolutely no substitute. The Mendicity Society, the soup kitchens, poor laws, and all other means of doing away with the penalty

(d) "The Evils of England, Social and Economical: being a Series of Short Essays on Beggars and Thieves; Charities and their Abuses; Paupers and Poor Laws; the Waste of Resource in Men, Money, Time, and Material, but specially the Mean, Disloyal, and Pernicious Vice of Indiscriminate Almsgiving." By a London Physician. London: Renshaw. 1865.

of idleness, are discussed with inimitable causticity and acuteness. So admirably is this little work written, so telling and pungent the phraseology, and the logic so clear, that it would be worth studying for its manner, even though its matter were less valuable than it is; and we hold the writer responsible for a most reprehensible waste if he hide his talent in a napkin, and do not take every available opportunity for giving his neighbours the instruction he can so well impart. (b)

PARLIAMENTARY. — UNION CHARGEABILITY BILL — SEWAGE UTILISATION BILL.

In the House of Commons, on Thursday, May 25, on the order for the third reading of the Union Chargeability Bill,

Mr. Henley entered into a variety of explanatory details with reference to the wholesale charge which, he said, had been made against rural landlords of demolishing cottages, appealing to specific cases in the county of Oxford in refutation of the charge, observing that, as regarded that county, a more unfounded charge never was made. After a critical examination of the Bill, he expressed his conviction that it would be of no benefit to the poor in the rural unions.

Mr. Bentinck likewise complained of unfounded charges made in support of the Bill, which, he said, was of a hypocritical character, in professing to be for the benefit of the poor.

Mr. Knight insisted upon the absence of evidence on the subject of close parishes and the pulling down of houses, and the Bill was a measure for mulcting counties for the advantage of boroughs.

After a few remarks by Mr. Mitford, the Bill was read the third time and passed.

On Friday, in the House of Lords,

Lord Ravensworth, in moving that the following peers—Earl Derby, Earl Romney, Viscount Strathallan, Viscount Torrington, Viscount Eversley, Lord Polwarth, Lord Boyle, Lord Redesdale, Lord Silchester, Lord Ravensworth, Lord Portman, and Lord Ebury—should form a Select Committee upon the Sewage Utilisation Bill, also gave notice that on Monday next he should move the addition of the name of the Earl of Essex to the list of the Committee.

The motion was then agreed to.

On Monday, in the House of Commons, during the debate on the Greenwich Hospital Bill,

Mr. Hennessy asked the Senior Lord of the Admiralty (Mr. Childers) a question with reference to the Medical officers. The Commissioners in their report stated that there was one branch of the establishment in which no reformation was required—the Medical branch. He would ask, therefore, how it was that Medical officers in the navy were excluded from participation in the good service pensions.

In the course of his speech in reply to various questions and objections to the Bill, Mr. Childers said the hon. Member for King's County had truly stated that "the Doctors" had been favourably reported upon by the Commissioners, and the Admiralty were not going to take away any part of their employment. On the contrary, they would probably be more fully occupied than at present.

On Tuesday, in the House of Commons,

Lord R. Montagu asked the Under Secretary of State for the Home Department whether a Commission was to be appointed to inquire into the state of the rivers of England, and the best means of remedying the pollution of rivers by mines and factories; and, if so, whether he would lay upon the table a copy of the instructions given to that Commission; and how soon it was expected the Commission would have completed the inquiry?

Sir G. Grey said a Commission, consisting of three persons possessing engineering and chemical knowledge, had been appointed to make inquiries in certain districts in which the principal manufactures were carried on upon the subject intimated by the noble lord. He had no objection to produce the Commission, and also a copy of the letter of instruction addressed to the Commissioners, indicating the basis upon which their inquiry should be carried on. It was impossible to say how soon these inquiries would be concluded.

Mr. Neate called attention to defects in the law relating to lunatics; and was proceeding in his speech when the House was counted out, at twenty minutes past seven o'clock.

FROM ABROAD.—ACTION FOR RECOVERY OF FEES IN FRANCE—LAENNEC'S STATUE—INFANTILE SYPHILIS—THE CALL OF CZERMAK TO JENA.

Another example of the wider and more beneficial operation of the French Medical Association, as contrasted with the British Medical Association, is supplied in a communication in the *Union Médicale* from M. Tassier, Vice-President of the Branch Association for the Department of the Saone et Loire. Dr. Brenet, it seems, being called to one Bonnardin, who had met with an accident while unloading a cask of wine, found that he had fractured the lower end of the femur, a small fragment lying loose in the popliteal space. The great swelling which was present prevented any exact adjustment being made, and the serious inflammation which followed compelled M. Brenet to content himself with securing the immoveability of the limb. When, at the end of two months, this inflammation had subsided, the patient determined upon being taken to his home, which was at some distance from the place where the accident occurred. There he was seen by other Medical men, who, finding that union had not taken place, put the patient under the influence of anæsthetics and adjusted the fracture without difficulty. It would have been well had they limited themselves to this; but, pursuing a line of conduct which has been only too frequently met with among ourselves, they criticised the treatment that had already been adopted, and, without making allowance for the difficulties which surrounded the case at first, even supplied the patient with a certificate of its faultiness. Fortified with this, when M. Brenet, at the end of two years, sent in an account of six pounds for twelve visits at a distance of five miles, the patient not only refused to discharge it, but made a demand of 500 francs for the damage he had received from the delay in his recovery due to malpraxis. At this stage the beneficial operation of the Association comes into play, M. Brenet having laid all the facts before it and demanded its support. After due examination at a general meeting, this was accorded, the standing counsel of the Association was directed to maintain the claim, while a memorial was forwarded to the tribunal which tried the case, signed by every member of the Association, declaring that the only fault they could find attaching to M. Brenet was the moderateness of the charge which he had made. If this is not furnishing fraternal and effectual support, both material and moral, we know not the meaning of the term. The Tribunal condemned Bonnardin to the payment of the sum claimed, with interest, and dismissed the charge of malpraxis; and we may quote a passage of the judgment, as showing that sound views concerning Medical responsibility prevail among the French judicial body:—

"Providing a Surgeon acts according to the rules of his art, he incurs no responsibility, whatever may be the result of his operation; and that even if it may be asserted that such operation executed more skilfully might prove more advantageous or less mischievous to the patient. Pushing Medical responsibility beyond certain limits would be only to deprive patients of the succour of art precisely at the moment when they have the most urgent need of it. For, when a serious accident, calling for immediate aid, occurred, no Surgeon would venture to operate upon the patient, in the fear that if, in spite of his efforts, the results proved unfortunate, he might be himself

(b) We hope it may not be out of place to say three words to get rid of a bugbear. The author is speaking of the arguments used for keeping up the prevalent vicious and wasteful kind of indiscriminate charity. "First and foremost," he says, "there is that great stumbling-block in the nation's way, the 11th verse of the 15th chapter of Deuteronomy. I speak from experience. Whenever I have expressed my hope that the day will come when destitution shall be unknown, and poverty be reduced to those narrow limits within which spontaneous charity will be amply sufficient for all our necessities, my mouth has been closed by the passage 'The poor shall never cease out of the land.'" It will comfort the author to turn to that most authorised translation and exposition of the Jewish Scriptures, the Septuagint, where he will find that the true sense of the passage is, "The poor must not be let starve." The preface to a Cambridge Septuagint which we possess clears up the meaning of the word ἐκλίπῃ (translated *cease*) by showing that it really means *die*. The verb is a future tense with the force of imperative—οὐ γαρ μὴ ἐκλίπῃ ἐνδεὴς—*i.e.*, "for the poor man shall (or must) not perish." It is a command to relieve distress, but not a prophecy of perpetual pauperism. Of course, we do not dogmatise on such a point; we only offer a conjectural but probable explanation of an unintelligible text. We accept the command, but act on the spirit, and not in the letter. We eschew almsgiving when it tends to pauperise.—Ed.

accused of having occasioned them, and no one would act without a consultation, giving rise to the loss of precious time and the production of irreparable misehief."

Speaking of the French Medical Assoeiation, we may advert to the project which it has taken under its auspices of raising a statue to Laennec. It is true that it does not contribute from its own funds—which have been subseribed for other purposes—the money neeessary for this purpose; but there can be no doubt that a powerful impulse has been given to the subscription by its agency; and it is highly important that projects of this character should be under the patronage of influential associations. Before closing the subscription lists, however, an appeal is also made to those members of the Profession who are unconnected with the Association, whether at home or abroad, and we can have no doubt that many of our own countrymen on being apprised of the desire of the Committee to comprise also the names of foreigners in its list will feel pleasure in contributing. In no country are the advantages and importance of auscultation more appreciated than in our own; and the more international our recognitions of the benefits conferred on science become the better. Subscriptions are received at the offices of all the Paris Medical journals.

The period of incubation of infantile syphilis was much disputed in the recent discussion upon the propagation of the disease through vaccination; and the question becomes still more complicated by some figures communicated by Dr. Simas, Physician to the Misericordia Hospital, Lisbon, to the Medical Society of that city. He has had under his own personal observation 216 cases of hereditary syphilis during 1858-65, and among these the symptoms were observed in the first year in 27 cases; in the second year, in 49; in the third, in 56; in the fourth, in 30; in the fifth, in 14; in the sixth, in 16; in the seventh, in 7; in the eighth, in 2; in the ninth in 7; in the eleventh, in 4; in the thirteenth and fourteenth, one each; and in the eighteenth, in 2. This is a very different statement to that of M. Depaul, who fixes the limit of the appearance of syphilis to seven weeks, or of MM. Diday and Roger, who fix it at three months.

The *Wien Med Wochenschrift* deplores that by some mismanagement of the authorities so distinguished a physiologist as Czermak has been allowed to remain unemployed in Austria, and has just accepted the offer of the chair of Physiology at Jena. By endeavouring to enforce conditions upon him he would not submit to, Ludwig had already been driven from the Joseph Academy to Leipzig, and Czermak is not to be his successor, while local prejudices seem to have militated against his appointment at Prague in place of the aged veteran Purkinje. That Czermak has deserved well of all anxious for the advance of physiology is seen from the fact that it was he who founded the physiological institutes at Craeow and Pesth, and created among the students there a zealous fervour for physiological pursuits. In 1860, various considerations induced him to give up his Professorship in the latter University, and repair to Prague, his native city, where he expended a large sum of money in founding a private Physiological institute, with every appliance for study and teaching. This does not seem to have answered very well, for in the session of 1864-5 he had only thirty students there. While his institute was in the course of erection in 1861-63, he visited France and England, and popularised the employment of the laryngoscope, as our readers well know.

The State of the Fever Epidemic in St. Petersburg.—The *Russian Correspondence* of May 9 says:—"The number of sick, which had considerably diminished in April, has again increased during the second Easter week. This arises principally from the affluence of the workmen in the building trade, who begin to arrive about this period. Notwithstanding the recrudescence there is no want of room in the Hospitals.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF OXFORD.

The ancient history of Oxford is in some degree connected with the history that was last before us, the history of Bath. Extreme believers in the antiquarian school are given to follow the teachings of a strange—I had almost said unearthly—scholar named Wood—Anthony Wood—who, in 1631, was born opposite to Merton College, who became a student there, and looked up the antiquities of his native city with a zeal that knew no weariness, until death stopped it sixty-five years after it began. Wood, who lived alone all day, kept no company in the evening, but, as the sun went down, did softly escape from the study, and, all by himself, in some quiet nook of some old inn, do his pipe and his pot—Wood, haply over his pipe and pot, and haply in the morning early—for, by the way, he was an early riser—discovered and elaborated the story, or the fact, that Oxford dates from the same Brutus and his Trojan band whom we once followed in legend from Greece into Britain, who built new Troy, and who laid the foundation of that line of kings from whom came Hudibras, the immortal Bladud, and next unto him King Lear.

Brutus, who, it will be remembered, landed at Totnes (his landing is computed as 1108 before Christ), brought with him certain Greek philosophers, who, after they had arrived and had seen the Court properly arranged, and learned that they were rather out of place there, looked out for a spot where they might retire and study as became them. After due search they determined upon settling in a quiet retired spot near to modern Oxford, where they built, or had built for them, the requisite accommodation, and where they endeavoured to allure pupils to attend their discourses. The place where they taught thus gained the name of Greekdale, from the founders of the school, but no one can tell precisely where Greekdale was situated. The story goes on to say that the successors of the first Greeks, becoming dissatisfied with the locality where their fathers taught, sought out a more pleasant site, where they had trees overhead, shady walks for contemplation, rivers for fresh waters and it may be for commeree and fishing, and easy roads for entrance and for exit; so they moved, or, as the term is, they translated themselves to an adjoining spot, which, beeause it was very beautiful, they called Bellositum or Bellosite, where they lived, disputed, learned, taught, fashioned their lives, left their bones for the earth, and their works for their monuments.

Regarding Greekdale, however, we must not sit down content and contented to hear no more of it than hath been told in the above. We Esculapian people must perforce look into the matter a little more deeply, when we shall find, perchance, something vastly to our own advantage. For the sake of being sure that nothing is lost, I have taken down old John Leland, often quoted in these pages as antiquary royal to fat Harry, and forsooth he—Leland, I mean, certainly not Harry—putteth out a faint story to the effect that the original of Oxford was, in truth, a school of Physic. There were, quoth the antiquary royal, in the flourishing times of the Britons, two schools (though the history that giveth the story is not altogether to be approved)—two schools very rich in learning and in eloquence, on the banks of the Isis. One of these schools was called, in the first instance, Græcedale, because certain men professed the Greek tongue, and the other Latinedale, because men skilled in the Latine tongue dwelt there. But, he adds,—and this is what concerns us—there be not wanting some who call this Latindale, Leechdale or Lechdale, and affirm it to have been a school of Physieians, vulgarly "Leeches." "Now," continues Leland, "who was

the first author who first appointed the said two schools I cannot as yet, though I have sought after it diligently, learn of any. In the meantime, it hardly appears, so slight is the record, when the school did exist; yet, notwithstanding, John Rouse of Warwick, in his book of the Universities or Academies of Britaine, who followeth the authority of David Tavanus, writeth that Sampson, who was elected Archbishop of York by Ambrosius, the invincible King of the Britains, studied at Greekdale, but afterwards, as the vicissitudes of all things are, the glory of both schools was transferred to Bellosite, which they now call Oxford."

Bellosite, in French *Beaumont*, in Latin *Bellus mons*, was believed to be situated in the parishes of Oxford, called in a later day the parishes of St. Giles and Mary Magdalen. The town itself, called Bellosite or Bellesite, was founded, according to Rouse, by Ebrank, son of Memprick, king of the Britons, who made it a noble city, called first Caer-Memprick, next Bellesite, and afterwards Oxford. Thenceforward, when the school or university of Greekdale was transferred to it, Bellesite became a great seat of learning and where the church of St. Giles was in due time erected; there was originally another church or temple where graduates were made, and from whence they passed forth with their academic spoil. In the Saxon time the place had and held the name of Oxenford or Ouseford, from which comes the modern name Oxford. So say some, Oxenford means that near the place was a ford over which oxen crossed; so say others, near the place was a river called the Ouse, now called the Isis. On an island in this river, add the latter argumentatists, in time there was built an Abbey called Osney or Ouseney.

We may take what we please of these early histories or traditions, and the most we can say is, that in the legendary stage of young England there were schools at Oxford, and we must wait until we come to the reign of Alfred the Great before we arrive at the reliable; then there is something to be said which is of interest and of some trust, which, in justice not less to the king than to the subject, we may for a minute or two dwell upon.

Oxford came under the protection of King Alfred near upon the year 886. About that time it had become an important school, and it appears that one Grimbald, a "vast scholar," with certain great clerks, who attended him and followed him as their leader, settled in Oxford, and began to teach there. They found, however, on their arrival and settlement certain other great clerks and teachers who had long been resident, and who followed their own rules and ordinances. Grimbald, it is said, had some kind of authority from the King to lay out a course of study and discipline, and, it would seem, ventured to make innovations on the old system. He ventured too much, and with the result that might have been expected—*i.e.*, the old schoolmen rebelled, and for three years carried on a grievous contention. At last matters became so serious that the good King must needs come down to see what he could do towards pacification. According to chronicler Wood, who quotes from Asser Menevensis, the complaint made to the King by the old schoolmen was, that learning, once so progressive in Oxford, had, since the advent of Grimbald, been on the decline. The King heard both sides, offered words of wisdom and peace, and, hoping he had succeeded in bringing together the discordants, went his way. But Grimbald, who evidently had looked for direct support from majesty, was displeased, and soon afterwards left for Winchester. Tradition sets forth arguments in favour of the proceedings of the old schoolmen in this affray. It claims for them that amongst their predecessors there had been men of illustrious name, amongst others the venerable Bede, Gildas, and of John of Beverley, whose ordinances were almost sacred, and could not be cast aside at the mere word of a stranger.

The reader will have observed that in what has yet been said no mention has been made of Oxford during the Roman occupation of Britain. In truth, but little can be said, for little is known. That the city existed during the Roman period is certain, for it is mentioned at least twice by Roman authorities; but it was clearly then an insignificant town, little known as connected with letters, and valueless as a military centre or depôt. After the Roman occupation it fell again into the hands of the Britons, and Vortigern, the British king, restored it in or about the year 474, and made it his own royal residence, under the name of Caer Vortigern. Within 200 years from this time the whole kingdom was under the domain of the Saxons, and Oxford became, as we have seen it already, a Saxon town, known as Oxonaford.

We may return now to Alfred the Great. Alfred not merely endeavoured to pacify the turbulent spirits of learned Oxford, but he himself took up his residence there with his three sons, Edward, Athelward, and Alsward; he even governed here for a time, and had a mint from which money was coined in his name. He also has the credit of making the city a more distinguished seat of learning, for he encouraged his nobles to flock to it for education, and founded three schools, or colleges,—one for grammarians, called the "Parva Aula Universitatis;" the second for logicians or philosophers, called the "Aula Minor Universitatis; and the third for theologians, called the "Aula Magna Universitatis." In the early part of this reform introduced by the King, the University was confirmed by the Pope. The Papal grant was derived from Martin the Fourth, and the event has been chronicled as follows:—

> "And in the yere eght hundred foure score and tweyne,
> The Pope Martyne graunte to Kyng Alverede
> To founde and make a studye than ageyne;
> And in an Universitie for clerks to rede,
> The whiche he made at Oxonford in dede
> To that intent, that clerkes by sapience
> Agayne heritieks shulde make resistence."

Historian Wood takes occasion, in referring to Alfred as the new founder of learned Oxford, to define what was meant primitively by the word University. He says that an University such as Oxford was made was a joining together and incorporation of many public schools in one town or city; a place for the reception of all people who desire to learn, representing the whole kingdom wherein it is,—nay, the whole world, inasmuch as any person thereof may come to it to acquire knowledge and wisdom. In the time of Alfred, Oxford was called a school; and he is believed to have appointed to each of the institutions one professor, and to have provided for the maintenance of twenty-six students.

I referred a moment ago to Grimbald, the scholar, whom Alfred brought to Oxford, and who afterwards was moved to Winchester, of the monastery of which city he became abbot. Grimbald, or Grimbaldus, was first known to the King when the latter was on his travel to Rome. He was a man of great learning, cultivated music with much assiduity and skill, and was a most fascinating and accomplished teacher of eloquent discourse. Nor was Grimbaldus alone in his work as Professor at the revival of the University; he had by his side, also, through the labour and grace of the great king, another wonderful scholar of the time, who, born of Scottish parents in Ireland, claimed both countries as his own, and who boasted in the possession of the name of Johannes Scotus Erigena. Scotus was a man of many travels; Greece, Italy, and Gaul were countries he knew well, and it is surmised that he had penetrated far eastward into parts of the world then almost unknown, or at best known only by mysterious traditional connection with the origin of the sciences and the arts. What he taught in the new University is not very definite; that he excited much jealousy in the hearts of the old schoolmen is rendered pretty obvious by the fact that he retired ultimately and set up as a teacher in the monastery of Malmesbury. In this position a cruel fate—a worse fate, perchance, than any that Oxford would have brought—befel him; he was stabbed by certain of his students and died from his wounds. I have noted the career of this scholar with some interest, because he was one of the earliest of the reformers of the Church, and because he laid in the University of Oxford the first seed of that opposition to one particular tenet of the Church of Rome which afterwards became so strong in that city, and for which Ridley and Latimer, in after years, lighted, from that spot, a fire that shone all England through. To be brief, Johannes Scotus Erigena denied the doctrine of transubstantiation, by which denial, in the opinion of his contemporaries, he was largely reduced in favour. There are some men who only live to die, and other men who only die to live. Scotus belonged to the second class; he died to live.

One more great man deserves mention as belonging to the University during the reign of Alfred: I mean Neotus, better known as St. Neot, after whom St. Neots is derived. Neotus was the master of Alfred while yet the wild oats of that famous Prince were in the hand of the sower, and were in danger of being cast over a wider area than might have been profitable to this nation in its Saxon days. Neotus was himself of royal descent, and partly by his learning, but mainly by his assumed sanctity, was held in such estimation that he was canonised, and, being buried in Cornwall, in the Church of St. Guerer (also once an Oxford scholar), first displaced poor Guerer from his saintship there; afterwards, as

a box of dry bones, he travelled into Huntingdonshire, and finally, some centuries later still, took another journey to the Abbey of Croyland, where perchance, if the earth has not translated him into more active matter, he may still be a crumbling remnant and tatter of sainted humanity.

Such were some of the Oxford celebrities in the time of Alfred; such was the city—a city of schools, we may suppose, that as yet had no citizens proper. There would be hostels and so much trade as was called into existence by the wants of the masters, and pupils, and strangers who flocked there; but these would be the servants of the schools, after all, followers of the camp of learning, obeying in all things the behest of the superior power, and having no rights of a municipal character. At the same time, the schools did not monopolise all the glory: the religious houses had a small share in that; and there was a shrine there which lasted until Wolsey, the second founder of Oxford University, pulled it down, and put to good or bad service for himself or his master the riches by which it was surrounded. This famous shrine was dedicated to a woman named Saint Frideswide. She was the daughter of a petty prince of the Heptarchy who built at Oxford a nunnery to the glory of the Virgin and the saints, and made Frideswide abbess, with twelve virgins of noble blood as her inferiors. Frideswide did not enjoy her supremacy many years. Invested with her authority in 730, she died in 740, and was at once canonised, the nunnery remaining as dedicated to her. In process of time the shrine was included in a chapel of a priory. There it stood long, and at it, in the thirteenth and fourteenth centuries, many miracles were believed to be wrought. At length Wolsey got chapel, shrine, and, according to many, saintly bones, too—the first of which he pocketed, the second of which he levelled, and the third of which he let some faithful man enclose by stealth in a silk bag, and bury ultimately with so much secresy that no one knows whither the bones are gone. The present cathedral of Oxford belonged in the twelfth century to the Priory of St. Frideswide.

We cannot dwell at any length on the progress of the schools of Oxford previously to the Norman conquest. The city evidently retained its importance, and indeed began to assume position politically; here the brave Edmund Ironside, after his encounter and conference with Canute the Great, was assassinated; here Canute, following the example of Alfred, held his right royal courts and parliaments; here Harold the First, sometimes called Harold Harefoot, was crowned after the death of Canute; here during his short reign this Harefoot lived and died, here he was buried, and from his grave was dragged by Hardicanute to be disgraced by decapitation and cast into the Thames. Over Oxford and its shire, in the reign of Edward the Confessor, the eldest son of that king was set as governor; and when in the next reign Harold the Second had seized the crown, Edgar Atheling, the rightful heir of sovereignty was raised by the usurper to a very high position by being made Earl of Oxford.

When Harold the Second gave way to the Conqueror, Oxford remained true to its Saxon rulers, and held out against the Norman as long as its resources would permit. But what was an unfortified town, a town of students and philosophers, whose whole mission was peace, to do against the long bows of Normandy? It was attacked, stormed, carried, and, as was the manner of William, given away afterwards to one of his nobility, Robert de Ouilli, who soon fortified it, and left his seal upon it in form of a strong castle and rampart. So soon, however, as the shock of subjection was over, Oxford gradually resumed its place, in the history of the world, as a school or university, and again became a favourite resort of royalty. William the Second resided in the place, and built a keep to the castle, which remains, in part, to this day.

In the stormy reign of Stephen, Oxford was for a time the refuge of the Empress Maud, and her escape, in 1142, from the besieged castle with four knights clothed in white that they might not be distinguished from the snow which lay thickly on the earth, is an incident that would form, for the historical painter, a noble subject. In the latter part of this reign, also, there was a great ceremony at Oxford, a gathering of the nobles to negotiate the virtual transference of the crown of England from Stephen to Henry the Second.

We must pass over the reigns of Richard the First and John to enter that of Henry the Third. The reign of this last-named King is most remarkable in relation to Oxford. Here in 1258 the famous "Statutes of Oxford" were read and confirmed by the king, who promised, through them, to abide by the great charter of rights, to place an honest man at the head of the High Court of Judicature, and to summon a parliament triennially to make and unmake the laws. The king promised, I say, to abide by these statutes—nay, he swore to abide by them in a most solemn oath; but he did not find the oath convenient, so he broke it, and in 1260 was absolved for his offence by his Holiness, Urban the Fourth, in a manner as complaisant as it was handsome.

But the name of Henry is more intimately and worthily connected with Oxford from the circumstance that in the 28th year of his reign the University was incorporated by Royal charter. By the terms of this document the schools passed under the title of the "Chancellor, Masters, and Scholars of the University of Oxford," and a constitution differing little in essentials from that which exists at the present hour was granted. Thus the last grand step in the consolidation of this fabric of learning was taken, and our history may be allowed to find in that event a convenient and natural resting place, for a week at least.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, May 26, 1865.

In the North Transept of the International Exhibition a compartment is devoted to "Surgical Instruments." Messrs. Thompson and O'Neill, of Henry-street, exhibit a very beautiful assortment of their own manufacture, comprising sets of pocket instruments in cases, amputating instruments, obstetrical instruments, instruments for ovariotomy, polypus and spring forceps, aneurism compresses, instrument for morbus coxæ, appliance for contracted knee, &c. They have also a registered air funnel vapour bath, the superiority of which consists in the introduction of the hot-air funnel through the centre of the boiler, the result of this construction being that immediately on lighting the spirit lamp a rapid current of hot air is generated, which mixing with the steam raises the temperature in half a minute to the requisite degree, and maintains it at the same. The use of the mixture of hot air and steam is said to make the bath more agreeable and less relaxing than the ordinary vapour bath, and to diminish the cost of its production. Another advantage of this bath is its great portability; it can, in fact, be carried in a portmanteau, and by means of it the traveller may, on reaching his destination, in a few minutes, and without the aid of other fire than that of his spirit-lamp enjoy the refreshment of a bath.

In the adjoining case Mr. Grossmith, of Fleet-street, London, exhibits an extensive assortment of his admirable artificial eyes, which were awarded prize medals in the London Great Exhibitions. They are certainly most beautiful and perfect imitations of natural eyes. They are said to be so easy of adaptation that they can be fitted in a few minutes, movements being obtained precisely in accordance with those of the natural eye. The same case contains specimens of Mr. Grossmith's artificial legs with patent action knee and ankle-joints, which enable the patient to walk, sit, or ride with ease and comfort. They are stated to be lighter, less expensive, and more durable than any self-acting leg hitherto manufactured, and are undoubtedly very beautiful specimens of workmanship. They will be found more fully described by Mr. Traer, and illustrated in the number of your journal for September 6, 1862, pp. 260-261.

Suspended over Mr. Grossmith's is a small case containing an assortment of Mr. Tufnell's tubular gutta-percha bougies for the treatment of stricture of the rectum. A description and representation of these instruments will be found in Mr. Tufnell's "Practical Remarks upon Stricture of the Rectum," published in the 30th volume of the *Dublin Quarterly Journal of Medical Science*.

Mr. Salt, of Birmingham, exhibits his abdominal belt for obesity, dropsy, umbilical hernia, etc., described and represented in your impression of February 25, 1865 (page 215). He has also a great variety of his patent "orthonemic" trusses, umbilical belts, and truss pads.

Mr. Heather Bigg, of Wimpole-street and Leicester-square, London, has an illustrative series of "appliances invented for the mechanical treatment of deformities, deficiencies, and debilities of the human frame." Each instrument is adapted for a child of four years of age, and the collection is divided into appliances intended for the head and trunk, for the upper, and for the lower extremities. These appliances have been

fully described and represented in the *Medical Times and Gazette* for 1862, vol. ii., p. 233.

Mr. Pratt, of Oxford-street, exhibits an extensive variety of very beautiful instruments, including Her Majesty's army new regulation case for a full Surgeon, price fifty guineas; Pratt's artificial leg, exhibited for lightness and durability; his support for the knee-joint; his spinal measurer for registering the amount of lateral curvature, etc., etc., as well as Surgical instruments used for various purposes by Messrs. Fergusson, Henry Thompson, Baker Brown, Drs. Simpson, Marion Sims, etc.; I may also mention an arm compress for arresting epileptic fits in some cases where there is the "aura epileptica," invented for a patient of Dr. Brown-Séquard. Several of Mr. Pratt's instruments have likewise been described and illustrated in your second volume for 1862, page 335.

The last collection I shall notice in this compartment is that of Mr. S. Ash, of Great Brunswick-street, Dublin, containing a large assortment of artificial teeth and dental instruments, together with specimens of the several materials and apparatus employed in Dental Surgery.

For the information of those of your readers who may be inclined to take their holiday in this direction—and I trust they will be many—I may mention that very liberal arrangements have been entered into between the several railway and steam-packet companies and the managers of the Exhibition, with the view of affording to tourists unusual facilities for visiting not only the Exhibition, but also the celebrated scenery and antiquities of Ireland. The arrangements, which will be in force before this letter can be published, are as follow:—"On and after the 1st June return tickets, available for one month, will be issued between London, and the principal railway stations in England and Scotland, and Dublin, at an abatement of 15 per cent. below the ordinary return ticket rate; tickets of admission will also be issued at the principal stations, which will entitle the holder to six admissions to the Exhibition for 4s. 6d., being 50 per cent. under the average rate. Excursion trains will be organised to run fortnightly, or oftener if necessary, at very moderate fares. The excursion ticket will be good for a fortnight, and will entitle the holder to a ticket giving him two admissions to the Exhibition for 1s. To tourists from the Continent *coupon* tickets to Dublin will be issued at 25 per cent. under the ordinary return ticket fares. The journey may be broken at London, Birmingham, Manchester, Chester, and Liverpool. For a small additional fee, Continental tourists may travel by the Irish mail trains and steamers. On the Irish railways, also, excursion tickets will be issued at greatly reduced fares."

GENERAL CORRESPONDENCE.

NAVAL MEDICAL OFFICERS AND GREENWICH HOSPITAL.

[To the Editor of the Medical Times and Gazette.]

Sir,—With your permission, I would invite the attention of the Profession generally to a fresh display of animosity on the part of the present Board of Admiralty towards Naval Medical officers. In a Bill now before Parliament for the better Government of Greenwich Hospital, and which received a second reading on Monday night, it is proposed to give out of the funds of that institution good service pensions to various classes of officers, but specially excluding the Medical branch from any participation in the same. The excuse for this exclusion was given in a flippant and no very respectful manner by the junior Lord of the Admiralty on Monday night, in answer to a question from Mr. Hennessy. The excuse, strange as it may appear, is this: "Medical officers must still be employed at Greenwich in staff appointments, terminable every five years, and, therefore, they are not entitled to good service pensions." Admirals, captains, commanders, and lieutenants are liberally provided for; masters are not forgotten; chaplains are taken care of; and paymasters are to have more than justice meted out to them; but Medical officers are utterly ignored as unworthy of the slightest consideration. So that the only class of officers hitherto connected with Greenwich, whose services received the unqualified approbation of the Commissioners who inquired into the working of that Institution, are the only officers whom my Lords deem unworthy of any participation in the proposed good service pensions.

The favoured class already enjoys upwards of £7000 from the country and upwards of £5000 from Greenwich Hospital annually in the shape of good service pensions. It is now proposed to increase those pensions very largely, and when we recollect that an admiral's commission may be viewed in the light of a good service pension—as there are many more of them than the service requires—it must be acknowledged that the Lords of the Admiralty take very good care of their own class.

I will not trouble you with any more detailed information on this subject at the present time, but on a future occasion I may do so. It is just possible that Mr. Hennessy, supported by Sir John Pakington, may bring the Government to a sense of justice when the House goes into committee on the Bill. And I am only anxious now that you may be pleased to give this communication a prominent place in your next issue, for the twofold purpose of cautioning young Surgeons from placing any confidence in the present Board of Admiralty and of bringing the admirable conduct of Mr. Hennessy under the favourable notice of the Physicians and Surgeons of King's County. I am, &c.

London, May 31. A Physician.

THE DUTIES OF MEDICAL MEN AT THE COMING ELECTION.

[To the Editor of the Medical Times and Gazette.]

Sir,—We are on the eve of a general election, and I appeal to you and your numerous readers whether this is not the time for concerted action amongst ourselves as a body.

I am a constant reader of your paper, and I bear in recollection that from time to time, prompted by circumstances, you are in the habit of making practical suggestions for use upon occasions such as the present, when, if ever, the voice of our Profession has a chance of a hearing from those who are, or aspire to be, members of our Legislature.

I have not personally the privilege and advantage of Government employment, yet I cannot but entertain a conviction of the suitableness of this occasion to a reconsideration of the position and requirements of that oft-censured, over-worked, and underpaid section of our community holding office under the Poor-law Board. I am, &c.

Birkenhead, May 30. F.R.C.S.

MR. J. Z. LAURENCE'S HEAD REST.

Letter from Dr. Charles Taylor.

[To the Editor of the Medical Times and Gazette.]

Sir,—I noticed in a recent number of the *Medical Times and Gazette* a description of a head rest introduced by Mr. J. Z. Laurence, of the Surrey County Eye Infirmary, for use in ophthalmic operations. I have since obtained the same for the Nottingham Eye Dispensary, and trust you will allow me sufficient space to bear testimony to its great utility. I have used it in a great number of cases, and find that both with and without chloroform it is of the greatest assistance in all operations, and accomplishes all that can be desired. The head is comfortably fixed, and that sudden involuntary start which is so frequent just as the knife penetrates the cornea, so apt to occasion wounding of the lens, and in other ways to mar the result of the most careful operation, is entirely prevented.

I understand it has been adopted in Berlin, and have no doubt that when its merits have been sufficiently tested its use will become general. I am, &c.

Charles Taylor, M.D.,
Surgeon to the Nottingham Eye Dispensary.

Nottingham, May 25.

Professor Boeck, of Christiana, is now in Ireland. He is staying in the County Wicklow, having been brought over there from Norway to syphilise a patient.

Ovariotomy in France.—The progress of the question of ovariotomy would seem to be great in France, if we contrast the Academical denunciations of a not distant period with the most recent communication made to the Academy of Medicine by M. Berrut, in which, after detailing a successful case, he comes to the conclusion that while Surgeons are well authorised to proceed to the operation at an earlier stage, it becomes imperative upon them to resort to it as an ultimate resource.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 23.

Dr. ALDERSON, President.

A PAPER, by Mr. HENRY LEE, was read on

AMPUTATION OF THE LEG BY A LONG RECTANGULAR FLAP FROM THE CALF.

The author called attention to Mr. Hey's mode of operating by means of a long flap from the back of the leg, and to Mr. Teale's plan by a long rectangular flap from the front. The advantages of both these plans might be combined by making a rectangular flap from the back instead of from the front of the leg; a thick soft cushion might thus be provided for the ends of the bones, and no large nerve need be left in the flap. The operation described was performed according to Mr. Teale's plan as far as the external incisions were concerned, but the long flap was made from the back instead of from the front of the limb. Two parallel incisions were made along the sides of the leg; these were met by a third transverse incision behind, which joined the lower extremities of the first two. These incisions, which formed the three sides of a square, extended through the skin and cellular tissue only. A fourth incision was made transversely through the skin in front of the leg, so as to form a flap in this situation, one-fourth only of the length of the posterior flap. When the skin had somewhat retracted by its natural elasticity, an incision was made through the parts situated in front of the bones, which were reflected upward to a level with the upper extremities of the first longitudinal incisions. The deeper structures at the back of the leg were then freely divided in the situation of the lower transverse incision. The conjoined gastrocnemius and soleus muscles were separated from the subjacent parts, and reflected as high as the anterior flap. This part of the operation was performed with the greatest facility on account of the loose attachments of these muscles, especially at the lower parts of the leg. The deeper layer of muscles, together with the large vessels and nerves, were divided as high as the incisions would permit, and the bones sawn through in the usual way. The flaps were then adjusted in the manner recommended by Mr. Teale. The long flap thus formed was much thicker than when taken from the front of the leg. It was consequently less liable to slough. It afforded a much more efficient protection to the ends of the bones, and a thicker and softer pad upon which to rest a part of the weight of the body when an artificial limb was applied. Three cases were detailed in which this mode of operating had been adopted, and drawings given of the stumps after they had healed. Two other cases were mentioned. In one of these, which was performed after great loss of blood from ulceration of the anterior tibial artery, in a case of very severe compound fracture, the patient died. In the other case the patient made a rapid and good recovery. These were, the author believed, all the instances in which this particular operaion had been performed.

Mr. HOLMES COOTE said that the cases were few indeed in which the patient was able to bear the weight of the body on the end of the stump. An artificial limb was so constructed that the support was afforded by pressure on the circumference of the limb. He had oftener performed the operation recommended by Mr. Teale, and with very good results; and had taken the flap of integument, in cases where he had no choice, from the front, the back, or, indeed, from the sides of the limb. One objection to the "long flap" consisted in its "shrinking," so that the operation finally resembled that of the common double flap. But he had had cases in which, after Mr. Teale's operation, the structures covering the ends of the bone were more free and normal than in other forms of amputation.

Mr. BIRKETT had hoped that the subject of amputation of the limbs would have brought more Hospital Surgeons together. He conceived that the great object in amputation was to get a perfectly transverse division of muscles, nerves, etc., therefore he had a predilection for the operation which was most frequently performed by the late Mr. Key—viz., elliptical division of skin, circular of muscle, and complete transverse division of vessels and nerves. He could not quite agree with Mr. Lee that it was an advantage of his operation that the patient could bear on the end of the stump. There was a strong feeling in the minds of mechanicians that weight should never be borne on the end of the stump, but on the part above the cicatrix. With the operation he had just spoken of, the scar was very small. Mr. Birkett then referred to stumps which he had seen after amputation, in which the flap was taken from the gastrocnemius. The flap was hanging loose, and looked often as if it never would cicatrise. He thought, however, that Mr. Lee's modification was acceptable, if that plan of operation was to be performed at all.

Mr. HENRY LEE said it was well known that the object of Surgeons generally was to prevent pressure on the extremity of a stump by resting the weight on the limb above the cicatrix. So engrafted with this idea are the minds of the mechanicians also that he had the greatest difficulty in persuading them to make an artificial limb which would press on the end of the stump. But an essential part of Teale's operation was that with a stump thus formed the patient should rest on it. This was the great object of Mr. Teale's operation. The cases he (Mr. Lee) had just read were the only cases in which the operation described in the paper had been performed. Mr. Teale had, by letter, informed him that he (Mr. Teale) had not performed that particular operation. One of the patients operated on, and whose case was related in the paper, had just written to the nurse challenging her to walk three miles with her. In this case particular care had been taken to see that the patient did bear on the end of the stump, and that it was not more sensitive than any other part. Mr. Lee then showed a preparation of a stump, and drawings illustrating the points of his paper.

A paper by Mr. CHARLES HUNTER was read on the

HYPODERMIC ADMINISTRATION OF CERTAIN MEDICINES.

In this paper the author brought forward the results of his investigations into the effects of medicines when subcutaneously injected. It is now six years since Mr. Hunter proposed the injection of medicines into the cellular tissue with their general therapeutic object in view. In the case of medicines thus injected for general effects, he called the method the "hypodermic," to distinguish it from the endermic, and from the local injection of Wood. From the endermic method, which term is often and erroneously applied to the hypodermic, it differs much; the endermic is a superficial application, which must be uncertain in its action, which may act powerfully and dangerously, or prove wholly useless. The hypodermic differs from the "method of Wood." The latter plan has for its object the local treatment of a local affection. The injection was supposed by Dr. Wood to be efficacious simply through the localisation. Theoretically this method must be limited in its sphere of action to neuralgia or sciatica: to those cases alone accessible to the point of the injecting syringe. Mr. Hunter, in advancing the hypodermic method, maintained that localisation of the injection in neuralgic cases was theoretically wrong and practically unnecessary. In 1858 and 1859 he brought forward these propositions in the *Medical Times and Gazette:*—1. That equal effect followed distant and local injections in neuralgic cases. 2. That by distant injections the ill-effects of repeated localisation were avoided, such as local irritation, thickening of the skin, abscess, etc. 3. That diseases can be treated with benefit and curatively by this plan, which are neither local nor neuralgic, and which have failed to receive benefit from other modes of medicinal administration. Mr. Hunter is inclined to think that the sickness which used rather frequently to follow the localisation of the injection, and which is dreaded as an evil attending subcutaneous puncture, is in part due to the localisation of the painful part, as he has hardly found sickness occur at all in his experience of the last few years. In 1859 the first cases were published in the *British Medical Journal* January 8, 1859, *Medical Times and Gazette*, vol. i., 1859, in which Mr. Hunter proved that diseases affecting the nervous system generally could be treated with benefit by the subcutaneous injection; the cases were serious ones, which had resisted other treatment, and were chiefly cases of insomnia and exhaustion from mania, delirium tremens, tetanus, etc. They exemplified the proposition that, "by the introduction of narcotics into the cellular membrane of the body, we have a mode of attacking and subduing cerebral excitability more rapid, more certain, and more sure in action than by the stomachic doses of narcotics."(a) Cases of spinal irritability and excitement were then treated, and with benefit, in cases in which stomachic doses had failed to relieve. Instances were

(a) *Medical Times and Gazette*, March 26, 1859.

given of tetanus, chorea, epilepsy, etc.(b) The hypodermic method is considered by the author superior to the stomachic, rectal, and endermic modes of medicinal administration, in emergent cases, in which the indications are for anodynes, antispasmodics, hypnotics, and nerve-tonics. And he has found greater and more permanent benefit to accrue from this mode of treatment than from the stomachic use of morphia, atropia, codeia, and other alkaloids. In many diseases there can be no certainty about the stomachic dose. In delirium tremens, for instance, the pill, the draught, or powder, may lie in the stomach undigested; it may be vomited; it may be absorbed, partly or wholly, and, if the latter, so slowly as to do no real good. In the mean while the life of the patient is at stake, and death from exhaustion may occur before that sleep which would save the patient can be procured. The investigations of the author led him to believe the hypodermic administration of any alkaloid for the above-mentioned purposes to be more beneficial than the stomachic as regards rapidity of action, certainty of effect, purity of effect, greater permanence of effect, avoidance of exhaustion. 1. Rapidity of effect.—With morphia sleep can be procured, or delirium quieted, in a few minutes. Atropine will affect the mouth in two or three minutes, and ease the pain of sciatica when injected into the tissue of the arm in five or ten minutes—in less time, in fact, than is usually occupied for absorption into the blood of the remedy from the stomach. 2. Certainty of effect.—This, as a rule, ought to follow, for the whole amount (when properly and carefully) injected must be all absorbed and circulated. But by the stomach one can only guess at the amount absorbed, and consequently one has often to repeat the dose to approach a certainty of effect. Enormous doses and quantities of opium may lie in the stomach doing no good in maniacal and other cases, but rather doing harm through the delay their inertness causes, and the uncertainty as to its absorption. In such cases the hypodermic injection of a small dose will often answer at once, while the opium still lies unabsorbed in the stomach. 3. Purity of effect. As injected into the cellular tissue, so is the agent absorbed, and its direct and sure effects manifest themselves upon the system. The same agent, *e.g.* morphia, given by the mouth will often cause headache, sickness, giddiness, hepatic and bowel constipation, etc. These ill effects, as they do not, as a rule, follow the hypodermic injection, must be due to the different mode of administration; nor need we wonder that a digesting membrane ever being filled with all kinds of pabulum should modify the vegetable alkaloids whilst chemically acting upon other compounds. 4. Greater permanence of effect.—The author has had various cases of neuralgia and sciatica which for years resisted the internal administration of opium, morphia, belladonna, strychnia, etc., which cases he has cured with the injection of morphia, atropia, strychnia, or some other alkaloid. The cure has no necessary dependance upon the number of injections. One lady who had suffered much from sciatica had no pain for one year after one injection. Another patient has remained free from neuralgia since 1859 after a single injection. In two cases of sciatica, one a hatter, the other a driver to a florist, three or four years have elapsed since they were treated; there has been no relapse in either; both had walked lame and suffered pain for four or five years. The author attributes the greater benefits thus derived, partly to the three first advantages that he believes the hypodermic method to possess, and partly also to the slight shock that the diseased nerves sustain through the rapid way in which the alkaloid is brought into contact with them. 5. Avoidance of exhaustion.—This is an important advantage of the hypodermic method, chiefly due to the rapidity of its action. In the violent spasms of lockjaw, of colic, or even of retention, life may be lost by delay; but even in minor cases, the longer the time that elapses before relief of the spasm or pain is obtained, the greater the subsequent exhaustion. Many hours often elapse before any benefit follows the use of stomachic medication, but by the injection of the cellular tissue the desired relief can be obtained in from five to thirty minutes, instead of after many hours. In the case of delirium tremens the continuous muscular excitement—exhausting in proportion to its activity—is often stopped in a very few minutes, and then sleep follows. The tonic effects of certain medicines are more strikingly manifested by the hypodermic than by other modes of administration. So-called tonics may be thus administered with benefit, when they cannot be borne by the mouth. Quinine may, for instance, cause sickness and headache and fail to do good by the mouth, but greatly benefits by the cellular administration.(c) Agents not called tonics may act as such when thus employed, and when of the class usually called anodynes, may act more tonically than when given by the mouth. In this paper space must limit me to a brief notice of morphia, thus used for its tonic effects. Morphia may be used subcutaneously, not to relieve pain, nor stop spasm, nor as a narcotic; but as a nerve tonic in cases of great nervous exhaustion, or of irritability or great mental depression. In cases, in fact, in which the brain has been overtaxed, and the mental equilibrium lost—as in some cases of melancholia, accompanied by great and unnecessary anxiety, with insomnia. In mania *à potu* and in delirium tremens I have even used the puncture, with morphia, so to steady and quiet the mind and nerves of the patient, as to enable him in a few minutes to walk to his office and go through his duties. In the drunkard, as in the overtaxed and melancholic case, there is great mental excitement, and worry, and anxiety, and insomnia. The stomachic anodyne will constantly fail to produce any effects; but the hypodermic dose, even where it fails to give sleep, will almost invariably remove the anxiety, the restlessness, and the nervous irritability which are the states leading to exhaustion, and unfitting him for application to work. Thus administered, morphia has nerve-tonic effects, without the disadvantages that so often attend its use when given by the mouth, for it does not interfere with the liver or the bowels, it does not cloud the brain, occasion loss of appetite, nor cause sickness, with the well regulated dose. In the mentally overtaxed, or the melancholic patient, the night administration will not always cause sleep; it sometimes rather arouses the brain—it may even keep the patient awake, in "a calm state of dreamy doziness," which has the equivalent effect of good sleep the next day; the patient will arise refreshed, mentally stronger, and fit for his day's work. Upon the spinal marrow and its nerves the tonic effects of morphia are more marked when thus administered. The greater permanence of effect when cases have been cured by this plan, and by a comparatively small number of doses, seems to indicate that something more than the mere anodyne influence has been at work. A lady, Mrs. R., was subject to neuralgia in 1859. She had been at times relieved by morphia and opium; she was treated once by the morphia puncture, and has not since had neuralgia. Another patient, Mrs. W. W., was subject to repeated attacks of tic doloreux. The morphia injection cured it last year; she has had no return, notwithstanding a trip to St. Petersburg in bad weather. Sciatica is more than simple pain of the nerve; although of long standing, a single puncture with morphia may relieve all the pain, but the stiffness, the lameness, the deficient nutrition, remain for some time. The repetition of the injection will restore power or tone, and if three or four injections are used where these symptoms remain, in long-standing cases, the patients will often say they feel more power return with each injection. Stomachic doses do not produce these tonic effects so strikingly.

The PRESIDENT said the object was one of very great interest, so great that the Council had appointed a committee to investigate it.

Mr. C. H. MOORE said no plan had been more deservedly put forward than this, and nowhere had its use been better shown than in the cancer wards of the Middlesex Hospital. The experience in these wards enabled him to confirm what the author had stated as to the advantage of this plan of giving morphia. In but few instances did the appetite fail, and then probably from giving too much. He (Mr. Moore) had tried several plans of giving morphia. For instance, he had blistered the shoulders and had then sprinkled morphia on it. This was in a case in which cancer had invaded the brachial plexus, and in this case he tried the hypodermic injection of morphia, and had found it infinitely more successful. He had also convinced himself that the action of the morphia he thus injected was not local only, nor even chiefly local, but general. For instance, in one case of disease in the axilla, causing severe pain by pressure on the nerves and œdema of the arm by pressure on the veins, he had tried local injection of the œdematous limb and injection elsewhere. In the first the action of the remedy was much delayed; but he had ascertained its most important use to be that of prolonging chloroform sleep. And here there were two advantages: one that the patient slept through the pain after the operation—especially in such cases as the destruction of cancer by chloride of zinc—and another that the sickness following chloroform, although perhaps not prevented, was postponed.

(b) *Op. cit.*, p. 389, etc.

(c) Paper by M. Desvignes, Med. Chir. Soc. Reports.

Dr. Wynn Williams, whilst agreeing with the author in his chief conclusions, wished to state that he had adopted the subcutaneous injection of morphia since it was first recommended by Alexander Wood, and in his experience local pain was more speedily relieved by injection locally. For instance, when the pain was neuralgic or of the nature of tic, and the source of irritation eccentric, the injection had better be made as near as possible to the seat of pain, or, at any rate, in the track of nerves having a similar origin. Where the source of irritation was eccentric, the pain depending on disease of the brain or spinal cord, it would answer as well to inject in any other part. In the first class of cases the injection relieved the local pain before it induced sleep by its general action. As regards permanency of action, he did not feel sure that he had caught the author's meaning, *i.e.*, whether he meant the sleep was more continuous, or that the cure was more permanent. He (Dr. Williams) had observed that the effects of morphia given by subcutaneous injection were much more speedy and passed more rapidly off than when administered by the mouth. When thus given, the dose would be larger and the action more continuous, the absorption of it into the system being more gradual. Another good effect was that, given by injection, opium did not constipate the bowels. It would always induce sleep when given in a sufficiently large dose. In a case of cancer of the rectum, which he had attended with Mr. Curling, four grains of morphia had been injected, and this would produce sleep for six hours, with slight intermissions. When the injection was made over the sacrum, the pain was relieved before sleep was induced; if elsewhere, not until the patient went to sleep.

Mr. Savory said all would agree that the hypodermic method was a valuable means of administering medicines, but he thought that some would hardly be prepared to accept all the conclusions at which the author had arrived. In comparing the introduction of drugs by this means with that by the stomach, it would need accurate and extended research before any general results could be obtained, so much must be allowed to the different action of different substances. For example, with regard to rapidity of effect, prussic acid seemed to pass from the stomach at a rate which could scarcely be exceeded, whereas woorara was hardly absorbed at all through the mucous membrane, and between these came a host of substances exhibiting every variety in this respect. Nor was this due to the previous action of the gastric juice, for some substances, such as strychnia, might be kept in it for a long period without any sensible alteration. But then there is another means of administering medicines and other substances —by the rectum. It was, perhaps, not generally known that absorption is, under some conditions, more active from the rectum than from the stomach. Not of solids, for these will remain a long while in the rectum without being dissolved; but when substances are in a state of complete solution, they may pass from the rectum far more quickly than from the stomach. Strychnia, for example, when in solution, will kill more rapidly, and in smaller doses, when introduced by the rectum than when taken by the mouth. A fourth of a grain, or even less, for instance, when passed into the rectum, will act with greater energy than a grain or more when given by the stomach. No doubt each of these several means is, in its turn, the best, —no one can be said to possess a constant or uniform advantage over the others. We have yet to learn under what circumstances and for which remedies this or that method should be chosen; and the subject requires immediate investigation.

Dr. Fuller could bear witness to what the author had stated as to the general effect of injection of morphia. It was quite true that if the injection were made near the seat of pain the relief might be a little more speedy, but we owe to Mr. Hunter the observation that the injection of morphia in any part acted in the same way and to nearly the same extent. This was an important practical point, as the continued introduction at one part might lead to abscesses.

Mr. Hulke said he should not like the meeting to break up with the idea that four grains of morphia might be safely injected. He had known patients nearly lost by the injection of two-thirds of a grain.

Dr. Wynn Williams explained that in his patient's case the large dose of four grains had been gradually arrived at after two years' treatment. He did not mean in any way to imply that this was a safe dose. Indeed, the dose he generally commenced with was only a quarter of a grain.

Dr. A. P. Stewart could not admit Mr. Moore's experiment on the anasarcous compared with the healthy limb, as conclusive regarding the local and general action of morphia; for in the anasarcous limb there was a total arrest of absorption, without which there could be no therapeutical action. As to the inconvenience of hypodermic injections, he could not speak so lightly of them as others did. He had repeatedly seen nausea, vomiting, vertigo, and even mild delirium, following the subcutaneous injection of morphia. As regards the use of quinine, he had on a former occasion made some inquiry as to the effects, both local and general, of its hypodermic use, the author of the paper (M. Desvignes) having been silent as to the existence of any inconvenience, and he (Dr. Stewart) had hoped that Mr. Moore would have given the Society the results of his recent and very interesting experiments. He (Dr. Stewart) had often administered remedies by the rectum. His favourite method of treating intestinal obstructions (ileus) had long been the injection of extract of belladonna in doses of two or three grains. In one case, seven or eight grains had been given by mistake. The absence of any serious symptoms was probably attributable to the great abdominal distension, which prevented absorption taking place to any extent; but in other cases, after repeated smaller doses, the wild and extravagant delirium of poisoning by belladonna had been fully developed. He was not aware of the facts stated by Mr. Savory, that strychnia acted more powerfully when given by the rectum. But such a conclusion was not warranted by the fact of the prompt and powerful action of one-sixteenth of a grain so administered, for he (Dr. Stewart) never gave by the mouth a larger dose than the fiftieth of a grain to begin with, and never increased it beyond the twenty-fifth, and from these doses he obtained very decided results. As regards the general subject of the hypodermic injection of remedies, he thought the Society should suspend judgment until the Committee had reported on it.

The President asked if the author's patients were treated in public or in private practice, and if in private practice the patient objected to the injection.

Mr. Hunter, in reply to the President, said that since the cases first treated at St. George's Hospital, he had drawn the conclusions from his observations on the patients of a public charity (the Royal Pimlico Dispensary), as well as from the results of the treatment in private practice. For the most part he had found no objection to the use of the plan on the part of his patients. A nervous patient might occasionally have objected to it, having heard it described as an operation. It is an operation of the simplest kind, giving hardly any or no pain, and causing no irritation if the operator attends to simple rules.(d) The puncture is almost painless if made in the outer part of the arm; it is more painful if localised to the tender neuralgic site. To Dr. W. Williams, the Author said he had used it in neuralgia of centric and excentric origin. He had not found, taking the cases collectively, that the result of the puncture was more successful if localised. In incurable neuralgia of centric origin the relief is the same in most cases, wherever injected. Sleep is by no means a necessary result of the puncture with morphia; many patients do not sleep from it. The alkaloid injected seems often to be first engaged in removing the pain or the mental excitement existing at the time. Sleep may then follow or not, according to the dose. To Dr. Stewart, Mr. Hunter replied that sickness and giddiness may certainly occur from this use of morphia. Such cases are quite the exception; they may be caused by the injection of a dose too large for the nature of the case, or to some idiosyncrasy of the constitution. The Author has very rarely found sickness follow the injection the last few years (though using the plan daily) since he has injected smaller quantities of the alkaloids, and has for the most part ceased to localise. Mr. Hunter thought four grains a fatal quantity to inject beneath the human skin, except under a well-established fact of the patient being accustomed to a much larger dose by the mouth. He had himself injected more than four grains at a time, but the patient had for many years taken by the mouth thirty grains of morphia daily. One grain of morphia is quite the maximum for a first injection, and then only in cases of very great cerebral excitement. Half-a-grain of morphia is a full injecting dose for the treatment of most cases; much less a quantity is often quite sufficient. Mr. Hunter quite believed in greater permanence of effect by this plan than by the mouth; atropine, for instance, has often failed, when given daily by the mouth, to do more than palliate, but the same dose (a thirtieth of a grain), by the cellular tissue, will perhaps succeed, once or twice repeated.

(d) *Medical Times and Gazette*, 1859.

To Mr. Savory the Author replied that the treatment as proposed by him was only for emergent cases, as for those requiring speedy relief from pain, or for those cases in which medicines failed in their effect as usually given. The author could cite one or more instances of each class of disease mentioned in the diagram in which stomachic treatment had previously failed to relieve the patient; in most cases the same alkaloid was used hypodermically and succeeded. Mr. Hunter readily allowed most speedy action to follow the rectal administration of some medicines; it might act even quicker than by the hypodermic method; but he considered it a less certain and less reliable mode of introducing the medicine. It is, moreover, one which it would hardly be advisable to use in many forms of disease, for which the hypodermic plan seems to be well adapted.

THE PATHOLOGICAL SOCIETY.

TUESDAY, MAY 3.

Dr. PEACOCK, President.

MR. HENRY LEE exhibited a drawing of a specimen of

OSTEO-MYELITIS.

The patient had had a compound comminuted fracture of the leg, and in three or four weeks he began to suffer pain in the bone. Then followed low nervous excitement and muttering delirium. As the patient was sinking, amputation was performed, and he did well. It was very rare, Mr. Lee said, that we were able to get a specimen of osteo-myelitis in the stage of its fullest development, although not unfrequently we met with suppuration or necrosis. The whole of the cancellous structure was injected, and the most of the injection was near the cortex.

Mr. HOLMES then showed a specimen of

OVARIAN CYST REMOVED BY OVARIOTOMY.

His chief object in bringing the specimen before the Society was that all cases operated on at St. George's might be published. The operator in this case was Mr. Tatum. The patient, a young woman, aged 25, had had ovarian dropsy four years. She had been tapped fifteen or sixteen times, and as the periods of relief afforded gradually narrowed, ovariotomy was advised. Her general health, however, was so good, that she was unwilling at first to assent. Excepting on account of some firm adhesions to the anterior abdominal wall, the operation was easy. The pedicle was secured by a twisted silver wire, and was then put into the abdomen. Except tympanitis, no symptoms followed. She was well in about six weeks after operation.

Mr. HENRY LEE said that the method of securing the pedicle was a very satisfactory one. He wished to say that the plan had been suggested to him by Dr. Marion Sims, and that he (Mr. Lee) had then suggested it to Mr. Tatum, who adopted it. It was the first time this plan had been adopted in this country.

Mr. HOLMES remarked, that as Dr. Marion Sims was present he would, perhaps, speak on the subject. The plan had been adopted in America.

Dr. MARION SIMS said the plan of transfixing the pedicle with silver wire, and then returning it into the abdomen, had originated with himself. In 1849 he had tried to strangulate an epithelioma of the cheek by a silver wire. The wire, however, cut its way through the skin, and the skin then healed over it. He then thought of ligaturing the pedicle in this way. In a case of ovariotomy, by M. Nélaton, he (Dr. Sims) secured the pedicle by transfixing it by silver wire, twisting the wire, and then cutting it close off. The patient died in five days. It was seen that the wire had sunk into the pedicle, and that it had been healed over.

In reply to Mr. Partridge, Dr. SIMS said the wire cut its way to a certain depth. The cut surface then healed, and thus there was a circulation in the parts within and outside the wire.

Mr. HULKE believed the action of the ligature depended on its tightness rather than on its nature.

Dr. C. J. B. WILLIAMS said the thread would be permeable for animal matter, and by the decomposition and the suppuration and sloughing might occur. The wire simply cut its way like a knife.

Dr. MARKHAM said that Dr. Tyler Smith used the silk ligature in just the same way as Dr. Sims used the silver wire. He also cut it off closely and returned the pedicle in the abdomen. It was a fact that Dr. Tyler Smith's results were quite as satisfactory as in those cases in which the silver wire had been used.

Mr. TEEVAN had made experiments in order to ascertain what substance was best suited for ligatures. He found that catgut was the best material.

Mr. HULKE said that experiments seemed to prove that silkworm gut was a very valuable material for ligatures.

Mr. PARTRIDGE said that some years ago Mr. Laurence proposed catgut for ligaturing arteries. At first it was thought to answer; but afterwards it was found to produce abscesses.

Dr. GRAILY HEWITT said the success of the plan of securing the pedicle mentioned by Dr. Sims was confirmatory of the value of the practice recently adopted by Dr. Tyler Smith. Dr. Smith was the first to cut off the pedicle short, and to exclude air from the abdominal cavity by at once returning it. He considered that Dr. Smith's success was in a great measure due to this plan of dealing with the pedicle. Whether the silver wire was better than the silk ligature he was not prepared to say. *A priori* he should think the wire better; but the chief element in success was the returning the pedicle into the abdomen.

Mr. NUNN related a case of ovariotomy in which the Fallopian tube had been split down three or four inches. The rent was closed by wire, and the patient did well. He considered that Dr. Sims' plan was a most valuable one, and that if after ligature the stump preserved its vitality we were provided with everything to make ovariotomy a certainty.

Mr. PARTRIDGE showed specimens from a case of

EPISPADIAS.

The bladder was small, and the symphisis pubis was not united by fibro-cartilage, but by ligament. The patient had walked with his legs widely apart.

Mr. HULKE said a case had been recorded in Schmidt's "Jahrbucher" in which a woman who denied having ever had any sexual intercourse was found to be pregnant. She had, however, she said, had intercourse with a fellow-servant whom she had supposed a female. The supposed female was found on examination to be an epispadias.

Mr. NUNN then exhibited

NUMEROUS CALCULI WHICH HAD BEEN PASSED BY THE URETHRA.

The patient was a gentleman seventy-five years of age. The passage of the calculi was preceded by pain in his loins and by irritation in his bladder. The calculi were very numerous and very spherical.

The PRESIDENT exhibited

SPECIMENS TO ILLUSTRATE THE FORMS OF CARCINOMATOUS DEPOSIT IN THE HEART.

The first set of specimens were removed from the body of a man, aged 19, a patient of Dr. Peacock's at the Victoria Park Hospital for Diseases of the Chest. He was first taken with symptoms of disorder of the liver and digestive organs, to which succeeded dyspnœa, cough, and expectoration, and signs of consolidation on the left side of the chest. The heart was slightly displaced to the right side, the pulse was quick and feeble, and there was œdema of the trunk and extremities. He survived for about nine months. The lungs contained minute masses of deposit, which to the naked eye closely resembled tubercle, but proved on microscopic examination to be carcinomatous. The bronchial glands also were extensively cancerous, and the heart was entirely enveloped in a thick medullary deposit, which pressed upon the large vessels at the base and on the auricles. There were also deposits in the liver, spleen, and mesenteric glands, and the aggregate plates in the lower part of the small intestines displayed small masses of cancer and were in places ulcerated, resembling very closely tuberculous deposits and ulcers. The whole displayed the usual characters of encephaloid. The second specimen was a heart removed from a female, 19 years of age, a patient of Dr. Ward's at the Victoria Park Hospital. The symptoms were similar to those in the former cases, and the patient lived six months. There was a large medullary sarcomatous mass at the root of the lung, with interspersed deposits in other parts of the left lung, which had in places ulcerated, forming numerous small cavities. The mass at the root of the lung had pressed upon the pericardium, and within that membrane there were tumours surrounding and involving the vena cava descendens and right auricle and the pulmonary veins and left auricle. The glands near the stomach and duodenum were also affected, but the other organs in the body were free from disease. The President remarked that carci-

nomatous deposits were generally regarded as of very rare occurrence in the substance of the heart, and the opinion was certainly correct so far as primary deposits are concerned. There were, however, a considerable number of cases on record in which the heart was found to be cancerous in connexion with similar disease in other parts of the system. He found fourteen or fifteen such instances recorded in the *Transactions* of the Society; four cases had occurred at the Victoria Park Hospital within the last two or three years, and altogether he had had little difficulty in collecting upwadrs of forty cases of the kind from different sources. Of these cases, however, it appeared very doubtful whether more than one or two could be regarded as instances of primary cancer of the heart, though in the reports of several no mention was made of the existence of similar disease in any other part of the system. The other cases might be classed into three sets:—1st. Those in which the disease arose, probably nearly simultaneously, in the heart and in the lungs or adjacent parts of the body. 2ndly. Those in which the disease originated in the bronchial or mediastinal glands, and involved, more or less extensively, the heart; and, 3rdly. Those in which the disease first appeared in some distant part of the system—the eye, axilla, mamma, abdominal organs, or testicle, etc.—and deposits subsequently occurred in some part of the heart. Of these the case which he first named was an example of the first form, and the other afforded an instance of the second. Of the third form a considerable number of the recorded cases were examples. Of the kinds of cancerous disease which affected the heart, by far the most common was encephaloid; melanosis occurred in a few instances, and four or five were stated to have been examples of scirrhus; but in reference to some of the last cases the information was very imperfect. It does not appear that there are generally any symptoms which specially characterise the occurrence of carcinomatous deposits in the heart. If the disease is so situated as to interfere with the vessels entering or proceeding from the heart, or with the action of the valves, they, of course, produce decided symptoms. In some instances, by pressure on the pericardium, they give rise to pericarditis, of which the signs may be recognised during life; but in other cases there are no indications of cardiac disease, and the deposits are only detected in post-mortem examination.

The PRESIDENT also exhibited a specimen of

CORNISH MINER'S LUNG.

The specimen was removed from the body of a man, 55 years age, who had been of somewhat irregular habits, and had worked in different tin and copper mines in Cornwall for about thirty-eight years. He had begun to work underground when he was 13 or 14 years of age, and had been compelled to give up working two years before his death. He had been ailing for about five years, and had complained of pain in the right side of the chest, which prevented his lying on that side, of difficulty of breathing, and of cough and expectoration. He had spat some blood, and was considerably emaciated. The left lung was firmly adherent to the parietes by old and thick false membranes, and the substance of the lung was sparingly crepitant, emphysematous at the edges, and of a deep blue or black colour. The bronchial tubes contained a brown-coloured, muco-purulent fluid. The right lung was also firmly attached by thick, fibro-cartilaginous adhesions. It was throughout considerably solidified, especially at the upper part, and at the apex there were several irregularly-shaped cavities, which, together with the bronchial tubes, contained a brown-coloured fluid, similar to that in the bronchial tubes of the other lung. The larynx and trachea were enlarged, and the mucous membrane of the trachea and larger tubes were studded with small yellowish-coloured specks of lymph. No tubercle was found in any part of either lung. The third rib was carious, and near it there existed an abscess under the integument. The heart was flaccid and apparently atrophied. It weighed from ten to ten and a-half ounces avoirdupois. The pulmonary artery and aorta were much dilated. The kidneys were natural, except that the cortical portions were somewhat narrow. One supra renal body consisted of scarcely anything but loose cellular tissue; the other was converted into a cyst containing a dirty brown-coloured grumous fluid. Dr. Peacock stated that the body of the miner from which this specimen was removed was the only one which he had had the opportunity of examining after death, but he thought it probable that the lung afforded a characteristic example of the form of disease which proved so fatal to miners, and which is commonly called in the mining districts "miners' asthma" or "miners' consumption." When not otherwise predisposed to consumption, the miners become subject to chronic bronchitis and emphysema when they have scarcely attained middle age, and shortly after that period many of them die with signs of consolidation and breaking down of portions of the lung tissue. When, however, they are predisposed to consumption, they die at a much earlier period, and apparently of true tubercular phthisis. The chief predisposing cause of the pulmonary affections was probably the impure air which the miners breathe when underground; the disease being called into active operation from the occurrence of inflammation, caused by cold taken in the shafts or at the surface, after the men had been working in warm and ill-ventilated places. It has been thought that the miners are injured by the inhalation of gritty particles, like the French millstone makers or builders, but such does not seem to be the case with the Cornish miners; though the dust of the mines may in some degree be influential in causing disease among the lead miners of the North of England. Portions of the lung exhibited to the Society had been carefully analysed by Dr. Bernays, but no siliceous material was detected in them. The dark material was found to be carbon. Dr. Peacock thought that the injurious effect of the occupation of mining was considerably aggravated by the very early age at which the men go to work in the mines in Cornwall, many of them beginning before the age of 13 or 14, that at which this man commenced working underground. The condition of the supra-renal bodies was noticeable in connexion with the peculiarly sallow, dingy complexion about all old metal miners.

Mr. THOMAS SMITH showed a specimen of

MEDULLARY CANCER FROM THE CALF OF AN INFANT.

The child, now seventeen months old, was four months old when he first saw it. At the age of three months it had had a fall, and then a swelling formed, which was supposed at first to be formed of blood. The child, however, was in good general health, and learned to crawl about as well as other children. At the age of ten months the tumour was still, although larger and harder, thought to be a blood swelling, and in this opinion Mr. Lawrence and Mr. Paget concurred. A puncture was made, and altered blood clots, etc., were evacuated. The limb was restored to nearly its natural size. Six months later the child was again seen, and then it had failed much in health, and it was clear that there was medullary cancer of the leg. Amputation was performed, and the child recovered in three weeks, but in another fortnight died. There was no return of the disease locally, but the child had a short cough and became emaciated, and small tubercles were scattered over the body. Mr. Smith thought the medullary disease might have arisen from degeneration of blood or lymph.

TUMOUR OF THE TYMPANUM—PARTIAL ULCERATION OF THE MEMBRANA TYMPANUM.

Mr. HINTON, at a previous meeting, exhibited the petrous bones of a man, aged 30, who died from disease of the heart. He was somewhat deaf, requiring the voice to be slightly raised, and hearing a low-ticking watch six inches right and one inch left. He could only remember that he had been deaf in the left ear, with a humming noise, but without pain or discharge, for about two months. On the right side the membrana tympani presented a small orifice about the centre, two lines in length by one in height, and the membrane around it was soft and flabby; the edges of the surface were rounded; a few cretaceous deposits also existed, and some fine adhesions around the malleus and incus; the stapes was only slightly moveable; above the short process of the malleus the membrane was wanting to a small extent. On the left side, in the position occupied by the perforation on the right, there was a thinned and depressed portion of the membrane. On narrowly examining this part the outer layers, dermoid, and fibrous were seen to be wanting and the mucous membrane alone remained; above the short process of the malleus the membrane was deficient on this side also, but to a greater extent, the aperture measuring transversely two and a-half lines; within the tympanum in the corresponding position, and embracing the heads of the malleus and incus, was a soft but firm fleshy mass, attached to the bone and communicating with the aperture in the membrane; it was not surrounding any special membrane, and consisted of a pale, finely-fibrillated stroma, with numerous small, dark-coloured, and shrivelled cells; the mastoid cells and upper portion of the tympanum contained a thin dirty-grey fluid. The lower part of the tympanic cavity was free from fluid, and its lining membrane normal. Malleus, incus, and stapes bound

together by bands, but the stapes moved with tolerable freedom. The Eustachian tube on each side was free from obstruction; the labyrinth on the left side showed very large crystals of otoconic, and these collected here and there into large masses. The blood-vessels also were, in comparison with what is found in normal conditions, very large and full.

METROPOLITAN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

At a meeting held on Saturday evening, May 27th, Dr. Druitt, President, in the chair, Dr. Clouston, of Carlisle, read a paper upon

THE PRODUCTION OF DYSENTERY BY SEWAGE IRRIGATION.

It consisted in an account of an outbreak of dysentery in the Cumberland and Westmoreland Lunatic Asylum, which was caused by the effluvia from a field irrigated by sewage. We publish this paper at length in another part of our columns.

The reading of the paper was followed by an interesting discussion in which the President, Dr. Ballard, Dr. Sanderson, Dr. Spencer Cobbold, Dr. Hillier, Mr. Lord, Dr. Mapother of Dublin, Mr. Burge, and Dr. Iliff took part.

MEDICAL INSPECTION OF WORKHOUSE HOSPITALS.

On Tuesday last a deputation of the Workhouse Visiting Society waited upon the Hon. C. P. Villiers, M.P., President of the Poor-law Board, in reference to the present condition of workhouse Hospitals, and the importance of persistent inspection by competent Medical men. The deputation was introduced by the Earl of Devon, and supported by E. Buxton, Esq., M.P., E. Warner, Esq., M.P., G. Lyall, Esq., M.P., Sir J. Kay Shuttleworth, Bart., A. Smith, Esq., M.P., Dr. Watson, Dr. Burrows, Dr. Sieveking, Dr. Markham, Dr. Goodfellow, and Dr. Stallard.

The Earl of Devon, whilst not wishing to commit himself to all the proposals of the deputation, nevertheless believed that the object was one which required ventilation, and he had no doubt that the Poor-law Board would listen to any suggestions which were thought useful. There were three points upon which the deputation would express their views—the condition of the Hospitals, the nursing, and the necessity for Medical supervision.

E. Buxton, Esq., M.P., said that he would take it as established that there was great room for improvement in the condition of workhouse Hospitals, and the deputation believed that the first and most important step towards a better state would be the appointment of Medical inspectors, who would secure for the poor proper advice, medicines, Hospital accommodation, and other comforts. The many evils of the present system would gradually disappear, and the nursing would improve under the influence of inspectors experienced in the treatment of the sick. The expense would not be great.

The President of the Poor-law Board inquired as to the particular defects in the present system which, in the opinion of the Society, rendered necessary the appointment of Medical inspectors.

Dr. Stallard said that the following defects had been observed:—

1st. That, compared with other Hospitals, the Medical staff was insufficient. In no public Hospitals are so many as 200 patients committed to the sole care of one Surgeon.

2nd. That the united service of advice and medicines is not calculated to secure the best of either. That the drugs ought in all cases to be supplied by the guardians, and the advice by a staff of Physicians and Surgeons, who should not have individual charge of more than 100 beds.

3rd. That the Medical officers are subject to no Medical supervision or control. The public have, therefore, no guarantee that the duties are faithfully performed. In all other public Hospitals there is inspection,—in the lunatic asylums by the Commissioners of Lunacy, and in the army and navy by Surgeons of rank and experience. The salaries of many of the Workhouse Surgeons were such as to raise a fear that the duties could not be performed without personal loss, and the remuneration certainly justified the necessity for careful and systematic inspection. The knowledge must be special to supervise a special organisation, and none but Medical men could exercise any real influence over the duties of the Surgeon and the administration of Hospital details.

4th. The general construction of the Hospitals is defective,—the wards small, over-crowded, ill-ventilated, and unprovided with the furniture and comforts supplied at other Hospitals.

5th. The nursing is most inefficient, the paupers too often employed being morally and physically unfit for the duties imposed upon them.

The Society believe that the only efficient remedy for these defects would be the appointment of two Physicians and one Surgeon, as additional Commissioners, to organise and inspect the administration of the Workhouse Hospitals, and advise the Poor-Law Board in the many sanitary and Medical questions which must constantly come before them.

G. Lyall, Esq., M.P., stated that a new infirmary had been built at Reigate some years ago, and had been approved by the Poor-law Board; but the plans not having been submitted to any Medical inspection, the building had proved most inefficient in several respects. He therefore thought that Medical inspectors ought to be employed to supervise the construction of new Hospitals, and organise the details of their fitting and management.

Dr. Goodfellow said that no one acquainted with the workhouse Hospitals could be satisfied with their present state. He regretted that there was so great a difference between the criminal and the poor. The qualification for the office of Surgeon to a gaol was generally much higher than that of the parish Surgeon, and the name itself was too often associated with inferiority. The salaries were often such as to prevent respectable men from holding the appointment. If the election could not be taken out of the hands of the guardians, the Medical officers should be paid, *pro rata*, according to a scale to be fixed by the Poor-law Board.

E. Warner, Esq., M.P. (Norwich), stated that it was clear there were many subjects upon which Medical inspectors could alone decide,—as, for instance, the dietary of the sick, which ought to be regulated by superior Medical authority. Moreover, they were alone judges of the adequacy of the Hospital accommodation, the character of the nursing, the quality of the drugs, and many other subjects equally important. He believed the inspection should be persistent, and carried out at short intervals.

Dr. Sieveking stated that at least in one particular the Poor-law Board had signally failed—viz., the introduction of skilled nurses. Guardians had entirely disregarded the circular of the Board issued some years ago. He believed that the power of the Board would be greatly strengthened by the appointment of eminent Medical men as additional commissioners. They would act as *amici curiæ*, and would assist in carrying out all the improvements needed. They should not be required to render their services in an occasional or desultory way, but must give their whole time and energy to the work. Mere Medical and Surgical knowledge would be insufficient without special acquaintance with workhouse Hospitals.

Mr. Villiers observed that the Poor-law Board had undoubtedly effected great improvements in workhouse Hospitals. Their main difficulty was the existence of local acts which enabled the guardians to resist the authority of the Board. He hoped to introduce a bill to remedy this defect. He agreed as to the propriety of occasional inspection by Physicians of eminence, and would take the recommendations of the deputation into his serious consideration.

The Earl of Devon having thanked Mr. Villiers for his courtesy and attention, the deputation withdrew.

MEDICAL CHARITIES.—Mr. Cuthbert Collings, of Palmergreen, Southgate, Middlesex, lately deceased, has bequeathed no less than £24,000 to charitable institutions, including the following, viz:—The London Hospital, £4000; the Small-Pox Hospital, £2000; the Royal Free Hospital, £2000; the Great Northern Hospital, £2000; the City of London Hospital for Diseases of the Chest, Victoria-park, £2000; the London Fever Hospital, £1000; the Royal Hospital for Incurables, Putney, £1000; the Metropolitan Free Hospital, Devonshire-square, £1000; the National Hospital for Paralysed and Epileptics, £1000; and the Newcastle Infirmary, £1000, making a total of £17,000 bequeathed by this benevolent and wealthy retired currier to Medical charities alone. Truly "there is nothing like leather."

MEDICAL NEWS.

UNIVERSITY OF ST. ANDREWS.—The following gentlemen passed their examinations for and obtained the degree of M.D. on April 27 :—

Braithwaite, Robert, M.R.C.S., L.S.A., F.L.S, Vauxhall-walk, London; Cay, Charles V., M.R.C.S., Windsor Barracks; Collins, John C., M.R.C.S., L.S.A., Priory-street, Cheltenham; Dyer, Thomas, M.R.C.S., L.S.A., Forest Hill, Kent; Neale, Melville, M.R.C.P., M.R.C.S., Raby-street, Bath; Waring, Edward I., F.R.C.S., F.L.S., Talbot-villas, London.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, May 25, 1865 :—

Frederic Henry Ward, Finchley-road, Walworth; John Burdett Willey, Leicester; David Elliott, Newcastle-on-Tyne; Richard Murhall Hickman, Seaton, near Shrewsbury.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ANDERSON, T. MCCALL, M.D. Glasg., has been appointed Government Medical Inspector of Emigrants from the Clyde.

ATKINSON, FREDERICK P., M.B. Aberd., has been elected House-Surgeon to St. Bartholomew's Hospital, Chatham.

BERRELL, C., M.R.C.S. Eng., has been appointed Assistant Medical Officer to the Warwick County Lunatic Asylum.

BOTT, C. G., M.R.C.S. Eng., has been appointed House-Surgeon and Secretary to the Leeds Public Dispensary.

EARLE, EDWARD E., M.R.C.S. Eng., has been elected Resident Surgeon to the Dispensary, Weston-super-Mare.

GUNTHER, THEODORE, M.D., has been appointed Medical Officer for the Parish of Hampton Wick.

JAMIESON, JOHN, L.R.C.P. Edin., has been appointed Surgeon to the Constabulary, Kilkelly, Co. Mayo.

KING, EDWARD P., M.R.C.S. Eng., has been appointed Coroner for the Manor of Chepstow.

MARTIN, PAULIN, M.R.C.S. Eng., has been appointed Surgeon to the Oxford Diocesan Training College, Culham, near Abingdon.

RABY, J., L.R.C.P., has been elected Assistant House-Surgeon to St. Bartholomew's Hospital, Chatham.

DEATHS.

CANWOOD, ROBERT, M.R.C.S. Eng., at Barnsley, Yorkshire, on May 5, aged 56.

ESSERY, THOMAS A., F.R.C.S. Eng., at Heathfield-street, Swansea, on May 13, aged 47.

HUNT, JOSEPH, L.S.A., at Farnworth, on May 19, aged 50, formerly of Ashton-under-Lyne.

KEITH, JOHN, late Surgeon H.E.I.Co.'s Service, at South College-street, Elgin, N.B., on May 11.

MERRYWEATHER, Dr. H. COLLINS, at Wilmington, North Carolina, on April 10.

MILLER, WILLIAM E, M.R.C.S. Eng., at Castle Cary, Somersetshire, on May 12, aged 58.

REID, DUNCAN, M.D. Aberd., at Crown-court, Union-street, Aberdeen, on May 16, aged 60.

ROGERS, WILLIAM G., M.R.C.S. Eng., at 2, Verulam-terrace, Hammersmith, on May 27, aged 25.

ROULSTON, JOHN, M.R.C.S. Eng., at Helperby, Boroughbridge, Yorkshire, on May 8.

SKINNER, Dr., at Orford-road, Manchester, on May 27, aged 37.

WILSON, GEORGE C., L.F.P.S. Glasg., at Lockerbie, Dumfriesshire, on May 15, aged 45.

WAR OFFICE, MAY 30.—The Queen has been graciously pleased to give orders for the appointment of Surgeon-Major William Munro, M.D., 93rd Regiment, and Surgeon-Major Henry Bruges Buckle, 1st Punjab Regiment of Infantry, to be Ordinary Members of the Military Division of the Third Class, or Companions of the most Hon. Order of the Bath.—From the *London Gazette*, Tuesday, May 30.

THE Profession will be glad to learn that there is a probability that the Queen will grant a pension to the widow of the late distinguished Physician and chemist, Dr. R. Dundas Thomson, F.R.S., in consideration of her husband's services in the cause of science.

UNIVERSITY INTELLIGENCE.—OXFORD, MAY 26.—The nomination of George Rolleston, M.D., of Pembroke College, and of Edward Benjamin Gray, M.D., of Exeter College, to the office of Public Examiners in the Faculty of Medicine, under the statute of 1833, was submitted to the House and approved.

SOCIAL SCIENCE ASSOCIATION.—The ninth annual meeting of the National Association for the Promotion of Social Science will be held at Sheffield, under the presidency of Lord Brougham, from the 4th to the 11th of October.

THE COLLEGE FELLOWSHIP. — An unusually large number of Members of the College have been undergoing their examinations for the above distinction during this week; no less than six senior candidates of twelve years and upwards, and nine juniors offered themselves for the Fellowship, when the following papers on Anatomy and Physiology were submitted to them—viz., 1. Give an account of the structure of skin, hair, and nails in man. Describe the sebaceous, sudoriparous, and ceruminous glands, and the nature and uses of their secretions. State the mode in which the cutaneous nerves terminate, and mention the functions that they perform. 2. Describe the origin, course, distribution, and functions of the spinal accessory nerve and its branches. 3. Describe the intimate composition of the ganglions of nerves. Give the general and minute structure of nervous plexuses; state the supposed functions of these, and of the ganglionic system of nerves. Mention also the position of the ganglia and plexuses of the greatest interest and importance in the human body. 4. Enumerate the muscles attached to the thyroid, cricoid, and arytenoid cartilages. Mention those which act upon the vocal cords, whether in separating or closing them, and also in tightening and relaxing them. Describe the true and false vocal cords, and the ventricles of the larynx; and give a brief account of the mechanism of the voice. 5. What are the sources and modes of production of animal heat? By what means is it maintained and regulated? and what are the circumstances by which it is influenced, so as to render the blood of some animals warmer than that of others. 6. Give a full description of the relative position of the parts seen in a lateral section of the male pelvis. The juniors were required to undergo an examination on Dissections and Demonstrations on Wednesday, and on the following morning both seniors and juniors had the following questions on Surgery and Pathology submitted to them—viz., 1. What is meant by glaucoma? Describe the symptoms, progress, consequences, and treatment of the acute form of this disease. 2. What cases may require the operation of tying the subclavian artery? Which part of that vessel should be selected for the ligature? Give your reasons for this selection; describe the several steps of the operation; specify the difficulties and dangers which may be found in its performance, and the proceedings by which you would endeavour to obviate them. State also the collateral channels through which, after this operation, the circulation will be maintained. 3. Give the pathology of the different forms of pyæmia. Describe the appearances found in various organs of persons who have died of this disease, of which state the symptoms and treatment. 4. Describe the changes of structure which occur in bursæ mucosæ, or ganglions; mention the most frequent seats of these diseases, and give the treatment of them. 5. What are the conditions that would induce you to recommend excision of the knee-joint? Give a full description of that operation, and of the after-treatment of the patient under favourable and unfavourable circumstances. 6. Mention the principal morbid changes that are met with in the ovaries. Enumerate the different forms of abdominal enlargement that are liable to be mistaken for ovarian tumours; and state the means by which you would endeavour to discriminate these diseases from each other. After answering the above, the candidates, both seniors and juniors, were required to perform certain operations on the dead body, and later in the day the successful candidates were introduced to the President, by whom they were courteously informed that a satisfactory report of their proficiency would be made to the next meeting of the Council for its approval, and in conclusion the venerable and learned gentleman congratulated the candidates on their well deserved success, and expressed a hope that the same success would attend them through their Professional career.

BLOODY SWEAT IN HYSTERIA.—Dr. Franque puts on record the particulars of one of those cases which are every now and then met with in women the subjects of nervous affections. In the present instance, the woman, 45 years of age, had suffered for several years from hysterical convulsions, although menstruating regularly. She had already had three attacks of bloody sweating, which had been preceded by more than ordinary severe paroxysms of hysteria, when Dr. von Franque saw her during the occurrence of a fourth. On this occasion, most violent pains in various parts of the body had preceded

the hysteric convulsion ; and when this last had continued for an hour an abundant sweat broke out over the entire surface of the body, and this in the parts of the body which had been the seat of the severe pains was coloured red in consequence of the presence of true red blood corpuscules. As the sweat appeared, the convulsions and pains gradually subsided. The skin was entirely intact, and the sudoriferous glands must have been the source of the blood.—*Schmidt's Jahrbucher*, 1864, No. 7.

Diminishing the Contagion of Small-pox by Fatty Inunction. — Dr. Warnatz, in a communication to the Dresden Medical Society, states that several years since he had demonstrated the great therapeutical importance of fatty inunction in the various exanthemata, and especially scarlatina; but in the present paper he has not so much the treatment of variola in view as the diminution of its contagious power. From the commencement of the eruption to its ending he keeps the parts well saturated with fatty substances, the object being never to allow them to get dry, and thereby prevent the diffusion of the pustular detritus in the air. The patients are well content to pursue the practice, for it much relieves the irritation and hastens desquamation. The worse the cases the more desirable the process, which should also be continued even when a fatal issue is expected. Dr. Warnatz prefers simple hog's lard as the agent to be employed.—*Küchenmeister's Zeitschrift*, 1864, No. 2.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

An Inquirer should read Dr. Richardson's work on Tobacco.

Mr. Samuel Cutter should read Dr. Copland's works on Apoplexy, Paralysis, etc.

*** *Thomas.*—Green on Baths ; Burgess's Cazenave ; and a little book by Dr. Lory Marsh, on Special Therapeutics ; Waring's Therapeutics.

Nemo.—We would recommend our correspondent to write to, or have an interview with, his brother-Practitioner, and call his attention to the cases he mentions. In case of no improvement, we would advise him to direct the attention of some influential person to the matter, and leave it in his hands.

A Student.—There will be a Preliminary Examination in General Knowledge of candidates for the diploma of Members of the College on the 20th, 21st, and 22nd inst. Write to the Secretary.

A Fellow.—The only candidates at present known as likely to offer themselves at the ensuing election are—Messrs. Turner, Holt, McWhinnie, and Erasmus Wilson. There is a talk of bringing forward at the latest moment a former member of the Council, whose loss is much felt by his colleagues.

A Provincial Fellow.—You cannot record your vote in favour of the gentleman named without personal attendance at the College. Neither can you do so until you have been admitted to the Fellowship. There will be a meeting of the Council for this purpose on the 8th inst.

A Candidate.—The result of the examinations now going on for the Fellowship of the College cannot be made known until next week. On Tuesday last both senior and junior candidates were admitted to the written examinations in Anatomy and Physiology ; on Wednesday, the juniors only, to Dissections and Demonstrations ; and on Thursday both seniors and juniors underwent the written examination in Surgery and Pathology, and performed operations on the dead body.

G.—1. Buchner on "Force and Matter," who takes the contrary view ; the nine Bridgewater treatises, which take the affirmative view. There are also several very interesting little works by Lionel John Beale, Medical Officer of Health for St. Martin's Parish. 2. Pritchard, Waitz, Knox, Nott, and Gliddon, the publications of the Anthropological Society. The shortest compendium on the first subject is Sir Charles Bell on "Animal Mechanics," published by the Society for the Propagation of Useful Knowledge ; and on the second a little work by Dr. Steven H. Ward, published by the Society for the Propagation of Christian Knowledge.

The following is the address issued by Sir Charles Locock to the electors of the Isle of Wight :—

"Gentlemen,—Having some days since announced to you that, in compliance with a requisition, I had ventured to offer myself as a candidate to represent you in Parliament, and that requisition having been subsequently strengthened by the letters that I have received from so many of the large landowners of the island, it becomes my duty to declare the principles on which I seek your support. The occasion is peculiar, my opponent possessing so many powerful personal claims to your support, from his well-deserved popularity as an extensive landowner and as a tried public man ; but the strong feeling existing throughout the island, that this important constituency should not be represented by a member of the Church of Rome, induces me to cherish the hope that the disadvantages of my being a stranger to you will be overlooked in comparison with the support of the great principles I came forward to maintain. In politics I am a Conservative, but ready to support every measure which may be brought forward for the progressive improvement of our institutions, and the prosperity of the nation. I believe the Conservative party to be as true friends to the working-classes, and as much disposed to improve and reform any defects in the Constitution, as the party calling themselves Liberals. With the increase of wealth and intelligence, I consider that the Parliamentary franchise should be extended, and I would support any measure to extend and widen the qualification to those who, from property and intellectual acquirements, would preserve our Constitution from the perils to which it would be exposed if the franchise was lowered to the extent supported by my opponent. I would reduce the present high standard of the occupation qualification in counties to an amount more nearly approaching that required in boroughs ; but I consider that any lowering of the latter would give such an undue preponderance to men unqualified to exercise the franchise, that the votes of the more educated and wealthy would be neutralised. The question of church-rates is one of great interest, but of greater difficulty. As long as we have a national Church, the law should provide the means for the maintenance of the fabric, more especially in poor and scantily-inhabited parishes where voluntary aid could not be obtained ; but I would vote for any plan which would relieve the Dissenter from personal liability to contribute towards the maintenance of the Established Church, and trust that, although the many schemes to effect that object have hitherto failed, some other may before long be devised which may effect a satisfactory settlement of this much-discussed question. The flourishing state of the public revenue arising from the great prosperity which, by the Divine blessing, has attended our commercial and manufacturing enterprises has enabled Parliament during the last few years to remit a large amount of taxation ; and I cannot but consider that in the apportionment of that remission the agriculturists have not received that consideration to which they are entitled. All restrictions on the importation of foreign grain having been removed, no taxes should be imposed on home produce, and on any further remission of taxes the farmers have the first claim for the immediate and total abolition of the malt-tax. On the great question of national education I am, and always have been, a warm supporter of every institution which shall diffuse knowledge, coupled with religion, among the poorer classes, and would most readily vote for all measures having that object. I am of opinion that it will be always our true interest to keep peace with foreign nations, and not to interfere in their domestic affairs ; but I would oppose any mistaken economy in the public expenditure which should prevent the maintenance of our fleet and army in the highest state of efficiency, believing that a preparedness for war is at all times the surest guarantee of peace. In affording to the electors the opportunity of choosing a Protestant instead of a Roman Catholic representative, I by no means wish to interfere with the Englishman's birthright, liberty of conscience, feeling that a man's creed should not subject him to the loss of any civil or political privileges. I am a sincere member of the Church of England, and in principle and practice opposed to the return to those obsolete forms and ceremonials, the objection to which formed so strong a feature in the constitution of our Church, whose separation from Rome has been the foundation whence the libertics we now enjoy have arisen. Although I should highly prize the honour of being your chosen representative, the proud position I have attained in the exercise of my former profession will assure you that I have not any personal interest to serve in entering Parliament, and should your choice devolve upon me my best energies will be devoted to the discharge of my duties as your representative, and, whether elected or defeated, the approaching contest will give me the opportunity of becoming personally acquainted with your beautiful island and its inhabitants, and I trust I shall be welcomed as a resident, desirous at all times to lend his aid in furtherance of everything that will tend to promote the interest of all classes in the island.

"I have the honour to remain, gentlemen, your faithful servant,

"Binstead, May 27." "Charles Locock.

Dangerous Nuisances.

To the Editor of the Medical Times and Gazette.

Sir,—Sanitary and Medical science has just achieved a most useful success in the rejection by the House of Lords on Friday evening, of a Bill for the extension of large gasworks in a populous metropolitan suburb, which Bill had passed, I must suppose *per incuriam*, through the Commons.

The Lords rejected the Bill on the second reading—that is to say, on principle. I trust that the principle thus judiciously asserted will in all cases be maintained where it is proposed to extend, in town neighbourhoods, noxious manufactures of any kind which could be carried on at some distance in the country, where they would inflict, at least comparatively, little injury on health and property. The manufacture of gas is emphatically one of these. After interminable experiments, it is found substantially impossible to disengage it from dangerous and deleterious effects ; but it is quite practicable to carry it on many miles from the place where it is consumed.

It would be the climax of inconsistency to spend millions in sanitary purification of all kinds for the benefit of London, and at the same time sanction any avoidable enlargement of dangerous nuisances.

I am, &c. A Valetudinarian.

Calabar Bean.

To the Editor of the Medical Times and Gazette.

Sir,—We are sadly in want of a plain, pronounceable name for the extract of this plant, now so much used in ophthalmic practice. We have been fortunate in the name of its antagonist, for "belladonna" and "atropine" can hardly be much perverted, even by the most ingenious Malaprop ; but unless we resign ourselves to the barbarism of "Calabarine," we are driven to use some periphrasis to express the active principle of the *Physostigma*. Of this botanical name it is altogether a hopeless matter to contrive any pronounceable modification, and one is almost tempted to adopt some such short cut in nomenclature as was used the other day by a Yorkshire patient of mine, to whom I had been giving for mydriasis some disks of the gelatine containing extract of the *Physostigma*. "Would you be kind enough, Sir," said he, "to order me half-a-dozen more o' them beans?"

It matters little what new word we use, so that it is in some way derived from the name of the plant itself ; and, therefore, I would inquire of botanists whether the *Physostigma* has not some *alias* which might be taken advantage of in designating its active principle. I am, &c.

May 26. Nominis Umbra.

Poor-law Medical Relief.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I shall feel obliged by your giving insertion to the accompanying resolutions of the Southampton Board of Guardians, as they may be useful to the Poor-law Medical officers and act as a guide for other Unions. If the Medical officers of these Unions, where the guardians have come to a decision on the question of "cod-liver oil and expensive medicines," will communicate the result, either publicly through the medium of your journal, or privately to me, it will enable us to shape our proceedings accordingly. I am, &c.

12, Royal-terrace, Weymouth, May 27. Richard Griffin.

"SOUTHAMPTON BOARD OF GUARDIANS.

"At a meeting of this Board, held May 17, 1865, the following report was made:—

"A Dispensary for the Poorhouse.

"The General Purposes Committee, who were requested to confer with the Medical officers, reported that they met on Friday, when there were present Messrs. Aldridge, D.P., Payne, Ellis, Walden, Barling, and Mosely, and Messrs. Cheesman, Beneraft, and Griffin, Medical officers. Having duly conferred with the three Medical officers on the subject, and ascertained their views with regard to the supply of the whole of the medicines to the sick poor, they resolved unanimously to report to the guardians:—

"1. That a Dispensary be opened at Gower House, part of the workhouse premises, for the supply of the whole of the medicines required for the sick poor, attended by their Medical officers as parish patients.

"2. That a Dispenser be employed and paid by the guardians, whose whole time shall be devoted to the duties of dispensing such prescriptions as shall be sent to him by the Medical officers.

"3. That the Dispensary be fitted up with the requisite shelves, fixtures, and appurtenances at the expense of the guardians.

"4. That the Medical officers shall contribute towards the expenses of carrying on the Dispensary the sum of £100 per annum, in such proportions as they may arrange among themselves, which proportions should be deducted from the present amount of their salaries.(a)

"5. The committee strongly recommend the establishment of a Dispensary as, in their opinion, certain to prove most beneficial in its operations to the poor sick persons who are compelled to apply for Medical relief.

"They believe that the additional expenditure which it will necessarily occasion will be in a great measure lessened by the more rapid cure of patients, which will be occasioned by the administration of cod-liver oil, quinine, and other expensive medicines, which cannot be given at present by the Medical officers as often as is desirable.

"On the motion of Mr. White, seconded by Mr. Walden, the report was adopted *nem. con.*"

In the *Lancet* of May 20, a Dispensary Medical officer says:—"I use here some very good Norwegian cod-liver oil at 8s. 6d. per gallon, which I have tested and found to be a good fish oil, and I have not had a single complaint from any patient about its taste, etc.; but they say it is as nice an oil as they have ever had. At the Brompton Consumption Hospital they only pay 6s. 6d. per gallon for this oil, and the class of patients treated there have tender enough stomachs."

The Effects of Heat on French Wines.

It has for some time been discussed with considerable warmth whether the wines of Burgundy are improved, or even whether they would bear without deterioration long sea voyages and the temperature of high latitudes. The *Compagnie des Grands Vins de Borgogne*, represented in Paris by Messrs. Forrest, Amé, and Cie, have made an attempt to set the question at rest by sending out two hundred cases, containing samples of twelve of the finest growths of Burgundy, to San Francisco. The Chancellor of the French Consulate undertook with some friends to taste each case on arrival, and he declares that the wine arrived in perfect condition, bright, and full of flavour and *bouquet*. This lot of wine was at sea six months, passed the line twice, and rounded Cape Horn, where the vessel remained for twenty days—a pretty fair taste of the briny, as Dick Swiveller would have said.

The effect of heat alone on the condition and maturity of wines is deservedly attracting much attention. It is before the Academy of Sciences of Paris, and many theoretical and practical minds are at work upon it. For those who hold large stocks of French wines, which, under favourable circumstances, repay with good interest the outlay of capital, the question is of great commercial importance. A communication from M. Vergnette Lamotte to the Academy supports what we have stated above concerning the effect of tropical voyages on French wines, and relates experiments made by that gentleman at home. He says that he has kept wine in bottle for three months in a room heated to 104°, and even 120° Fahrenheit, with excellent results. In support of this, M. Pasteur said that he also had experimented on the maladies of various wines, and had proved that they all arose from the presence of microscopic vegetation. The vegetation takes place very slowly for a certain number of years, and it is only when the development has become considerable that the malady is recognised, although, in reality, it existed long before. M. Pasteur says that all the chemical agents he has tried have failed to supply him with a means of preserving wine good for an indefinite period. "I then thought," said M. Pasteur, "of destroying the germs of vegetation by the application of heat, and I succeeded beyond my expectations. It is only necessary to heat the wine for an hour or two to the temperature of from 140° to nearly 160° Fahr. to render it almost incapable of change. So far from the wine being injured by the process, M. Pasteur says that, in all his experience, good judges have always found the heated wine improved, both as regards flavour and *bouquet*. One of the most effective causes of the deterioration of wine, he adds, is the leaving a considerable empty space in the bottles; for the oxygen in the air and light are the acting causes of vegetation. Vegetation has the property of producing volatile acids in considerable quantities, which may be ascertained by the distillation of the wine, which, if free from fermentation, only yields from one to two-tenths of a gramme of acid per litre—that is to say, not more than one or two grains per pint, English. Practice bears out the theory of the chemists; in Burgundy, as in other wine countries, it has long been the custom to apply heat for the purpose of ripening wines. Forty years ago, M. Dubief published an account of his experiments in that way, and he has since produced a work on the subject entitled "L'immense Tresor des Vignerons et des Marchands de Vin." His deductions may be condensed in a few words—Six months in a stone room heated as mentioned above will give to wine all the effect of one or two years of age, and will arrest the vegetation in those which have already begun to ferment.—*The Wine Trade Review.*

(a) Their present salaries amount to £570.

COMMUNICATIONS have been received from—

A Physician; F.R.C.S.; Dr. R. Lawson Tait; Dr. Charles Taylor; Thomas; Dr. Herapath; Epidemiological Society; A Student (2); Mr. R. Griffin; Dr. J. N. Kealy; The Hammam; Mr. R. F. Snape; Mr. T. Howells; An Old Subscriber; Dr. C. Handfield Jones; Nominis Umbra; Apothecaries' Hall; Obstetrical Society; Dr. Rogers; Nemo; A Valetudinarian; Dr. Hugh W. Thomson.

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 27, 1865.

BIRTHS.

Births of Boys, 950; Girls, 926; Total, 1876.
Average of 10 corresponding weeks, 1855-64, 1794·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	660	589	1249
Average of the ten years 1855-64	584·1	546·2	1130·3
Average corrected to increased population..	..	..	1243
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	2	5	6	..	5	13	3
North ..	618,210	2	2	5	1	11	16	5
Central ..	378,058	..	3	6	..	9	5	3
East ..	571,158	1	1	10	..	15	11	11
South ..	773,175	2	5	7	1	16	7	5
Total ..	2,803,989	7	16	34	2	56	52	27

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·852 in.
Mean temperature	61·7
Highest point of thermometer	78·5
Lowest point of thermometer	42·3
Mean dew-point temperature	52·3
General direction of wind	S.W.
Whole amount of rain in the week	1·35 in.

APPOINTMENTS FOR THE WEEK

June 3. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

Royal Institution, 4 p.m. Alex. S. Herschell, Esq., "On Meteorology."

5. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

Epidemiological Society, 8 p.m. Deputy-Inspector-General Smart, M.D., R.N., "On the Dengue (Break-bono Fever) of Hot Climates—the Scarlatina Rheumaxia of Dr. Copland."

Royal Institution, 2 p.m. General Monthly Meeting.

6. Tuesday.

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.

Anthropological Society of London, 8 p.m. Meeting.

Royal Institution, 4 p.m. Mr. Edwin Chadwick, "On the Physical and Moral Condition of the English Wage Classes."

7. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

Obstetrical Society of London (Council Meeting, 7 p.m.), 8 p.m. Adjourned discussion on Dr. Barnes' paper "On Dysmenorrhœa, etc., from a Peculiar Form of Cervix;" also, a Supplement to the same, by Dr. Barnes. Dr. J. Braxton Hicks, "Case of Extra-uterine Fœtation." Dr. B. Woodman, "Cases of Hydatiniform Degeneration of Placenta with Albuminuria."

8. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

Royal Institution, 4 p.m. Mr. Edwin Chadwick, "On the Physical and Moral Condition of the English Wage Classes."

9. Friday.

Operations, Westminster Ophthalmic, 1½ p.m.

Royal Institution, 8 p.m. Professor Frankland, "Latest Researches in Organic Chemistry."

ORIGINAL LECTURES.

AN INQUIRY INTO THE NATURE OF THE PHENOMENA WHICH CONSTITUTE "INFLAMMATION."

TWO LECTURES DELIVERED AT

The Royal College of Physicians.

By LIONEL S. BEALE, M.B., F.R.S.,

Fellow of the College; Professor of Physiology and of General and Morbid Anatomy in King's College, London; Physician to King's College Hospital.

Of truly Vital Actions as distinguished from the Physical and Chemical Actions of Living Beings—Vital Phenomena of Inflammation—Of Vital Stimuli: Nutritive Irritability—Excitation and Irritation—The Nature of Irritation—Alleged Resemblance of Inflammation to Combustion—Oxidation not Increased in Inflammation—Of "Excess" or "Deficiency" of Vital Action—Of Living Matter and Formed Matter, and of the so-called Force-Conditioning Machinery of the Cell—No Analogy between Living Matter and a Lifeless Machine—On Inflammation—Changes in Living Matter—Of the "Cell" of different Tissues—Quickly Growing Structures Contrasted with Slowly Growing Structures—Changes in the Formed Material—Of Germinal Matter, and of its Origin—"Omne vivum e vivo."

In the two lectures which I have asked the permission of the President to deliver to the College, I propose to discuss the nature of certain changes which seem essential to the process called "inflammation" as it occurs in man and the higher animals. The short time at my disposal will only enable me to refer to some of the most important questions comprised in the inquiry in a very general manner; and I shall adduce only some of the most important of the facts which seem to me most strongly to support the general conclusions at which I have arrived.

Of the Nature of the Changes Peculiar to Living Matter.

And in the first place I shall have to consider the nature of the general changes which I regard as peculiar to living beings, because similar changes occur in the inflammatory process. In fact, the explanation of the inflammatory process which I am about to offer involves the admission upon my part of the influence of some force or power totally distinct from any form or mode of ordinary force; for I do indeed maintain that the phenomena which distinguish all things living from things which are not alive, have not been, and, in the present state of science, cannot be, accounted for by the action of ordinary force. Inflammation is a process peculiar to living beings, and is dependent upon vital, as distinguished from physical and chemical, actions. I would venture to remark that not one of the advocates of the doctrines now so widely taught, upon the nature of vital actions, has considered the real question at issue. The actions which are called *vital*, and which are undoubtedly explained by physical laws, are not vital actions at all, but the true vital actions have been entirely ignored by many physicists and chemists.

I have endeavoured to prove that the phenomena usually termed *vital* really comprise two distinct classes of actions,—*actions purely physical and chemical, and actions purely vital.*

The purely vital actions which have been alluded to can only be accounted for by attributing them to the influence of some peculiar force or agency totally distinct in its nature from any form of ordinary force. This is not a power which exists, as it were, in a concentrated state in the germ and gradually expends itself as the tissues are evolved, or as the development of the race proceeds, but it is a power which is only temporarily associated with, and influences for a brief period of time, every particle of matter which becomes living. It is not a principle, nor an entity, nor a material. It is a power which may be transmitted infinitely, and without any increase or diminution in its intensity; and that it may not be said I am speaking indefinitely, I distinctly ask for information upon the following points, which ought to be easily explained by physicists and chemists, if their recent general inferences are correct:—How is it that the living matter, say of a simple microscopic fungus, continues to take up certain constituents dissolved in the surrounding medium? How do these constituents become decomposed, and their elements re-arranged so as to form compounds differing in composition and properties, both from the living matter and also from the constituents of the pabulum before they were absorbed? Why does matter in this peculiar living state, after apparently attracting matter towards it and increasing in size, at length undergo division into smaller portions, which separate from one another? Why do different parts of a mass of germinal matter move amongst one another, some parts advancing before other parts; and how is it that some portions of the mass take up a position *above* other portions, in spite of the force of gravitation? These are simple points upon which no information is afforded us by those who unhesitatingly assert that vital actions are in fact made up of physical and chemical actions only.

Of Vital Stimuli, Nutritive Irritability, Excitation, and Irritation.

Next, then, is the very important question of the influence of the so-called vital stimuli upon normal and morbid changes in living beings. Many suppose that organised bodies, being acted upon by certain vital stimuli, develope vital actions. Thus heat is supposed to be the vital stimulus which excites the changes resulting in the development of the chick; light is supposed to excite or stimulate certain changes going on in the vegetable organism—nay, lifeless inorganic matter is regarded as an excitant to increased vital action in certain cases. A particle of sand falling upon the conjunctiva is followed by increased action, as shown by the more rapid growth of cells and the increased vascularity. It is said the particle of sand has *excited* these changes; it is an *irritant*. But, perhaps, the heat, light, and particle of inorganic matter have been all perfectly passive. The conditions under which life was carried on before may have been physically altered, and the alteration may be due to changes, not in the living matter itself, but in the formed lifeless matter by which it is surrounded. In consequence of these *physical changes*, pabulum may flow towards the living matter more readily than before. If this be so, the living matter is not *excited* to live faster, but in consequence of more pabulum having access to it, more matter becomes living within the same period of time. The influence of the so-called *excitant* is after all of a passive character. It does not excite dormant energies or evoke vital actions, but by it some of the restrictions under which the matter lived previously are partially removed.

It is remarkable in these days, when the explanation of phenomena by hypothetical agencies, forces, or powers is assailed on all hands, some of those observers even who have been specially distinguished for their opposition to any doctrine which admits the influence of vital as distinct from physical force, should pertinaciously insist, and without attempting to explain by what mysterious means, that a living cell can exert a modifying influence upon the action of cells around it. A cell undergoing increased action is supposed to *excite* increased action in cells in its immediate neighbourhood.

Virchow asserts that cells may be *incited*, by a *stimulus* directly applied to them, to take up an increased quantity of material. He maintains that "the irritability of a part is the criterion by which we judge whether it is alive or not;" that every vital action presupposes an excitation or iritation, and says, that "we cannot imagine inflammation to take place without an irritating stimulus." The illustration he gives for the purpose of explaining, what he means by *irritation*, and in what manner he supposes the cells in the neighbourhood of the injured cells are affected, will perhaps enable us to form a clearer notion of the views now generally entertained than a long exposition of the various opinions:—"Suppose three people were sitting quietly on a bench, and suddenly a stone came and injured one of them; the *others* would be *excited*, not only by the sudden appearance of the stone, but also by the injury done to their companion, to whose help they would feel bound to hasten. Here the stone would be the '*irritant*' the injury the *irritament*, the help an expression of the *irritation* called forth in the bystanders." So that, according to this doctrine of irritation, not only have the uninjured cells a power of sympathising with their less fortunate companions, but they desire to hasten to afford them active assistance in their difficulty!

I think that the doctrine of "nutritive irritability," so far from enabling us to explain the facts, only complicates the question still further. It seems to me that the so-called "*irritant*" merely produces some physical or chemical alteration which permits the pabulum to pass more freely to the germinal matter.

No Analogy between Inflammation and Combustion.

Chemical authorities taking a somewhat different standpoint have ascribed the changes occurring in living beings to various chemical actions, and especially to oxidation. Dr. Bence Jones agrees with the statement that there is a resemblance between the process of inflammation and ordinary combustion, and has gone so far as to include "inflammation" under the head of "general and local chemical disorders arising from *peroxidation*."

Now, so far from inflammation depending upon increased oxidation, it would seem that the oxidising process is greatly diminished in intensity, or altogether stopped. In a vascular tissue in a state of inflammation, as is well known, the circulation is very slow, or is actually suspended. How, then, can there be increased oxidation? Inflammation, as is well known, occurs in tissues altogether devoid of vessels, where oxidation must be slow indeed. What, I would ask, is the evidence of increased oxidation in pneumonia, or pleurisy, or pericarditis? Bright's disease, tubular nephritis, cystitis, and other affections are considered by the same authority to depend upon peroxidation; while there is strong evidence that these morbid changes are accompanied by, if not due to, deficient oxidation; and, as is well known, the way to treat such chronic disorders is not to attempt to diminish oxidation, but to increase this process in every possible way. If we could increase oxidation at the seat of inflammation, I believe that we should diminish the activity of the inflammatory process. So that there seems to be no real resemblance between the chemical combustion of lifeless matter and the *vital process* of inflammation which occurs in living things only. Combustion is an intense chemical action, inflammation an intense vital action. Oxidation is opposed to vital action, and where truly vital actions exhibit increased intensity, the activity of the process of oxidation is not great.

Even if we regard it as conclusively proved that an increased development of heat invariably takes place at the seat of inflammation, I think a careful consideration of the facts render it more probable that the rise in temperature is due to the increased multiplication and rapid germination of the masses of germinal matter than to oxidation. The process of germination generally seems to be intimately associated with the setting free of heat, but it is very doubtful if it depends upon oxidation, since it is proved by observation that the conditions favourable to free oxidation are not present. Generally, the process of oxidation is far more active in the fully-developed tissue than in the actively growing, living germinal matter. Compare the high degree of development of the respiratory apparatus of the imago or perfect insect with that which exists in the germ. Oxidation seems to be connected rather with the disintegration or removal of *fully developed and worn-out tissue* than with the growth and multiplication of masses of germinal matter, which attains its maximum at an early period of development, and in certain morbid processes. Oxidation is clearly necessary to the breaking down and removal of tissue; but it is doubtful if it has much to do with the appropriation of pabulum by living matter, or even with the process of formation of tissue.

Of Quick and Slow Vital Changes, and of Excess and Deficiency of Vitality.

Living fast is invariably associated with brief duration. If the lasting character and slow change of a healthy as compared with an inflamed tissue is to be regarded as evidence of the manifestation of the highest possible degree of vital activity, then by this we mean the slightest possible change.

If we are to regard these characters, which exist in many healthy tissues, as evidence of an increased or high degree of vitality, as compared with pus, cancer, and other active and rapidly growing cells, then an old dry cell of cuticle is in a more highly vital state than a young and actively growing one; a dry hair more so than the soft cells of its bulb; the hard dry cells of a cocoanut shell, or a walnut shell, or a peach stone, which have ceased to change, exhibit "vitality" in a more remarkable degree than the rapidly growing cells of a young leaf, than the rapidly multiplying cells of many fungi, and the soft moist cells of all growing and changing vegetable tissues. If this view be true, an old tissue is in a higher state of vitality than a young one. Still following out the same line of argument, we should be forced to admit that that which has ceased to grow and has ceased to change—that which cannot form, or change, or modify—that which has no inherent power of motion, conversion, or formation—that which is, in short, *dead* — exhibits a higher degree of "vital activity" than the soft, ever-changing matter which possesses all these wonderful powers—which, in short, lives.

If, on the other hand, rapid growth—the appropriation of a large quantity of nutrient matter—rapid change—rapid increase of bulk—are evidences of a *a high degree of vitality*, then a pus cell and a cancer cell, so far from manifesting a *deficiency* of vital power, exhibit unmistakeable evidence of vital activity, and agree in this with all young tissues, and with the rapidly growing "cells" of the adult organism. If "increased vital activity" means anything, it means that, in a given time, a greater quantity of inanimate pabulum becomes living matter; and it follows that pus and cancer and the granular cells, growing so fast in many morbid conditions, manifest *increased*, not *deficient vitality* as compared with epithelium. But is it not more correct to say that, in the former, "the restrictions under which growth occurs are greatly diminished, as compared with the latter," than to speak of *varying degrees*, or *excess*, or *deficiency* of vital power?

In health, there are tissues exhibiting every degree of slow and rapid change (vital activity), from the scarcely altering enamel and dentine to the so-called cells (masses of germinal matter) which are found in such numbers in every villus, many of which pass through perhaps every phase of existence during the absorption of a single meal.

We very often find that tissues which grow very slowly in the normal state, in disease exhibit remarkably increased activity; and in this *more rapid growth* and change alone does the morbid condition oftentimes differ from the normal state.

(To be continued.)

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upon the

HISTORY, THEORY, AND PRACTICE OF SYPHILISATION.

By Professor W. BOECK, of Christiania.

Delivered in the Theatre of the Meath Hospital and County of Dublin Infirmary on Friday, June 2, 1865.

Gentlemen,—I have been requested to deliver a lecture upon syphilisation: I willingly comply with this request, as Dr. Moore has had the goodness to translate my lecture, but I must apologise for my imperfect pronunciation of your language.

By syphilisation I understand the mode of treatment by which, by repeated inoculations of syphilitic matter, taken from primary sores, I bring the body into the condition that it is no longer susceptible of the action of the syphilitic virus.

It will, perhaps, be agreeable to you, Gentlemen, before I proceed further, that I should lay before you a short *résumé* of the history of this mode of treatment. Auzias-Turenne, of Paris, performed inoculations of syphilitic matter upon animals in order to see whether this virus could be transferred to them, which up to that time had been denied. In this he was at length successful, and it was chiefly apes which could with the greatest facility be inoculated. After chancres had been repeatedly produced in the same ape, a great many sceptical physicians wished to see his inoculation, and a meeting was appointed in the *Jardin des Plantes*; the old ape was inoculated, and a still greater crowd assembled a few days later to see the result. But when the ape was brought in nothing was to be seen. It may easily be imagined how this result was received, and that Auzias-Turenne was ridiculed, but he did not on that account give up the method: he continued his inoculations, found that the old ape was not susceptible of fresh inoculations, but that a second ape after inoculations got chancres, though this ape also after a series of inoculations became unsusceptible.

Auzias-Turenne now saw clearly that he had here a natural law, in itself resembling that which your immortal Jenner had discovered in the inoculation of vaccine matter, and we shall not upbraid him that his French blood now carried him away, and that his first idea was to employ the inoculation of syphilitic matter like that of vaccine matter—as a prophylactic. We cannot gainsay him that his train of ideas is logically correct, but it is not practically correct, for the great rule is, that he only gets syphilis who himself will have it.

As the result of this idea of employing syphilisation as a prophylactic, my friend Auzias wished at the time to syphilise all public girls, seamen, and soldiers, and he would

willingly have syphilised us all. No wonder, then, that such an idea met with all the opposition it deserved; but it was not long until Auzias renounced his error, and at the same time there appeared an Italian, Sperino, of Turin, who showed, by a series of experiments, that the syphilitic disease was cured during these inoculations, which Auzias, too, at the same time, demonstrated. Still, this failed to reconcile Physicians to the new method; such a prejudice had been raised against it that both the Académie de Médecine of Paris and the Academy of Turin condemned it without having the necessary materials before them for passing any judgment; the paradox involved in this method appeared to all so enormous as to render proofs of its absurdity unnecessary.

Lecturing in the University of Christiania upon syphilis, and having a section of the Hospital devoted to this disease, I carefully investigated all that was advanced upon this subject, and ascertained that there must be some truth in it. I had, through a period of very many years, found that our treatment with mercury is highly unsatisfactory; I therefore considered that, from my position, it was my duty to give a trial to this new method, although it appeared to me as paradoxical as it did to all the world, and notwithstanding that it had been condemned by two Academies. But before I began, I laid down for myself certain limits, to which I still adhere. It will be at once observed that I will not speak of the method as a prophylactic: this would be immoral; but neither am I at liberty to employ it in every case of syphilis; it is only when syphilis has become constitutional—when the syphilitic virus flows with every drop of blood through the system—that I allow myself also to inoculate it upon the skin.

The next question is, whether I shall employ syphilisation in every case of constitutional syphilis?

By a fortunate coincidence it happened that of the two individuals whom I first took under treatment by syphilisation, the one had not been treated for syphilis, while the other had been the subject of all the resources of our art. In the first the inoculations proceeded without difficulty, the symptoms gradually disappeared—in a word, I found myself upon the beaten path. In the other case all was irregular, I could effect no order at all, and when my first patient was well, the phenomena in the second were still in full bloom. I immediately began to suspect that it was to the medicines previously given that this result was attributable, and on subsequently investigating this opinion, its truth has been most completely confirmed; so that I have made it a general rule to syphilise only those who have not previously been treated with mercury, whether this has been employed for primary or constitutional symptoms. But if I be asked whether syphilisation has not some effect in these cases, I can answer decidedly in the affirmative—it often acts incredibly. Dr. Simpson, of Edinburgh, has recently described two such cases, which were sent over to me by Professor Simpson; what is there stated corresponds precisely to what I have myself noted, and of which any one may satisfy himself. But the reason why I do not undertake the treatment of such individuals is to avoid having relapses, which in these cases are apt to occur.

Now, in order to make my usual mode of proceeding as plain as possible, I shall suppose that a person labouring under primary syphilis consults me. In this case I treat the primary sore as a simple ulcer—I prescribe a weak solution of sulphate of zinc or such like, and occasionally employ a slight cauterisation with nitrate of silver; I give no internal medicine, but make the patient come to me once or twice a-week, that I may observe when the constitutional symptoms break out, for the earlier syphilisation can be commenced the better. So soon as I perceive the first constitutional signs, I commence the treatment by taking matter from an indurated chancre or from an artificial pustule in a patient under treatment by syphilisation. I inoculate first on both sides of the chest, and make three punctures with a lancet, precisely in the mode adopted in vaccinating. After three days pustules are developed, and then I inoculate again in the sides, taking the matter from the pustules produced by the first inoculation, observing carefully to make the second inoculation at a distance from the first, so that the sores may not become confluent. At the end of three days I make the third inoculation, taking the matter from the pustules of the second inoculation; and I now continue to inoculate on both sides every third day, always taking the matter for the fresh inoculation from the pustules last formed, so long as this matter continues to afford a positive result. When it no longer takes I procure new matter in the same mode as for the first inoculation, and continue with this as with the first. This second matter will yield smaller sores and a shorter series than the first, and when it no longer takes I procure a third and proceed in the same manner. This third matter will produce very little effect, and I therefore pass to the upper arm, where I proceed in precisely the same mode as in the sides; and when no effect is any longer visible in the upper arm I remove to the thighs, and continue there in the same way as in the two preceding places. By the time the inoculations are here brought to an end, from three to three and a-half or four months have probably elapsed, the symptoms which manifested themselves from the commencement have disappeared, or if some slight symptom has remained this disappears spontaneously. It often happens that during the treatment a fresh outbreak takes place, and he who is not acquainted with the method believes that some other plan must now be adopted; another infers that syphilisation is of no avail. But, let them not be deterred by any symptom, not even by the most severe iritis, which never requires anything but the instillation of a little atropia. But, happen what may, let them shut their eyes to it and continue the inoculations. The patient who, during the whole treatment, can attend to his business, feels, after it is completed, perfectly well, and may immediately expose himself to any hardships. He can endure wet, cold—in a word, everything which after mercurial treatment would render him liable to life-long illness. It is probable that I may now be asked as to the result at a later period for these individuals, and I shall speak first of the relapses. On the whole, I have treated 429 individuals, and of these 45 have come back, making about $10\frac{1}{2}$ per cent.; but, as we may calculate that some of those treated during the last year will return, I will assume that the relapses will amount to 12 or 13 per cent. But, let us now examine more closely what is called a relapse after syphilisation. In many instances a single mucous tubercle, a small white spot on the tongue or in the throat—symptoms for which nothing more than external means is employed, and for which the patients are treated only for a few days in Hospital. So far as I at this moment remember, thirteen were taken again under treatment with syphilisation, and two with iodide of potassium.

You will next ask whether tertiary symptoms have been developed in any of them. This has been the case, I believe, with three; but at the same time these individuals have been perfectly well—their general health has not, as so often happens after mercurial treatment, been broken down, and in those who have had relapses it has been good, as it is evident that in those who have had no relapse it has been particularly good.

We come now to the children of those who have been syphilised. Here we are not much better off than after the mercurial treatment; we see the same rule to prevail as after this last method, namely—that when the mother has been syphilitic, the first child or children is or are syphilitic; that they are healthy is the exception. If the father has been syphilitic, the children are, in general, healthy; that they are syphilitic is the exception.

You will next propose to me the question how I treat syphilitic children. I treat them precisely as I do adults; and it is interesting to see that the sores in these little ones bear in size a proportion to that of the child, and that the patients suffer less, and not more, than adults. The results of syphilisation in children with hereditary syphilis have not been brilliant; of forty-two children, twenty-two died, but I have taken under treatment every case that I have met with, and every one knows that in such children there are very often affections of the internal organs which lie beyond our power to cure. I cannot at this moment say how many little children with acquired syphilis I have syphilised, but they are not few, and of these only one died, the cause of death in that instance being croup after I had performed tracheotomy. Of adults, two died,—an old woman of dysentery, and a young woman of puerperal fever. This last case I forgot to include in the *résumé* I have given in the *British Medical Journal*.

Now, in order to give you a definite idea of the confidence I have in this method after having practised it daily for thirteen years, I shall say only that if I myself, or any of mine, were so unfortunate as to get syphilis, I should employ no other means than syphilisation.

Still, a few words in conclusion, gentlemen. Vaccination has for many years stood alone; syphilisation now comes to join it. Shall we stop here? I believe not. Vaccine and the syphilitic matter are both animal viruses; we see them contained under a similar law. May not also the other animal poisons be referred to a similar law? We see that Nature is simple in her diversity: should this not also here be the case?

—should not glanders, hydrophobia, etc., some time be curable? Let us all seek to clear up this dark point in our science, and let us not, as hitherto, with respect to syphilisation, seek only to extinguish the rising gleam.

[Among the crowded auditory present during the delivery of the foregoing address were:—The President of the King and Queen's College of Physicians in Ireland, the Regius Professor of Physic in the University of Dublin, Sir Wm. R. Wilde, the Professors of Surgery and of Materia Medica in the Royal College of Surgeons, the Rev. Professor Haughton, M.D., F.R.S., Professor Banks, Mr. Tufnell, Mr. Morgan, Drs. Smyly, Bennett, Banon, Martin (of Portlaw), Fleming, Head, Hardy, Hayden, Byrne, Moore, etc., etc. On the conclusion of the lecture, the President of the College of Physicians proposed, and Mr. MacNamara seconded, a vote of thanks to the learned Professor for his very lucid and interesting exposition, which, notwithstanding the disadvantage of speaking in a foreign tongue, he had so admirably delivered. The vote of thanks, which passed unanimously amid great applause, was conveyed to the Professor in suitable terms, on the part of himself and of the students, by Dr. Stokes.]

ORIGINAL COMMUNICATIONS.

RUPTURE OF THE EYE THROUGH THE SCLEROTIC.

By GEORGE LAWSON, F.R.C.S.,
Assistant-Surgeon to the Royal London Ophthalmic and the Middlesex Hospitals.

(Continued from page 571.)

Prognosis.—Our prognosis in cases of rupture of the eye through the sclerotic must always be very unfavourable; for if we regard the injury only with reference to the rent in the sclerotic, without anticipating any deeper destruction of parts, we must notice that the wound is a contused and lacerated one—the most unfavourable for primary union—and that it is in the ciliary region, the part of the eye worst suited for the reception of injuries. These facts alone would lead us to anticipate the loss of the eye; but when we further consider the force required to produce such an injury, we are led to predict a bad result.

Treatment.—When a patient who has met with this injury first presents himself for treatment, the eye is generally somewhat in the following condition:—A rent is seen in the sclerotic in the locality already indicated. A portion of iris may or may not be prolapsed through the wound. The cornea is probably entire, and the tension of the eye is—T 2 or 3. On looking into the eye, we see the anterior chamber occupied by a coagulum of blood. We can only surmise the extent of damage the deeper tissues have undergone, and treat the patient accordingly. Two or three leeches should be applied to the temple of the injured side, and repeated in twelve or twenty-four hours if the eye is very painful. Soothing applications afford the greatest relief, and a double fold of linen may be laid over the eye and kept wet with a belladonna lotion. The room in which the patient resides should be darkened. If the eye progresses favourably, towards the end of the week the blood in the anterior chamber will have been sufficiently absorbed to allow of a more accurate examination being made. The patient, though unable to discern objects, ought now to have a fair perception of light; failing to possess this, a very unfavourable prognosis must be formed. If the blood in the anterior chamber at the end of the week remains unabsorbed, and no correct diagnosis of the injury can be made, let the patient continue the treatment, and examine the eye from day to day. If, however, after ten days or a fortnight's treatment, or perhaps even longer, the eye is found to be irreparably destroyed for all purposes of vision, what is the best course to pursue? In such a case, even supposing the eye to progress favourably and to give rise to no untoward symptoms, but to proceed steadily on to recovery, the best we can hope for is, that when all active inflammation has subsided the globe will shrink, and shrink sufficiently to allow of the use of an artificial eye. This process, however, takes time, and at least from six weeks to three months' constant attention will be required, during which it will be a source of continued anxiety and very often of pain.

But eyes lost from rupture of the sclerotic do not always progress in this quiet manner; they frequently go on to suppuration, and a long, painful, and tedious process is entailed, occupying not less than six or eight weeks, and a still further period is necessary before the remnant of the globe has cicatrised, and the contraction of the stump is completed. The great danger, however, of a severe injury to one eye is the chance of the other becoming involved in a sympathetic ophthalmia, a danger always to be apprehended as long as it continues in a state capable of acting as a source of irritation. My own feeling is, that when, after a careful examination, it has been accurately decided that the eye is lost, it is far the safest and wisest plan to remove it. A long period of certain anxiety is saved, for a man must be anxious who has lost one eye, and knows that the other is, as it were, in the balance; all further suffering is put an end to, and the safety of the other eye is insured. Surely these three considerations must weigh well with a sensible man against the simple fact that the stump of a lost eye is a good button upon which to hang an artificial one, for though the deception in such cases is more complete than when the globe has been excised, it is in truth nothing more than balancing the worth of the seemly appearance of an artificial eye against the chance of losing a sound and a living one.

The following cases are illustrations of the remarks I have just made. In the first three cases recorded, the rupture of the sclerotic occurred in the upper region of the eye, its most usual situation. In Case 4 the rent was on the inner side, between the internal rectus and inner margin of the cornea. Case 5 is illustrative of what often occurs when the eye is allowed to remain after rupture of its external coats from an injury accompanied with extensive intraocular hæmorrhage.

Case 6 is an example of rupture of the sclerotic in an unusual position, occasioned by the direct impact of a large foreign body driven with force against it.

Case 1.—*Rupture of the Globe in the Upper and Inner Region of the Eye—Complete Loss of Sight—Excision.*

John C., aged 45, applied to the Hospital on February 28 of this year on account of an injury he had received to the left eye. Eighteen days previously he was walking through his back yard, the ground being at the time covered with ice, when his foot slipped and he fell, striking in his fall his left eye against the bolt of a gate. He was at once admitted into the Hospital.

State on Admission.—Along the upper and inner border of the eye, a short distance from the margin of the cornea, but anterior to the insertion of the superior rectus muscle, is a jagged wound about five-eighths of an inch in length. The anterior chamber is now clear, but blood can be seen in the vitreous. The lens appears to have escaped through the wound at the time of the injury. He has no perception of light, and it has been since the accident a constant source of pain. I therefore advised the man to have it removed, as the eye was a lost one, and would probably continue to give him much trouble and anxiety. He at once assented, and I removed it for him. The following was revealed by the examination of the eye after its excision:—On making a section of the eye it was found that the vitreous space was occupied by a thin yellow serous fluid, excepting in the immediate neighbourhood of the ciliary processes, where a small quantity of vitreous, of normal consistency, mixed with blood, was adherent to them. There had evidently been extensive hæmorrhage from the ciliary processes into the vitreous, and an escape of the lens, and the loss of a considerable portion of vitreous at the time of the accident. The choroid, retina, and sclerotic were *in situ*, but here and there were small patches of blood between the choroid and retina.

Case 2.—*Rupture of the Eye through the Sclerotic in a Line Extending Inwards from between the Margin of the Cornea and the Superior Rectus.*

Joseph F. came to the Ophthalmic Hospital on April 15, 1860, on account of an injury he had received to the left eye seven days previously. He was employed unloading ballast from railway trucks into a barge, and in striking a large piece of wood which he had laid across the rails, it flew up and struck the eye with great force.

State on Admission.—There was a rupture of the sclerotic in a line corresponding to the horizontal diameter of the cornea, between its upper margin and the superior rectus muscle. Through this wound the iris, a portion of the choroid, and some lens matter was still bulging. The whole eye was softened and somewhat shrunk, acutely inflamed, and intensely painful. The interior, as far as could be seen, was filled with blood and inflammatory effusions. He had no perception.

The eye was quite destroyed, and to relieve his sufferings and place the sound eye in safety, the injured one was excised.

The man made a quick recovery.

Case 3.—*Rupture of the Globe through the Sclerotic in a line between the Cornea and the Superior Rectus from a Blow.*

Chas. D., aged 30, came to the Hospital on December 26, 1859, on account of an injury he had received to the right eye. On the previous evening, whilst drunk, he was violently struck on the right eye, but he has no remembrance of how or by whom the injury was inflicted. There was a large transverse rupture of the sclerotic extending in a line between the superior rectus and the upper edge of the cornea. The anterior chamber was full of blood, and the eye irreparably destroyed.

Case 4.—*Rupture of the Eye through the Sclerotic from a Blow with a Piece of Iron—Escape of the Lens and Entire Iris through the Wound—Excision.*

James L. was admitted as an in-patient of the Ophthalmic Hospital on October 21, 1859, on account of an injury he had received to the left eye a fortnight previously from a blow on it with a large piece of iron. He says that immediately after the accident he lost all sight.

State on Admission.—There is a rent in the selerotic on the inner side of the cornea, between it and the internal rectus, in a line somewhat vertical, but corresponding to the curvature of the cornea. There was evidently posterior hæmorrhage, and the eye was quite blind. He complained that the sight of the right eye was dim, and that surrounding objects appeared indistinct. Under these circumstances Mr. Bowman excised the eye, and the man made a good recovery. On making an examination of the eye afterwards it was ascertained that the lens and the entire iris had escaped through the wound. The vitreous was infiltrated with blood, and hæmorrhage had taken place between the choroid and retina, and also portions of the choroid were detached by blood-clots from the sclerotic.

Case 5.—*Rupture of the Eye through the Sclerotic—Subsequent Shrinking of the Globe.*

Eliza W., aged 33, applied to the Ophthalmic Hospital on April 22, 1862, on account of an injury to the right eye four days previously. She accidentally slipped off a chair, and in her fall struck her right eye against the projecting end of the bedpost.

State on Admission.—There was a rupture of the sclerotic at the upper and inner region of the eye about one-eighth of an inch from the margin of the cornea. The anterior chamber was full of blood; the whole eye acutely inflamed, and great chemosis of the conjunctiva. The eye was quite blind, and irreparably destroyed for all purposes of vision. She was strongly urged to have it removed, as it was now useless, a source of much suffering, and might involve the other eye in sympathetic inflammation. She, however, refused, and for a time continued under treatment; but after a few visits ceased her attendance at the Hospital.

June 23.—The patient again applied to the Hospital. The injured eye was now quite shrunk. The other eye (a previously damaged one) was in a very unhealthy state. The cornea was hazy, and the ciliary vessels large.

Case 6.—*Rupture of the Globe in a Line with the Lower Margin of the Cornea—Protrusion of the whole Iris—Posterior Hæmorrhage—Excision.*

Fred. F., aged 34, a boiler maker, was brought to the Hospital on March 28, 1865, having one hour previously met with a severe injury to the left eye. He says he was driving a steel cotter through a pin to fasten together two iron plates, when the cotter flew out, and struck the left eye.

State on Admission.—The globe collapsed more than one-third. There was a wound nearly three-quarters of an inch in length in the horizontal diameter of the eye, running along the lower margin of the cornea, which it had entirely detached from the sclerotic, and extending inwards towards the caruncle for nearly a quarter of an inch through the ciliary region. Protruding from this wound, and hanging loosely, was the entire iris. The collapsed eye indicated that there had been great loss of vitreous. The anterior chamber was filled with blood. The eye was irreparably lost. This being the case, I strongly urged the man to have it removed, and having gained his consent, I at once excised it. On examining it afterwards, the following was the condition:—There was a large wound, as indicated above. The whole iris was prolapsed, having been torn from its ciliary attachment. The lens was also gone, and at least two-thirds of the vitreous had escaped. The anterior chamber was filled with blood. The retina was detached entirely, except at the optic nerve and ora serrata, and bulged forward by a large clot of blood between it and the choroid, which latter was *in situ* with the sclerotic.

5, Harley-street, Cavendish-square.

SEWAGE EXHALATIONS THE CAUSE OF DYSENTERY.

AN ACCOUNT OF AN OUTBREAK OF DYSENTERY IN THE CUMBERLAND AND WESTMORELAND ASYLUM, WHICH WAS CAUSED BY THE EFFLUVIA FROM A FIELD IRRIGATED BY SEWAGE.(a)

By T. S. CLOUSTON, M.D.,
Medical Superintendent.

(Continued from page 570.)

The Dysentery.—The type of dysentery which occurred here was so different in many respects from any of the accounts of dysentery with which I have met, that I think it demands a full description. In many of its symptoms, in the treatment most successful for it, and in its pathology, it differed widely from tropical dysentery.

All the cases did not commence in precisely the same way. Some of the patients had ordinary diarrhœa from periods varying from two to three hours up to twenty-four hours before blood appeared in the stools. In some cases there was great pain in the abdomen for twenty-four hours before the diarrhœa set in; in other cases there was scarcely any pain at any period of the disease. In some cases there were febrile symptoms at the beginning; in others these were absent till the disease had advanced considerably.

There were two classes of cases. In the first, the patient had two or three loose stools, or perhaps had no ordinary stools at all, but at once began to pass glairy mucus mixed with blood, in small quantities at a time, from the bowel. He had no pain, no fever, no want of appetite, and he refused to believe he was ill. This would continue for a day or two, and then the blood would increase in quantity, and the stools become more frequent. Pain would begin to be felt in the region of the rectum, and the pulse would mount up ten or twelve beats. For days the patient would be at stool every hour or two, and of course would become weaker. His tongue was then seen to be coated with a dirty yellowish white fur, but the appetite for such forms of nourishment as milk, strong beef-tea, calves-foot jelly made with wine was good. Solid food was not relished. The stools would then be seen to be coated with a semi-fibrinous semi-purulent looking membrane. The tongue would then become clean and glazed and beef-steaky; the evacuations become fæculent, mixed with pus, the latter element becoming gradually less as the patient advanced in his slow convalescence.

In the second class of cases, the patient had from the first great pain in the abdomen of a griping kind, a hot skin, and a pulse over 100; the dejections were copious and frequent and watery, while they were largely mixed with blood. In many cases there was sickness; in all loss of appetite. After some days the tongue and mouth would become dry and parched and black; the features pinched; the pulse small and quick; and death soon ensued. In some cases the stools would, after a time, become membranous and shreddy, and then purulent, till the patient was more gradually weakened and exhausted. One such case lived six weeks, and the attendant lived two months. Of course, this greatly depended on the previous strength. In only one of the seventeen cases of this class did the patient recover.

All the cases had the following features in common: bloody stools at first, tending to become purulent, intense fœtor of the evacuations during the whole of the disease, no scybala, and great thirst. The laundress could not wash the soiled linen without vomiting, until it had been deodorised by chloride of zinc.

As regards the previous bodily health and condition of the cases attacked by the disease, it may be best judged of when I mention that, of the thirty-one cases, only eleven had been in really good health. All the patients first attacked were very weak or very old. The attendant was the only exception to this. The disease did not confine itself to patients labouring under any one form of mental disorder; but it is remark-

(a) Paper read before a special meeting of the Metropolitan Association of Medical Officers of Health on May 27, 1865.

able that, though there are only, on an average, about eight patients in the asylum labouring under general paralysis, three of these should have died of dysentery, and out of about the same number of congenital imbeciles and idiots, four should have had the disease. It would seem, therefore, that the chief predisposing cause of the disease was diminished nervous energy rather than impaired nutritive power, for several of the patients, especially those congenital cases, were fat and well nourished.

The high rate of mortality must be looked upon as owing quite as much to the state of the patient attacked as to the fatal character of the disease. But then the attendant, who had been strong and vigorous in every respect, was carried off by it, although he was removed away from the asylum, showing that its fatal effects were not owing to weakness or impaired nutrition entirely; and one old man of 65 recovered, showing that the disease might assume a very mild form indeed.

I have no evidence whatever that the disease was infectious. The outbreak of the disease at first, the outbreaks in wards the patients of which had had no communication with the wards in which the dysenteric patients had been, the long intervals when there were no cases in the house, and the fact that the attendant who took the disease did so after three days' residence, when there were no cases in the house, and the entire immunity of the nurses who specially attended the sick, changed their linen, bathed them, etc.—all those facts go to prove nearly conclusively that the disease was not infectious.

Treatment.—In treating the first cases of the disease I naturally used opiates and astringents. I found them to be of no service whatever in the first stages of the disease. The opiates decidedly did harm in any form given by the mouth, except Dover's powder, as they caused sickness. The astringents were useful in the latter stages of the disease, and I should be at a loss to say which of the numerous vegetable and mineral astringents I found most useful, for I found each of them useful, when first given, for a day or two, but they then lost their effect. During the stage when the evacuations were purulent and the blood in them disappearing, I found it of much service to give tannin, gallic acid, acetate of lead, sulphate of copper, sulphate of zinc, nitrate of silver, alum, logwood, and powdered cinchona in this way. Decoction of pomegranate root I found of no service. The famous ipecacuanha treatment, so universally practised and so implicitly relied on in the treatment of tropical dysentery, I tried in every possible way. So far as I could judge, the results were, that in a few cases it caused vomiting that could not be stopped, and prostration that was never rallied from; in a few cases it caused no sickness even when given in large doses, and then it diminished the quantity of blood in the evacuations, while, in the majority of cases, it caused temporary nausea, without doing any more harm or any good. I gave it in the very first stages of the disease, often both by the mouth and by the rectum. I gave it in all doses, from a drachm down to ten grains. I gave it alone and in combination with opium, and after opium. I gave it once a day, and I repeated it every two hours in different cases, and the above is the unsatisfactory conclusion I must come to. Purgatives I found to aggravate the disease most unmistakably. Enemata of astringent substances I found useful in the latter stages of the disease in the cases that were going to recover, and a little opium with these increased their good effects. Enemata given by the long flexible tube, recommended by Mr. Hare, aggravated the symptoms, or rather the flexible tube in being passed up the inflamed and irritable rectum caused intense and unbearable pain. I tried iron in the form of the tincture of the muriate and of the solution of the persesquioxide with as little good effect in the first stage of the disease as the other remedies. Creosote given by the mouth diminished the sickness in many cases, and also diminished the fœtor of the evacuations Tincture of iodine was also ineffectual. Large doses of quinine were tried, but ineffectually. Chlorate of potash was also tried unsuccessfully. Diuretics were also tried in the cases where the urine was scanty and deposited urates, but they seemed of no service. Blisters over the abdomen were useless. The only plan of treatment that I was quite sure did the patients good was to remove them to the third story, to give them as much nourishment in a liquid form as they could possibly be got to take, and to give them wine and water *ad libitum*. Large vessels of milk, boiled with a little flour, and allowed to cool, were always kept by the patients day and night, and the nurses were ordered to give them some of this as often as they could be got to take it. Small pieces of ice were always grateful to them, and when there was nausea or vomiting helped to allay it. Strong beef-tea was given *ad libitum* to those who could be got to take it. Calves'-foot jelly made with wine was given to those who would take it. Soft boiled eggs in some cases were taken and did not increase the purging or cause pain after they were taken. But of all the forms of nourishment the boiled milk was taken most readily by the greater number of patients, and kept up the strength best. This was Sydenham's most trusted form of nourishment in the dysentery of his day, and certainly I found it by far the best. Patients would take it when they would take nothing else, and it never caused griping or an increase of the dejections, as any kind of solid food was so apt to do. During convalescence I did not find solid animal food in the least objectionable.

In three of the cases the patients got out of bed too soon, and had relapses of the dysentery, and then astringents were decidedly beneficial. They seemed to subdue the symptoms at once.

The cases varied extremely in the time they took to recover completely. One man recovered in a week, another was two months ill. The average duration of the disease was about five weeks. This includes the time during which the preceding and succeeding diarrhœa lasted. None of the patients who recovered had bloody stools more than a month.

Of the patients who died one lived four months, but in his case the cause of death was a sequela of the disease, and the ulceration of the gut was found cicatrising after death. Another case (the attendant) lived two months from the commencement of the disease. Several of them lived a month. A week was about the average length of time, and one case died in two days. All the patients who died in the short periods had been in weak health, or laboured under some other disease previously.

If I had now a case of the first type to treat, I should give Dover's powder in ten-grain doses three times a-day, and a large enema every morning containing a drachm of ipecacuanha and two drachms of compound kino powder, till the blood in the evacuations became very small in quantity, and pus had made its appearance. I should then give astringents in the ordinary medicinal doses, continuing each for two days only, till the patient was well. If I had a case of the second type of the disease, I should give ipecacuanha in small doses tentatively; and if it caused sickness, I should try quinine and astringents, to satisfy my conscience; I should give all the liquid nourishment and stimulants I could get the patient to take, believing that if he had any chance of recovery they would enable him to have it; but I should give the patient up as incurable from the first.

Pathology.—The morbid appearances found after death are the most distinctive and interesting features of the disease. Of the twenty cases who died, I performed post-mortem examinations in sixteen. Some of the cases were in the very first stage, while others were in all the intermediate stages, and in one case I saw the state of the intestine after it had healed; but perhaps I had better describe a typical case first, and afterwards mention the varieties. In such a case all the abdominal organs would be found healthy until the small intestine was examined. This, too, would be normal up to within five or six feet of the cæcum. The mucous membrane would then begin to appear reddened in small spots or rings round the gut. Six inches further down, the redness would be universal, and the membrane would begin to be thickened and corrugated into folds like small valvulæ conniventes. A few inches further down, a yellowish, dirty-looking deposit would be seen over the mucous membrane in rings, very thin where it began, but gradually becoming thicker and more continuous till, near the cæcum, it would be one-eighth of an inch in thickness. The swelling of the mucous membrane would also increase downwards, and the artificial folds running across the gut become more prominent. These, with their coating of deposit, made the inside of the bowel look like a series of thick transverse ridges covering its entire surface. This deposit when examined would be found to be soft on the surface, but getting more firm towards the mucous membrane, with which it incorporated itself, so that it could not be scraped off without leaving the fibrous covering of the muscular coat exposed, as a highly vascular, raw-looking surface. This deposit though on the surface a soft lymphy-looking substance, yet towards the mucous membrane it assumed quite the consistency and appearance of a soft fibrous membrane. The cæcum when examined in such a case would be found in the same state as the lower part of the small intestines, with two or three ragged ulcerations the size of beans; in the ascending

colon the ulcerations became deeper and larger, while the lymphy deposit on the surface of the mucous membrane became thicker and more fæculent in colour. Towards the transverse colon the inside of the gut was one mass of large irregular ulcers, with patches of the deposit between them. The colour of the whole surface was almost black, and this continued down to the very lower part of the rectum.

The mesenteric glands opposite the affected parts of the small and large intestine were enlarged and dark coloured, and on section were soft, and pulpy in consistency.

Such were the external appearances in a case that had lasted for about a month. On examination of the fibrinous layer by the microscope, in the fresh state, it was found to consist of nucleated cells like pus cells, fusiform cells with nucleus, and a fibrinous material between. When a small portion of the gut was hardened in absolute alcohol or dilute chromic acid, and thin sections made of the gut transversely, showing all the coats, the peritoneal coat was seen to be normal, the muscular coat also normal, except that part of it in proximity to the mucous membrane, which was more than usually vascular. In the fibrous and mucous coat the bloodvessels were enlarged and very tortuous, and on the free surface of the mucous membrane between the villi they could be seen torn and open-mouthed. The villi were enlarged, stripped of their epithelium, and lying in contact with them and dipping in between them were the fusiform and round nucleated cells. The fusiform cells predominated near the villi. Minute fibres radiated from the villi through the layer of lymphy substance, branching out and losing themselves at the free surface. Those fibres seemed to bind together the cells, and when a section through the deposit was made on the same plane as the surface of the mucous membrane, an areolar appearance was seen, the meshes being filled up with cells.

One woman died after two days' illness, and after death the solitary glands in the last part of the small intestine were found enlarged. Peyer's patches were quite unaffected; in the cæcum the mucous membrane was reddened and thickened in small patches running into each other, like the eruption on the skin in measles. In the transverse colon the whole mucous membrane was mottled and thickened. In the descending colon and rectum the mucous membrane was less diseased. In the rectum the mottling was mixed with small red points like pins' heads. There was no trace of ulceration anywhere. In this case there had been copious bloody evacuations. The torn capillaries, even where there was no actual ulceration, would of course account for the bleeding. There was no membranous deposit.

In a case which had died in five days from the commencement of the disease the mucous membrane of the small intestine was for six feet above the cæcum reddened, thickened, and thrown up like valvulæ conniventes, with a little deposit on them. The mucous membrane of the large intestine was completely covered with a thick layer of the yellowish lymphy matter described.

In another case that died a week after the commencement of the disease, the small and large intestines were affected as in the last case, but the rectum was more affected, and looked as if the small blood-vessels were hanging loose in the fibrinous deposit. In a case that died eight days after the commencement of the disease, ulceration was commencing in the cæcum and sloughing in the colon. The description of the typical case may be taken as the next stage of the disease. In a very severe case which had lasted six weeks the whole of the large intestine was of a dark colour externally, but not rough, and no effusion on the peritoneum. The interior was a raw, irregular, black surface; the walls were very much thickened, the muscular coat being thickened too, with inflammatory products, and the gut was so friable that almost the least current of water tore it up. In the rectum, blood clots projected from the open mouths of arteries.

Then the healing process was seen in the case of a man who was recovering slowly from the dysentery when he was carried off by pleurisy. In this case the small intestine was normal; but in the cæcum there were small dark-coloured depressed patches, with puckered margins. In the rectum there were healthy granulating ulcerations of a dark colour.

This series of dissections taken along with the symptoms during life enable us to follow the course of the disease as well as if the inside of the gut had been visible. First, we have inflammation of the mucous membrane of the intestine, commencing in the solitary glands of the ileum, and immediately spreading all over it. In the large intestine it commences all over the surface, not selecting any special element of the membrane. Had it not been for one or two cases, in which the solitary glands of the small intestine were affected first, I should not in any of the other cases have been able to say which element of the membrane was first affected. Then we have the inflammation, immediately followed by a lymphy deposit on the membrane. Then we have the ulceration commencing in the small intestines in the solitary glands, not as pustules at first, as some writers affirm always happens in dysentery. In the large intestines the ulceration tends to commence by portions of the membrane sloughing. The capillary vessels all over the inflamed surface from the beginning seem to lose their tone, and many of them to rupture. The contact of the poison as it is being eliminated seems to paralyse them, while it stimulates the nervous ganglia contained in the intestinal walls, causing continuous action of the bowel of a very severe kind. In the cases which recovered we have the fibrinous membrane thrown off in large shreds, as seen in the evacuations, and then we have a granulating healthy sore, which discharges pus till it heals. I cannot account for the tendency to blackening of the surface of the membrane in all the cases.

In some cases the progress of the disease was much more rapid than those I have mentioned. In one case I found the whole of the mucous membrane of the large intestine in a sloughy state after five days' illness. In two cases the small intestines were affected as far up as the junction of the jejunum and the ileum. In two cases there were ecchymosed spots on the mucous membrane of the stomach, and two other cases in which the membrane of the stomach was inflamed and thickened like that of the small intestine. In three cases the small intestine was healthy in appearance, but one of those was the case that was recovering, and died of pleurisy. Another was a case that died of abscess of the liver, after the disease of the bowel had showed signs of improvement, and the third died in a few days from the commencement of the disease. In the first two cases I have no doubt it had passed off, and in the third, contrary to the usual state of things, the larger intestine had become affected first, and the patient being weak, died before the ileum was affected by the disease. The case I have just mentioned, in which there was abscess of the liver, was the only one with this lesion, and it may have been the result either of the dysentery or of the total obstruction of the common bile duct by a large gall-stone which existed.

The pathological appearances I have here recorded are very rarely to be met with, and I have only been able to discover three recorded outbreaks of dysentery, in which they were at all similar. The one was the epidemic of dysentery that was so fatal to the British troops in the famous Walcheren expedition. Some of the cases recorded by Dr. Davis bear a close resemblance to the cases I have described. In an epidemic of dysentery which occurred at Prague, Dr. Finger records somewhat similar pathological appearances. In two of his 231 cases the jejunum and ileum were affected, and not the large intestine, and these he calls intestinal catarrh. He examined the exudation in his cases by the microscope, and found its structure to be somewhat the same as I have described in my cases. Dr. Mayne found in an epidemic which occurred at Dublin that the most rapidly fatal cases had an exudation on the surface of the mucous membrane, which could be easily scraped off. I had met with three similar cases previously, one in the Edinburgh Infirmary and two in the Royal Edinburgh Asylum.

In no case did I notice the pustular appearance of the glands noticed by so many writers, and I think the record of the pathological appearances and causes of the disease prove that Dr. Baly came to a conclusion from too limited experience when he said that all the forms of dysentery described by systematic writers are merely different stages of the same disease, and that the specific virus which he considered was always the cause of it was always derived from the soil. In its pathological appearances the dysentery I have described bears a much greater resemblance to that form of the disease caused by or connected with malaria than to tropical dysentery. The small intestine is sometimes affected in dysentery that has a malarious origin; but never in dysentery from other causes. But in no epidemic of dysentery of which I have ever read was there a tendency in all the cases to disease of the small intestine. The poison did not cause its effects at once, while it seemed to have no regular period of incubation, like the continued fevers, and unlike most of them it was unaccompanied by a skin eruption. In these respects it resembled malaria. The dysentery resembled ague, too, in

having no fixed period of termination; but then it resembled typhoid fever in being accompanied by a specific lesion of the lower part of the intestinal mucous membrane.

The whole of the facts I have stated, and the inferences from these facts, may be thus briefly summed up:—

1. An epidemic of dysentery of a very fatal character occurred in the Cumberland and Westmoreland Asylum in the years 1864-65.

2. All the positive evidence that can usually be produced to determine the cause of any disease can be produced to connect this epidemic of dysentery with exhalations from a field irrigated by sewage, as effect and cause. Ample negative evidence can be produced to show that no other probable cause of such an epidemic was in operation.

3. The old, weak, paralysed, and diseased patients were chiefly attacked, but it was not confined to them.

4. The majority of the patients attacked were inmates of the wards on the ground floor of the asylum, showing that the sewage effluvia is most concentrated near the ground. Little or no wind and a high barometrical pressure would seem to be the most favourable conditions for the injurious effects of the poison to manifest themselves.

5. It would seem to be unsafe to apply sewage in any form to land with a stiff clay subsoil within 350 yards of human habitations.

6. Diarrhœa in its ordinary form may also be caused by sewage exhalations.

7. There are strong reasons for believing that the sewage effluvia which caused dysentery and diarrhœa in some persons may have caused typhoid fever in others.

8. The sewage poison had a period of incubation in most cases before the dysentery appeared. The length of this period was probably from three to five days.

9. The dysentery was of a very fatal character, and the ipecacuanha treatment, so successful in tropical dysentery, was not so in this epidemic.

10. The two morbid appearances most characteristic of this epidemic were, 1st, a soft membranous deposit on the mucous membrane of the intestines; and 2nd, the diseased condition of the lower part of the small as well as the large intestine in all the cases.

11. The poison which caused the dysentery seemed to occupy an intermediate position between the poison which causes the continued fevers, and that which produces ague and its concomitants.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

REMOVAL OF A PORTION OF THE SUPERIOR MAXILLA FOR A FIBROUS TUMOUR OF THE ANTRUM—RECOVERY—CLINICAL REMARKS.

(Under the care of Mr. FERGUSSON.)

Mr. Fergusson in some clinical remarks made after the operation, called attention to the peculiar modification of the ordinary procedure in such cases which he had adopted in the present instance. Instead of dealing so largely with the side of the face as is sometimes done, he left the principal part of the superior maxilla, and said that in the generality of instances there was no need for the removal of the whole of it, but to get at once to the circumference of the disease, and then to clip it away piecemeal, and thus make room for the introduction of the necessary instruments. By dividing the integuments in the mesial line, along the ala of the nose and below the eye—the appearance of the face is less interfered with; also by this method the vessels are divided in their narrowest part; again, the roof of the mouth is preserved entire, the upper diseased part of the antrum only being removed, leaving its floor intact.

Emily M., aged 38, single, healthy. Admitted May 11th into King's College Hospital with a tumour of fibrous character in the antrum. Stated that she had suffered from nasal polypus on two occasions, affecting the left nostril. These were removed by Mr. Fergusson, one twelve and the other two months ago. A few weeks before the removal of the last polypus she noticed a swelling in her cheek, about the size of a pea, and situated about half an inch below the inner canthus of the left eyelid, and of bony hardness. The swelling increased slowly at first, but after the removal of the polypus its growth was rapid; much pain of a severe gnawing character was felt, and much tenderness on pressure of the tumour. The left nostril has become almost completely obstructed since the rapid growth of the tumour. On admission, no cachectic appearance; on the left side of the face there was a swelling immediately below the inner half of the lower eyelid filling up the groove between the base of the nose and the contiguous part of the face, and extending downwards for an inch and a-half. The skin over the swelling was of a deeper red than elsewhere, and the superficial veins of the eyelids congested. The swelling was not of uniform hardness, being firm near the angle of the eye, but softer at its outer part. The skin was not freely moveable over the tumour. The left eyeball considerably pushed up above the level of that on the opposite side. The left nasal fossa appeared blocked up by the protrusion of its outer wall, but no swelling could be detected within the mouth, nor was there any irregularity of the alveolar ridge of the jaw, and the finger passed above the soft palate detected nothing abnormal.

10th.—The removal of the diseased portion of the superior maxilla was performed (under chloroform) as follows:—The upper lip was transfixed by a small scalpel in the mesial line from above downwards; the incision was then extended upwards and outwards into the left nostril, the superior coronary arteries being compressed by an assistant. The knife was then carried vertically downwards from the side of the root of the nose to join the first incision, passing in the groove behind the ala. A third incision was then made transversely from the upper extremity of the vertical wound, along the lower margin of the orbit. The flap thus marked out was raised and reflected outwards. The hæmorrhage was considerable at first, but speedily ceased. By the use of Hey's saw and the cutting forceps, the tumour was detached from its connexions, the upper, inner, and front part of the superior maxilla being removed with portions of the malar and superior turbinated bones, some careful dissection being necessary in detaching the bony margin and part of the floor of the orbit from the soft parts, the diseased bone being wrenched away with the "lion forceps." The cut margins of the soft parts were brought together, two harelip-pins were passed through the upper lip and one at the side of the nose, another opposite the inner canthus, and the last below and external to the lower margin of the orbit. Water dressings applied, and the patient removed to bed.

15th.—Slept well; suffered but little pain; wound looking very healthy. The whole length of the incisions united by first intention.

17th.—Severe pain in orbit last night: slight delirium; an opiate draught administered. The patient comparatively free from pain this morning. Much discharge escapes into the mouth by the left posterior opening of the nose. Pulse good; bowels open; skin moist.

18th.—Hare-lip pins removed.

19th.—Much pain in left temple. Eyelids swollen, and some chemosis.

22nd.—Scab separated from upper lip, showing margin of wound perfectly united. Chemosis quite subsided. The eyeball can be freely moved in any direction without pain. Complains of double vision.

25th.—The wound was completely united; very little discharge; the cheek has sunk very little, and there is very little deformity. Can masticate fairly well.

June 2.—Patient is still in the Hospital, and is convalescent.

For the notes of this case we are indebted to Mr. Paris Bradshawe, the dresser of the patient.

WINDSOR ROYAL INFIRMARY.

CASE OF TRISMUS—DEATH—AUTOPSY.

(Under the care of Dr. ELLISON.)

This case is one which shows how purely empirical our treatment of tetanus is. And so it must remain until we know more of the physiology of the disease. It must be kept in mind that a superficial examination of the cord or medulla is frequently not enough to enable us to discover changes in the cord. To detect the position of slight changes, Mr. Lockhart Clarke's plan should be adopted. The examination of nerve-structure in this elaborate way, however, requires more time than most Medical men in practice can give to it. Mr. Lock-

hart Clarke is now working at the pathology of this disease, and will be glad to examine the spinal cord and medulla oblongata from any case of tetanus. The cyst found in the spinal canal in the first case was probably the cause of the paraplegia, which the man had had many years. Yet it may be well to raise the question, whether a diseased condition of the cord may not render a patient liable to suffer from a slighter exciting cause than would affect a healthy man?

For the notes of these two interesting cases we are indebted to Mr. Brickwell.

Samuel L., aged 59, a gardener, was brought to the Infirmary on January 12, and admitted an in-patient, suffering from locked jaw. On Monday, December 26, he was driving along the road, and was pitched out of the cart in which he was riding, and received a slight cut on the forehead between the eyebrows, and having his left arm and leg contused. He was conveyed to a public-house in a somewhat fainting condition, and had some brandy-and-water given to him. He recovered sufficiently from his syncope to be brought to Windsor in the evening in a close fly, and, being seen by the House-Surgeon, had simple dressing applied to a small cut on his forehead, and was sent home to his lodgings, his injuries appearing to be of an unimportant character. He complained a good deal of headache and pain in his back, chiefly referred to the lumbar region.

On Saturday, December 31, he was very much better, and apparently recovering.

On Sunday, January 1, after eating a good dinner, he complained of stiffness in his jaws, and thought he was going to have the mumps. He had hot poultices applied to relieve the pain, without producing that effect, and found himself unable to take any supper on account of the stiffness of his jaw.

2nd, Monday.—He was worse. Has slept badly in the night; has more pain and stiffness in the muscles of mastication.

He was visited by the House-Surgeon on the 3rd, and at that time his jaws were found to be closed so much that the handle of a spoon could with difficulty be passed between his toothless gums. He has great difficulty in swallowing, much pain attending the act, breathing with difficulty. Opium one grain, calomel three grains, directly; blister to the nape of neck. Tr. Cannabis Indicæ, ʒiij.; Sp. Æth. S.C. ʒiij.; mist. camph., ʒviij. One ounce every four hours. In the evening he was ordered a drop of croton oil to be made into a pill with some soap, and if this did not act he was to have an enema administered. As the pill acted freely the enema was not administered. He was not seen again by the House-Surgeon till his admission on January 12, having preferred to be attended as a private patient.

12th.—Has been paralysed in his lower limbs for fourteen years, but has been able to get about and follow his occupation; had severe eczema of the legs last summer. Lips tightly compressed; keeps the fore and middle fingers of his right hand between them, in order to clear his mouth of viscid mucus which accumulates freely in the bronchi and trachea, causing a fearful sense of suffocation. Is obliged to be propped up in bed in an almost upright position; masseter muscles very hard and rigid; muscles of the submaxillary region also tense and hard; there is the smallest possible opening between the gums of the upper and lower jaws, through which he introduces the nozzle of a feeding-basin, and takes with the utmost difficulty about half a teaspoonful of liquid at a time. His power of suction appears to be abolished, and, after taking two or three gulps at the fluid, he has a severe attack of spasmodic breathing, accompanied by a violent expulsive cough, with an apparently spasmodic closure of the glottis. 3 p.m.—Commenced the administration of chloroform vapour, which was continued till one ounce had been consumed. This was done for the purpose of relaxing the muscles of the lower jaw, and to introduce an œsophagus-tube, but the slightest touch of the lower jaw caused him intense pain, brought him to a state of consciousness, and produced violent contraction of the muscles of the neck and lower jaw. An attempt to introduce a gag entirely failed. An enema of oatmeal was administered, which returned almost immediately, bringing away a small quantity of fæces. 5 p.m.—Tinct. opii, ʒj.; wine, ʒj. every hour, if he can swallow it; tinct. aconiti (Fleming's), miij. every two hours.

13th.—Slept a little in the night, but has been very restless, and had repeated suffocative attacks towards morning; still keeps his fingers between his lips, to allow the air to pass more freely; is unable to articulate, and writes down all communications. 3 p.m.—Eighteen drachms of chloroform vapour on lint were administered, commencing with twenty minims, at the end of which time he was sufficiently sensible to request the continued administration of it, as it produced a feeling of comparative ease, and caused a slight relaxation of the muscles. An endeavour was again made to fix his jaw open with a gag without success. Dr. Ellison saw him this evening, and recommended the subcutaneous injection of one grain of acetate of morphia over the masseter muscle of the right side. This was done without any apparent effect. To take tinct. opii, ʒj. at bed-time. The galvanic battery was applied without any result either for good or harm. The attempt to apply a hot flannel to his throat produced the most violent spasmodic action of the muscles. There is no hardness or tension of the muscles of the abdomen or thighs.

14th.—Writes that he feels no better, that he must die, that it is so much exertion and trouble to swallow, that he will not attempt anything more, and implores to be let alone. An attempt was made to get him to swallow beef-tea through straws, but the attempt to swallow was followed by violent convulsive action of the muscles of the throat. Vespere.—Sweating profusely; face livid; breathing hurried, spasmodic, and accompanied by much noisy rhonchus. He died struggling at 4 a.m. on the 15th.

A post-mortem examination revealed no important disease of the brain, but in the lumbar region of the spinal cord was found a cyst about as large as a hazel nut, and the cord appeared softened in consistence about the middle of the dorsal region.

WOUND OF FOREARM (LEFT) BY DISCHARGE OF POWDER IN A PISTOL—TETANUS—DEATH.

(Under the care of Dr. ELLISON.)

Ernest M., aged 14, page boy. This boy was brought to the Infirmary on May 3, 1865, at 7.30 p.m., with the symptoms of tetanus well marked. On Easter Monday, April 17, he was amusing himself with discharging powder from a pistol, when, by some accidental means, it exploded suddenly, producing a severe wound in the middle of the left forearm, on its inner aspect. Being servant to a Medical man, the wound was dressed, and appeared to be going on favourably (a large slough having separated from it, leaving a healthy granulating wound) till the morning of May 2, when he complained of feeling a stiffness about his lower jaw, preventing him from eating his breakfast; at the same time he said that his arm twitched very much, and the fingers were drawn up.

He is a light-haired, fair-complexioned lad, of nervous temperament; his face is flushed and covered with beads of perspiration; skin generally sweating; angles of mouth retracted; the skin round the wound of a peculiar white pearly colour. Passed a very restless night, on account of spasmodic action, which he terms "twitching of the skin." Has vomited frequently during the day. Has no headache or pain in his body, but complains very much of his arm aching. Has no appetite. Bowels have acted freely twice this evening, the effect of aperient medicine given him before he arrived at the Infirmary. The index and middle fingers of the left hand are firmly contracted and bent in towards the palm. The jaw is rigid, and open only to the extent of half-an-inch. He articulates clearly when free from spasms. The muscles of the neck are not continually rigid, but thrown out in bold relief when he has a spasm; the masseter appears firm and hard, the muscles of abdomen and thighs are thrown into violent action, and his body becomes so universally rigid that he may be lifted up like a piece of board. 11 p.m.—Tr. aconiti, P.L., miv., every two hours; port wine, one ounce, every three hours; beef-tea, one pint. He was allowed to inhale chloroform vapour, three drachms being administered, in quantities of half-a-drachm at a time, on lint, to the great alleviation of his distress. 12 p.m.—Tr. opii, ʒj.; sp. eth. S.C., mxv.; aqua, ʒj., statim.

May 4, 6 a.m.—Has passed a very restless night; slept somewhat between 4 and 6 a.m., but has had frequent and violent spasms. Has taken his wine and beef-tea, and has passed urine. To continue the aconite every two hours. 12 midday.—Administered chloroform till anæsthesia was produced. 2 p.m.—Tr. opii, ʒij.; aqua, ʒjss. Chloroform again administered. 10 p.m.—Has slept a good deal, and is evidently under the influence of opium; the pupils are contracted; the breathing deep and slow; the spasmodic action of the muscles continues, rousing him up and causing him to scream with agony. Pulse small, regular, feeble; skin sweating. To intermit the aconite. Has passed a good dea of flatus from the bowels, but no fæces. Has had a great deal

of borborygmus. Has passed urine. Has taken beef-tea a pint and a-half, and two and a-half pints of milk, half-an-ounce of brandy, and three ounces of wine. Chloroform vapour was again administered.

5th.—6 a.m.—Has passed a terribly restless night; has been in constant agitation, wanting to get up and dress himself, and to go home. The spasmodic action of the muscular system has been constant, exceedingly violent, and universal, producing opisthotonos; facies Hippocratica painfully marked; teeth clenched, and any attempt at swallowing liquids appears to choke him, and brings on convulsions; face and body covered with a profuse perspiration of a very unpleasant odour; has passed urine and a good deal of flatus. The inhalation of chloroform vapour was commenced and continued till complete anæsthesia was produced; the breathing became regular and natural; this condition was kept up till 11 a.m.—a period of five hours—by the careful administration of chloroform whenever he appeared to be returning to consciousness, and with this to convulsions. From 11 a.m. ceased to administer the chloroform, and at 12.10 he died rather suddenly, being conscious to the last, and asking for more chloroform, which was withheld on account of the feebleness of the pulse.

6th.—*Post-mortem Examination Twenty-four hours after Death.*—Muscular rigidity well marked; a healthy-looking wound about the junction of middle with lower third of left forearm, of an exact crucial form, extending deeply down into the muscles; surface of skin around the wound slightly ulcerated as from a burn. The scalp was first removed, and an incision made down the whole length of the vertebral column; the scalp was not unusually adherent; there was no great escape of blood on incision; there was considerable congestion of the skin of the back, and a great deal of fluid blood escaped from the line of incision afterwards. Dura mater was very adherent to the calvarium, and on removing it a considerable quantity of fluid blood escaped. The substance of the brain was firm, and a great number of bloody points appeared on section; no unusual smell, and, with the exception of this evidence of congestion, no morbid appearance was discoverable to the eye or touch in any part of the brain or spinal cord.

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Medical Times and Gazette.

SATURDAY, JUNE 10.

METROPOLITAN WORKHOUSE HOSPITALS.

A most important and interesting return has just been presented to Parliament by the President of the Poor-law Board, describing the present condition of these Hospitals, and giving special details as to the quantity and quality of the accommodation provided for the sick, the cubic contents of the wards, the number of beds they contain, the nature of the disorders admitted, the proportion of aged and infirm persons in the body of the workhouses, the particulars of the nursing, and various other sanitary details of the highest import to the efficiency of the treatment. It appears that there are in the metropolitan district 41 workhouses, in which are 515 sick wards, containing 6519 beds. On the night of January 28, 1865, accurate returns were made from 35 workhouses of the persons sleeping in the Hospitals, and we observe that in 10 of these the male wards were quite full; in 3, 10 more patients were accommodated than there were beds, and in 13 others less than 10 beds were vacant in each Hospital. Twenty-six Hospitals for males may therefore be described as quite full. For females, the general accommodation is much greater; nevertheless, 7 Hospitals were full, and in one 5 persons must have slept on the floor,—a practice, we have reason to believe, which is not unfrequently adopted in order to provide the accommodation required. In 16 female Hospitals there were less than 10 vacant beds in each, so that 24 of these also may be regarded as fully occupied.

Taking the male and female Hospitals together, we find that an average of 25 out of 35 were quite full. The remainder had 553 vacant beds, but of these the majority were to be found at two or three workhouses, as at St. Leonard's, Shoreditch, where 154 beds were unoccupied.

Now, considering that the returns show as many as 6549 aged and infirm inmates who reside out of Hospital, but require occasional Medical care, and that, besides these, a considerable number of sick are now treated out of Hospital for want of room, it must certainly be concluded that the Hospital accommodation is less than what is required. There must necessarily be great fluctuations in the demand for Hospital space; every one ought, therefore, to be provided with at least 20 per cent. of vacant beds to meet those fluctuations, and the occurrence of epidemics, to which such communities are especially liable.

The character of the accommodation is next alluded to. The cubic space of 461 wards is accurately given, and we find that 4 have less than 300 cubic feet allotted to each bed; 29 have less than 400 cubic feet; 152 less than 500 c. feet; 165 less than 600 c. ft.; 67 less than 700 c. ft.; 33 less than 800 c. ft.; and only 11 more than that quantity; some of these last being only partly furnished. Now, the regulation of the Poor-law Board provides that every Hospital bed shall have allotted to it not less than 500 c. ft. of space; so that in 185 wards this rule is violated, which fact alone should show the necessity of Medical supervision. But it is simply impossible to cure disease in Hospitals thus crowded. The army regulations insist that at least 1200 c. ft. be allotted to each bed. In the public charities it is found impossible to preserve the purity of the wards with a less space than 1300 to 1500 c. ft. At King's College and several other Hospitals 1700 c. ft. is allowed to each bed, and 2000 c. ft. are considered essential for the successful treatment of zymotic disease. If Medical science possesses one established fact, it is that the first condition and most important remedy in the treatment of disease is abundant space and an unlimited supply of wholesome air. What, then, shall we say of Hospitals which have a less average space per bed than barrack sleeping rooms, which besides being thoroughly ventilated are occupied only by healthy persons during the night. The emanations of the sick are most poisonous and depressing, and in addition to a sufficient space there ought to be a change of air equal to at least 3000 cubic feet per hour for each patient. In several Hospitals under notice the ventilation is reported as imperfect; it may be doubted if it can ever be otherwise where the wards are so confined for room, and so fully occupied. Without space and ventilation, food nursing and Medical skill will be employed in vain, and we sincerely hope that steps will be immediately taken to remedy this gigantic evil.

The character of the diseases admitted into the workhouse Hospitals is essentially chronic. There is, however, a certain proportion of acute disease. Fever is in many cases sent away to the Fever Hospital, but we have 224 cases reported as under treatment, and it would be interesting to know the proportion of space allotted to each case. There were 1514 cases of acute disease, or more probably of cases which present probability of eventual cure, whilst 4655 are reported as chronic; and we have, in addition, the 6549 aged and infirm before alluded to, very many of whom would be proper occupants of the Hospital wards. We shall form some conception as to the

mass of sickness and infirmity concentrated in our metropolitan workhouses by consulting a report ordered by G. Lyall, Esq., M.P., in February last. In this we find that in the forty-one metropolitan workhouses there were 520 able-bodied men and 1673 able-bodied women, many of the latter being accompanied by illegitimate children. This number forms only 13 per cent. of the workhouse inmates, the remainder being made up of sick, aged, incurable, insane, and children; so that the able-bodied, who are, for the most part, idle, vicious, and good-for-nothing, are scarcely sufficient to wash the linen, clean the wards, watch the children, and perform the household duties, of which the rest are incapable.

Now, with these facts before us, let us observe the nature and character of the nursing provided for the sick. In the first place, we find that in thirteen workhouses there is not a single paid nurse. The sick are committed to the exclusive care of paupers, with only such supervision as the matron and Surgeon can most imperfectly exercise. In sixteen workhouses there is one paid nurse in each, and, deducting St. Pancras and Marylebone, which together employ thirty paid nurses, we find only forty-one such persons in thirty-nine workhouses. There are 859 paupers employed as nurses, and they receive only extra diet or clothing as the reward of their service. From what has been already stated, it is not difficult to surmise that they are for the most part aged and infirm themselves, or otherwise physically unfit for the arduous duties imposed upon them. To give an example: at St. Margaret's, Westminster, the Hospitals contain 280 beds, and the number of sick in March last was 245. There are three paid nurses and eleven paupers, six of whom are over 70 years of age, and only one under 50. We have here, therefore, one paid nurse to take charge of ninety-three beds, or, including the paupers, we have one attendant on twenty beds. Contrast this with any public charity, and we shall find that a staff of at least forty strong and able nurses would be employed to perform the same duty. These, moreover, would be assisted by scourers, who attend to the cleanliness of the floors and the state of the firegrates.

We cannot conclude our observations on this subject without noticing the evident desire on the part of the workhouse officials to present the most favourable aspect of things in the report before us. Persons are returned as paid nurses who are, in fact, assistant-matrons, having but little, if anything, to do with the management of the sick. At the Strand Union the Hospital contains but forty beds, to which are assigned, according to the Report, twenty-two nurses and twenty-two assistants; yet when we discover that this amount of Hospital room is all that is provided for 196 sick and 417 aged and infirm, to say nothing of the children, and that none of the nurses are paid, we may justly infer that the accommodation is insufficient and the administration bad.

Our necessary limits will not permit us to extend our observations further. More than enough has been gathered to show the urgent need of the inspection we have advocated; and we trust that no time will be lost by the Poor-law Board in providing a remedy for so great a blot in our social system.

SEWAGE DIFFICULTIES.

Until the Main Drainage of London upon the present wasteful and unscientific plan was accomplished, and until the engineers and contractors received the reward and honours due to the completion of their gigantic brickwork tunnels and reservoirs, the personages who pull the strings of the daily press sneered at all ideas of applying sewage to the land. It was pooh-poohed as a visionary and chimerical scheme, and the sewage was said to be of no value. Now that the engineering interests are safe, the public are allowed to believe that sewage has some value; and the next thing they will be enlightened upon will be the fact that the greatest obstacle to the utilisation of the London sewage will be the too costly and unscientific character of the Metropolitan Main Drainage Works.

The first essential for the safe utilisation of sewage is that the land shall be capable of absorbing it, and of allowing surplus water to filter steadily away. It does not suffice that the sewage run over the surface—it must run through a certain depth, and soak clean away; it must not form pools on an impervious surface, nor yet, if it soak through sand, must it find hollows in a clay substratum, where it can lodge and form subterranean quagmires. The best land is a rich black mould; the next, sand or gravel; the worst, clay, unless thoroughly well prepared. Some eminent authorities distrust sand, at least unless covered with an actively growing crop. In fact, there would seem to be considerable danger in allowing the sands on a barren seacoast to become impregnated with sewage.

The next point is, the preparation of the sewage itself. Common decency, as well as the danger of parasitic disease, point to the fact that liquid sewage should be filtered, so as to deprive it of solid matter likely to lodge and fester on the surface. Mr. Menzies, whose work on Sewage deserves attention because he knows and does, from end to end, what others only know or do piecemeal, gives full directions and reasons for this step of the process. He uses a system of upward filtration, which, by the bye, was first designed by a man whose genius was never recognised till too late— the late Prince Consort. Not to speak of other advantages, the filtered sewage does not clog the pipes by which it is distributed. The sewage in the filtering tanks may be deodorised by carbolic acid or some other preparation of gas-tar, if it should be thought expedient.

The next point is, that there should be an adequate water supply, to carry the sewage from the closets to the outlet or filtering tanks. In the sewage squabble to which we referred at Bournemouth, it is said that the theoretical party, including, we fear, some members of our Profession, clamoured for a drainage system before there was a water supply! Now, any sewer-pipe or brick which is not self-cleansing is but an elongated cesspool; and it were far better to have one such place occupying a few square feet in a garden than one elongated foul pipe poisoning the air along a mile of road.

In the next place, we must observe that all experience points to the truth of F. O. Ward's alliterative axiom—"The rainfall to the river and the sewage to the soil." Mr. Menzies, who, like many others, ventures to write upon a subject without knowing what others have written before him, does scanty justice to one of the greatest geniuses of our age—for such we pronounce F. O. Ward to be—by his omission of his name. Every page in Mr. Menzies' book is an unconscious tribute to the truth of those principles which ten or fifteen years ago Mr. Ward in vain endeavoured to drive into the ears of the Metropolitan Sewage Commissioners. For health as well as for agriculture—for the sake of our fields no less than of our rivers—the sewage ought to be kept separate from the rainfall. The sewage flow in a day is constant and calculable; pipes may be accommodated to the quantity, so that the regular flow, with an occasional flush from a cistern, may keep them clean. The rainfall is most inconsistent and uncalculable. Perhaps a storm may bring down one-twentieth part of the year's supply in one day. If the sewage pipes are to be large enough to carry off storms, they are too large to be cleansed by the regular daily flow. If not large enough, there must be the clumsy expedient of storm overflows, as in the London system, which permits the river to be polluted. This admixture makes the sewage weakest when it should be strongest, for strong sewage should be applied during heavy rains. Moreover, it enhances all the expense of conduits, tanks, and pumping engines, and embodies the absurdity of most expensive works for dealing with rain water mixed with sewage, instead of allowing it quietly to run into the

river. London is done for. Every drop of rain that falls henceforth will be lifted by a steam pump, and carried down to vilify the sewage. Other towns, blessed with no such Board of Works, may take warning, and save the expense of useless works, whilst they get rid of a sewage which the farmers will be glad to take in all weathers.(a)

MODERN DERMATOLOGY.—No. VI.

Such of our readers as are unacquainted with recent works on diseases of the skin have probably been somewhat surprised at the confidence with which we have written of treating chronic eczema and lepra with success, at the small number of remedies mentioned, and at the simplicity of the treatment recommended. It has not been intended in these papers to note very fully or in much detail the modern practice in the treatment of skin diseases, nor to sketch even in outline anything like the whole of it, but only to point out in what way it especially and chiefly differs from the older practice, to show in what direction and on what points the greatest improvement has been effected. But it is in the simplification and certainty of treatment that modern dermato-pathology has made the most marked advance; as it has become more scientific, so has it improved as an art, using fewer means, and handling them with greater precision and success. And we have dwelt at some length on eczema and lepra, because of all the non-contagious diseases of the skin they perhaps show the greatest improvement in treatment.

The justifiable confidence with which modern dermatologists undertake their cure is very remarkable, when compared with the hopelessness of the tone in which they were written about some twenty years ago; palliation of the symptoms was almost all that was expected; a cure was to be rarely looked for, at least from Medical treatment; hope was placed in "change of constitution," in dentition, in puberty, etc., rather than in drugs or external applications. And at the same time, and almost as a consequence, the "remedies" recommended were bewilderingly numerous. Now, on the contrary, the skilful and experienced Physician may very generally confidently expect to really cure these maladies; and his means for doing so are few and simple.

These characters of the modern treatment of cutaneous diseases—simplicity and assurance of treatment—are very well shown in Dr. Balmanno Squire's work, "Photographs of the Diseases of the Skin." We recommend them especially to all students, be they old or young, graduates or undergraduates, who may be entering on the study of this branch of Medicine. Each photograph represents "one of the great classes of cutaneous disease," and is accompanied by a description of its symptoms, pathology, and treatment. This is short always, and very simple, but graphic, clear, and good. To those acquainted with the literature of cutaneous diseases, his directions for treatment may appear meagre and rather dogmatic; but they are sound and eminently practical, conveying the results of the writer's individual, and not slight, experience, and will never mislead. The illustrations are admirable; they are by far the best and most truthful representations of skin disease we have seen, and are, to our thinking, much to be preferred to the Sydenham Society's reproductions of Hebra's plates, which are of very inconvenient size, and are sometimes exaggerated to the verge of caricature. Dr. Balmanno Squire's illustration of psoriasis is very good. For treatment he recommends "arsenic, either alone or in combination with other remedies—such as quinine, iron, mercury, etc.;" and externally, tarry preparations, the huile de cade, creosote, and the like. Mr. Milton says—"If I were to rely exclusively on my own experience, I should say that time was lost in trying any remedy but arsenic, or any preparatory treatment for the arsenic, which should be begun with at once, and taken in the largest doses the patient can bear."

It has been seen that arsenic is very generally held to be the only trustworthy remedy in lepra or alphos, and that it is largely relied on in the treatment of chronic eczema. It is also very generally employed in many other cutaneous diseases, as chronic lichen, impetigo, prurigo, acne, inveterate urticaria, in some forms of ichthyosis, and in lupus exedens. Many of these disorders have been only lately rescued from the class of incurable maladies, and this chiefly through the determined and skilful use of arsenic. Among the labourers who have most contributed to this improvement Mr. Hunt takes a very prominent rank. In the preface to the first edition of his most useful little work on "Diseases of the Skin," published in 1847, he observes that "our knowledge of the treatment of the more intractable forms of cutaneous disease has not kept pace with the advancing pathology of the times," and that, "if an unfortunate patient is suffering under confirmed lepra, psoriasis, prurigo, lupus, or any other severe chronic cutaneous disease, there appears but little chance, under any treatment hitherto adopted, of his getting radically cured," but that the day has dawned which will see this "*opprobrium medicorum* consigned to the pages of history;" and in his late editions he is able to remark that this "prediction has been literally fulfilled," and that chronic cutaneous maladies have been transferred *en masse* from the category of the incurable to that of the curable maladies." The change is, as we have said, in a considerable degree owing to the employment of arsenic, which Mr. Hunt has taught most perseveringly. Mr. Milton remarks,—"I consider that Mr. Hunt merits the thanks of the world for the courage and industry with which he has worked out this subject," and, though he has had several eminent co-workers, no one will refuse him a large share of the merit due to those who have brought about the present improved state of dermato-pathology. It has, indeed, taken many years to convince Medical men not only that arsenic can act with great power on the nutrition of the skin, but also that, if skilfully given, it may be given for a long time together with perfect safety; but now every dermatologist enjoins its employment largely, giving, at the same time, more or less minute directions as to the manner and dose in which it is to be taken; for no true disciple of Esculapius pretends that while being powerful for good it is powerless for evil; we leave it to homœopaths and other quacks to prate of possessing remedies that will cure if rightly prescribed, but are without effect if erroneously taken. We allow that while arsenic is, if used rightly, a most invaluable remedy, it does require to be handled with caution and skill; but so employed it is eminently useful. Romberg observes, "No medicine has met with so much prejudice as arsenic. . . . My own experience leads me to assert that, in the numerous and various diseases in which of late years I have employed it, I have invariably seen an improved digestion, as marked by a better appetite, and have never observed any injurious consequences result from its use." ("Diseases of the Nervous System." Sydenham Society's Translation, Vol. I., p. 54.) To obtain from it only good, and all the good it is capable of, it must be given only in certain stages of disease, it must be given with certain precautions, and its use must not be hastily abandoned. In Dr. Frazer's useful and practical little work on "The Treatment of Diseases of the Skin"(b) directions are given for the employment of this remedy that comprise nearly all the rules needed for its safe administration.

"Give moderate doses, whatever preparation is selected.

"Let it be taken at or after meals, never fasting.

"Irritation of the conjunctiva, gastric pain, purging, or other symptoms of constitutional intolerance will demand its temporary suspension.

"Do not give it during febrile, catarrhal, or gastric attacks, or during the inflammatory stage of any eruption."

To these we will add two rules from an excellent paper on

(a) See also a pamphlet "Additional Statements by Mr. Wm. Menzies in Support of his Plans for the Drainage of Towns." London: Longman. 1865.

(b) Treatment of Diseases of the Skin. By Dr. W. Frazer, Lecturer on Materia Medica to the Carmichael Medical School. Small 8vo. P. 174. Dublin: Fannin and Co. London: R. Hardwicke.

the Uses of Arsenic, by Dr. Habershon, in the last number of "Guy's Hospital Reports:"(c)—"Although irritability of the stomach and bowels, as well as of the mouth and conjunctiva, may be induced by arsenic, these symptoms do not necessarily compel us to discontinue its use, for a diminution of the dose, and an admixture with an opiate may remove the symptoms.

"When very minute and continued doses induce a general sense of exhaustion, with compressibility of the pulse and loss of appetite, although there is no irritation of the mucous membrane of the alimentary tract, the arsenic must, for a time, at least, be discontinued."

Fowler's solution is almost universally the favourite preparation, and either it or the acid solution may often be advantageously given with preparations of iron.

Biett, Neligan, and others strongly recommend a solution of the iodide of arsenic in some chronic diseases of the skin in strumous subjects; and some Practitioners think highly of Donovan's solution, though this finds no favour in Mr. Hunt's eyes, who remarks, "If there be any medicine more dangerous and unmanageable than another, it is the compound of arsenic, iodine, and mercury, known by the name of "Donovan's Solution."—("Guide to the Treatment of Diseases of the Skin," third edition, 1857, p. 257.) The acid solution of arsenic, the liquor arsenici chloridi, has, for some reason, been omitted from the British Pharmacopœia, and two preparations have been added, viz., the arseniate of soda and the arseniate of iron. MM. Bergeron and Lemaitre, who have lately published some observations on the elimination of medicinal substances by the sweat, found that the arsenites of potash and soda were eliminated as arsenites of those salts, while the arsenite of iron was decomposed, the iron passing off in the urine, and the arsenic, "as an alkaline," with the sweat. Dermatologists differ somewhat in the mode of giving the remedy, *quâ* dose. Some, as Mr. Wilson, begin with a small dose, one or two minims of Fowler's solution, three times a-day, and gradually increase it up to the full dose; some giving as much as ten or twelve minims, while Mr. Wilson thinks "five minims is the maximum dose, and only admissible in alphos;" others, as Mr. Hunt, begin with five-minim doses, and when the system is fairly under its influence, continue it in smaller doses. But in whatever way the remedy is given, its use must be regularly and steadily persevered in, if necessary, for months together. As Mr. Milton justly observes, in his favourite and easy style, "If the patient is to give up arsenic whenever he is going out to see his friends, or when he has friends coming to see him; when he is away on business, or at the sea-side; when he is tired of medicine, or fancies it may not agree with him; in short, if he be going to take it in any way but the right way, he had better not take it at all." We will conclude our observations on the use of arsenic with a quotation from an admirable essay on this remedy by Dr. Begbie(d):—

"The curative properties of arsenic may be obtained in some instances before its physiological effects present themselves; but in order to secure its virtues as an alterative in the large class of chronic diseases which yield to its influence, it will be necessary to push the medicine to the full development of the phenomena which first indicates its peculiar action on the system. Arsenic, as a remedy, is too often suspended, or altogether abandoned, at the very moment when its curative powers are coming into play. . . I have never seen the loathsome scales of lepra or psoriasis drop from the skin, and leave a healthy cuticle, till the eye or tongue manifested that the system was under the influence of the mineral, and that for days or weeks together. . . One of the earlier signs of its physiological action is a minute papular rash, which, by-and-by, assumes the form of delicate scales, having a brownish colour, and giving to the skin an unwashed appearance; . . it will be well to continue its use in diminishing doses, or in moderate doses at longer intervals, maintaining for a time in the mildest form the exhibition of the earliest signs of its physiological action."

(c) Guy's Hospital Reports, Third Series, vol. x.

(d) Contributions to Practical Medicine. By James Begbie, M.D., F.R.S.E., Physician in Ordinary to the Queen in Scotland. Edinburgh: A. and C. Black; London: Longman and Co.

THE WEEK.

MEDICAL POLITICS.

We are glad to find that the Royal College of Physicians is going to take up the case of the Army and Navy Medical officers, and will no doubt place the matter in a proper light before the Government.—It is said that neither Mr. Paget nor Mr. Prescott Hewitt intend to present themselves for election into the Council of the College of Surgeons, and the hopes of the Surgical Profession are centred in Mr. Charles Hawkins and Mr. Turner. It is difficult to conceive of any one likely to make a more useful member of the Council than Mr. Charles Hawkins. Living in London, without any appointment in one of the large Hospitals, yet a thorough Surgeon, and enjoying the unlimited confidence of his brethren, fully conversant with the most advanced Surgery, a good man of business, of a frank and genial disposition, with large common-sense views, and the interests of no clique or set to protect—being, moreover, the official superintendent of the study of anatomy by dissection—he would, if any one, succeed in introducing those reforms into the College which are necessary to satisfy the Profession and to secure the proper education of rising Surgeons. On this point we may refer to Professor Owen's speech, and say unfeignedly that a change in the Court of Examiners of the College would further the study of scientific anatomy and physiology by at least half a century.—As to pharmacy and the Chemists and Druggists Bills, the current number of the *Pharmaceutical Journal* says:

"The proceedings of the Select Committee on these Bills have not been such as to inspire much confidence in the future. If the resolutions already passed be adhered to, any measure that may be framed in accordance with them will but imperfectly accomplish the objects contemplated by the originators of the existing Bills, and it is quite possible that further resolutions may convert what was a beneficial measure into one of an undesirable character. We cannot say that it would be impossible now to frame, upon the resolutions of the Committee, such a Bill as we should be prepared to accept; but there is some ground for apprehension that an attempt may be made to substitute, for a really good and comprehensive measure, one the effect of which would be to impose unnecessary and objectionable restrictions on trade, and, by recognising and establishing an imperfect and insufficient qualification for dealers in, and dispensers of, medicine, to discourage rather than promote the advancement of the art and science of pharmacy."

THE LATE ELECTION AT THE ROYAL SOCIETY.

The fortunate fifteen who this year for the first time append F.R.S. to their names may be divided into the two classes of those who confer honour on the Society by joining it, and those who derive honour from the Society by their admission. But as such a division, however tempting from its simplicity, might be considered invidious, we substitute for it one based on the respective professions of the candidates and the departments of science in which they are distinguished. Taking Medicine first, we have Dr. George Harley, Professor of Medical Jurisprudence in University College. Dr. Harley is known to our readers by the lectures we have lately published; but the physiological researches by which he obtained his election are scattered through a number of journals, English and foreign. They comprise papers on the production of Diabetes in Animals, Urohæmatin, the Blood and Urine in Pregnancy, Respiration, the Anatomy of a New Species of Pentastoma, the Chemistry of Digestion, the Anatomy and Physiology of the Supra-renal Capsules. Another successful Medical candidate is Dr. Robert McDonnell, of Dublin. He is the author of a number of Physiological and Anatomical papers, a Member of the Royal Irish Academy, and Examiner in Anatomy and Physiology in the Queen's University in Ireland. A third Medical man on the list is Mr. W. K. Parker, who, however, has won his Fellowship as a Comparative Anatomist, and therefore takes his place with

the naturalists. Pure mathematics have one representative in the list, in the person of the Hon. James Cockle, M.A., Chief Justice of Queensland. This gentleman has made a high reputation by his papers on the more abstruse departments of mathematics, in the Cambridge, Dublin, and other mathematical journals. There are three Astronomers—the Rev. William Rutter Dawes, known for his observations on the double stars and the umbra of a solar spot; Mr. Robert Grant, the Regius Professor of Astronomy in the University of Glasgow; and Mr. William Huggins, who has written papers on the Spectra of Nebulæ and of the fixed stars. The Natural Historians get three Fellowships: these are severally awarded to the well-known Ornithologist, Mr. George Robert Gray, the Senior Assistant of the Natural History Department of the British Museum; Mr. William Kitchen Parker, a General Practitioner of Medicine, the author of several papers on Comparative Osteology in the *Transactions* of the Zoological Society, and of some well-known papers on the Foraminifera; and to Mr. G. H. K. Thwaites, a botanist, the Director of the Royal Gardens, Peradenia, Ceylon. There are two engineers—Mr. Fleeming Jenkin, an author on Telegraphy and Electrical Engineering, and Lieut.-Col. J. T. Walker, the Superintendent of the Trigonometrical Survey of India. There is one chemist—Mr. George Gore, the author of three papers in the Philosophical *Transactions* on Antimony and Carbonic Acid; one geologist—Mr. A. Geikie, of the Geological Survey; one traveller—Sir F. M'Clintock, the Arctic navigator; and one representative of literature—the Poet Laureate. The premature death of Mr. Henry Christy, whose candidature had been approved by the Council, deprived the Society of an active ethnologist and palæontologist.

THE NAVAL EXAMINING BOARD.

We have just received the following curious piece of intelligence:—The Inspector-General of Hospitals from Greenwich, and the Deputy-Inspector-General of Hospitals from Woolwich, together with the Deputy-Inspector-General of Hospitals at Somerset House, have hitherto been employed jointly to examine candidates for Assistant-Surgeoncies in the navy. This Board, it will be remembered, did good service by rejecting a good many candidates during the past year, and the consequence is that the navy is now short of complement. To remedy this state of things, the Board of Admiralty have directed that the examinations in future shall be conducted by the Deputy-Inspector-General at Somerset House. The object is plain enough: a Board is not so manageable as a single individual may be, and the Admiralty calculate that with a single examiner there will be fewer rejections. We hear that under the new *régime* two candidates have been examined and passed.

PROFESSOR OWEN AT ST. MARY'S.

Professor Owen delivered a remarkable oration at the distribution of prizes to the Medical students of St. Mary's, Paddington. Our limits compel us to abridge it; so we may say that after some energetic remarks on the value of competitive trials, he goes on to discuss some of the most important questions relating to the true character and position of our Profession:—

"It is sometimes asked, Is Medicine a science? This question, like many others, is hardly reasonable or fair, the two terms being so unequal in degrees of complexity. So far as Medicine knows the cause and condition of a curable disease, and the one infallible cure, to that extent it is science. If Medicine has mastered the nature of a specific malady, if there be a specific malady, and has discovered the specific remedy, if there be such a thing as a specific, it may claim to be a science. I leave to the experienced Practitioner to determine what may be the proportion of the field of observation and practice commonly called 'Medical science' which is in the above defined condition; and what the proportion of that field in which the cultivators differ in their views as to the cause, the nature, and the remedy of disease.

"Your excellent professor of chemistry will tell you that, having a special aim in view, he adds a certain reagent to a given solution or mixture, knowing that it will produce such desired result—viz., a certain infallible decomposition and recomposition. The prevision and its fulfilment prove that he possesses a science. But, were other chemists to affirm that a different reagent would produce the same result, or that the solution, if left to itself, would produce it by spontaneous decomposition or recomposition; and if there were really grounds for such affirmations or diverse views of the case, you would then conclude that chemistry had not reached the scientific stage, and would hardly expect it to enjoy public confidence. In fact, we see at the present day that the public confide not so much in Medicine as a science as in the particular Practitioner. It is characteristic also of the present phase in the growth of Medicine, that the public are liable to be deluded and led astray by its shams; and not until Medicine becomes a science can such simulacra be expected to vanish, and quacks and quackery become extinct. Time was when disasters were deemed, in the literal sense of the term, to be the effect of malign influence of stars. Two or three centuries ago, the horoscope was cast, and believed to indicate the future destinies of the heir, by the same classes as now accept, in like faith, the infinitesimal globule. The astrologer then had leave to move in the same social scale, and to sit at the same tables, as now the homœopathist. Astronomy had not risen to its full development as a science. It is interesting, indeed, to consider how a public ignorant of, and careless about, the grounds and proofs of an established science, does in time come to believe in and trust it, to the exclusion of its simulacra, and the utter deposition and extinction of the quack professors of the same. I believe the public gain this faith by what the true science effects and what it predicts.

"By means of the data of astronomy, the seas are navigated, and remote parts of the earth reached with marvellous exactitude. Astronomy foretells phenomena to the day, hour, minute, even second of time: the interval—it may be years—after the prediction passes; and at the very hour, and fractional part of the hour, the event foretold comes off.

"The palæontologist, from a fossil fragment, infers that such a form of animal, strange, it may be, or gigantic, has existed in such an island; and commits himself a prophetic sketch of the same. Other parts are afterwards found; at length, perhaps, the entire skeleton. The public knows nothing of the laws of correlation by which the prevision of a form of life long passed away, and never seen by human eye, was gained; but it is struck by the fulfilment, and accepts or believes in the science.

"Medicine is occasionally called upon to prophesy in public; the rank of the patient requires a bulletin. Reference to some of these series of predictions and the actual results may partly account for the degree in which Medicine still halts, as a science, in public estimation. And so it comes to pass that the question continues to be asked, 'Is Medicine a science?'

"The great question for you, however, is, Can Medicine become a science? From every analogy of the progress of human intellectual endeavours to raise, by observation and experiment, a body of facts and phenomena to the status of true science, the reply to the latter question would be emphatically, Yes!

"Anatomy, physiology, pathology, or a knowledge of deterioration of structures, to the minutest degree in which the microscope can show such changes for the worse, in the fluids and elementary tissues of organs; chemistry, especially organic; the nature and powers of medicines—in short, all three bodies of doctrine worthy of the name of sciences must be cultivated—if possible mastered—as the indispensable basis on which a lasting superstructure of a true science of Medicine can be raised. Medicine can only become science by and through the subservient bodies of doctrine that have become science—the unknown must be reached by the known.

"In every age, the individual who has effected most to raise Medicine and Surgery to the rank of sciences has been the Practitioner who was most distinguished for his knowledge of science.

"John Hunter, besides being the greatest Surgeon of his time, was the best physiologist, the greatest comparative anatomist, and, what was then little if at all known to his compatriots, he held the most advanced views of zoological classification, and was the most experienced palæontologist.

"In considering the obstacles that impede the progress of

Medicine to the scientific status, I have been led to regard in that light, among other opposing influences, 'fees' and 'examination.'"

With regard to fees, the Professor speaks of the necessity of studying Medicine, including therapeutics, as any other experimental problem, and apart from the consideration of remuneration for each particular case. Then with regard to examinations:—

"Examinations differ widely in the work and qualifications of the examiners,—in the views and motives of aspirants to the office,—in the main end and aim of the test itself. In regard to the latter, the difference is such that it may be expressed by saying that some examinations are conducted to find how much, and others how little, a man knows. In the first category, those examined are ranked in the order of their acquirements; in the second, all alike receive a diploma, signifying qualification. And, as the weakest link in a chain gives the strength of the whole, so the scantiest measure of knowledge that enables the candidate to pass becomes that of the amount sought for by the examiners, and at the same time a test of their own qualifications for the office, and of the responsibility and trouble which they undertake in its performance.

"To exemplify the first kind of examinations, I would refer to the well-known arrangements at our old universities, in principle so pure, so effective in arrangements, as to gain for him in whom the highest amount of knowledge has been found the unhesitating applause of the less successful, which is echoed, without the slightest misgiving, by the country at large.

"In the composition of the examining body, old experience is combined with young vigour, soundest knowledge of settled principles, with minds fresh from the latest discoveries and amended views of science. The senior wrangler of one year may be associated with his teachers as an examiner in the next.

"The machinery is effective without being cumbrous. The teachers of the required subjects are stimulated thereby to impart the newest discoveries, and to set intelligibly before their pupils the latest phase of their respective sciences. 'Examinations' of this nature are helps, not hindrances, to science.

"*A board of examiners composed exclusively of old teachers or Practitioners*, and to whose diploma or pass-certificate the bulk of Medical students look as a main aim of their metropolitan studies, becomes an influential element in the consideration of the way in which, *e.g.*, anatomical and physiological science is to be presented by the teacher to his class. I believe that I do not err in supposing that, if the examinations in human anatomy and physiology by the board granting the diploma were conducted by a combination of young cultivators of those sciences with old anatomists and Practitioners; that if one or more men of justly merited public repute for their advancement of anatomy and physiology, and in the vigour of their intellectual work of imparting and expanding those sciences, were placed on the board of examiners—teachers would be stimulated to prepare their pupils to be tested in relation to more advanced conditions of those sciences, than there is any call for under the present state of the 'pass examinations.'

"The obstacles to such improvement in the examining board may be exemplified in the conditions of its existence at the Royal College of Surgeons of England. The administrative authorities of that College are concerned, both in purse and dignity, in themselves performing the work of examination. In purse, by the way and degree in which they remunerate themselves for such work; in dignity, because no member of the Council is eligible to the offices of vice-president and president of the College until he has been an examiner. As such, his remuneration being in the ratio of the number of persons examined, must now be of material importance.(a) Accordingly, the Council, twenty-one in number, elect out of their own body ten to be examiners, reserving to themselves the testing in all the required sciences and subjects, save midwifery, dentistry, and classics.

"I note this, therefore. as one of the impediments to the progress of Medicine and Surgery as sciences; an evil which will be abated in proportion as those to whom the Profession confide administrative power may approach in singleness of purpose and motive to the administrative bodies of our Universities in regard to the business of examination for degrees and diplomas.

"The Royal Society of Arts has recently given an example which the Royal College of Surgeons would do well to follow. On undertaking responsibilities connected with examinations of candidates, the Council of the Royal Society of Arts at once passed the self-denying ordinance that no member of the Council should be eligible to the post of examiner. Yet the Council always includes men well qualified for the office, but not every man so qualified, and seldom those who are best qualified.

(a) In the year 1817, the Council determined by bye-law, sect. xxii., that "Every member of the Court of Examiners who shall be present at the opening of any stated Court of Examiners shall be entitled to half-a-guinea; every member who shall be present at the adjournment thereof shall be entitled to half-a-guinea. And for every examination for the diploma, the examiners who shall have been present from the commencement until the termination thereof shall be entitled to the division of nine guineas, whether the person examined be approved or refused."

PARLIAMENTARY—THE METROPOLIS SEWAGE AND ESSEX RECLAMATION BILL—THE DISASTROUS MARCH FROM MHOW TO KIRKEE—THE BRITISH MUSEUM—THE UNIVERSITY OF LONDON.

In the House of Lords on Thursday, June 1, on the motion for the third reading of the Metropolis Sewage and Essex Reclamation Bill,

Lord Denman objected to what was really a great public undertaking being intrusted to a private company. Many scientific plans for the utilisation of sewage had been neglected, and one had been selected which in the opinion of most eminent authorities would be found to be impracticable. The experiment which it was proposed to make was hazardous, and would have the effect of delaying, if not of preventing, the permanent improvement of the metropolitan drainage. He therefore moved that the bill be read a third time that day three months.

The Earl of Hardwicke said it appeared that the promoters of this bill proposed to convert Maplin Sands into land fit for cultivation. Upon the faith of such statements many persons might be induced to invest money, and therefore it was well that it should be known that the most eminent authority—Baron Liebig—had declared the scheme to be impracticable.

Lord Churston said the committee had had contradictory evidence as to the practicability of the scheme, but the question of probable profits was one which only concerned those who chose to speculate in the undertaking.

Their lordships then divided,—

For the third reading . . .	49
Against	4
Majority	—45

In reference to the subject of the fatal cholera outbreak amongst a detachment of the Royal Artillery on their march from Mhow to Kirkee, a march which is said to have been ordered by the military authorities in spite of most explicit warning, Sir M. Farquhar asked the Secretary of State for India whether his attention had been drawn to the account of the occurrence which had appeared in the newspapers.

Sir C. Wood said that no public report had been received on the melancholy occurrence to which the question of the hon. member referred. He was, however, sorry to say that there could be no doubt of its being true that a detachment had been ordered to march from Mhow to Kirkee, and that a great mortality had occurred in the course of the march. The number which had been mentioned included both women and children. There seemed to have been some misunderstanding between the military authorities and the officer of the detachment. A remonstrance was made to the authorities, and they at once countermanded the order for the march. He thought it only fair to say that the breaking out of cholera among troops on the march in India was by no means an uncommon occurrence. It by no means followed that in this case it was owing to the march taking place at a particular season of the year, as cholera in India broke out in otherwise healthy seasons.

In Committee of Supply on the vote of £161,841 for the Science and Art Department of the United Kingdom, several members spoke in terms of reprobation of the proposal to remove the Natural History Department of the British Museum to South Kensington.

In the House of Commons, on Friday,

Mr. G. Duff called attention to the claims of the University of London to be provided, at the national expense, with a building suitable for its purposes, and worthy of the position which it occupied among the educational institutions of the country.

Mr. Cowper admitted the usefulness of the University, observing that there was every desire on the part of the

Government to give to it an adequate accommodation; but he doubted the expediency of incurring the expenditure requisite to provide a special building.

The House adjourned until Thursday, June 8.

FROM ABROAD.—EXPERIMENTS WITH VARIOLA AND VACCINIA ON ANIMALS—EFFECTS OF DEVASTATING THE FORESTS IN FRANCE.

During a discussion which took place at the Académie de Médicine two years since upon the origin of the vaccine virus, one of the points which came most prominently into view was the question of the identity of variola and vaccinia, and the production of the latter by the transplantation of the former into the economy of certain animals. The Lyon Society of the Medical Sciences, not satisfied with the position which this question had assumed during the discussion, appointed a committee, of which MM. Chauveau and Viennois were prominent members, to carefully investigate the subject anew by means of numerous experiments. Last week M. Chauveau detailed to the Academy the principal results of an investigation which, although not a novel one, has never been before carried out upon the same scale and so systematically. Two large dairies, one with 160 and the other with 100 cows, were placed at the disposition of the committee; and as the history of the animals was well known, the fact of their not having already had cow-pock or aphthous fever was ascertained. On a series of 30 animals, taken indiscriminately as regards age and sex, magnificent pustules were produced by vaccine virus, the eruption remaining strictly localised. Upon another series of 20 vaccination was performed with human virus, and all perfectly succeeded but one, and that in young and old animals, and whether old Jennerian virus or that obtained more recently was employed. In a third series of experiments, 5 animals, that had a short time before been the subjects of aphthous fever, having been vaccinated, a fine eruption was produced, proving that this fever cannot, as has been attempted, be assimilated to cow-pock.

Next, 17 heifers or young bulls were most carefully inoculated with human variola, some in 1863 and others in 1865. In none of the animals did cow-pock follow, only very small, reddish papulæ appearing, which rapidly disappeared without leaving any crust. That these papulæ were simply the result of the inflammation produced by the puncture, having nothing specific about them, is, however, disproved by the fact that when 15 of these animals were subjected to vaccination, while in 3 of them there appeared rudimentary and ephemeral vaccine vesicles, 11 of the others were exempt from all eruption. This fact, which is regarded as new, proves that the papules produced by the inoculation of the variola really are a specific eruption, possessing the same relations with cow-pock as vaccinia and variola in the human subject. An experiment made by inoculating with some serosity scraped from these variolic papulæ furnished completely negative results.

The next experiment performed by the Committee was upon an infant, and we are somewhat curious to know how infants were obtained for these experiments, and under what pretext the Committee procured the consent of their parents. However this may be, an unvaccinated infant was inoculated with some of the serosity obtained from the variolic papulæ of the heifer. A single pustule resulted, which, after commencing like ordinary vaccinia, became surrounded by a number of secondary pustules, which, increasing largely in size, had by the eleventh day covered the whole surface and become confluent. A second infant, inoculated from the primary pustule of the first, also exhibited a general eruption, but without confluence. A cow inoculated from the initial pustules of the second infant, did not exhibit cowpock, but the papular eruption which is typical of variola in the cow.

These various series of experiments were repeated upon the horse and ass, five infants being successively inoculated from the variolar eruption of the horse; and, although the eruption became more sparse after each transmission, its power of inducing spontaneous variola in the human subject and inoculated variola in the horse was demonstrated as remaining. The following are the general conclusions arrived at:—1. Human variola can be inoculated in the horse and ox with the same certainty as vaccinia. 2. The effects produced by the inoculation of these two virus differ absolutely,—variola inducing in the ox an almost imperceptible papular eruption, and which, although much larger in the horse, can never be confounded with the vesicles with abundant secretion and the thickened crusts of the horse-pock. 3. The horse and ox can in general be preserved from variola by vaccination. 4. The inoculation of these animals with variola in general opposes the ulterior development of vaccinia. 5. Transmitted from ox to ox, or horse to horse, variola does not approach vaccinia in its nature. It either remains as it is, or becomes extinct. 6. Transmitted to man it gives rise to variola. 7. Retaken from man and transported anew to the ox or horse, it does not on this second invasion give rise to horse or cow-pock. 8. Thus, in spite of the evident relationships which in animals, as in man, prevail between variola and vaccinia, the two affections are none the less perfectly independent, and cannot be transformed into each other. 9. In vaccinating, then, by Thielé and Ceely's method, we practise the ancient inoculation, possibly always rendered benign by observing the precaution of only inoculating from the primary accident, but most certainly preserving all its dangers with respect to contagion.

At the same meeting of the Academy, M. Lanoix also presented a paper on "Animal Vaccination," derived from the observation of 800 revaccinations and 300 vaccinations. He concludes that the vaccination from heifer to heifer is always possible, and may meet a large demand for the virus. The virus does not thus become weakened, but its properties are more surely preserved, and for a longer time, by transmission through the animal than through the human economy. Vaccination almost always furnishes a positive result, and re-vaccinations give a superior mean success to the mean success of human vaccinations. Vaccination of the heifer is easily performed, and in the time of epidemics it becomes a powerful resource in consequence of the abundance of the supply it places at our command.

M. Becquerel has brought under the notice of the Académie des Sciences a very important subject—viz., the mischief arising from devastating the country of its trees. It has been often enough urged before, not only with respect to France but other countries, but seemingly with little avail, for M. Becquerel states that while from 35,000 to 36,000 hectares of forest are annually destroyed for the purposes of agriculture only 10,000 hectares are planted in the mountainous districts. If this state of things is to go on he predicts the most disastrous consequences, as the climate will be greatly changed for the worse and the system of waters entirely deranged. He has studied the influence exerted on the climate during the last thirteen years, and his numerous experiments prevent his entertaining any doubt in the matter. By the aid of his thermo-electrical apparatus he has ascertained that a tree, whether isolated or in the midst of a clump, acquires heat just like all inert bodies exposed to the sun's rays. By reason of the slight conducting power of the wood the tree does not present its maxima of temperature until about tw hours after sunset, and a certain time is required to bring it into equilibrium with the surrounding medium; and while for the leaves a few instants may suffice for this, the trunks of a large diameter may require many hours, or even the whole night. It will be readily understood how forests of a certain size may in this way influence the temperature of a country. The examination of the records of history and contemporary facts amply prove that the waters of the country have undergone great change, the inundations on certain rivers becoming more frequent and more devastating, while on the other hand, the sources in some valleys are dried up. When M. Becquerel points out that this destruction of forest

is due to the increased demand for wood, and the desire of proprietors to turn their possessions to more profitable account, he only shows how much more easy it is to deplore the evil than provide a remedy.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF OXFORD.

(Continued from page 382.)

The precise condition of the citizens of Oxford, in regard to their civic rights and endowments up to the period of the incorporation of the University, has not been very clearly determined. Ackeman, who closely follows Wood, assumes that the place "doubtless was of civic dignity in the early periods of the English history," but he gives no satisfactory evidence in support of the statement. It is inferred that in the reign of Alfred there was a provost of Oxford, who would be chief magistrate, as the provost of Glasgow is now chief magistrate of his city. In the latter part of the Saxon period there was, as we have told already, an Earl of Oxford made by Harold the Second, but whether the Earl exercised special jurisdiction is not recorded. In the commencement of the Norman period the town was in all probability placed under the control and governance of the Lord of the Castle, but in the reign of the First Henry the feudal bonds were knocked off, and a charter was granted by the King to the burgesses, while in the reign of Richard the First, the monarch, who was born in Oxford, placed the inhabitants under the same laws as the corporation of the City of London. Thus the municipal liberties of the town were in progress together with the gradual development of schools and halls, and when the time came for the erection of the colleges or separate residences for the students and the learned men, there was a perfect organisation of a civic character external to the University and, to some extent, independent of it. Henry the Third, in 1255, appointed to the mayor and bailiffs four aldermen and eight other legal persons to act with them as a Council, and laws were passed for protecting students from the laymen and the laymen from the students, for town and gown even at that early day might have been called "hammer and tongs" with all propriety.

The town itself at this period was small and badly built. In it and near it were many religious houses, the Abbey of Osney being the most important and imposing. The Franciscan Friars had one house at least, perhaps more, and the Black Friars and other orders had also established themselves. In these religious houses, and in the houses of the burghers, the clerks and students resided. The houses were for many ages rudely built of wood or plaster, and covered with thatch; but in the latter part of the year 1235 a great fire occurred, by which nearly the whole place was destroyed. Afterwards the inhabitants, in rebuilding the town, began to employ stone and "to fortify with tile and slate."

THE COLLEGES.

In my last chapter there was drawn out in the briefest possible outline a notice of the origin of the city of Oxford. We stopped at that point in the narrative when the University had become, by the will of the third Henry, an incorporation, when the positions of teachers and of scholars were defined, and when the relations of the separate colleges to the whole of the University, as a body, were set forth.

From this point we may travel by the side of the respective colleges, and in their history blend much, if not all, that we have space to record concerning the city itself; for now in truth this is a University town we are at, hardly more than that in name, and assuredly nothing more than that in reality.

Wood, of whom I made mention in the previous chapter, in his introduction to the colleges, teaches that before the colleges were built the scholars generally were educated and tutored in the houses of the burghers (called by the name of halls or inns); the scholars were supported either by the exhibition of the bishops, by the assistance of great and wealthy persons, or by their own patrimony; but some—and many of these were secular scholars—were educated in the religious houses, as in the Priory of St. Fridesswide and Osney Abbey. Afterwards the colleges arose, but these from very small beginnings, for all except Merton had their origin from only one tenement or hall.

The reader will remember that to King Alfred the honour is given of having founded the first schools of the city, and that tradition affixes to his acts the foundation of three schools—one for theology, a second for logic, and a third for grammar. From this assumed circumstance certain antiquarians have believed that the college known as University College is, in fact, a continuation or representative of the original schools of Alfred. This belief was at one time so firmly accredited that in the reign of Henry the Sixth certain windows were placed in the college, on which King Alfred was depicted and described as the founder. It does not, however, appear that there is any satisfactory reason to assign such an antiquity, as is thus surmised, to University College. I must therefore follow the usual order given to the colleges in point of age, and place University College second on the list.

Merton College.

The most ancient college of Oxford is Merton. It was transferred from Maldon, in the county of Surrey, by Walter de Merton, Bishop of Rochester, and once Lord Chancellor of England. To give good accommodation to his students, the Bishop erected and ornamented a building, which in the year 1267 was chartered and established for ever, *per nomen* "Domus Scholarium de Merton."

More than ordinary interest is attached by the true Oxonian to Merton College, because upon it he rests his claim to an antiquity for his University greater than any that can be claimed for the University of Cambridge. The Oxford men, following in the wake of the vigorous old scholar, who lived his lonely life at "Merton," assert that the founder, Walter de Merton, transferred his scholars, twenty in number, from Surrey to Oxford, because in that place, and nowhere else in England, general learning flourished. Further, the said Merton had about that time a house and manor at Cambridge, and seven or eight miles off another house and wide lands. *Ergo*, the Oxonian—Walter de Merton—of a surety would never have been so stupid as to buy a new place at Oxford, and take his scholars there, if Cambridge, where he had every convenience, had a ghost of a pretence at that time to be considered a school. To clench their argument, the Oxonians protest, that whereas Peterhouse was the first college in the University of Cambridge, and whereas there was no Cambridge worth naming before Peterhouse, Peterhouse itself is but a copy of Merton College, built by Hugh, the famous Bishop of Ely, after the true and original Oxford model. The care taken by De Merton in the foundation of his college was repaid. The discipline was good, and men already of great fame gave it their support; amongst others, the famous Roger Bacon—whom we Physicians ought to claim as our own, seeing that, although a Franciscan friar, he practised physic. Roger Bacon was content to join the College, and, either as reader or student, take part in the learning that was taught there. At this time Bacon held the first, though not the safest, place amongst the learned of his time: he was by common consent the first of mathematicians; he was the leader in perspectives, or in the science of optics, and he was one of the six great alchemists—the fourth in order, says Wood, of those chief chemists whom the world has ever produced; viz.—1. Hermes Trismegistus; 2. Geber Arabs; 3. Morienus Romanus; 4. Rogerius Bacon; 5. Raymundus Lullius Hispanus; 6. Thomas Paracelsus Germanus. The acquisition of Roger Bacon by the new college was an event of more importance to the future history of the spot than probably was known at the time or than is known now. Roger Bacon, in fact, is still but poorly understood, his real work in this world badly collated, if not lost, and the odour of his name not yet purified from the superstitions by which, while its owner lived, it was so grimly surrounded.

With the foundation of Merton College a change was naturally introduced in the position of the town and the townspeople to the University. Hitherto, as we have stated, the students lived with the burghers, and attended the schools only for the purposes of instruction: in other words, that system which has always been maintained in the Scottish Universities, and which the visitor to Glasgow or other famous northern seats of learning will find existing to this hour, was the order of the day at Oxford until the foundation of the colleges introduced a new system. What led to the change is not so easy now to state in one expression, for there were several converging elements. The monastic life had some influence, in the way, at least, of example. If the cloister favoured sanctity, surely it should also favour learning. This was a natural argument, and in its day it possessed a vitality which we can never again appreciate. Dissensions

between the burghers and the students was another probable cause of the change. These dissensions had often been very serious: in the year 1202 there was a disturbance of great magnitude, and as the burghers seem, from the account, to have had the best of the quarrel, and to have maintained their possessions, the professors and students, in order to bring about the severest punishment they could inflict, simply packed up their books and bags and set out to the good old town of Reading, which made them very welcome, and where they soon settled down to work. The Oxford burghers thereupon found to their dismay that they had reckoned without their host, and that, in plain truth, these rough-and-ready and perchance overbearing bookmen were after all essential to the well-being and very existence of Oxford. So before Reading had established such claims over the scholars as were invincible, the Oxfordian townsmen gave way, and the scholars returned to their hostels and schools in triumph—the independence of the burgher knuckled down to his necessities. There was yet a last cause for the establishment of the collegiate system—viz., the ambition of the founders of the colleges. It is as the leader in this movement for the advancement of learning that the name of Walter de Merton remains distinguished still amongst us. I know not whether the evil or the good prevails in the ambition to found a college and to leave it as a monument of the founder. A good and great man, one full of noble purpose and aspiration, may truly in this manner place himself fairly in history, the goodness of the intent expurging the vanity and sanctifying the deed; but, unfortunately, what a good, ambitious man, having means, may do for a good purpose, a bad, vain, ignorant, ambitious man may do for mere self, or even for hiding, under a falsely-assumed greatness, errors of the past, and great crimes. On the whole, the system does not bear the crucible without injury, nor is it a system to be perpetuated. What it has done, it has done in many cases well; if it has not been so free as we could wish, it has been retired and often sound, and it is to be confessed that, tried for some centuries by the side of the free system in Scotland, it bears out fairly. If it has not led to the practical and useful in knowledge, it has borne pre-eminent results in the development of theory; if it has had little to do in the quickening of the mechanical and physical sciences, by which this age is distinguished, and only distinguished in knowledge from the Platonian period, it has maintained and handed down to us that marvellous wisdom which Plato condensed, and on which all our moral and social greatness rests. In other words, if it has not educated the hands, and if it has in some senses even crippled the feet of the body scholastic, it has nourished the brain with much old learning that, like old wine, hath its virtues as well as its age.

The connection of our own Profession with the first college in Oxford is to us full of historical interest. In 1825, one of the wardens of the College was Dr. John Chamber, Physician to King Henry the Eighth, and afterwards, with Linacre, one of the founders of the College of Physicians. Chamber was a priest as well as Physician, and was the last dean of the King's Chapel at Oxford. He graduated in Medicine on October 29, 1531, and died in 1549.

The reference made to the graduation of Chamber leads to a word or so on the question of the first conferring of degrees in Oxford. The degree of "Doctor" was introduced probably about the year 1150, and Wood states that in ancient days such that were Doctors in any of the faculties were for some time called by the name of Regents, as Regent in Law, Regent in Physic, and so for some years continued, but they were not to take the place of Masters of Arts. Regarding the exercises that had to be gone through for the degrees, our authority is, however, nearly silent, the records of such exercises afford little information.

But to the Medical mind Merton College is *the* College, because there the most illustrious of our great dead was once a resident. The man I refer to was William Harvey. I have already in these pages sketched out his life, and have given such an estimate of his work as will bear, I trust, fair criticism, as an estimate in which all that Harvey did is accepted by the side of that which his contemporaries also did, and that which his predecessors had done. It now, therefore, only remains to be recalled that in Merton College the discoverer of the circulation had residence, and that in 1645 he was warden of the College, to its perpetual honour and his great comfort, at a time when he needed consolation.

Another celebrity of the College who followed Harvey was Dr. Jonathan Goddard. How few of my readers ever heard of Goddard before, and yet I do assure them he was a great man, a noted man, a bold man, and honest withal. I gather in respect of this brother of ours, that in the first part of his career he was tightlaced and puritanic, that he wore a pointed hat, shaved close, and mixed his potions with a goodly allotment of political argument, and profitable disputation. What our friend Mr. Jonathan Hutchinson, who would deprive us all of so mild a draught as threepenny worths of *Daily News*, who would shorten our *Times*, tear us from the *Telegraph*, whip us from the *Post*, allure us from the *Tiser*, drive us like out sailing comets from the *Sun*, shut out our beautiful *Star*-light, and veritably cut us off from the *Globe*—what he (the said Mr. Jonathan Hutchinson) would have done to Dr. Jonathan Goddard—with his ravings against kings, papacy, and prelacy, his writing prescriptions in Westminster Hall itself, and such-like offences—except openly cut him, I know not. However, as I have said already, Goddard was a sound man and much esteemed. He was private Physician to the Lord Protector Cromwell, and by his Highness's will was made warden of Merton College in 1551; he was also burgess for the University in the Little Parliament, and one of the Council of State of the Commonwealth. Whether when his Highness Cromwell left his people, and the scraping mob kneed it down to the wanton, who was (forgive me for saying the word) "restored," whether Goddard then became less political, is not clear; but one has an inkling that at all events he conformed to fate, and drank to his Majesty with the rest, for I find that after Oliver's death he ventured to go to London, and was on the first Council of the Royal Society. He died on March 24, 1674.

Merton College is governed by a warden chosen by certain of the fellows. It has twenty-four fellows, fourteen "postmasters," four scholars, two chaplains, and two clerks.

The college is a fine old building of Gothic style, and is possessed of a library that would alone repay a visit. Here there is a specimen of Caxton's printing of Chaucer's poetry; here antiquarian Wood, to whom I have often referred, dug out his treasures.

To the hall of the College there has been added a painting representing the founder, Walter de Merton, in his robes and mitre. De Merton was painted as pointing to his college, the monument he had reared to himself. The picture for many long days possessed a peculiar charm to the Medical world of Oxford, in that it was not only presented but was painted by a provincial Physician, of great reputation as a Physician in the last century, viz., Dr. Wall, of Worcester, once a Fellow of Merton. The genius displayed in this work has often given rise to expression of regret that Wall, who left only a local repute in physic—alas! now well nigh forgotten even in Worcester—should not have turned to canvas altogether, on which he might have written his name for the ages. This picture told a story, and truly it told a moral also. It said plainly what few think of that great local and temporary success—that is to say, brief, but all-absorbing popularity, after which there is so much strife—is often, perhaps *always*, the deepest, the most terrible curse inflicted on genius. Had Shakespeare been the great actor of his day, he had never been Shakespeare. Had the miserables among whom our Harvey lived foreknown how many heads above all the other men of his craft and time he stood, Harvey had never been Harvey; while Wall, the forgotten Physician, had now been Wall, the never-forgotten painter, had not the miserables among whom he lived been moved by some ideal conception, in which I warrant there was not a jot of real wisdom or fact, to depict him as many heads higher than the rest of his brethren, and to keep him from his true province—designed for him by nature—by making him believe with them, so as to be their exclusive slave, at the cost of his fame and his true mission.

I have the happiness to know that students of our modern medicine traversing the Medical library in stray searchings after that which may relieve them from the immediate grind of hard dry work do read these columns with some pleasure; and if I could direct such readers—who are to represent medicine in the future—to a lesson derived from our old histories, I should point to Dr. Wall. I should say to them, be you true to your own instincts and your own honest promptings, and if you feel you do and can excel—actually excel—in any given path, follow that out and out without fear and with earnest hope. If there be one who knows that he is by nature a painter rather than a Surgeon or Physician, let that student become a painter; it will be better for him, for his natural profession, for the profession he has left, and for the world. It is well, right well, to speak these truths in a time that is

essentially narrow, false to genius, and bigoted in set forms, phaseologies, and opinions;—it is right to warn the young mind that nothing is so unsound and cruel as that persuasive "practical" voice which would command all the mental faculties of another person into its own train, and there leave them on sheer emptiness;—it is right to tell the youth not to listen to those who would curb all his yearnings and aspirations, on the plea that the world only is satisfied with men of one idea, or one shock of ideas. I ask no apology for using an illustration that lies before me, for the purpose of commending the rising members of the Profession to let loose their own honest impulses, to test themselves for the points of their own strength; and, having found these, to trust them, whatever may be the temporary sacrifice or the immediate cost.

Some other Medical names, more than those I have named, were educated at Merton College, viz., George Owen, M.D., Physician Royal to Henry the Eighth, and remembered for the sum of one hundred pounds in the will of that crowned animal; Sir Thomas Clayton, M.D.; Dr. Robert Wyntle, the first of the Radcliffe travelling Fellows; and last, not least, Theodore Goulston, founder of the Goulstonian Lectures, who died on May 4, 1632, and long lived to study Aristotle and Galen, with some credit to himself and much pleasure.

University College.

I have already stated in regard to this College that it has been supposed to have had its origin from Alfred the Great, and is, in fact, the representation of the three foundation schools which he is reputed to have established. I have further shown that, according to the best authorities, this antiquarian hypothesis is unsound, and that the College, in point of date, probably stands nearer to our own time than does Merton College. The evidence appears to be conclusive that University College was founded by William of Durham, the Rector of Bishopwearmouth, some time before his death in 1429. The College is a fine building, and the hall, which was commenced during the period of the great English revolution, is very handsome. The library is exceedingly rich in old manuscripts.

The College is governed by a master, and maintains twelve Fellows, one Bye-Fellow, ten Scholars, and two Bible Clerks.

University College possesses a Medical history of a special kind, since it was here that the noted Physician John Radcliffe was educated after he had left his grammar-school at Wakefield. Radcliffe, a lad scarcely fifteen, entered the College in 1667, took his degree of B.A., and became what was called senior scholar. There being no fellowship for him at the University College, he transferred himself to Lincoln College, and graduated in Arts in 1672. Evidently intended originally for the Church, Radcliffe was led to Medicine as a more favourite pursuit, and, according to Dr. Webb, became an admirer of the famous Dr. Thomas Willis, at that time the Esculapian god of the metropolis of England. In 1675 Radcliffe took his degree of M.B., and began to look out for practice in Oxford itself; but finding it impossible to touch the ground held at that time in the city by Dr. Lydal, who played into the hands of the apothecaries, and having offended Dr. Marshal, the Rector of Lincoln College, he cast the dust of Oxford off his feet. He came to London, and settled in a fashionable spot in that dismal street near Covent-garden which the Bow-street runners have since made famous as the theatre on which they played their interesting manœuvres—Bow-street. In London Radcliffe soon found scope for his talents, or, I had rather said, his peculiarities; for he became the Abernethy of his period. His drolleries and eccentricities made him notorious, if not famous; and Dr. Webb, always so learned and so quaint, actually tells us that Radcliffe's patients often feigned illness and paid their guineas in order that they might have an opportunity of enjoying a few minutes' conversation with the humorous Doctor. These were patients, indeed! And I, for one, think it a crying sin that the race has died out. In the course of his life, Radcliffe held very important appointments. He attended the Princess Ann of Denmark, James the Second, William the Second, and Queen Mary. His eccentricity, however, was offensive to Dutch William, who, having shown his dropsical legs to the blunt Doctor, and having asked for a candid opinion as to his condition, received, as a reply from the Esculapian, "Why, truly, I would not have your Majesty's two legs for your three kingdoms."

Radcliffe had political sentiments, and the year before his death, 1714, was elected M.P. for Buckingham, but what figure he made in the House we have no record. He died on the 1st of November, in the year we have named—1714—his death being accelerated, it is thought, by the disfavour he obtained from refusing to visit Queen Ann in her last illness.

Radcliffe was buried at Oxford in St. Mary's Church, and his name is especially connected with the city, from his having established the Radcliffe Travelling Fellowships, and having left two great legacies,—one of £5000 for additions to University College, and £40,000 for the building of the famous Radcliffe Library, with endowments attached thereto, of which more will be said in the proper time and place.

GENERAL CORRESPONDENCE.

THE USE OF SILVER WIRE FOR SECURING THE PEDICLE OF AN OVARIAN TUMOUR.

Letter from Mr. I. Baker Brown.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the interesting discussion on an ovarian tumour exhibited by Mr. Holmes, at the meeting of the Pathological Society of May 3, reported in your journal of last week, there are one or two remarks requiring correction:—

First, Mr. Henry Lee stated that it was the first time this plan (*i.e.*, securing the pedicle by twisted silver wire, and returning it into the abdomen) had been adopted in this country. In answer to this, allow me state that in the *Lancet* of December 20, 1862, p. 676, a case (No. 6) is reported in which I had pursued this plan on June 19 of that year. Besides this, the case related by Mr. Nunn, in which the Fallopian tube was split down three or four inches, and the rent closed by silver wire, occurred in my practice November 1, 1860, Mr. Nunn assisting me. It is published in the Obstetrical *Transactions*, vol. iv., p. 75, as Case 6; also in my work on Ovarian Dropsy, p. 231, and p. 276, as Case 25. Further, I have closed a wound in the uterus made during ovariotomy, November 21, 1861, by six silver sutures, the patient recovering and menstruating regularly afterwards (Obstetrical *Transactions*, vol. iv., p. 81, as Case 16, and in *Op. Cit.*, p. 244 and p. 280, as Case 35).

On numerous occasions I have secured adhesions, especially to the omentum, by silver wire, cutting off the ends. On September 9, 1862, I secured a mesenteric artery, which was bleeding freely, during operation by silver wire, the patient recovering.

Since the introduction of Mr. Charles Clay's adhesion clam, I have divided all adhesions and arrested hæmorrhage by actual cautery, and now divide the pedicle by the same method. The success attending this practice will, I believe, cause it to supersede all other methods of securing the pedicle in ovariotomy.

One other point requires explanation:—Dr. Graily Hewitt said that Dr. Tyler Smith was the first to cut the pedicle off short, and return it at once into the abdominal cavity. If Dr. Hewitt had said "the first in this country," he would have been right; but this same plan had previously been adopted successfully by Dr. Rogers, of New York, in 1829; Dr. Bellinger, of Boston, U.S., in 1835; and Dr. Siebold, of Darmstadt, in 1846. I am, &c.

I. Baker Brown.

17, Connaught-square, Hyde-park, W., June 5.

SEWAGE DIFFICULTIES.—ASYLUM SEWAGE IRRIGATION.

Letter from Dr. Robertson.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have read with much interest the paper in your last number by my friend Dr. Clouston, relating the unfortunate experiment at sewage irrigation at the Cumberland Asylum. As opposed to his experience, will you allow me to add mine at the Sussex Lunatic Asylum, Hayward's-heath? The asylum contains 500 patients, and is situated on an elevated range facing the South Downs. The soil is heavy clay (the Sussex weald); but it has been well drained throughout since it came into the occupation of the county.

The asylum was opened for the reception of patients in 1859. No cases whatever of fever or dysentery or any diarrhœa, save such as naturally follows the course of phthisis, etc., have occurred during the six years the asylum has been open. The drainage and sewage of the asylum are mixed together, and pass in earthenware pipes through small tanks, made for the

purpose of watering the vegetable garden by pump and water-pots, direct on to the grass land, to which it is throughout the year applied, unfiltered in any way, by surface irrigation. The only precaution used is the daily addition of a mixture of carbolic acid, lime, and water to the sewage. This mixture is poured every morning into the garden tanks, and the yearly cost of this disinfectant is about £5. The sewage passes on the land entirely free from smell. I am constantly myself superintending the irrigation, and I never experienced the slightest inconvenience or unpleasantness. The meadows irrigated are within 225 yards of my quarters, and I should not have the slightest objection, were the sewage thus disinfected, to see it flow within twenty-five yards of my windows.

The result is a mine of wealth. We have nearly forty acres of meadow and Italian-rye grass thus irrigated, and I am now cutting the second crop of rye grass. I carried home the first portion of my hay crop on the last day of May.

The system of irrigation was planned and carried out under the advice of Mr. Alderman Mechi by Mr. King, C.E., who was also introduced by me to Dr. Thurnam, for whom I believe he has carried out similar works at the Wilts Asylum. The entire cost here was £3 an acre. The meadows before irrigation were hardly worth £1 an acre; I should now willingly rent them at £5 an acre. The manner in which the sewage rye grass increases the richness of the cream and butter is almost incredible.

In reading Dr. Clouston's paper, it appears to me that he erred in using the sewage undiluted by the water from the baths and lavatories. He also appears to have collected the solids in a large tank, and apparently not to have used disinfectants. Also he admits that the fluid sewage was roughly and unscientifically allowed to run over the fields, probably forming small pools and deposits.

Excuse, Sir, this hasty letter, written amid much pressure and work. I am, &c.,

C. L. Robertson, M.D. Cantab.

Hayward's-heath, Sussex, June 5.

THE HYPODERMIC METHOD.

Letter from Mr. Charles Hunter.

[To the Editor of the Medical Times and Gazette.]

Sir,—There are two or three points on which I would remark if you have space in your next number. As the Royal Medical and Chirurgical Society have deemed the subject of my paper worthy of examination by a committee, I would observe that most of the points alluded to in the discussion of the Society have been considered by me in the series of communications that appeared in the *Medical Times and Gazette* in 1858 and 1859. In them I compared the endermic, the lingual, the stomachic, and the rectal with the hypodermic method, and devoted one paper more especially to cautions and the mode of operating.

I believe I fairly considered the relative advantages of each plan, and I still think that for the administration of some medicines, more especially of hypnotics and anodynes, the hypodermic is the method most to be relied on for uniformity and certainty of action.

In your number for October 8, 1859, I even gave the preference to the rectal method in certain cases over the hypodermic. My subsequent more extended use of the latter plan in intestinal cases, as of obstruction, of ileus, of enteritis, colic, etc., inclines me to withdraw that preference, so quickly and effectually have I since found the relief afforded in such cases by the injection of the anodyne in the arm, the thigh, or over the abdominal parietes. (The latter is the most difficult site for painless introduction of the needle.) Besides, delay of effect is scarcely probable by the subcutaneous injection, whilst it is more than probable, from different causes, by the rectal method, and has occurred, as Dr. Stewart's case of delayed belladonna absorption showed.

Mr. Savory will, I think, find that strychnia is as rapidly absorbed from the cellular tissue as from the rectum. The $\frac{1}{12}$th of a grain hypodermically injected will tetanise a cat in one minute, and produce death in two minutes. The rectal administration of the same dose could hardly act quicker; it might be delayed, or even lost in part.

One word in reply to numerous inquiries. I do not inject into the skin, but into the loose cellular tissue beneath it.

I am, &c. Charles Hunter.

Wilton-place, Belgrave-square, June 6.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, April 5.

Dr. Barnes, President, in the Chair.

Dr. J. Braxton Hicks exhibited an improvement on the mode of fastening the rope in his écraseur, which will allow any length of rope to be used, thus doing away with the awkward and cumbersome addition of the endless drum of Weiss. Instead of using one hook or button on which to fasten the moving end, two hooks are now employed back to back, whereby two figure-of-eight hitches can be made, sufficient to keep the rope from slipping. Should, during an operation, the hooks come down to the end of the screw without having brought all the noose through the eye or severed the growth, the hitch can be undone, the hooks run up to the top of the screw, the ropes refastened, and brought down again as at the commencement. The hooks should be made as neatly as possible, but deep enough to hold two turns of rope.

Dr. Marion Sims exhibited a new form of Curette for the removal of uterine fungoid granulations.

Dr. Greenhalgh showed a new form of Uterine Tent made from the stem of the laminaria spiralis, the peculiarity being that it is a hollow tube instead of the solid stick heretofore used. He also showed a new Pelvimeter, in which the index-finger is made available for the purpose of measurement, the size of the pelvic brim being determined by a little contrivance fixed upon the examining hand.

The President exhibited an instrument which he had used for some time past for the purpose of dividing the cervix uteri in certain cases of dysmenorrhœa, metrorrhagia, and sterility. It resembled the scissors used for the same purpose by Dr. Marion Sims.

Mr. R. King Peirce showed a Fœtus, born at full time, and exhibiting at birth two lacerations: one extending through the integuments transversely across the abdomen, about the level of the scrobiculus cordis; a second one across the throat, exposing all the vessels and muscles of the neck. The two lacerations had all the appearance of incised wounds; but the evidence was clear that they had not been produced by any act of violence other than that of rapid delivery.

Dr. Tanner exhibited a Fœtus the subject of Hernia Cerebri and Hernia Umbilicalis. A portion of the membranes were also adherent to the cranium. He also exhibited a photograph of an Anencephalous Fœtus.

Dr. Adolph Rasch read a paper

ON A CASE OF ŒDEMA AFTER A FALL ON THE GRAVID UTERUS; PREMATURE LABOUR; RECOVERY.

The woman, at the end of the seventh month of her second pregnancy, fell down a steep flight of steps on her abdomen, and soon afterwards found herself swollen all over the lower half of the body. The œdema increased to such an extent that her Medical attendant considered her case hopeless. Dr. Rasch saw her eight days after the accident. She had enormous œdema of the belly from the navel downwards; the labia were distended into huge water bladders; both legs swollen; right hypogastric region painful on pressure; a good deal of albumen in the urine, but no casts; pulse quiet; tongue clean. She never had the slightest œdema before the accident. After a few days, Dr. Rasch induced premature labour, and the albumen and œdema then perfectly disappeared. Dr. Rasch considered the case interesting in point of diagnosis, and held that the œdema was produced by the pressure of the uterus on the vena cava inferior, which would also account for the albuminuria. The author then specially directed the attention of the Fellows to Breslau's mode of inducing premature labour by simply introducing and keeping in the uterus an elastic catheter.

Dr. Tyler Smith remarked that this operation was much practised by Professor Simpson in Edinburgh.

In reply to Dr. Graily Hewitt, Dr. Rasch remarked that a distended bladder could not have been the cause of the œdema, as there were no symptoms of retention. He also differed from Dr. Hewitt as to the possibility of coagula in the vena cava having caused the œdema, as they could not have disappeared so rapidly without symptoms of embolism. He (Dr. Rasch) could not explain the case otherwise than by pressure of the uterus on the vena cava, which was very favourably

situated for that condition where it passes over the right side of the sacral promontory.

Dr. Meadows read the particulars of a Case of Monstrosity, and made some

REMARKS ON THE INFLUENCE OF MENTAL IMPRESSIONS AS A CAUSE OF BODILY DEFORMITY.

Having first expressed his conviction in favour of the proposition that the mind can and does act in this way, he reviewed and combated the various objections urged against it, the principal one being the absence of any direct connexion between the nervous system of the mother and that of the fœtus through the umbilical cord. He, however, endeavoured to prove—or rather suggested the possibility, as it was not a matter admitting of any distinct proof—that mind, or the mental force, was not and could not be thus bound down, as it were, by the anatomical limits of the nervous structures; that it must have a power of action, if it has any action at all, throughout the entire organism, and in every part of it, whether it possessed nerves or not;—in other words, that its sphere of action was only limited by the configuration of the body. Hence it was inferred that in those tissues where the existence of nervous elements could not be demonstrated, the mental or nerve force might, as it were, pass across the intervening matter between any two parts where nerves did exist, just as electricity traversed space between any two conductors. The author then applied this reasoning to the case of the fœtus in utero, and offered an explanation of the mode by which mind thus acts upon matter by supposing a kind of correlation between mental and nerve force analogous to the correlation of other physico-vital forces, the nerve force being here the active agent in those nutritive processes upon the changes of which deformities depend.

Dr. Rasch said he had listened with great pleasure to Dr. Meadows's paper, which boldly took up what was generally left to women, but which certainly deserved scientific investigation. The belief in the influence of mental emotion on the formation of the fœtus was as old as it was general amongst women. The great difficulty was to establish facts, as the mothers always recollected something from their pregnancy after they found something abnormal in their children. Dr. Rasch had seen two cases which had somewhat struck him, and of which he had taken notes. Two boys from different parts of Germany were brought to him with scarcely any foreskin, looking exactly like circumcised little Jews, but without any cicatrices. Both women narrated, with great emotion, how they had seen during their pregnancies little Jews so cruelly treated that they could not forget it! They both had been present at the well-known Jewish rite. He ought to mention, however, that he had observed the same state in other little boys where no such story was volunteered, and where the mothers did not know that this state was abnormal. He considered this influence on the fœtus an open question, which he had made up his mind to help in solving whenever there was an opportunity of doing so.

The President observed that the instances most strongly bearing upon the question were those in which pregnant women stated explicitly the emotions supposed to influence the form of the fœtus in utero which they had undergone. One such case had been placed in his hands by Dr. Hassall, of Richmond. Certainly the facts of this were very remarkable, inasmuch as the event singularly confirmed the statement of the woman made before her child was born. Dr. Barnes remarked that malformations were common amongst birds as well as quadrupeds; and that in birds it must be concluded that any mental impression must be imparted in the earliest stage of development—*i.e.*, before the ovum was invested with the shell. He cited an anecdote from Captain Speke, which showed that in some tribes in Africa the belief prevailed that emotion in the father might produce monstrous births. The traveller had ordered his native huntsman to expose the embryo in a pregnant doe. He shrank from the task, fearing lest the kid striking his mind should metamorphose his wife's future progeny to the likeness of a fawn.

The Pritchard Case.—The trial of Dr. Pritchard, as already stated, has been definitely fixed for Monday, July 3. On Wednesday afternoon the prisoner was served, in the North Prison, Glasgow, with an indictment, charging him with having murdered his wife and mother-in-law by the administration of various poisons, including antimony, corrosive sublimate, and aconite. The document, which is somewhat voluminous, contains the names of upwards of seventy witnesses, and 150 productions.—*Scotsman.*

MEDICAL NEWS.

Royal College of Surgeons of England.—The following Members of the College, having undergone the necessary Examinations for the Fellowship, at meetings of the Court, on the 30th and 31st ultimo and 1st inst., were reported to have done so to the satisfaction of the Court of Examiners, and at a meeting of the Council on Thursday, the 8th inst., were admitted Fellows of the College:—

Alfred Bowyer Barton, F.R.G.S., The Green, Hampton-court, diploma of membership dated December 17, 1847, of University College; David Henry Monekton, M.D. Lond. and L.S.A., Rugeley, December 18, 1849, of King's College; Thomas James Vallance, M.D. St. And. and L.S.A., Stratford, Essex, June 3, 1851, of the London Hospital; John Wickham Barnes, L.S.A., Rutland-park, Sydenham, February 18, 1853, of the Charing-cross Hospital; John Sebastian Wilkinson, Davies street, May 8, 1857, of University College; Clement Smith Barter, L.M. and L.S.A., Paragon, Bath, April 18, 1859, of St. Bartholomew's Hospital; Edmund Holland, M.B. Lond. and L.M., Emsworth, April 19, 1860, of University College; John Langton, Bloomsbury-square, April 10, 1861, of St. Bartholomew's Hospital; William Domett Stone, M.D. St. And., L.M., and L.S.A., Lincoln's-inn-fields, April 10, 1861, of the Middlesex Hospital; William Powell, M.B. Lond. and L.S.A., Tower Hamlets Dispensary, April 11, 1861, of the London Hospital; Thomas Starkey Smith, M.B. Lond., Warrington, April 17, 1861, of University College; John Harward Hooper, C.M. and M.B. Lond. and L.S.A., Tenby, April 17, 1861, of St. Thomas's Hospital; and John William Teale, M.A. Oxon, Leeds, May 9, 1862, of King's College.

The following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such on the above occasion:—

Thomas Mills Beaumont, L.R.C.P. Edinb., Knaresborough, Diploma of Membership dated April 11, 1834; Samuel Day Fereday, Dudley, Worcestershire, November 11, 1836; Joseph Rickerby Donald, Paradise-terrace, Holloway, November 1, 1839; and Edward Berney, High-street, Croydon, May 3, 1841.

Licentiates in Midwifery.—The following members of the Royal College of Surgeons, having undergone the necessary Examinations at a meeting of the Board on the 7th, obtained the Midwifery License:—

John Roche, M.D. St. And. and L.S.A., Fermoy, Ireland, diploma of membership dated April 8, 1856; Thomas Aeoy, L.S.A., Hull, July 16, 1858; Samuel Rains, Manchester, January 21, 1863; John Tasker Evans, M.D. and C.M. Aberdeen and L.S.A., Hertford, April 12, 1864, of St. Bartholomew's Hospital; Augustin Barber Fry, L.S.A., Kibworth, Leicestershire, May 24, 1864, of Guy's Hospital; William Heath Strange, L.S.A., Streatley, near Reading, May 24, 1864, of St. Thomas's Hospital; William Melville Knipe, L.S.A., Rotherhithe, May 24, 1864, of Guy's Hospital; Thomas Collier, L.S.A., Bridgend, Glamorganshire, July 26, 1864, of Guy's Hospital; Philip Burnard Chenery Ayres, Bedford, November 15, 1864, of University College; Richard Bugden, Tachbrook-street, Pimlico, May 11, 1865, of the Westminster Hospital; William Cunningham Cass, Cowes, Isle of Wight, May 23, 1865, of University College; and Samuel Gourley, M.D. Glasg. and L.R.C.S. Edin., West Hartlepool (not a member).

Apothecaries' Hall.—Name of the gentleman who passed his Examination in the Science and Practice of Medicine, and received a Certificate to Practise, on Thursday, June 1, 1865:—

Thomas Drake Leigh, Shaw-street, Liverpool.

The following gentleman, also on the same day, passed his first Examination:—

George Birch, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Andrew, Edwyn, F.R.C.S. Eng., has been appointed Assistant-Surgeon to the 1st Administrative Battalion Shropshire R.V.

Bothwell, G. G., M.R.C.S. Eng., has been appointed Medical Officer for the Workhouse at Underwood.

Baker, W. Morant, M.R.C.S. Eng., has been appointed one of the Tutors to St. Bartholomew's Hospital and College.

Corbett, Mr. R. Delacour, has been appointed Resident Surgical Pupil to the City and County of Cork Hospital.

Duckworth, Dyce, M.D. Edin., has been appointed one of the Tutors to St. Bartholomew's Hospital and College.

Hawken, C. St. Aubyn, M.R.C.S. Eng., has been appointed House-Physician to Westminster Hospital

Martin, Paulin, M.R.C.S. Eng., has been appointed one of the Surgeons to the Abingdon Dispensary.

Noel, Vincent Edmund, M.R.C.S. Eng., has been appointed Resident Clinical Assistant at the Middlesex Hospital.

Pearse, George E. L., L.S.A., has been appointed House-Surgeon to the Westminster Hospital.

Royle, Octavian F. N., M.D. St. And., F.R.C.S., has been appointed Hon. Surgeon to the Westmoreland Orphan Asylum.

Steventon, William, M.D. St. And., has been appointed Medical Officer for the Presteign Union.

SHEPARD, Mr. M. L., has been appointed one of the Tutors to St. Bartholomew's Hospital and College.

SWINDALE, JOHN, M.R.C.S. Eng., has been appointed House Surgeon to the Royal Berkshire Hospital.

VERNON, BOWATER J., F.R.C.S. Eng., has been elected Clinical Assistant to the Royal Ophthalmic Hospital at Moorfields.

DEATHS.

HINXMAN, HENRY J., L.R.C.P. Lond., at Brisbane, Queensland, on March 17, aged 51, late of Lee-terrace, Blackheath.

LANGLANDS, ROBERT, L.R.C.S. Edin., at Nethergate, Dundee, on May 28.

MAGRATH, FFOLLIOTT C., L.R.C.S.I., Assistant-Surgeon H.M.S. *Hesper*, on board H.M.S. *Sovereign*, on his voyage to England, on April 9.

PHILLIPS, J. B., Surgeon, at Towyn, Merionethshire, on May 23, aged 69.

PRIOR, FREDERICK J., L.R.C.P. Lond., at Northfield House, Tewkesbury, on May 22, aged 47.

VACHELL, CHARLES R., M.D. Edin., at Charles-street, Cardiff, on May 26.

VERITY, F. S., M.D., J.P., at Melbourne, Australia, on January 20.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the College held on Monday, June 5, the following officers were elected for the ensuing year:—*President:* Samuel G. Wilmot. *Vice-President:* Richard G. H. Butcher. *Secretary:* William Colles. *Council:* Arthur Jacob, William Hargrave, Robert Adams, James Barker, William Colles, Hans Irvine, Robert Pentland, Thomas L. Mackesy, Awly P. Banon, Peter Shannon, Rawdon Macnamara, Hamilton Labatt, Benjamin M'Dowel, Edward Ledwich, William Jameson, Alexander Carte, James H. Wharton, George H. Hatchell, Albert J. Walsh.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—On Monday, the 5th inst., the annual meeting of the Royal Medical Benevolent Fund Society of Ireland was held at the College of Surgeons, Dublin, under the presidency of Dr. Jacob. The association was reported to be in a highly satisfactory state. A reversionary legacy of £4500 left by the late Mr. Carmichael, had accrued to the society through the death of his widow. Lord Wodehouse has accepted the office of Vice-Patron of the society, rendered vacant by the death of the late Earl of Carlisle. A new auxiliary has been formed in Tipperary; one is expected in Birmingham; and special efforts for the society have been made by Dr. Lord, of Poonah, in India.—*Saunders' Newsletter.*

ROYAL INSTITUTION OF GREAT BRITAIN.—GENERAL MONTHLY MEETING.—The general monthly monthly meeting was held on Monday, May 5, Sir Henry Holland, Bart., M.D., D.C.L., F.R.S., President, in the chair. Mrs. Elizabeth Beevor, Samuel Canning, Esq., Alfred Davis, Esq., David Painter McEuen, Esq., Joshua Metcalfe, Esq., Joseph Moore, Esq., Hamilton Noel Hoare, Esq., Henry Arthur Hunt, Esq., and Henry Lee, Esq., F.R.C.S., were elected members of the Royal Institution. The special thanks of the members were returned for the following additions to "The Donation Fund for the Promotion of Experimental Researches:"—Sir Henry Holland, Bart., Pres. R.I. (seventh annual donation) £40. The presents received since the last meeting were laid on the table, and the thanks of the members returned for the same.

THE HUNTERIAN MUSEUM.—The ship *Wagoota*, Captain Hay, which recently arrived at the London Docks from Hobar Town, has brought, in addition to her ordinary cargo of wool and oil, the complete skeleton of a fine sperm whale (*Physeter macrocephalus*) about sixty feet in length. Although the capture of this animal has been for many years a lucrative occupation to a considerable branch of our mercantile marine, our scientific institutions have hitherto profited very little by its wholesale destruction. The present specimen was taken last year off the south coast of Tasmania, and prepared at considerable trouble and expense by Mr. W. L. Crowther, M.R.C.S., being intended as a present to the Museum of the Royal College of Surgeons of England. It will form a valuable addition to the present magnificent series of skeletons exhibited in that institution, to which Mr. Crowther has already on several occasions been a liberal contributor.

SUPPLY OF MEDICINES FOR PAUPERS.—A return made by the Poor-law Board shows that in the following metropolitan Workhouses the drugs required for the sick are not supplied by the guardians, but have to be provided by the Medical officer:—Greenwich, Lewisham, St. Giles, Camberwell; Bermondsey, Rotherhithe, St. George, Southwark; St. Saviour, Richmond (except cod-liver oil); St. Luke, Chelsea; St. Mary Abbott's, Kensington; St. Margaret and St. John, Westminster (in part); St. James, Westminster; St. Martin-in-the-Fields, St. George, Hanover-square; St. Marylebone, St. John, Hampstead; Hackney, Holborn, St. James, Clerkenwell; East London, and West London.

IRISH MEDICAL ASSOCIATION.—The annual meeting of the members of the above association was held at the College of Surgeons in Ireland on Monday, the 5th inst. The chair was taken by Dr. Mackesy, who adverted to the grievances of which the members of the Profession had to complain, especially the ignoring of the claims of workhouse Medical officers to superannuation allowance by the Government, and the efforts which had been made by the Council to have these grievances redressed. It was suggested by several gentlemen present that the members of the Profession should use their influence at the forthcoming elections to extort a pledge from candidates for Parliamentary honours to support any fair and reasonable measure brought forward in reference to the subject. A number of resolutions expressing the views of the association on these points were adopted.—*Saunders' Newsletter.*

MEDICAL CHARITIES.—The friends of the following institutions will be glad to learn that Mr. William Hollins, of Over Wallop, Hants, who has bequeathed the bulk of his large property to charitable institutions, has not forgotten those in which our Profession more particularly take an interest, having left the sum of £17,700 to be divided in the following manner:—To the Brompton Hospital for Consumption, £1000; Bethlehem Hospital, £1000; St. Luke's Hospital, £1000; the Westminster Ophthalmic Hospital, £1000; the Deaf and Dumb Children's Asylum, £1000; Accident Relief Society, £1000; the Royal Free Hospital, £700; the London Hospital, £500; the Middlesex Hospital, £500; the *Dreadnought* Hospital Ship, £500; King's College Hospital, £500; St. Mark's Hospital, £500; Royal Infirmary for Diseases of Children, £500; St. Mary's Hospital, £500; the London Fever Hospital, £500; the Small-pox Hospital, £500; St. George's Hospital, £500; the London Ophthalmic Hospital, £500; the Great Northern Hospital, £500; the Westminster Hospital, £500; and University College Hospital, £500; to the Winchester Hospital, £2000; and the Salisbury Infirmary, £2000. These two provincial Hospitals will also take any surplus residue. We have thus the pleasure of recording in two consecutive weeks an imposing total of £34,700 bequeathed by two benevolent gentlemen to Medical charities alone.

MEDICAL QUALIFICATION.—DEPUTATION TO THE LORD-LIEUTENANT.—His Excellency the Lord-Lieutenant received on Wednesday a deputation from the University of Dublin, the King and Queen's College of Physicians, and the Queen's University. The following were appointed members of the joint deputation from the three corporate bodies:—Trinity College: Rev. Dr. Todd, Rev. Professor Haughton, and Dr. Stokes. The Queen's University: The Lord Chancellor, the Lord Justice of Appeal, Sir R. Kane, Dr. Corrigan, Mr. Adams, and Mr. Stoney, secretary. King and Queen's College of Physicians: The President, Dr. Lyons, Dr. Aquilla Smith. Mr. Power, Chief Poor-law Commissioner, was present. The Lord Chancellor and Lord Justice of Appeal were unable to attend, and Sir Robert Kane and Mr. Adams were also unavoidably absent. The object of the deputation was to bring under his Excellency's notice a recent order of the Poor-law Commissioners of Ireland, by which they direct that henceforth boards of guardians may receive as a Medical qualification the certificate of the Apothecaries' Company of Dublin as equivalent to a Medical degree or licence from the Universities above named, or from the College of Physicians. Memorials on the subject were presented to his Excellency. At the termination of a lengthened discussion, his Excellency concluded by stating that he should decline interfering with the order.—*Dublin Evening Mail.*

THE CLEWER HOSPITAL FOR CONVALESCENTS.—We have great pleasure in giving publicity to the following account of the proposed enlargement of the St. Andrew's Convalescent Hospital (at Clewer, near Windsor), for invalids of both sexes, under the care of the Sisters of St. John Baptist:—"The work of this Hospital has been carried on for upwards of three years in rented cottages, and has been so successful as to encourage an effort for its enlargement and permanent establishment. It is now proposed to build a house fitted to accommodate twenty-four men, eighteen women, and fifteen children, together with the Sisters in charge. Medical men of eminence are interested in the undertaking, and some are actively engaged as members of the Council in promoting its success. The Hospital provides careful nursing and Medical attendance for invalids who are disqualified for admission to, or have been discharged from, ordinary Hospitals; that as far as possible employment is sought out for patients

who on their recovery may require such assistance; that in cases of incurable disease, there is secured a quiet home during the remainder of life. A site of four acres in extent has been given, and a sum of about £3500 towards the building is already secured. The entire amount required for the main portion of the building now proposed to be erected, including every convenience recommended for the comfort and health of the inmates, is £7200. An additional sum of about £3000 will be required for the east wing, including a chapel, dining hall, chaplain's room, and offices, which, it is hoped, may be erected at some future period. Her Majesty the Queen has been graciously pleased to give a donation of £100 towards the building fund, with the promise of an annual subscription of £20 for the maintenance of a patient."

Collegiate Election.—The usual notice of the annual election of Fellows into the Council of the College of Surgeons has been sent to all the Fellows whose addresses are known to the secretary. The circular, which bears date June 2, states that the meeting will be held in the Hall of the College in Lincoln's-inn-fields, on Thursday, the 6th day of July next, at 2 o'clock in the afternoon precisely, for the election of three Fellows into the Council, in the room of Mr. James Moncrieff Arnott, a life member, resigned, and of Mr. Richard Quain and Mr. Alexander Shaw, going out in rotation. The circular has an enclosure containing extracts from the Charter and Bye-laws of the College, relating to the election of members of the Council, and it is to the second page of this enclosure to which we more particularly direct the attention of the electors at the present moment, as a neglect of the mode of procedure at this election may entail great disappointment on those gentlemen desirous of a seat in the Council, as well as to their friends generally. The Bye-law states distinctly that: "The place and time appointed for every meeting of the Fellows for the election of members or a member of the Council shall be announced in the *London Gazette* and in two London daily newspapers, not less than thirty days and not more than forty days before the day of meeting. Every Fellow desirous of a seat in the Council shall, *within ten days from the publication of the London Gazette*, in which the day of meeting for the election shall be announced, transmit or deliver to the Secretary of the College or person acting for him, a notice and declaration signed by himself in the following terms:—I, A. B., of C., Fellow of the Royal College of Surgeons of England, do hereby declare that I am a candidate for a seat in the Council of the said College; that I am in the *bonâ fide* practice of the profession of a Surgeon, and that I do not practise as an Apothecary"—together with other official notices which may be obtained on application to the Secretary. Now, as few readers of the *Medical Times and Gazette* ever see the *London Gazette*, it may be as well to inform them that the official announcement appeared in that paper on Friday last, the 2nd inst., consequently all papers must be sent in to the Secretary on or before Monday next. We are particular in drawing attention to this circumstance, as notwithstanding the report of so many candidates coming forward on the present occasion, it is stated that up to Thursday only two candidates had sent in their papers—viz., Mr. Turner, of Manchester, and Mr. Erasmus Wilson, of London, and, of course, the retiring members of the Council, Messrs. Quain and Shaw. The names of seven other gentlemen have been mentioned as likely to offer themselves—viz., Messrs. Charles Hawkins, Simon, Paget, Hewett, Holt, Ure, and McWhinnie. After Monday no papers can be received. A regret, in which many of our readers will participate, has been expressed—that Messrs. James Paget, John Simon, Prescott Hewitt, and John Erichsen do not offer themselves on this occasion. The name of Dr. Wiblin, of Southampton, has been mentioned as a good man to represent the provincial element with Mr. Turner, of Manchester.

Old "Conservative" Surgery.—Felix Würtz, a Swiss Surgeon of deservedly great note in his day, a contemporary of Ambrose Paré, was as strong an advocate of "conservative" Surgery as any of his modern successors. "I have related this case," he says in his "Practica," "in order to show you that you must not incontinently proceed to extirpate a limb, crushed or wounded to the last point though it be, as many Masters do at the present time, who, without considering and trying whether they can heal a part or not, at once amputate without any other form of trial, in order to exempt themselves from the time and labour which must be expended in order to cure and conserve the part. . . . . I do pray and faithfully exhort you not to amputate or cut off any part, though contused and half separated; for I have seen incredible things in the way of cure and reparation. I have myself preserved arms, legs, etc., in great numbers, which other Masters in Surgery had concluded and resolved to amputate, and which, by the grace of God, were healed well. No wooden leg will ever be worth that which we can retain."

Justifiable Homicide.—Mr. R. Debenham, Surgeon, of Heath-street, Commercial-road, has been charged at the Thames Police-office, on his own confession, with having caused the death of a man who was seen by him lurking on his premises at midnight on Monday last. Four attempts having been made to break into Mr. Debenham's premises in the course of the last few months, he was naturally on the alert, and at the time mentioned hearing a noise at the back of the house he got out of bed, and on looking out of the window saw the figure of a man crouching against the wall by the kitchen window. After summoning him several times, and threatening to shoot him, he cocked his pistol, and as the man still returned no answer he fired, and saw the man fall. Mr. Debenham states that he only intended to frighten the man, and did not intend to hit him. He immediately went to the station-house and informed the inspector of police. It was found that the man had been shot through the head and killed on the spot. A large number of gentlemen offered themselves as sureties for Mr. Debenham's appearance, and bail was accepted and the prisoner set at liberty. A coroner's inquest has been since held on the body, and the jury have returned a verdict to the effect that the deceased was shot accidentally by Mr. Debenham.

Training an Heir to the Throne.—It appears that her Majesty the Empress had a special reason for taking her children to Ischl. For some time it has been observed that the Archduke Rudolph, the heir apparent to the throne, has lost much of his fresh colour and healthy appearance, but the cause of the change in the child's health was not known to the public untill yesterday. A few days ago Dr. Löschner, a Physician in whom the Emperor and Empress have great confidence, was summoned from Prague, and, after having carefully examined the little patient, recommended temporary change of air, and a total change in the system of education. The Archduke, who is not 7 years of age, was not long ago taken out of the hands of his aja, or governess, and entrusted to the care of General Count Gondrecourt, who lost no time in beginning to give the child such an education "as would speedily make a man of him." The little boy was practically taught five languages at one and the same time by means of attendants of five different nationalities; he was regularly drilled, and every now and then he was awakened in the night in order that he might learn to have his wits about him. The results of such an absurd system of education were soon apparent, and the heir to the Austrian Throne is now at Ischl for the benefit of his health. General Count Gondrecourt, who knows how to handle a brigade as well as any man in the service, has got leave of absence, and the chances are that he will soon cease to be ayo, or tutor, to the Emperor's only son. —*Times' Vienna Correspondent*, June 3.

The "Times" a Good Splint.—A gentleman signing himself "Anglo-American, M.D." has written to the *Times* to point out the admirable qualities of that paper as an extempore splint. A friend of ours suggests that it must be on account of its "wooden qualities." However, we extract the account of the case in which the *Times* was put to so good a use. It certainly does credit to the readiness and handiness of the Anglo-American:—"I was at the Derby on Wednesday in company with my friend, Mr. H. B. A young man, an ensign in the 77th Regiment, in trying to enter a railway carriage as the train was backed into the depôt at Epsom, was thrown down by the side of the track, and his ankle was seriously injured by a wheel of one of the carriages. I happened to come to him soon after he was taken up from his perilous position. He was then standing on one leg, and was held erect by some of his friends. His agony was very great. I had him laid flat down on the sward, cut his boot open, removed it, and found the injury chiefly on the outer side of the ankle. The ligaments were here ruptured, and the parts were excessively contused and swollen. Without entering into any Surgical details, which would be here out of place, I may briefly state that splints and bandages were necessary to give proper artificial support till the patient could be taken home or to a Hospital. What was to be done? I had no such Surgical appliances. I was in a great hurry to

get home, and humanity forbad my leaving a fellow-being unattended. The thing that I needed was a bit of pasteboard, but how could we get it in time to leave in twenty minutes by the next train, for Epsom is at least a mile and a-half from the new station? Fortunately for me, emergeney always ealls forth resources. As I wanted a snbstitute for pasteboard, my first idea was to take my hat and cut it into splints. But just as I was on the eve of doing this, I pulled the *Times* out of my poeket, and folding it into the shape of a splint abont 13 inches long, and 3½ inehes wide, I placed it along the inner side of the leg, extending it below the ankle, and doubling the lower end under the bottom of the foot. I then asked for another newspaper, and my friend Mr. B. drew a *Punch* from his pocket, which, properly folded, was placed on the outer or injured side of the leg and ankle. I happened to have in my poeket a handful of fine cotton wool, which I placed under this splint. Three pockethandkerehiefs served to hold these paper splints securely in place. We gave our patient in the meantime a little brandy and water, and in twenty minutes after the accident we were in the train for London-bridge, where we arrived in about an honr and ten minutes.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Rheumatism.—Read Madden on "Change of Air." It is the fairest and most practical work for your purpose.

Philo-Alexander.—We cannot publish our correspondent's new reading of K.C.B. It is one of those things that belong to the unwritten.

A Subscriber.—A man with a degree may use it: but no foreign degree can be registered except under special exceptional regulations.

A Student, A Guardian.—There will be a Preliminary Examination in Arts at the College on the 20th, 21st, and 22nd inst. The fee is 15s.

A Fellow.—The annual festival will take place on the evening of the election. Mr. De la Garde, of Exeter, has consented to preside. Write to Mr. Hulme, of Gower-street, the indefatigable Hon. Secretary, who will, no doubt, enter you on the list of stewards.

A Manchester Fellow.—The rule observable on these occasions is to invito alternately a provincial and metropolitan Fellow to take the chair. It is stated that Mr. Wormald, the President elect of the College of Surgeons, will fill the chair next year.

J. H. B., M.D.—The list of Fellows in seniority may be seen on application to the Secretary of the College, but seniority does not rule elections now. Mr. Fergusson's return was a singular illustration of this fact.

Wet-nursing.—A correspondent, whose well-known signature, M. A. B., is often appended to communications in the journals devoted to sanitary and philanthropic objects, writes to us to complain of the sentiments we have expressed with regard to wet-nursing. We have such an unfeigned respect for M. A. B., and regret so much to see energies that might be employed with so much benefit to society absolutely squandered in barren and unpractical disquisitions, that we venture once more, in all humility, to put the truth and matter-of-fact of the subject in an intelligible light, promising that if we fail now we will hold our tongue in shame, and not mention wet-nurses for a year at the least. Nature is much more prodigal in providing babies than in providing the means of feeding them. In other words, many women have babies, living and healthy, but cannot suckle them. M. A. B. says, "Except in *very rare* cases, Nature unerringly provides the proper nourishment for the infant." We say that, instead of *very rare*, M. A. B. should say *very many*. We have a casual witness, Dr. Joseph Brown, the venerable and accomplished Physician of Sunderland, who, in a little book just published, and entitled the "Food of the People," laments the frequent and increasing inability of young women in towns to suckle their infants. If M. A. B. were to look at a hundred young town women, such as lose their teeth early, and were to feel their pulses and consider their stamina, she would see that they are far more ready to be married than able to suckle a baby. Secondly, some babies whose mothers cannot suckle them can be brought up by hand; others cannot. The task of rearing an infant by hand often requires the greatest patience, skill, temper, knowledge of variety of food, and money. Even with all these advantages, some infants cannot be reared on anything but woman's milk. If these facts be denied by M. A. B., of course there is an end of the argument. If admitted, let us go to the next point. Given a child which cannot be reared by hand, is a mother justified in hiring a wet-nurse? M. A. B. has read the story of the Judgment of Solomon too often, and knows the female heart too well, to hesitate to answer, Yes! What mother seeing her own infant dwining away would hesitate to accept the offices of a stranger? A mother's instinct is ample justification. Lastly, there are women, especially unmarried ones, who have babies which they positively cannot feed. The very generation and existence of a babe born out of wedlock is an anomaly. The English law throws the burden on the mother. The existence of the baby renders her infamous in the eyes of her own sex. There are no occupations that a poor woman can follow which enable her to earn enough to keep an illegitimate child, and so the child must starve. Wet nursing is a loophole for such women. By taking charge of the child of a stranger they are able to pay for the maintenance of their own child, who, probably, is better able to be reared by hand-feeding, and who can't be worse off anyhow. Therefore, the employment of a single woman as wet nurse may be the means of saving two infants' lives, if not that of the mother also. The idea of saving the lives of illegitimate children by forbidding the mothers from taking places as wet nurses is one that promises not much. Such mothers usually wish their children to die; and the wish is father to the fact. No Act of Parliament can make a woman keep her child alive if she has made up her mind that it shall die. We have seen wretched babies dying of famine whom the mother has refused to suckle. Who can make her? Meanwhile, instead of these profitless *logomachies*, the world is expecting from "M. A. B." a series of experiments and chemical analyses on the composition of cows' milk, under a great variety of food, with a corresponding series of experiments to demonstrate what the kind of cows' milk is which is best adapted for young babies. Curiosity and expectation have been raised, and await the promised information. The daily calculation of the weight and quality of the cow's food, the quantity of milk yielded, the chemical composition of the milk from day to day, compared with what it was before the experiment began and after it is over, the temperament and condition of the cows experimented on, and a comparison of their milk with that of other cows at similar periods of lactation, and the effects on the condition and excretions of the infants experimented on, would form a noble series of experiments, worthy any one of fortune, leisure, and benevolence.

Corrigendum—Dr. Bence Jones' Lectures.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I shall be much obliged to you if you will state that, at page 540, in my lecture on the Diet in Gout, an error of calculation has occurred. The quantities of nitrogen and carbon in eggs, meat, and bread require correction, so that the minimum diet in gout will not be so low as I have stated it to be. I am, &c.

31, Brook-street, June 5. Henry Bence Jones.

Poor-law Medical Relief.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—If you can find space for the following letter, I shall feel obliged, as it may be of interest to the Poor-law Medical officers. I am pleased to hear that the Workhouse Visiting Society have been so far successful in their deputation to the Poor-law Board as to have induced the President to appoint a Medical Inspector. I sincerely trust Dr. Edward Smith's appointment may be of a permanent character, and that the Medical Department of the Poor-law Board may yet be presided over by a Medical man; for, until that be the case, it will be in vain to expect a perfect system of Poor-law Medical relief. I am, &c.

12, Royal-terrace, Weymouth, June 3. Richard Griffin.

*** We are informed that Dr. Smith's appointment was not made on account of any representations of the Workhouse Visiting Society. We gladly join Mr. Griffin, however, in congratulating the Profession on the fact that Dr. Smith, as a Medical man, has obtained an Inspectorship. He will fulfil the duties of Inspector of one of the Midland districts, vacant by the death of Mr. Manwaring.

"12, Royal-terrace, Weymouth, June 3, 1865.

"My Lords and Gentlemen,—On Tuesday last, in consequence, I believe, of the printed letter sent by me to each of the Guardians of this Union, the subject of your circular letter, respecting cod-liver oil, quinine, and other expensive medicines, was again brought under the consideration of the Board. Mr. Gulson, your Inspector, was present, and informed the Board that the resolution of the Select Committee of the House of Commons on this question was only carried by a majority of one, and that the President of your honourable Board voted against it; but as there was a majority in favour of it, your honourable Board was bound to issue the circular letter. After this statement, no surprise need be evinced that the Guardians decided on leaving things as they are. My Lords and Gentlemen, I deeply regret that Mr. Gulson should have made this statement, as it will convey the impression to the public that your circular letter was never intended to be carried out, and thus bring into disrepute your honourable Board. Mr. Gulson made inquiry as to whether I was permanently appointed, and, on being answered in the affirmative, said, if I had not been, the Guardians could have given me notice to determine my appointment; he also said I had given your honourable Board a great deal of trouble. I need not tell your honourable Board that a statement of this kind must convey the impression that the Guardians have only to look out for a charge against me, and your honourable Board will not be slow in acting upon it. This may be a mistaken idea on my part, but I can assure you that a Medical friend said to me, 'Under the circumstances, I should say you had better resign.'

"My Lords and Gentlemen, I fully admit I have given your honourable Board a vast amount of trouble, but I beg you will recollect, as my excuse, that I am advocating the cause of the million and a-quarter of sick poor annually under treatment, and also that of the 3100 Medical officers to whom you pay a stipend so small that it averages not more than 3s. per patient. Pray bear in mind that the Select Committee on Poor Relief have by their resolution recommended that 'cod-liver oil, quinine, and other expensive medicines shall be supplied by the guardians,' thereby confirming the impression that the poor have not those medicines at present in such quantities as may be requisite. Mr. Alderman Sydney, on May 22, stated in the House of Commons 'that, although the State paid one-half the salaries of the Medical officers, those salaries were so

small that the Medical officers, being required to provide their own drugs, where stimulating prescriptions were required, the people only got counterfeit prescriptions.' (*Times*, May 23.) Surely, my lords and gentlemen, after this statement, made, as it was, by a member of the late Select Committee on Poor Relief, and in the House of Commons, too, you will not allow your circular letter to become a dead letter. For the sake of the poor, I earnestly entreat you to insist upon your recommendation being at once complied with, and, in part at least, carry out the wish expressed by Alderman Sydney 'that another Parliament would not bring its labours to a close without reducing our Poor-law legislation into a useful and well-digested code.'

"In your circular letter you 'request the guardians, however, to be good enough to consider whether an alteration in those arrangements as regards the supply of medicines referred to cannot be effected whenever new appointment of a Medical officer is made, or with the consent of the present Medical officers during the continuance of their existing contracts.' What are our contracts? Sec. xlvi. of the 4th and 5th Will. IV. directs guardians to appoint paid officers, and it empowers commissioners to determine the continuance in office, which you have done by an order; is also declares 'that when the said commissioners may see occasion to regulate the amount of salaries payable to such officers respectively, and the time and mode of payment thereof.' From this quotation it appears to me that, although a majority of your officers are permanently appointed by order, still you have the power at any time 'to regulate' the amount of our salaries. That need not, therefore, prevent your directing the guardians to carry out the instructions conveyed in your circular letter; but, my lords and gentlemen, allow me to observe that you cannot in fairness call upon your present Medical officers out of their scanty salaries to contribute towards the supply of that which the Select Committee believe is not now found to any great extent. If it be desirable that the poor should be furnished on a more liberal scale than at present with cod-liver oil, etc.—and I unhesitatingly say they ought to be—then call upon the guardians to consider the supply of these articles as extras, and independent of the salaries of the present Medical officers, and thus at once remove the stain cast upon the Medical relief of the poor both by the resolution of the Select Committee and the speech of Mr. Alderman Sydney. "I have the honour to be,

"My Lords and Gentlemen,

"Your obedient servant,

"The Poor-law Board." "RICHARD GRIFFIN.

DR. LEARED AND PROFESSOR HANNOVER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In an account of a new parasite discovered by me in the blood of the common turtle, published in the 13th vol. of the *Transactions* of the Pathological Society of London, I mention that I found associated with it certain fusiform ova, previously described in the *Dublin Journal of Medical Science*, November, 1860, by Mr. E. Canton as having been found adhering to the eyes of turtle. I have received a letter from Professor Hannover, of Copenhagen, informing me that the ova in question had been figured and described by him in his work on the Eye, published in 1852, and requesting that I would make this fact known. May I beg, therefore, that you will favour me by inserting this note in your widely-circulated columns. I am, &c.

12, Old Burlington-street, June 1. ARTHUR LEARED.

ARTIFICIAL FOOT AFTER AMPUTATION AT THE ANKLE-JOINT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In reference to Mr. Henry Lee's new method of amputation, permit me to quote the following case:—

A man living at South Cerny had his leg amputated at the ankle-joint. He had a good fleshy covering on the end of the stump, so that the difference in the length of the two legs was very slight. I made for him an artificial leg and foot in the usual manner, with pressure to be borne round the limb above the stump, leaving that quite free. About twelve months after he came to see me. He had cut away the upper part of his artificial leg, and the whole weight of his body rested upon the end of the stump. He told me he could walk better that way, as the pressure round the limb had caused it to waste away, and it hurt him so much that he removed it entirely. As long as he could keep the end of the stump from moving about in the socket, which I eventually accomplished, he could walk with perfect ease, and, he added, "could do as hard a day's work in the fields as any man in the parish." I am, &c.

420, Oxford-street, London, W., June 3. J. F. PRATT.

QUERY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—When, and of what, were artificial teeth first made in England? The following advertisement appears in an old almanack, "Rider's British Merlin: for the Year of our Lord God 1744. Printed for the Company of Stationers." If it may be trusted, we have not much improved since:—"Artificial Teeth, set in so firm as to eat with them, and so exact as not to be distinguished from natural. They are not to be taken out at night, as is by some falsly suggested, but may be worn years together; yet are they so fitted that they may be taken out and put in by the person who wears them at pleasure, and are an Ornament to the Mouth, and greatly help the speech; Also Teeth are cleaned and drawn by John Watts and Samuel Rutter, Operators, who apply themselves wholly to the said Business, and live in Racquet-court, Fleet-street, London."

I am, &c. D.

EPIDEMIC INFLUENZA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—During the past month an epidemic influenza, chiefly confined to children, has been, and still is, very prevalent in this district. In some twenty or thirty cases which have come under my own observation, the disease has in every instance first attacked the "baby in arms" with the greatest severity, and although spreading rapidly over the younger members of the family, becomes gradually shorter in duration and less severe in its characteristic symptoms, until, with the advanced age of the patient, it seems to have lost all power of further contagion—unlike the epidemics of 1803 and 1833, more especially the latter, in the month of April, when the weather was unusually mild. It is worthy of note that during the month of May we have had very sudden and extreme changes of temperature, with exceedingly high and cold north-east winds, and that on the day preceding the attack the little sufferer has invariably been exposed for hours in the open air. Although I am a firm believer in the theory that there exists some *temperies aëris occulta*, to which the disease is owing in the first instance, I cannot, in reason, abandon the notion of its spreading afterwards by contagion and personal intercourse.

I confess I am at a loss to assign a reason for the fact that the disease has not, as far as I am aware, attacked a single adult in the family, while several of the younger members have been very seriously indisposed. In every first case the peculiar symptoms of the epidemic have been well defined—sudden attack, face flushed, swollen, eye dull and watery, intense fever, oppression, and difficulty of breathing, with great languor and debility.

The treatment I have adopted is very simple, yet perfectly efficient. The hot bath, sinapisms to the chest in front and between the shoulders, an occasional alterative, with mild antimonials and expectorants, and, in the latter stages, with debility, bark.

I am, &c. HUGH W. THOMSON, M.D.,

Medical Officer Military Constabulary and Dispensary,

June 1. Belturbet, Co. Cavan.

COMMUNICATIONS have been received from—

Dr. FLEETWOOD BUCKLE; Mr. E. ANDREW; Dr. GEORGE BUCHANAN; Dr. MOORE; PHILO ALEXANDER; ETHNOLOGICAL SOCIETY OF LONDON; Dr. H. BENCE JONES; D.; J. H. B.; ROYAL INSTITUTION; Dr. C. L. ROBERTSON; Mr. T. READER; Dr. E. BELLAMY; Mr. T. P. SALT; Dr. HUGH W. THOMSON; SAYE AND SEAL; Dr. SAXER; Mr. G. MAHON; RHEUMATISM; APOTHECARIES' HALL; A SUBSCRIBER; Mr. FRANK WATERS; Mr. J. F. PRATT; Mr. R. GRIFFIN; M. A. B; Dr. W. S. CARMICHAEL; ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Mr. J. SWINDALE; Mr. B. J. VERNON; Mr. CALLENDER; Dr. HUMPHRY; Dr. GEORGE LAMB; Dr. J. JONES; Dr. GREENHILL; Mr. V. E. NOEL.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 3, 1865.

BIRTHS.

Births of Boys, 969; Girls, 891; Total, 1830.
Average of 10 corresponding weeks, 1855-64, 1701·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	641	546	1187
Average of the ten years 1855-64	550·0	525·4	1075·4
Average corrected to increased population..	..	..	1183
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	3	3	2	2	6	5	4
North ..	618,210	6	4	2	1	14	15	3
Central ..	378,058	..	2	3	1	7	2	8
East ..	571,158	..	..	10	2	15	14	10
South ..	773,175	2	9	8	1	11	8	13
Total ..	2,803,989	11	18	25	7	53	44	38

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·707 in.
Mean temperature	58·3
Highest point of thermometer	73·8
Lowest point of thermometer	47·2
Mean dew-point temperature	50·6
General direction of wind	S.W.
Whole amount of rain in the week	1·11 in.

APPOINTMENTS FOR THE WEEK

June 10. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

ROYAL INSTITUTION, 4 p.m. Mr. Edwin Chadwick, "On the Physical and Moral Condition of the English Wage Classes."

12. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

13. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Dr. S. Nilsson, "An Attempt to Explain Stonehenge." Dr. Shortt, "An Account of a Religious Festival, comprising Leaf-wearing and the Hanging or Cheddul."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, Ballot, 8 p.m.; Meeting, 8½ p.m. Dr. Wynn Williams, "On Tuberculosis." Dr. B. Sanderson and Mr. Hulke, "Case of Sixpence in the Larynx for Ten Weeks." Mr W. M. Baker, "On the Hæmorrhagic Diathesis." Mr. Spencer Wells, "On Ovariotomy."

14. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

15. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

16. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

AN INQUIRY INTO THE NATURE OF THE PHENOMENA WHICH CONSTITUTE "INFLAMMATION."

TWO LECTURES DELIVERED AT
The Royal College of Physicians.

By LIONEL S. BEALE, M.B., F.R.S.,
Fellow of the College; Professor of Physiology and of General and Morbid Anatomy in King's College, London; Physician to King's College Hospital.

Of truly Vital Actions as distinguished from the Physical and Chemical Actions of Living Beings—Vital Phenomena of Inflammation—Of Vital Stimuli: Nutritive Irritability—Excitation and Irritation—The Nature of Irritation—Alleged Resemblance of Inflammation to Combustion—Oxidation not Increased in Inflammation—Of "Excess" or "Deficiency" of Vital Action—Of Living Matter and Formed Matter, and of the so-called Force-Conditioning Machinery of the Cell—No Analogy between Living Matter and a Lifeless Machine—On Inflammation—Changes in Living Matter—Of the "Cell" of different Tissues—Quickly Growing Structures Contrasted with Slowly Growing Structures—Changes in the Formed Material—Of Germinal Matter, and of its Origin—"Omne vivum e vivo."

(Continued from page 594.)

Of Germinal or Living Matter, and of Formed Material.

The conclusions I arrived at with reference to the nature of the phenomena occurring in the living portion of all living beings formed the subject of the first course of lectures which I delivered to the College in the year 1861. Since that period my views have been accepted by some physiologists, and I think no one has yet adduced facts opposed to my inferences. In those lectures I advanced reasons for the conclusion that every active tissue and every active cell consisted of matter in two distinct states, in the *living, germinal, plastic, or formless state*, and in the *lifeless or formed state*. Matter in the first condition is capable of endless increase, while matter in the last possesses no such marvellous properties.

And I adduced numerous facts which showed that all matter of living beings in the last or formed state had been at an anteeedent period of time in the living state, and that its composition and properties in the formed condition were to be ascribed to the changes which occurred when the matter was living. And in order to explain why the particles of matter assumed relations towards one another which were quite peculiar, and which could not be brought about by art, I was compelled to assume the existence of a peculiar power, or force, or energy which certainly differs in its essential nature from any of the external forces, and I therefore spoke of it as VITAL POWER. No one will be more ready to abandon the use of this term than I shall so soon as the phenomena which I regard as the consequence of its action shall have been shown to be due to the ordinary properties or forces of matter. But surely it is most incorrect to speak of the molecular machinery of the cell as conditioning force, after the same fashion as force is conditioned by a machine made by human hands, since no machinery of any kind can be demonstrated in the cell, even with the aid of the highest magnifying powers yet made. All that can be observed is a little soft, colourless matter, which exhibits no indications of structure. I endeavoured to show that in all cases there was a very great difference in properties between the living or germinal matter and the lifeless and formed matter of the cell, and I described how, by employing a uniform process of investigation, we could definitely distinguish the germinal matter from the formed material in all tissues, and in many instances prove that the germinal matter passed uninterruptedly into the formed material. I adduced many facts to show that the so-called intercellular substance was not deposited between cells at all, but was formed in precisely the same way as, and exactly corresponded with, what in other tissues is called cell-wall.

Of the Structure of the Cell or Anatomical Element.

The structure of any anatomical elementary part or cell is easily represented diagrammatically, thus (drawing on the board). This inner part, coloured red, I imagine to be the only part of the cell which is actually living, and which possesses formative power. The changes taking place in the outer part of the cell are physical and chemical changes. I imagine that all this outer material was once in the state of the inner matter. When we examine several cells at different periods of development, we observe great differences with reference to the proportion of this living or germinal matter to the formed matter, and this fact is of the greatest importance with reference to the changes occurring in inflammation. At first the quantity of formed matter is exceedingly small as compared with the quantity of germinal matter. The formed matter, as the cell lives, increases, and the explanation seems to be simply this,—that the nutrient matter is absorbed by the germinal or living matter, and at the same time that this absorption goes on a portion of the germinal matter upon the surface of the mass undergoes change and becomes converted into formed material, which is added to that which has been previously formed; so that the formed matter which was first produced gets pushed out further and further. In all cases the oldest part of the formed material is that which is most distant from the mass of germinal matter, and the part of the formed material which was last produced is that which is in contact with the germinal matter.

In this figure of a cartilage cell (pointing to a drawing) the germinal matter is seen to pass gradually into the fully formed cartilaginous tissue, so that the fact is almost demonstrated here that the hard material upon which the physical properties and general characters of cartilage depend was really once in the state of this soft, formless, active, living material which I call germinal matter. The changes which take place in the cells in cartilage during the formation of cartilaginous tissue are represented in several of these diagrams, but perhaps more distinctly in this one. This is a single cartilage cell; and even in the centre of its germinal matter the formation of cartilage has actually commenced. As the cell advances in age the quantity of cartilaginous material increases; the germinal matter becomes somehow or other *transformed* into the hard matrix of the cartilage. Perhaps during the transformation other substances are formed, but these, being in a state of solution, would be absorbed while the cartilaginous material gradually accumulates. As the tissue advances in age it undergoes condensation, and so becomes harder, and slowly acquires the characters which every one knows ordinary cartilaginous tissue possesses.

The bodies represented in all these drawings are different forms of cells. This is intended for a section of ordinary epithelium of the mouth or the skin. Here is one of these so-called cells. The outer part is formed matter, and the inner portion coloured red is germinal matter. I do not think that the formed material of the cartilage which I just now referred to is deposited in the intervals between the cells. I think there is no *intercellular* substance; that the cells are not formed first and intercellular substance deposited between them, but that the material called intercellular substance in fibrous tissue, cartilage, and other tissues precisely corresponds to what in these epithelial cells and in other tissues is called cell-wall.

The general structure and the general relations of germinal matter to formed matter may be easily shown in a few diagrams which I will venture to draw on the board. Let this represent an epithelium cell (diagram), this an oval blood corpuscle of the frog (diagram), this a liver cell (diagram), this a young fat cell (diagram), this a larger one (diagram), and this a fully formed fat cell (diagram). This is an ordinary cuticular cell. In the red blood corpuscle of the frog, this red portion is intended for the nucleus. I am representing all the germinal matter in the different tissues with red chalk, because the germinal matter absorbs carmine, and so exhibits this red colour in the specimens which we employ for ascertaining the relation of formed material to germinal matter. Although this is the coloured portion of the red corpuscle, I represent it with white chalk, because it is formed from the inner colourless portion, and corresponds with the formed material of the other cells.

In the formation of fat, the fatty matter is first deposited in the substance of the germinal matter, just as in certain cases in the central part of the germinal-matter, tissue may be formed closely corresponding to that which surrounds it. Fat is here deposited; it is added to that which is already produced, and at last comes to occupy the greater part of the so-called fat cell. Slowly these changes go on until the fat globule increases in size and extent, and occupies almost the entire mass. At the same time that fat is being deposited,

another change is taking place in the outer part of the germinal matter—this is undergoing condensation so as to form what has been spoken of as a cell wall. In this way the cell wall seems to be produced in these cases.

The fat and the cell wall both consist of formed material, and correspond exactly to the outer part of an ordinary epithelial cell or of a frog's blood corpuscle. The same general fact is noticed, too, in the case of the liver cell. You see little globules deposited in various parts of the cell; but there is no true cell-wall to the liver cell. A wall may be produced by the action of various chemical substances, but no cell-wall is developed in the normal cell. The probability is, that the wall in the adipose vesicle results from a little hardening taking place on the outer part of the soft, plastic material. I think that in the formation of bile the outer part of the cell gradually becomes altered by water, oxygen, and other agencies, and is slowly resolved into the constituents of the bile. It is in this way that secretion takes place. The outer part of the cell becomes disintegrated, and what was at one time *cell* becomes at a future time *secretion;* what was at one time liver cell becomes at a future time bile, and perhaps other substances. It is possible that by changes taking place at the outer part of the cell, biliary matters may be formed, and saccharine or amyloid materials produced. Although both these substances are soluble in water, the saccharine matters, being readily diffusible, pass through the capillary walls into the blood; while the biliary matters, not being diffusible, are retained in the interior of the ducts, pass into the gall bladder, the common duct, and so to the intestine.

There are many other tissues which may be represented in the same simple way. Take a common tendon. This drawing will represent, I believe, all that is to be made out in the anatomy of ordinary tendinous tissue. Here are the so-called cells or nuclei, and this is the so-called inter-cellular substance; but that it is formed from this germinal matter in the same way as the so-called cell-wall, is easily proved by tearing up fibrous tissue under certain advantageous circumstances. You may see the "nucleus," represented here, passing into a certain quantity of granular matter, which is soft and easily broken down; this matter gradually passes into the firm, hard, fibrous tissue of the tendon, so that there is a gradual transition from *the formless germinal matter into the formed tendon.*

Muscle is represented in an equally simple manner. Here are the so-called nuclei of the muscular tissue, and this is the formed material. As far as I can ascertain the contractile material of the muscle precisely corresponds to the fibrous tissue of the tendon; it exhibits transverse markings, possesses a peculiar structure, and manifests for a certain time, even after its removal from the body, certain peculiar, and, I venture to think, physical properties. Now, the same observation that I made with regard to the continuity between the germinal matter and tendon, holds with regard to the continuity between germinal matter and muscle; and not only so, but in certain cases, at the outer portion of a very fine muscular fibre, the appearance which I now represent on the board is sometimes seen. This is the so-called nucleus, and from it a certain quantity of soft material proceeds, in which no structure whatever can be demonstrated; this then passes into a thin fibre, requiring very high magnifying powers in order to demonstrate it satisfactorily, but it may be followed uninterruptedly into the contractile muscular tissue; and not only so, but there is reason for believing that during the formation of muscular tissue these masses are continually moving; that the entire nucleus, so to say, moves, and as it moves it leaves this material.

At one time I believe this nucleus occupied, for example, the spot to which I now point, instead of the position which it occupies now; but it is supposed to be moving in this direction, and as it moves the most posterior portion undergoes a change, and becomes converted into soft matter, and this matter gradually becomes converted into ordinary contractile muscular tissue. I believe that is the simple way in which muscular tissue is formed, and I believe that this material which exhibits the so-called "*vital*" contractility bears precisely the same relation to the nucleus or mass of germinal matter as the so-called cell-wall of a common cell bears to its nucleus.

A nerve may also be represented in the same way. There is the so-called "nucleus," and here are the fibres which pass in different directions from it. This is the formed material, and that the germinal matter from which it is produced. If you look at nerve at an early period of development you find this sort of appearance; and the same remark will hold good with reference to fibrous tissue and the other tissues to which I have adverted. The nuclei are all close together; but at a later period of development you find that the nuclei have increased in size, and the distance between them is considerably increased, and is occupied by what I would speak of as the formed material of the nerve, exactly corresponding to the outer part of the ordinary cuticular cell. As the tissue to which this nerve fibre is distributed, grows, of course the nerve fibre grows *pari passu*, and the distance between these portions increases. The quantity of formed matter in proportion to the germinal matter increases as the tissue advances in age. This holds good, I believe, in all animals, from the lowest to the highest, in disease as well as in health. There are other tissues that I might draw in precisely the same way, but I think these are sufficient to represent roughly the view which I hold, and I need not trouble the College with further detail.

The Force-conditioning or Living Machine.

Such, then, is the structure of the "cell" or anatomical element, or elementary part. In the living "cell" we have "*active matter*" and *passive* or "*formed matter*," which was itself active at an earlier period of time. This "cell" is the "*force conditioning*" machine of the advanced physicists and chemists, in which all the physical and chemical phenomena which make up its "*life*" take place. In disease as well as in health, this is the only "apparatus" in which the marvellous chemical analysis and synthesis can take place. Where, I would ask, is the machinery supposed to condition the force? If it be admitted that the soft, plastic, colourless, formless, germinal matter "conditions,"—where, I would ask, is there anything which "conditions" upon the same principles? Have physicists or chemists yet prepared any conditioning matter at all like it? and in the working how marvellously little loss of force as compared with the loss in a machine! However the "conditioning" may be brought about, it is quite certain that it takes place upon principles totally different from those upon which "conditioning" is effected by machinery. The word "condition" must be comprehensive indeed if it can be employed in speaking of the action of a thing with a very definite structure which we have ourselves made, and know all about, and also correctly applied to phenomena occurring in matter which is certainly structureless, of the nature of which we know very little, which we cannot make, and which differs from a machine in every particular that we can ascertain. Not one of the ideas which we attach to the word machine exists in living matter, and I think those who have used this word "condition" in speaking of the actions of living beings will find it rather difficult to define what they mean when they use it. But, not content with regarding the cell as a *force-conditioning* machine, and attributing its action to machinery which it does not possess, some modern speculators have not shrunk from calling living things machines,—and, though it will hardly be credited, a lifeless machine has been spoken of as a *creature!* In this way the desired impression that there is no real distinction between a living creature and a lifeless machine has been produced upon the public mind, and no little confusion of ideas has resulted.(a) Nor is it surprising that the school which propounds these views should stedfastly abstain from considering the matter from the simplest point of view.

(a) It is due to Dr. Tyndall that I should here give his own words:—"Molecular forces determine the form which the solar energy will assume. In the one case this energy is so conditioned by its atomic machinery as to result in the formation of a cabbage; in another case it is so conditioned as to result in the formation of an oak. So also as regards the reunion of the carbon and the oxygen—the *form* of this reunion is determined by the molecular machinery through which the combining force acts; in the one case the action may result in the formation of a man, while in another it may result in the formation of a grasshopper! The *form* of the motion depends on the character of the machinery." ("Heat considered as a Mode of Motion," second edition.) Dr. Tyndall doubtless considers it unnecessary to tell us how the wheels, and mills, and hammers, and pile-driving machines, and clocks and watches, and little Swiss birds were *formed*. He concludes we know something about that; but surely he should describe the atomic *machinery* he has discovered, or which he assumes to exist, in germinating cabbages, and oaks, and men, and grasshoppers. He might perhaps be able to show that the machinery of a water-mill bears somewhat the same relation to that of the little Swiss bird as the atomic machinery of a cabbage bears to that of a man. It seems very odd that Dr. Tyndall should teach people that the sun "*forms*" muscle and "*builds*" the brain, and yet that he should omit to tell them that such very rough and simple pieces of mechanism, comparatively speaking, as water-mills and windmills, and clocks and watches, are formed and built by the sun. Of course the sun, which can *form* a muscle and *build* a brain, must be able to perform such comparatively simple operations as raising a wall or building a house; but yet Dr. Tyndall does not *say* that walls and houses and clocks and watches are the *workmanship* of the sun, although he has affirmed that lilies, and verdure, and cattle are the sun's workmanship.

Instead of discussing the nature of the phenomena occurring in the simplest cell, and then passing on by degrees to the consideration of the complex actions of man and the higher animals, the disciples of the new school of thought apply themselves at once to the most advanced inquiry; and it is curious how ingeniously the discussion of the real question at issue is avoided. As I have before hinted, the steady investigation of the phenomena occurring in a mass of living matter affords results very unfavourable to the doctrines now taught, and proves that we really know much less than some of the most popular teachers would have us believe. Those who follow Medicine have to confess to the existence in times past and present of many erroneous Medical doctrines, but the most prejudiced and ill-founded views ever entertained were not weaker or less supported by facts and observation than the new dogma now so widely taught, that all the phenomena of living things, like the actions of machines, are due alone to simple energy or motion; and I do not believe that any scientific statement ever made was less justified by known facts than the assertion that living things are "the workmanship of the sun," or that suns resolve themselves into living things. It is very strange, but nevertheless true, that those who teach us that "*suns may resolve themselves (!) into floræ and faunæ*," are quite unable to show how a very minute portion of sun may resolve itself into a minute particle of living matter, such as a single microscopic fungus, or any other definite, single, living thing. This last or minor proposition is perhaps one of those problems which, in the language of the physicist, who regards living things as the sun's workmanship, transcends any conceivable expansion of the powers we now possess, while the first is one of those grand conceptions for the contemplation of which, according to its exponent, a certain *force* of character is requisite to preserve us from bewilderment! The new philosophy seems applicable to very large masses of matter rather than to the constituent particles of which these masses are composed.

Some of the facts of modern science are enunciated in the most ingenious manner. The words are so chosen that a sentence in which a fact is merely *affirmed* is mistaken by many a reader for one in which the *explanation of the fact* is announced, and by the introduction of two or three words, the meaning of which could not be explained in as many pages, the risk which the author incurs of the reader pausing to inquire if the great hard words mean anything or nothing is slight enough. In speaking of the phenomena occurring in living structures, we have only to talk of the changes occurring in "undifferentiated organic matter," the "process of differentiation," "force-conditioning atomic machinery," and so forth, and there will be little chance of our theories being called in question. If I speak of the plastic, molecular, organic protoplasmic substance of the organism differentiating itself according to the operation of external circumstances, and thus conditioning force according to the disposition of its molecular machinery, etc., I venture to think that there are few even here who would be disposed to argue the question, or to doubt for an instant that I had explained the whole mystery of life in a very few words. But, on the other hand, if I say "Here is a small piece of soft colourless stuff, into which various substances pass and become converted into similar matter; and that gradually some of this soft colourless material becomes resolved into new matter differing in composition from the original colourless material, as well as from the surrounding constituents, I state facts in words which a child could understand; but at every step I should be met by the inquiry "why?" or "how?" and numerous questions would be proposed which I could not answer. The natural inference would be that I really knew very little about the matter, and this inference would not be very wide of the exact truth. It must, however, be borne in mind that the very points upon which further information is required can be very distinctly stated in language intelligible to all. Nothing can encourage inquiry more than telling people what we know in the simplest, plainest way possible, and drawing their attention to what we do not know, or to what we cannot explain, and I am sure that all observers who earnestly desire to see knowledge advanced will support me in the view that scientific men should express what they have to say clearly and simply, and not confuse people less learned than themselves by employing high-sounding words, the meaning of which is at best doubtful and obscure, or ill-defined, and in but too many instances has not been clearly explained by the authority himself.

(To be continued.)

ORIGINAL COMMUNICATIONS.

NOTES ON

CEREBRO-SPINAL MENINGITIS AS OBSERVED IN THE ARMY IN PORTUGAL.

By GEORGE GASKOIN, M.R.C.S.

Some two or three years since, when engaged in perusing and collating the statistics of a foreign army,(a) I first became sensible of the pathological importance of a disease which I may be allowed to call cerebro-spinal meningitis. As it occurred to me to read of an epidemic destroying in a limited area one out of scarce more than three of its victims among the civil population (105 out of 348), while among the military half at least of those attacked died—these, too, being mostly men of the finest and most promising physique; when I found, for instance, that four cavalry soldiers were seized on the same day in a country barrack—I may say struck with death, for all of them died in a few hours, under dominion of a train of symptoms of one definite type and character; when I took note that very many of such cases were of the shortest duration, dying considerably within twenty-four hours of entrance to Hospital, or scarce exceeding that period; when I observed that on the same day and hour of time eases of the same recognisable character has suddenly occurred at considerable distances apart, singly or in groups, with diminished or aggravated virulence, I naturally lent all that immediate attention to the details before me which such a disease, however removed from my experience, was calculated to command; but my thoughts being at that time somewhat pre-occupied, and the occasion not being urgent, and finding my Professional acquaintance had very vague notions on the subject, and were, indeed, possessed by a general indifference with regard to it, I did not at that time pursue the study further.

It may be that the amount of information which public anxiety has lately forced upon us leaves but little to be desired now in completeness towards understanding this disorder. I cannot but fear, however, that the facts and opinions adduced with great advantage to science at the Pathological Society and elsewhere by Dr. Murchison, supported as they are by other weighty opinions, may have the effect of abating the interest which attaches to it. If we are to regard cerebro-spinal meningitis as a variety of typhus, we shall miss much of the significance which attaches to it as a disease. There is nothing very novel in that view, which is, indeed, of the most natural suggestion. The disease has been elsewhere classed with pyogenic affections, such as puerperal fever and pyæmia with deposits, and it is liable to be confounded with typhoid fever, the diagnosis in some cases being not easy; occurring in a sporadic form, it passes mostly under this denomination, while its epidemies in their commencement are commonly referred to typhus. It has been termed a neurosis, or a pernicious remittent fever—a rheumatic or simply a cerebro-spinal affection. But the best observers have, notwithstanding, bestowed upon it a definite character of its own, with outlines which make it as recognisable as any other item in nosology. The name "blasting typhus" seems scarcely to cover the whole of the phenomena, nor are the causes, so far as these are determined, the same.

I have lately been strengthened in these ideas by a more attentive consideration of the comparatively recent epidemics during the years 1861, 1862, and since in the Lusitanian kingdom. Beginning in the hilly country on the right bank of the Tagus, towards Spain, this epidemic extended its ravages somewhat capriciously, with much violence, to the plains of the south, and even Lisbon and Oporto were not exempt.

Contrary to what occurred in the Strasburg epidemic of the years 1840-41, as described by Grisolle, the civil population in Portugal were affected to a greater extent than the military, and, among them, those who were in low circumstances furnished the greatest number of victims. Children were attacked in preference to adults, the occurrence of the disorder being rare in a person over 30 years of age. It began first in the villages near Monforte. The commissions which reported on the disease at first declared it to be an ataxic adynamic fever other than typhus, but soon they recognised its omogeneity with the French epidemics. They found no spur that year in the rye, nor any cause in the seasons, but attributed the *materies morbi* to the dung heaps and farmyard

(a) *British and For. Quarterly Rev.*, April, 1863, p. 389.

stuff which was abundant in the vicinity, and gave more weight to this element than to the inferior condition of the inhabitants. The disease soon invaded the town and barracks of Castello Branco, situated at about eight miles' distance from the spot first attacked. One fact to which I would wish to draw attention is, that infantry soldiers were with great rarity affected, but the cavalry suffered a good deal, and the patients were chiefly recruits—that is, soldiers new in the service. In the minute and excellent reports which lie before me from the hands of the Medical officers I see frequently repeated at 21 "sanguineous temperament," with varied result. But, how often fatal? The identity of the symptoms throughout shows the terrible eon of the complaint, and cases of cerebritis, meningitis, and typhoid fever are brought forward for comparison, and serve equally for contrast on the same page.

The series of acute symptoms, as observed in these cases in Portugal, may be thus described:—A well-marked chill, which varies from a strong rigor to mere coldness of the extremities; vomiting of food, with bilious matter often green; wandering pains in the limbs; only occasionally high fever; supra-orbital pain, shooting, it may be, with greater force into one eye; the organs of vision injected with blood, and lacrymation profuse; eyes shaded by the hand; cephalalgia of an aggravated description, creating anguish, expressed by screams; pains driving with torture down the back of the stiffening neck; the pain in the head aggravated by touch or pressure; an anxious expression of the face, which is sometimes flushed, but at others pale; drooping eyelids; fixed and fearful look; respiration irregular, imperfect, or frequent; voice weak; restless action; convulsions, with difficulty restrained by many hands; muscular pain, experienced alike in contraction and extension, or perchance early prostration, with total speechlessness and some degree of coma. In other cases—insomnia; command of ideas by day, but at night delirium, with great loquacity, or less often raging mania; thirst of intense kind; difficult deglutition. These symptoms were accompanied variously by a slow, a quick, full, weak, or normal pulse, a tongue generally moist and white; and if dry and brown, chiefly in the later stage; heat of surface below or above par, or normal; perspiration copious, and often viscid; urination and defecation difficult; urine limpid and without sediment of any kind; rachialgia; pupils, even early in the disorder, equally or unequally dilated; pressure on the head causing the sensation of an electric shock, or producing spastic actions in the limbs; dorsal decubitus; lethargy; filiform pulse; cold sweats; trismus; strabismus; jerking movements of the extremities; meteorism in the bowels; incontinence of urine; aggravated opisthotonos, followed by deeper coma; stertor, preceding death.

On inspection the meninges are found strongly injected, occasionally displaying patches of ecchymosis of some size. Substance of the brain with abundant bloody puncta; lymph and pus with lactescent or sanguinolent fluid may be expected to be found in the contents of the head and spine.

But the series of milder cases are not less interesting; drawing out to the period of a month to forty days, they often display in a marked manner, with more or less regularity, the features of accession and intermittence, which characterise in their decline fevers called remittent, which we are accustomed to distinguish from typhus in a definite manner, and which, indeed, we refer to a different class of causes; and here I may very well observe that humidity seems to enter as an element in epidemics of cerebro-spinal meningitis, and we cannot overlook the fact of its occurring in situations where the dung of animals mixed with vegetable material is collected in abundance: some special matter is necessary, no doubt, as a spark to light the train, if so poor an illustration may serve, but what that special remote cause is entirely baffles conjecture. The disease seems to affect the spring season, on the very verge of winter, and in the middle of March declines, appearing with greatly diminished frequency in the summer months. One feature I shall not omit to mention, which is, that in the cases which had a favourable termination, something of the opisthotonos—that is to say, a considerable hardness and contraction at the back of the neck—remained as the most lasting, the most permanent, and, in fact, during convalescence the only symptom. In rare cases also one pupil remained somewhat dilated. Here, then, we find a uniform basis comprised of scarcely varying symptoms, constituting a special disease, and gathering in its train attendant phenomena of a secondary character, less significant perhaps, but still commanding our attention. Such are the frequent occurrence of a considerable amount of epistaxis and a tendency to pulmonary effusion. The frequent occurrence of herpes labialis and the presence of those lumbrici to which so much importance was given in the attack of a similar epidemic on the cavalry at Versailles—a symptom which was more rare in Portugal, and which seemed to act merely as a predisposing cause, no less than the nostalgia or moral unhappiness which affects the youthful soldier.

Treatment by general and topical bleeding was fully tried; the same with quinine; both failed to give the relief expected by their advocates: as regards the last, it is not a matter of surprise, considering the morbid lesion which occurs. Mercury in the hands of the French had so wholly failed that it seems to have been used on this occasion but little. Ice was applied without marked benefit. The blisters which are so freely employed in treating fevers in Portugal are declared to have aggravated the symptoms. A more favourable opinion is given of the method of M. Chaufard, who recommends opium in occasional doses of three to four decigrammes. One of the Faculty used acetate of morphine in doses of half a grain night and morning; he says of it that all the patients submitted to its action, experienced alleviation from the very first, and on continuing it a complete cure of the paroxysms occurred, tending towards a regular convalescence, in spite of the opisthotonos, which was some time before it gave way.

It seems singular that in England we should hitherto have escaped to so great an extent from this class of epidemic. I will venture to address myself to any one who is acquainted with the ill-cared-for stabling in the metropolis, as to whether disease of an epidemic character does not in all probability originate in those confined localities,—I mean such affections as measles and whooping-cough, in addition to the bronchitis and pneumonia in early life, which are due to the powerful ammoniacal emanations which are concentrated there. I am reminded of the remarks of Von Siebold as to the advance in maturity and development of the ova of intestinal worms in moist and festering heaps of manure. If we indulge the view that the lower forms of life are operative in the production of disease, this analogy may be admitted as remote where there is nothing more apposite to assist the reason. It is a source of congratulation that the barracks of our cavalry are now receiving a desirable amount of attention.

It is with something of regret that I offer you a communication deficient in original observation—so different from what you are accustomed to receive. My desire is to make sources of information available which, though trustworthy, are still liable to be overlooked. I believe I may affirm that typhus is quite exceptional in Portugal, where remittent and intermittent fevers are the rule, and typhoid fever occurs with minor frequency. I leave all further comparison, however, to those who are, in a general way, more completely informed. Looking at the disease as an object of study, I know of nothing which surpasses it in interest. If the science of physiology has more to expect from pathological research than from its own independent endeavours, I know of none more calculated to repay observation, or which more invites reflection.

3, Westbourne-park.

HOLIDAY NOTES ON SOME CONTINENTAL SPAS.

(Second Series.)

By HERMANN WEBER, M.D., F.R.C.P.,
Physician to the German Hospital.

(Continued from page 517.)

ST. SAUVEUR.

St. Sauveur is situated near the village of *Luz*, in one of the finest valleys of the Pyrenees, about 29 miles from the station at Tarbes. The few clean-looking houses which form the baths of St. Sauveur are planted on a narrow terrace of a wooded precipice, 280 feet above the Gave de Gavarnie, or, as it is sometimes called, Gave de Pau, and 2525 feet above the level of the sea. The climate is milder than at Barèges and Cauterets.

The place is of comparatively recent origin, and is less frequented than Luchon and Cauterets, though it has been repeatedly visited by the Royal ladies of France, as the Duchesses of Berry and Angoulême, and the Empress Eugénie.

The two mineral springs employed are both characterised by sulphuret of sodium, and have separate establishments. The "*source de St. Sauveur*," or "*source des bains*," has a temperature of 93° ·3 F., and contains in the litre 0·0218 grm. of sulphuret of sodium. A bath of 300 litres contains about

6·3 grm. of sulphuret of sodium, about 30 grm. of chloride of sodium, and 18 grm. of alkaline and earthy carbonates and silicates.

The clean and neat-looking thermal establishment is provided with twenty cabinets de bains, two ascending douches, and a buvette.

The second source, "*Hontalade*," has, according to Filhol, a temperature of 72°5 F., and contains only 0·0198 grm. of sulphuret of sodium in the litre. The establishment of Hontalade is situated about half a mile from St. Saveur, and possesses eleven cabinets de bains, a grand douche, and a buvette, and some arrangements for cold hydrotherapeutic purposes.

The waters of Saint-Sauveur have only a very slight smell of hydrosulphuric acid; they possess to the feeling of the skin something peculiarly soft, "une onctuosite toute particulière," and are rich in organic constituents. They are considered as pre-eminently *mild* and *sedative*. This is probably more due to the lower temperature at which the baths are taken (90 to 95° F.) than to the chemical composition; it can, at all events, not be ascribed to a lower percentage of sulphuret of sodium, because other sources, as "la Reine" at Luchon, contain a smaller amount of this substance, and yet are regarded as much more exciting.

All ailments amenable to the sulphuretted waters in general are regarded as suitable for the treatment at St. Sauveur, especially if the more exciting influences of some other spas, as of Barèges, are to be avoided; but diseases of women stand in the foreground, especially chronic inflammation and neuralgia of the uterus, fluor albus from catarrh, or superficial ulceration of the os uteri, and conditions of weakness and increased nervous susceptibility produced by confinements, miscarriages, loss of blood. Women of a delicate, nervous, and rather lymphatic constitution are much more benefited than those of plethoric tendency.

The source, "*Hontalade*," is regarded as especially useful in cases of dyspepsia of various origin, of intestinal catarrh, and hemorrhoidal tendency. The fact that the establishment is situated on a rather steep hill, requiring always some exertion to reach it, enhances, in the majority of cases of this nature, its usefulness; but its situation is, perhaps, not quite so unexceptional in many cases of pulmonary affections, in which the "Hontalade" is likewise recommended with preference.

Drs. Fabas, Druène, Chamasson, Hédouin and Lecorché are intelligent Physicians, well acquainted with the peculiar merits of their remedy.

The hotels "de France" and "des Princes" at St. Sauveur offer tolerable accommodation at moderate prices; and if these should be occupied, the hotels at Luz ("des Pyrénées," "de l'Univers," "du Midi") may be recommended, and will be found as good and almost as conveniently situated. There are also furnished apartments as well at Luz as at St. Sauveur.

Some of the finest excursions in the Pyrenees may be made from this place, even by invalids, especially to the celebrated cirque de Gavarnie, to the pic de Bergons, to Cauterets through the gorge de Pierrefitte, and to Baréges through the gorge de Baréges.

The season of St. Sauveur is from the beginning of June to the end of September; but July, August, and the first half of September form the best part of it.

BARÈGES.

Scarcely five miles distant from Saint Sauveur is Baréges, in the valley of the Bastan (Department Hautes-Pyrénées, arrond. d'Argelès), elevated almost 4,100 feet above the level of the sea, reached either by the continually ascending carriage road from Luz or by the bridle path over the Tourmalet from Bagnères-de-Bigorre. It consists of a single steep, narrow street, lined with about 70 houses, and some wretched booths and cafés.

The aspect of the valley, surrounded by barren mountains, is wild and dreary; the climate is so rough as to render the place almost uninhabitable during a great portion of the year. The accommodation is rather inferior to that of most other spas of reputation. The bathing establishments are, as yet, imperfectly arranged; but the cures effected at Baréges are so striking that all the disadvantages just mentioned, and some others besides, are only slight drawbacks when compared with the immense benefit which may be derived, in well selected cases, from one or two seasons at Baréges. It is, therefore, not to be wondered at that every year between 10,000 and 15,000 real invalids, not pleasure-seekers, resort to this otherwise, as yet, not very prepossessing spa. During the height of the season the number of invalid visitors is often so great that many of them cannot find even the most modest accommodation at Baréges itself, and are obliged to take up their abode at Luz, about four miles distant.

The waters of Baréges, although employed already in the Middle Ages, probably did not acquire a general reputation until after the visit of the young Duc du Maine, the natural son of Louis XIV., and the pupil of Madame de Maintenon, who is said to have composed there some of her famous letters.

The esteem in which these waters are at present held in France is testified by the fact that the Government has erected at Baréges a military Hospital, where every year 168 commissioned officers and 400 other soldiers are admitted for two months each.

The praise which the late Mr. Carmichael, of Dublin, has bestowed on this spa, where he had been cured of an obstinate sciatica, is well known to many. He arrived there when it was so crowded that he had, if my information is correct, to wait fifteen days before his turn came for the first bath.

Sulphuret of sodium is the principal chemical constituent of the waters, which, as a whole, are considered as the most powerful, and also as the most exciting, in the whole Pyrenean group of spas. The temperature of the different sources varies from 18° to 45° Centigr. (64·4° to 112·5° F.); the majority of them, however, range between 32° and 40·6° Cent. (89·6° and 105·8° F.); the celebrated source "*Tambour*," or "*grande douche*," being the only one which has 45° Cent. (112·5° F.) The chemical composition may be considered as very imperfectly known, and new and more complete analyses are much wanted.

The following table, borrowed from Filhol's work (l. c., p. 341), shows the temperature, the proportion of sulphuret and of chloride of sodium, and the amount of alkalines contained in the principal sources(a):—

Noms des Sources.	Température.	Quantité de sulfure de sodium dans un litre d'eau.	Quantité de chlorure de sodium dans un litre d'eau.	Alcalinité.	Noms des Auteurs.
	Centigr. deg.	grm.	grm.	grm.	
Le Tambour (Gr. Douche) . .	45·00	0·0404	0·0831	0·0810	Filhol, 1850.
L'Entrée . .	40·80	0·0372	0·0219	—	Gintrac, 1841.
Lachapelle . .	31·00	0·0203	0·0697	0·0380	Filhol, 1850.
Polard . . .	38·00	0·0238	0·0458	0·0517	*id.* *id.*
Bain neuf . .	37·00	0·0341	—	—	Gintrac, 1841.
Le Foud . .	36·00	0·0248	—	—	*id.* *id.*
Dassieu . . .	35·00	0·0234	0·0321	0·0490	Filhol, 1850.
Genecy . . .	32·00	0·0220	—	—	Constantin James.

Baréges is, as yet, much neglected with regard to the bathing establishments and the supply of the mineral water. The former defect is being remedied by the construction of a new thermal establishment, and by the improvement and enlargement of the military Hospital, which is a source of incalculable benefit to the French army.(b) The second defect, viz., the scanty supply of water, is likewise on the eve of being, at all events, to some degree, rectified by the utilisation of new sources, and by the better management of some of the older ones.

Hitherto the defects just mentioned have led to the necessity of sending the invalids to the baths at all times of the day, and of the night; and many of them have to leave their beds at midnight, to be carried to the douche or the cabinet de bains, or to the piscine, and thence back into the bed. This proceeding is described as by no means agreeable; yet the number of patients applying is so great, that they are often very happy to receive a ticket for the midnight bath. The scanty supply of water further obliges the Medical inspectors not to send too large a number of bathers at one time into the piscines. The crowded state of the military piscine, for instance, may be imagined when I state that it is about twelve feet long and seven feet wide, and that forty common soldiers or non-commissioned officers bathe in it at a time, while the

(a) A *litre* is equal to 35·21546 fluid ounces of distilled water. A *gramme* (grm) is equal to 15·4325 grains troy.

(b) This measure well deserves to be imitated by the English Government; and although the thermal spas of this country do not altogether resemble Baréges, yet excellent establishments of this kind might be formed at Bath or at Buxton; at the latter place the natural temperature of the water could be easily increased by artificial heat in order to increase the energy of the action according to the requirements of some morbid conditions.

number of commissioned officers bathing there at other periods of the day is restricted to twelve.

Near to the road from Baréges to Luz, rather more than half a mile from the former, is a small separate establishment of modest pretensions, called "*Barzun*," supplied by the source of that name. It contains a few cabinets de bains, two douches, aud a "buvette" (drinking fountain). The temperature of this source is 29·6° C. (85·3° F.) and the amount of sulphuret of sodium in the litre is 0·033 grm., but a more accurate analysis is a desideratum.

In considering the general character of the sources of Baréges, a prominent fact is their great durability, *i.e.*, that they do not readily decompose, and retain their sulphurets, when exposed to the air, longer than the majority of other sulphuretted springs. Filhol ascribes this durability to the small proportion of free silicic acid, and to the rather large proportion of alkalines contained in the water.

The waters of Baréges have the reputation of being more exciting in their influence on the nervous system and on the circulation, and, through this, more energetic in their therapeutical action than any other sulphuretted waters, and Dr. Ganderax, the chief of the Military Hospital, and Dr. Vergèz, one of the most experienced Physicians at Baréges, are able to support this view by many instances. Probably the comparatively great constancy of the water is a prominent cause of its efficacy in old wounds and other affections where the *local* action of the water is of especial importance. It ought, however, in considering the effects of the Baréges waters, to be borne in mind that the climate of Baréges is truly mountainous and possesses all the stimulant qualities of the Alpine climate. Many of the cures are, no doubt, due more to this influence than to the sulphuretted waters.

The diseases principally treated at Baréges are:—*Old wounds, diseases of bones, scrofulous affections, skin diseases, chronic rheumatism,* and *secondary syphilis,* with its complications.

The value of the Baréges waters in *old wounds* is well recognised throughout the whole of France and the Continent in general; it is the great benefit derived from their use in cases of this class, and especially in old gunshot wounds, which has induced the French Government to erect the military Hospital. Old wounds that have resisted every kind of treatment often heal rapidly at Baréges; painful cicatrices not rarely break out afresh, under the influence of these waters, in order to form, under their continued use, a healthy and painless cicatrix; foreign bodies lodged in old wounds are frequently expelled, or their extraction is rendered more easy. Partial anæsthesia and hyperæsthesia, the stiffness of joints, and the paralysis of limbs, which sometimes are the consequences of wounds of various kinds, are generally easily removed by the treatment at Baréges.

Chronic *diseases of bones and of joints,* as caries, chronic periostitis and ostitis, necrosis and their complications, are likewise often much more benefited by this spa than by any others.

Scrofula and *scrofulous affections* are generally placed at the head of the diseases specially fitted for Baréges; but I think that this assertion ought to be somewhat modified. It is quite true that the *torpid forms of scrofula,* manifesting themselves as glandular swellings, with and without ulceration, white swellings, caries of bones, etc., are very beneficially influenced, and sometimes even cured more quickly, there than at the muriatic saline spas; but in these cases it is not so much the scrofulous diathesis which is acted upon as the accompanying torpid and lymphatic constitution of the patients. The exciting influence of the Baréges waters causes under such conditions a greater activity in all the physiological as well as morbid processes, and removes through this not rarely torpid chronic affections, which originally were of a scrofulous nature. Most of these cases, however, occur in adults, and in many of them the scrofulous diathesis may have been abating long before the use of the baths, while the torpid state of the organism and the products of the disease (as the white swelling or the enlarged glands) had remained. Much less beneficial is the result in the majority of purely scrofulous affections, especially in younger children. In these there can be, I think, no doubt that the muriatic saline spas, especially those containing iodine and bromine (Creuznach, Ocynhausen, Nauheim, Hall, Reichenhall, etc.), are very superior to Baréges and to all the sulphuretted waters.

Diseases of the skin contribute a great contingent in all the sulphurous and sulphuretted spas. The effects of the Baréges waters in these complaints do not materially differ from those described under the head of "Bagnères-du-Luchon;" the latter place has, no doubt, some advantages by its greater variety of springs from the weakest, and the degenerated, which in irritable affections are the most useful, to the strongest; while Baréges, on the other side, combines with the influence of its waters that of its greater elevation, which is no mean agent in many conditions.

Amongst the *rheumatic affections* it is to the most chronic forms, especially those occurring in torpid constitutions, that the treatment at Baréges is applicable; but in many of them, as, for instance, chronic sciatica and lumbago, it is superior to every other treatment.

With regard to *syphilis,* to *hydrargyrism,* and to the complications of the two, the remarks made under Bagnères-de-Luchon are likewise applicable; but the more exciting action of Baréges may perhaps, in cases of doubtful syphilis, render it more energetic as a "test," by causing more rapidly, and with greater certainty, the appearance of the characteristic eruptions where the constitution is still impregnated with syphilis. I have had the opportunity of witnessing this effect in a most striking manner in several instances, and Dr. Ganderax, who showed me one of these cases, very properly quoted as a motto for Baréges with regard to the effect in question, the following words from an old treatise on spas:—

"Feriunt ad extus, quod latebat
ad intus."

Patients affected with diseases of the *respiratory organs* likewise not rarely resort to Baréges; but, although the bracing influence of the mountain air, combined with that of the thermal sulphuretted waters, may, in many cases, exercise a beneficial influence, yet the changeable nature of the climate and the frequency of fogs, or mists ("brouillards"), and of storms, render a lengthened stay at Baréges of doubtful value for pulmonary invalids.

With regard to the manner in which the waters are employed, the external application in the shape of the douche and the bath predominates over the internal administration, although the latter is used in many cases. The bath in the piscines is in general regarded as much more efficacious than the single bath. The temperature of the water in the military piscine when I visited it was 36°C. (96°·8 F.), and that of the surrounding air in the bath-room 31°·5 C. (88°·7 F.) The greater body of water in which the patient is immersed, the higher temperature of the surrounding air, and its greater impregnation with sulphurous vapours are advantages which even a crowded piscine possesses over a single bath. The water of the baths and piscines consists of pure mineral water, cooled, where it is necessary, by standing, but not by the admixture of common water practised at some other places The time during which Dr. Ganderax generally keeps the soldiers in the piscine is, I believe about fifty minutes. The grande douche he rarely applies, over fifteen minutes. The temperature of the douche is higher than that of the piscine; its action is very exciting, and causes frequently feverish excitation, which on the whole not rarely occurs during the treatment at Baréges. Dr. Ganderax pauses under such circumstances for a few days with the treatment, or uses a bath supplied by a less exciting source, and gives internally sulphate of magnesia, or a similar medicine.

The best time for the bath is either about one or two hours before, or three or four hours after breakfast, but the limited accommodation and the large number of patients oblige the Medical men to give the baths at all hours of the day and night; three hours, however, must elapse after the last meal before the bath is taken.

The water given internally, in general, does not exceed 300 grammes per day (about twelve ounces), which quantity is usually divided over the day, half being taken in the morning, half in the afternoon.

The duration of the invalid's visit to Baréges varies from three to six weeks, and more. The soldier's term is two months, and properly so, as a moderate and longer-continued application of the waters is preferable to a shorter and more energetic one. The term of two months allows, besides, to make the pause of some days in the middle of the treatment, which in almost all cases is very desirable.

The best time for Baréges is from the beginning of July to the first or second week in September, but the bathing season commences already in June, and terminates only towards the end of September. In addition to the Medical men already mentioned, Dr. Ganderax and Dr. Vergèz, to whom I owe much information, I cannot omit to name Dr. Le Bret, the

Medical inspector of the spa, well known by his scientific attainments.

The best inns are the hotels "de France," "de l'Europe," and "de la Paix;" they are not so good as those at Luchon or at Eaux-Bonnes, but yet they offer all the necessary accommodation, and the food, too, is sufficient for the generally increased appetite.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

HOSPITAL FOR SICK CHILDREN.

TWO CASES OF STONE IN THE FEMALE BLADDER—DILATATION OF THE URETHRA AND EXTRACTION—RECOVERY.

It seems strange that, notwithstanding the large statistics of this operation that have accumulated, the apparently simple problem how best to remove a stone from the female bladder should not yet have been solved. Such, however, is the case. Various operations have from time to time been recommended, but none has yet been accepted as wholly satisfactory by common or even general consent. The main question in the dispute seems to be how far, for the purpose of extracting a stone, the urethra may be dilated without risking the integrity of its sphincter, or, in other words, without exposing the patient to the danger of subsequent permanent incontinence of urine. All allow that a certain amount of dilatation is safe; but at what stage does it become dangerous? Upon this point the highest authorities differ very widely, as may be seen from the following extracts:—Mr. J. Lane, in a paper (a) on "Lithotomy in the Female," writes:—"It is, nevertheless, admitted on all hands that the urethral method (of extraction) is frequently followed by inability to retain the urine. The dilatation paralyses, or in some way injures the sphincter fibres at the neck of the bladder, and thus produces incontinence, which, though it may sometimes be recovered from, not unfrequently persists for the remainder of the patient's life. . . . Urethral dilatation should, therefore, in my opinion, be only practised in cases where the stone is of small size. To fix a maximum, I would say, in an adult not larger, certainly, than an acorn; and in a child, not larger than a horse-bean." On the other hand, Dr. Humphry (b) says:—"It is astonishing how wide the urethra may be dilated without tearing, if only sufficient time be allowed; and when it is torn in the extraction of very large calculi, it very soon recovers, and the patient is able to retain the urine." And a little further on:—"From a girl, aged 4, I extracted by the same process (dilatation of the urethra by means of small catgut bougies added one after another as the canal enlarges) a stone weighing three drachms and a half; from another, aged 5, a stone weighing two drachms; and from a third, aged 12, a rough stone weighing an ounce and a drachm, measuring in its smallest circumference three inches and three-quarters, and in its largest four inches and a half. They all recovered quickly and completely."

It is unfortunate that this question cannot be finally set at rest. Of course, every Surgeon would be anxious to avail himself of so simple a method as dilatation if it were proved he might safely do so; while, on the other hand, if dilatation is unsafe, those who practise it are exposing their patients to the risk of being afterwards placed in a most miserable condition, which, at present, at all events, Surgery is wholly unable to relieve.

It should be remembered that those who determine not to depend on dilatation are obliged to resort to operations which are open to serious objections. Some are by no means without danger to life, while others fail in the very particular upon which the dilatation method is condemned,—patients sometimes suffering subsequently from incontinence. Indeed, the unsatisfactory position of cutting operations may be estimated by the fact that some of the highest authorities have recommended the formidable supra-pubic as the best that can be performed. In a paper (published in the last volume of the Medico-Chirurgical *Transactions*) in which the results of a large number of cases treated in different ways are tabulated, Mr. Bryant strongly recommends *rapid* urethral dilatation, with the patient under chloroform, as the safest and most expeditious method of operating; "for calculi one inch in diameter in children, and even two inches in adults, have been safely extracted by this practice."

The two following cases are related as a contribution to the data from which a final opinion may hereafter be formed; as such, they are of value, as in both the stone was of large size, and recovery was rapid and complete:—

Case 1.—M. B., a healthy girl, 5 years old, was admitted into the Hospital for Sick Children on April 22, under the care of Mr. Smith. Her mother stated that micturition had been painful and over-frequent for about six months, and she had noticed latterly that the child was in the habit of putting the finger into the vagina "to push back the stone" before the bladder could be emptied. The stone was readily struck with the sound, and could be plainly felt through the rectum. It was removed on May 2. During its extraction it was necessary, after the urethra had been dilated as far as appeared safe, to obtain more space. This was done by partially dividing the inferior wall of the canal, and, as the stone was too large to pass the external parts, by dividing the anterior part of the perineum to the requisite extent. The slight swelling that followed the operation soon subsided, the urine was passed naturally within two days, and the child left the Hospital quite well on May 7. The measurements of the stone were: length, $1\frac{3}{8}$ inch; breadth, $1\frac{1}{8}$ inch; circumference, $2\frac{3}{8}$ inches.

Case 2.—M. R., aged 35, placed herself under the care of Mr. Dingley, of Argyle-square, having a swelling occupying the right lumbar and iliac regions of the abdomen, distinctly fluctuating, and appearing to be a collection of matter which had formed during an attack of pelvic cellulitis, from which she had suffered after her confinement a few weeks previously. When she had been a few days under treatment, she passed from the bladder a very large quantity of puriform fluid, and it was then found that the swelling referred to had subsided. She now became subject to frequent micturition and other symptoms of stone in the bladder, and upon sounding her two stones were readily detected. These were extracted by Mr. Dingley after rapid dilatation of the urethra under chloroform. The larger measured $2\frac{3}{8}$ inches in circumference and 1 inch in length; the smaller $1\frac{5}{8}$ inch in circumference and $1\frac{5}{8}$ inch in length. The patient was able to pass urine naturally within two days of the operation, and subsequently remained quite well. It was concluded that the swelling had consisted of the kidney dilated by the impaction in its pelvis of the calculi, which afterwards passed down the ureter into the bladder.

(a) *Lancet*, January 17, 1863, p. 58.
(b) *Ibid.*, July 30 1864, p. 115.

THE METROPOLITAN FREE HOSPITAL.

VASCULAR CORNEA AND GRANULAR LIDS OF NINE YEARS' STANDING—CURE BY PURULENT INOCULATION AFTER PERITOMY.

(Under the care of Mr. HUTCHINSON.)

The following narrative records the result of somewhat dangerous measures against a most intractable disease. The patient was a poor Irish girl, in rather feeble health, who for nine years had had her life made miserable by persistent ophthalmia, with granular lids and vascular corneæ. She had been for long periods under treatment at several of the principal Hospitals, and her temples were scarred by setons which had been kept in for months without benefit. Mr. Hutchinson remarked, when the girl was admitted, that if inoculation were suited for any cases this was certainly one for it, the corneæ being completely covered by vessels. He drew attention to the fact that it was in these cases that the measure was comparatively without risk—precisely the cases most needing it being those in which it could be done with impunity. The more vascular the cornea the greater the probability that no sloughing would follow, and *vice versâ*. In well-selected cases he had scarcely ever seen any harm result. Recently, it had been the practice not unfrequently to perform circumcision of the conjunctiva first, and then to inoculate a few weeks afterwards; and this was the plan he proposed to adopt. The following are the notes of the case:—

June 8, 1865.—B. S., aged 15, came to-day to report her condition, she having been discharged about nine months ago, and not seen since. It is just a year since her admission. She had then suffered from granular lids and vascular corneæ for nine years, and was only able to see the largest objects. She had been treated at various Hospitals and with great variety of treatment. A week after her admission Mr. Hut-

chinson performed circumcision, removing a broad belt of conjunctiva around each cornea, and being very careful to clear away every trace of tissue down to the sclerotic. About six weeks later but little benefit was apparent. Both eyes were now inoculated from those of an infant suffering from purulent ophthalmia in a moderately severe form. A fairly acute attack of purulent inflammation resulted, which was allowed to run its course, free ablutions only being resorted to. When the ophthalmia was subsiding a weak alum lotion was used. She left the Hospital three months after her admission. At present date, a year after operation, both corneæ are clear, with the exception of a degree of haze so slight that it requires very careful examination to detect it. There is no vascularity of the conjunctivæ, and the granulations under the lids have entirely disappeared. She can see perfectly. The eyes are at times a little irritable. The belt from which the conjunctiva was removed has been so perfectly restored that it is almost beyond belief that such an operation was ever performed.

THE LONDON HOSPITAL.

TUMOUR AT THE BASE OF THE BRAIN—DEATH—AUTOPSY—CLINICAL REMARKS.

(Under the care of Dr. HUGHLINGS JACKSON.)

This patient's case must be thought of chiefly as an assemblage of symptoms, and is altogether of more physiological than of pathological interest.

He had the form of amaurosis which we often meet with in diseases of the nervous system, viz., that consequent on inflammation of the optic nerves. Indeed, having now seen this kind of amaurosis very often, I should from it alone, if it were on both sides, diagnose intracranial disease. In this case it was the first symptom which drew my attention to the serious nature of the patient's complaint. After the autopsy I had no doubt but that the deafness had been really the first symptom; but the date of this was uncertain. Besides, we know far less about deafness as a symptom than we do about amaurosis, and therefore it is less of a warning. The marked changes in the eye in this case were great, considering the slight defect of sight the patient had at first.

In the above remarks I have used the loose term "intracranial" disease advisedly, as this kind of amaurosis appears to result from disease of almost any part within the head. For this reason, the manner of the causation of optic neuritis must not be discussed here, but after a consideration of many more cases. It is worthy of most careful attention that this patient had never had severe headache nor urgent vomiting—two things which so often attend optic neuritis.

The existence of spasm of the right side of the face is with difficulty accounted for, as the whole of the disease was on the left side. It may possibly have been due to irritation of the left fifth nerve; for Graefe has recently found that a form of spasm of the face depends on irritation of one or other of the sensory branches of the fifth, and that it is curable by division of the offending branch. The kind of spasm, however, to which he alludes is different—viz., histrionic spasm, and the branch of the fifth at fault is on the same side as the spasm, yet the manner of causation may, perhaps, be similar.

Then it is even more remarkable that there was no paralysis of the facial on the left side. This I cannot understand. The simplest explanation for the reader is, that I overlooked it; but I am confident that I did not, as I examined the parts supplied by each cranial nerve in detail.

In trying to put the symptoms of a cerebral case in order for diagnosis, we sometimes account for a local paralysis by supposing pressure direct or indirect on a nerve trunk. Now, in this case, although the fifth nerve was flattened, there was no affection of parts in its distribution. It is quite certain that we sometimes do get paralysis of nerves from pressure, and equally certain that we sometimes do not, even when the pressure appears to be considerable. This apparent contradiction admits of explanation. There is reason to believe that when pressure is very gradual nerve tissue bears it well, but that it does not accommodate itself to sudden encroachment. Had my patient lived longer, however, the pressure would doubtless at length have become extreme enough to have paralysed the nerve. I have (the day I write these remarks) made an autopsy on the body of a child, five months old, how died of hydrocephalus. There had been paralysis of the portio dura on the right side for at least one month, and on the left side for about two weeks before death. I found the facial nerves much elongated, and stretched on the walls of a bag of fluid situated at the base of the brain, and chiefly in the cerebellar fossa. Here the pressure must have been long exerted, for the child was hydrocephalic from birth, and yet very gradual, as it was by fluid. The case illustrates how much pressure nerve trunks will bear, and also that after extreme stretching they will become paralysed. Both cases taken together show how vague our diagnosis of cerebral tumours must still be until we have more certain evidence as to effect of local pressure on nerves and nerve centres. Probably the chief element to be taken into consideration in considering the effect of pressure is the rapidity with which it is exerted.

This case had also an interest to me in connexion with cases of locomotor ataxy then under my care. But the walk was different, and the ophthalmoscopical signs were different to those I have found in the amaurosis of ataxic patients. Amaurosis is a recognised complication of ataxy just as paralysis of the third nerve is. In what follows, however, I exclude this disease from consideration, as I shall shortly take an opportunity of speaking more in detail on it, and on the form of amaurosis which sometimes complicates it.

We all know how well a blind man can walk, but in some cases of amaurosis (I repeat I am now excluding locomotor ataxy), the patient walks badly. There are many causes for this. In some there seems to be real but partial paraplegia, and in others an inability to walk, although the legs appear to be strong, and although sometimes the patient can walk by the very slightest aid.

After a patient has become blind from neuritis he may ordinarily walk well, and yet sometimes he falls down suddenly or drags his legs occasionally. I do not say that this only follows amaurosis from neuritis. I merely mention the circumstances under which I have met with this kind of walking. In one case, from the blindness and from the hydrocephalus the patient had, I diagnosed disease of the vermiform process of the cerebellum. Whether this is correct or not, I cannot, of course, be sure, but from these symptoms I have known Dr. Gull correctly predict disease of this part of the nervous system. I by no means think, however, that the patient walked badly because the cerebellum was diseased,, but probably because the disease had involved also the neighbouring parts of the motor tract. In the following instance the left cerebellar hemisphere was smaller than the right, and the tumour grew from a small part of it. But to call it a case of disease of the cerebellum without qualification would lead to mistakes. Dr. Brown-Séquard does not believe that the cerebellum is the seat of the faculty of muscular co-ordination. He does not deny that defective co-ordination often co-exists with disease of the cerebellum, but denies that it is due to disease of that part. For although we have disorder of motion with disease of the cerebellum, this part may be much altered without any such disorder. The disease which involves the cerebellum frequently injures other parts near it. Now, it is easy to show experimentally, on pigeons, that an injury to the hemispheres of the cerebellum gives rise to defective co-ordination of movements. This is not the effect of the operation, as removal of a great part of the cerebral hemispheres—a more severe operation—produces no such defect. But the fact that when a pigeon, after removal of part of its cerebellum, recovers from the operation it regains power of co-ordination, shows that the mere absence of this part does not disorder movement. Dr. Brown-Séquard thinks that the motor defects which do occasionally attend disease of the cerebellum are owing to secondary affection of the motor tract near it. My patient's "tumbling about" was doubtless due to the pressure of the tumour on the pons, crus cerebri, and crus cerebelli.

I will now mention another case belonging to the same general category, but presenting certain individual peculiarities.

I have now had under my observation an amaurotic patient for four years, who has a singular difficulty in walking, and the amaurosis is very remarkable in this, that there are no ophthalmoscopical changes. The patient, four years ago, had the well-known series of symptoms—headache, vomiting, etc.—so often attending optic neuritis, after which she was quite blind, and her legs were, I do not say weak, but partly incapable. This patient cannot stand alone, and yet by the slightest assistance, by far too little to give her more than guiding power, she can walk several miles. And what is very noteworthy, she then appears to walk quite well. When sitting the legs appear strong, as she can resist extension

and flexion well, and can kick vigorously, and there is no loss of sensation. A suspicion of hysteria has occurred to me, but I feel bound to reject this lazy diagnosis, as the patient was only eleven years of age when the disease began, and, besides, there is a clear and circumstantial account of acute cerebral disease at the onset. I find by my notes that she walks just as she did three years ago, apparently neither better nor worse. Where the disease in this girl's case may be, I do not venture to give any opinion. The patient does not reel in walking, but as she cannot even stand by herself, it is impossible to try her way of walking alone. I mention these cases with the hope that Ophthalmic Surgeons and Physicians may work together in an inquiry of great scientific interest, as well as of great importance to our patients.

In a future communication on "Amaurosis in Locomotor Ataxy," I hope to show that there are great advantages in thus combining our efforts in one direction.

September 23, 1864, a man, 47 years of age, came to the Hospital for giddiness, and he mentioned, as if incidentally, that his sight was bad. I therefore examined the eyes with the ophthalmoscope, and found that he had considerable disease of each optic nerve. The discs were not to be recognised except by the convergence of the veins. The arteries were not to be traced. About three times the diameter of a normal disc was a patch of a reddish-white colour, in which the veins seemed partly to pass. On and around this patch were distinct dots of blood.

The patient, however, said that he could read, and he did read to me the smallest type I had with me—viz., about small pica (No. 8 of Jaeger). He said he read the newspaper every day.

He had walked to the Hospital, but did not walk very well. Still there was no marked paralysis anywhere; but he said the right leg was a little weaker than the left. He had twice fallen down. In the out-patients' room he seemed to walk pretty well.

When the giddiness came on (and it only came on when walking), he felt, he said, as if he should fall forwards if he did not rest himself against something. These attacks of giddiness occurred three or four times a-day. They appeared to begin, he said, at the back of the head. When he shut his eyes he could stand, and even walk; but he had great difficulty in doing so. But he did not at all walk like an ataxic patient. He had never had any pains in his legs.

There were two other local symptoms—viz., deafness on the left side, and attacks of spasm of the face on the right side. I saw the spasm myself, and am certain it was on the right side, as whilst it lasted it prevented my examining his right eye. It only lasted about a minute, and was a continuous drawing up of the cheek and a continuous closure of the eye. It was not the spasmodic tic of Marshall Hall, nor what is called histrionic spasm.

He confessed to having been a very drunken man, but said he had never had syphilis. He had no cardiac disease, and his urine was free from albumen.

I saw no more of him until November 26. He was then in the Bancroft-row Workhouse, under the care of Mr. Stephenson, to whom I am under great obligations for much help in investigating the case. The patient was then absolutely blind. I could now find the edge of the optic nerve, or rather its general position, as its edge was obscured in a gradual shading off into the fundus. The discs looked white, and seemed as if raised. There were no arteries visible, and the veins were exceedingly irregular. The fundus looked normal in general, but within about the distance of twice the diameter of the dise from its centre were recent effusions of blood, varying in size from a pin's head to four times that size.

He said that three weeks ago his sight began to get much worse, and that rather suddenly. As it failed after my ophthalmoscopic examination, he fancied it failed in consequence. He then began "to tumble about." He said, too, that he had had occasional sudden jerks in the arm, which threw him down; and he added, "they must have been in my legs too, as they threw me down." He had also had pain in his legs, of which I could get no more precise description than that it was a cramp, which came on suddenly and made him stumble.

I saw him again December 1, and then went carefully over the physiology of his nervous system, according to a written scheme I use. There was then no affection of any cranial nerve, except what was inferred from the deafness of the left ear. I may mention particularly that the right side of the face was normal. The deafness he had had, he said, four or five years. It followed an injury to the head; but this history is doubtful, especially as he himself was then drinking hard, and knew nothing of it at the time.

At this visit he was lying in bed; but his arms were strong, and besides he could perform small actions—*e.g.*, he buttoned his shirt readily. For the last day or two, however, he had had shakings of the left hand, and it was a little weaker than the right. There was certainly great loss of power in his legs, although when well supported he could walk. He had, however, to lean heavily on some one in front of him, and without help could not stand. He moved his legs quietly, not throwing them about in the least. He could stamp strongly, and could kick out his legs in bed. There was no loss of sensation in his arms or legs. This I tried carefully in several ways, including the use of the compasses.

I saw him no more; but I learned from Mr. Stephenson that he died suddenly on February 23, whilst getting his breakfast. Except that he had incontinence of urine and fæces, no change in the symptoms were noted.

Two symptoms were absent which we often find with the form of amaurosis this patient had—viz., vomiting and headache.

The autopsy was performed by Mr. Stephenson and by Mr. Mackenzie. The brain and spinal cord were removed, and were sent to me.

At the base by the left side of the pons there was a tumour. This side of the pons was much flattened, but all the nerves except the seventh pair were free from it. The fifth nerve passed betwixt it and the side of the pons, and was flattened, but otherwise looked quite normal. The portio dura at its origin looked normal. It passed betwixt the side of the pons and the tumour for a little way, and then its fibres seemed to spread themselves a little and to run into the mass or to be lost upon it.

The tumour was of the size of a large walnut, and was irregularly nodose, and firm, and elastic. Its section was of a rather dirty white, and looked semi-translucent, and at some points specked with red. Under the microscope there were seen free cells, nuclei, fibrillating tissue, and oil and fat globules in immense quantity.

As stated, it had flattened the side of the pons, and it seemed to have pushed back the cerebellum, with which above it was connected. It covered the crus cerebelli, and flattened it. It could be easily turned out of its position, except that to its fore part it grew from the piece of the cerebellum which in the normal situation is seen as if passing to the under part of the pons below the origin of the fifth nerve. And to this part it was apparently only attached by the membranes. It had cleared a space for itself by pressing forwards the cerebrum, and backwards the cerebellum, by flattening the side of the pons, the crus cerebelli, and crus cerebri. The optic tract was not uncovered, and the corpora quadrigemina were apparently unaltered. The only other points of importance were that (besides being pushed back) the corresponding lobe of the cerebellum was smaller than its fellow, and that the left optic thalamus appeared to be somewhat less across than the right.

K.C.B.—At the investiture of the Most Honourable Order of the Bath, held on Thursday, June 8, at St. James's Palace by H.R.H. the Prince of Wales in behalf of her Majesty, the following Knights Commander of the Order were invested by his Royal Highness with the Riband, Badge, and Star of the Military Division of the Second Class of the Order:—Sir James Brown Gibson, Director-General of the Army Medical Department; and Inspector-General of Hospitals Sir William Linton.

SHREWSBURY.—Mr. H. Robertson having issued an address announcing his intention not to claim the suffrages of the electors at the next election, Mr. William J. Clement, a Surgeon, has offered himself as a candidate. He appeals to his Professional brethren for assistance in electing one of themselves. The army and navy, the law and the Church, are well represented in Parliament, but the Medical Profession has only one advocate in the present House of Commons. If some Medical men had been in Parliament, they would not have seen such unsatisfactory and useless legislation on that very important subject, the public health. He will advocate those principles of civil and religious liberty and commercial freedom which have secured for the people their present great happiness and prosperity. He will give Lord Palmerston's Administration a cordial, but independent, support.

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Medical Times and Gazette.

SATURDAY, JUNE 17.

THE PROFESSION AND THE GOVERNMENT.

In a recent article we took occasion to set before the Medical Practitioners of this country what we believe to be their political duties. We endeavoured to enforce the truth that the Profession has not only interests to protect, rights to be secured, and wrongs to be redressed, but that it is powerful enough to make its voice heard in the councils of the nation, and to enforce its just demands on Government, however reluctant to interpose on its behalf. As then, we now disclaim all political partisanship, and we wish our readers to do the same, except insomuch that they unite to form a party with the single end and aim of securing from the Ministry of the day that recognition which is due to the Profession they represent.

Had we wanted incidents to point our moral or give weight to our argument, they would have been supplied by the late debates in Parliament. Our readers are already aware of the manner in which the claims of Naval Medical Officers have been set aside in the Greenwich Hospital Bill. We cannot congratulate them upon any success having attended the efforts of Mr. Hennessy and Sir John Pakington to pledge the Administration to a fair distribution of good-service pensions to Naval Medical men. As usual, the interests of the Medical officers were tossed aside with the most supreme indifference by Naval Secretaries and Lords of the Admiralty. Had this question concerned practitioners of the law, that Profession is far too well represented in the House to allow us to doubt that every point would have been discussed with the most decorous attention, and a sincere desire on the part of Government to secure the support of the crowd of lawyers who are looking to a seat in the House of Commons as a necessary step in their Professional career; but, as it only affected the "Doctors," Her Majesty's advisers are far too discriminating to waste justice on people from whom they believe they have nothing to gain and as little to fear. With regard to the incidents of the debate, our readers will observe that Mr. Hennessy appears to have allowed himself to be foiled by the explanation given by Mr. Childers of Clause 5 of the Bill, in which the word "officers" is said to be used in a general sense, and that he withdrew prematurely, as the result showed, his amendment. The House, however, was well aware that in the Admiralty scheme for the division of these pensions Medical officers were conspicuous by their absence, and if either Mr. Hennessy or any other member of the House were inclined to be hoodwinked on this point by the bland assurances of Mr. Childers they were soon undeceived by Lord C. Paget, who with a pleasant touch of irony, after Mr. Hennessy's amendment had been withdrawn, expressed a hope that the hon. member had not withdrawn it in the belief that Medical officers would obtain any of the pensions, for really there was not the least chance of their getting anything of the kind. We strongly recommend Lord C. Paget to the consideration of the Physicians and Surgeons of Deal and Sandwich as a Naval Lord whose animus against the Medical Officers has been peculiarly conspicuous during his tenure of office. We regret that neither Dr. Brady nor Mr. Hennessy were in their places on Tuesday morning, when the Bill was again before the Committee, as even then there might have been a chance of reopening the subject.

Mr. Villiers's tone in replying to Mr. Neate on the subject of Poor-law reform, gives us but little hope that the opportunity which the Poor-law Continuance Bill affords will be taken for the purpose of introducing the smallest modicum of Poor-law Medical reform. Before the second reading of the bill a very temperate letter was addressed to every member of the House of Commons by the champion of the Poor-law Medical officers, Mr. Griffin. That letter fully exposes the inequality and insufficiency of the present rate of remunerating Medical men engaged in Union practice, and points out the fallacies on which many of the assertions made in the Report of the Select Committee on poor relief are based. We have no expectation, however, that the Government will be moved even by this appeal. Until there is in the House a compact phalanx of members, some of them Medical men, and all pledged to forward the claims of the Medical body, we have no hope of redress. The coming election offers another opportunity for the Profession to assert their power. We are glad to see that there are other Medical candidates in the field besides those we mentioned in a former article. Mr. Coulson is spoken of for one of the divisions of the county of Cornwall, and Mr. Clement has announced his intention of contesting Shrewsbury expressly in the interests of the Medical Profession.

We hope, therefore, that the new House of Commons will number more Physicians and Surgeons amongst its members than the last; but every member of our Profession can do something to make his voice heard there. No body possesses more influence over the enfranchised classes than the Medical; and if that influence is once exerted in behalf of the Profession, it will be suicidal for any Government to refuse to do them justice.

SEA-BATHING AND SEA AIR.

The appearance of a translation by Dr. Strange of an agreeably-written book on Sea Air and Sea-bathing, by Dr. Brochard,(a) induces us to make some observations on a matter of national importance. Speaking from our personal experience, we are not merely struck, but appalled, at the degeneracy of our town populations—a degeneracy which must increase as the towns increase. Let the wind blow from what quarter it may, it has to pass over miles of brickfields, of newly built villas, and of older dusty streets and roads, before it reaches the lungs of the central inhabitants of London. The smoke from thousands of chimneys darkens the sky; *blacks* fly in at every open window, and render cleanliness impossible, and oxygen in vain tries to bring a bloom upon cheeks when lost in that mixture of smoke, sewer vapour, pounded road-grit, and dried horse dung which constitutes the perfection of London air. We seem to have attained for the present the climax of healthiness in London. Zymotic diseases are repressed, doubtless, by the cesspool extirpating, and pipe draining, and whitewashing operations of Boards of Health; but there remains a greater and increasing evil,—a population pale, stunted, fragile; children losing teeth early; young women unable to suckle their babes; and all this too often fostered by well-meant but most ignorant efforts at improve-

(a) Sea Air and Sea-bathing for Children and Invalids. By M. le Dr. Brochard. Translated and edited by William Strange, M.D. London: Longman and Co. 1865. Pp. 190.

ment—the gathering together of children sweltering in crowded schools, breathing the emanations of their dirty skins and clothes, and undergoing a training which developes the brain at the expense of the muscles. These evils are clearly recognised by Monsieur Brochard, on the other side of the Channel. His work is a protest against the town-rearing and brain-forcing of children. Medical Practitioners of large towns, he tells us, complain that all the children of the present generation are drenched with anti-scorbutic syrups, cod-liver oil, and iodine, in a hundred forms. Excessive school-work for the better class of children, factory-work for the lower, anxiety of mind and close air for the clerk and shopkeeper, and dissipation for the class above them, all tend to nutritive decay; and for all these evils sea air and sea-bathing are recommended as the real antidotes.

The choice of a bathing place should always be left to the Physician, who will decide whether the agencies of heat and sun-light, or of a cooler and more bracing climate, are preferable. Dr. Brochard and his translator call attention to the great importance of sun-heat and light as sources of renovated vitality; and they advocate warm rather than cool bathing places. On this point their experience does not concur with ours, and we suspect the real way of expressing the truth to be—*some*, not *all*, warm sea-side places are better than some cool ones. But, most assuredly, the Practitioner will be disappointed if he recommends any bathing place indiscriminately. We have known patients who have passed weeks at some "relaxing" places in the Isle of Wight and Devonshire, who never knew what it was to eat with an appetite all the while they were there, and who came back worse than they went. *Certes*, for dark, bilious children, and for adults sallow and dyspeptic, commend us to the bracing air of our eastern coast. Moreover, neither author nor translator appear aware of the lateness to which sea-bathing may be carried on, especially in fine autumns. It seldom need be given up till the middle of November.

Nevertheless, we believe the essential to be, a free, gently-moving, and constant current of pure sea air, and that where this exists, few bathing places will disagree.

The picture which M. Brochard gives of La Tremblade, a bathing place on the western coast of Gascony, opposite the isle of Oleron, is very tempting. A firm, sandy beach, of easy incline, and extensive sandy downs inland, clothed with pine forests; what can be more desirable? Cliffs, rocks, boulders, and pebbly beaches are decidedly less safe. On such a sandy beach children, clad as slightly as serves for decency, should be allowed to paddle about all day. Such house accommodation suffices as will shelter from the occasional bad weather during the summer months; hard mattresses for night and for a mid-day snooze—(for this, after the manner of our Anglo-Saxon ancestors, we hold to be indispensable to delicate persons much out of doors in hot weather)—plain food, abundant and varied, and including milk and vegetables, are all that is needed.

We may then ask, whether, amongst the philanthropic and sanitary schemes of the day, it would not be possible to establish sea-side summer colonies for town children? Is there any accessible part of the coast with a sandy beach where it would be possible to raise up a set of shantics, or boxes, for the rough accommodation at easy rates of some of these poor children now pining in the hot smoky air of large towns? We strongly commend the various Sea-bathing Infirmaries at Margate, Brighton, and Hastings; but we want something for those who are not yet serofulous—prevention rather than cure.

THE Royal Academy of Medicine of Belgium and the Society of Medical and Natural Sciences of Brussels have nominated Dr. Edwin Lee as corresponding member.

MODERN DERMATOLOGY.—No. VII.

MODERN dermatologists have not succeeded in throwing much light on the pathology of that curious malady herpes zoster. The popular notion to which Pliny referred when he stated "Zoster appelatur, et enecat, si cinxerit," remains a popular belief still, and it does very rarely attack both sides of the body; but we think Mr. Wilson goes too far when he asserts that "it has never been known to attack the two sides of the trunk at the same time." Our impression is, that cases are recorded, and that lately, in the Medical journals, of the eruption appearing at once on both sides; we need hardly add that they were not fatal. But dermatologists are at variance as to whether it is a blood disease or a neurose. Mr. Jonathan Hutchinson read a paper on the malady at the Hunterian Society in February, 1863, in which, from an analysis of some seventy cases, he drew, we believe, the following conclusions:—"That it may occur at any age and in either sex; that it is not associated with any special form of ill-health; that it is non-contagious; that it rarely occurs more than once in the same person; that the eruption is never symmetrical, and always follows the course of a sensitive nerve; that it occurs, without preference, on either side of the body; that it cannot be produced by artificial irritation of the nerve-trunks; that certain special nerves are much more liable to be affected than others (viz., the third and fourth dorsal); and that it runs a definite course." If the malady is an exanthem, how explain the facts that it is unsymmetrical, non-contagious, and local? if it is a neurosis, why does it so rarely attack the same person twice—why can it not be produced artificially, by irritation of the nerves?

Von Barensprung (*Med. Chir. Rev.*, Jan., 1863) considers that it is due to an irritation of the special ganglia. But none of the hypotheses yet proposed will explain all the characters of the disorder.

Of the treatment we need not say anything; it is a severe affection only in the cachectic or the aged, and then quinine or arsenic internally, with sometimes opiates and belladonna, or chloroform, or the use of morphia hypodermically, will cure it. Prurigo is generally associated, at least, with dirt and cachexia. Romberg considered that it is an hyperæsthesia, the papulæ being secondary formations, the result of the pruritus. Barensprung holds that it is primarily an affection of the papillæ, the pruritus being secondary. It has long been known that it is sometimes caused by the presence of lice, and nearly all modern writers on skin diseases describe a prurigo pedicularis, or morbus pedicularis, but Dr. Balmanno Squire holds that the great mass of the cases of prurigo "is constituted by the form commonly known as prurigo senilis; that this disease is contagious; that it is in every case accompanied by the presence of the pediculus corporis, which is the invariable and essential cause of the disease, and not an accidental and only occasional complication of it; that in no case is the disease dependant either on derangements of the digestive organs or on hyperæsthesia of the skin; that the disease has hitherto been thought inveterate and most obstinate to treatment, merely because its cause has not been apprehended; and that it is one of the most easily remediable of diseases if means be taken to destroy efficiently the parasite." To effectually and thoroughly destroy the parasite requires, however, not a little care and attention, as the following case quoted by Dr. Frazer well shows:—"A gentleman of great practical experience had personally to superintend the toilet of an elderly female before he could discover the persistent cause of their presence (the pediculi); her hair was closely shaved, she had taken frequent warm baths, and changed her clothes repeatedly, yet the insects continued to make their appearance in numbers. After having all the ordinary garments removed, an old rupture-belt became visible, which had remained undisturbed on her as a fixture for years; its abstrac-

tion destroyed the headquarters" of the insects, and resulted in their permanent disappearance.

We fear, however, that it must be allowed that some forms of local prurigo, even in elderly persons, seem to be really due to hyperæsthesia, and that they are extremely obstinate, though arsenic will often in such cases prove of great value. Dr. Frazer relates a case of prurigo of the pudenda in a woman, about 50 years of age, which resisted every kind of treatment, general and local, and caused such misery that the patient committed suicide; happily a very rare result of skin disease, in our country at least. In this case no trace of papulæ or any other eruption could be discovered either before or after death.

It may, however, be doubted whether a disease which consists only of intense itching, without any papules, can be rightly termed prurigo; it had better, perhaps, be called simply pruritus. In prurigo formicans or senilis the suffering is often very severe, and, as Dr. Hillier remarks, has "been compared by different patients to hot needles piercing the skin, to the stings of a thousand insects, or to burning coals;" or, as Mr. Wilson says, "An abbé suffering from this complaint finds his illustration in martyrdom, in the 'gril de St. Laurent;' while a soldier compares his pains to being pierced all over with halberds." The amount of suffering produced appears to depend much on the temperament of the patient, the same degree of irritation producing very different degrees of suffering in different people; and in some it is very intense, so as to induce extreme melancholy. It seems probable, however, that the attention excited to the presence of pediculi as a cause will lead to the disease being much more manageable than it has been found to be hitherto. Dr. Hillier says:—"Since my attention has been directed to this point, I have very rarely failed to find these creatures in the folds of the shirt, or on the flannel vest. Of fifty-one cases under my care in the Hospital, the pediculus has been met with in thirty-five cases; in at least seven, no careful examination was instituted, and in several others clean linen had just been put on; so that the pediculi, if any existed, were left at home." So that his opinion comes to very nearly the same as Dr. Balmanno Squire's. If the neck, shoulders, loins, and thighs are the parts chiefly affected, it is especially probable that pediculi are the cause of the disease, the dress, the habitat of the insect, fitting most closely there. Prurigo podicis, or pruritus ani, often depends on the existence of ascarides, or on congestion of the portal circulation; and podophyllin had been found very useful. Impetigo capitis may also depend on the presence of the pediculus capitis. Dr. B. Squire asserts that "Impetigo of the scalp of constitutional origin always affects the anterior half of the scalp more severely than the posterior half; that there is another form of impetigo of the scalp depending entirely on the irritation of the pediculus capitis; that the latter form always affects the posterior half of the scalp more severely than the anterior half, and assumes usually the character of impetigo granulata, whereas the former appears most commonly in the shape of impetigo figurata." It is to be remembered also that prurigo, impetigo, and eczema may be caused by the presence of the sarcoptes hominis—the itch insect.

Hebra has some remarks on pustular affections of the skin well worthy of notice. He says "Pustular diseases of the skin described by authors under the name of impetigo, ecthyma, porrigo, etc., do not exist as essential diseases; they are merely accidental to, or the consequences of, other skin diseases, which are recognisable by other signs than those of pustular eruptions, and generally, indeed, before the pustular eruption appears. Consequently, in dealing with pustules of the skin, our business is not to trouble ourselves about the size, form, and number of the pustules, but to learn what that particular disease is which preceded the pustular eruption. We must remember that a large number of pustular diseases are produced by local irritation, and should, therefore, in the first place search for traces of scabies, of prurigo, of pediculi, etc. . . . The words impetigo and ecthyma should be either banished from medicine, or they should be used simply as generic terms, to indicate the presence of a large number of pustules. They represent no distinct diseases."

THE WEEK.

THE COLLEGE OF SURGEONS' ELECTION.

All the Professional friends and correspondents whom we have conferred with are pleased to learn that Mr. Charles Hawkins and Mr. Turner, of Manchester, intend to persevere in offering themselves as candidates for the Council of the College of Surgeons. Other names there are, of Hospital Surgeons of the highest repute, and never to be mentioned without respect, higher, too, in the lists, which will, it is now said, be brought forward. If this were a mere personal matter, those gentlemen should have that precedence which they lately declined. But it is not. It is not a question of nice etiquette, as to who shall sit in a certain seat, but of the entire policy and constitution of a body on which hangs much of the character and usefulness of the Surgical Practitioner—and all that hangs on that! If, therefore, for personal reasons, however admirable, any gentlemen declined to be nominated in their turn, it will not be a slight to them, but rather the contrary, if they are passed over for this time, and a preference given to the men who came forward willingly to fight the battle of the Profession.

PARLIAMENTARY. — VOTES FOR SCIENTIFIC INSTITUTIONS AND HOSPITALS—THE GREENWICH HOSPITAL BILL—PENSIONS FOR NAVAL MEDICAL OFFICERS—ACCIDENTS ON RAILWAYS—THE BRITISH MUSEUM ESTIMATE—THE UNION CHARGEABILITY BILL—THE POOR-LAW CONTINUANCE BILL.

In the House of Commons, on Thursday, June 8, in Committee of Supply, the following votes were agreed to:—£4059 for Magnetic and Meteorological Observations; £500 for the Royal Geographical Society; £1000 for the Royal Society; £2272 to defray the charge for Public Infirmaries, Ireland; £1600 to complete the sum voted for the Westmoreland Lock Hospital, Dublin; £700 to defray the charge for the Rotunda Lying-in Hospital; £200 for the Combe Lying-in Hospital; £5600 to complete the sum for the Hospitals of the House of Industry; £1500 to complete the sum for the Cork-street Fever Hospital; £600 for the Meath Hospital; £100 for St. Mark's Ophthalmic Hospital; £300 to complete the sum for Dr. Steeven's Hospital; £245 for Board of Superintendence of Dublin Hospitals.

The House went into Committee on the Greenwich Hospital Bill.

On Clause 5,

Mr. Hennessy said that he had an amendment to propose. This clause provided that pensions should be granted to "officers," but from a report signed by the Junior Lord of the Admiralty, which had been presented to the House, it appeared that according to the interpretation placed upon it by the Government, the term "officers" did not include Medical officers or chaplains. Chaplains were dealt with by a subsequent clause, and therefore Medical officers were the only class of officers who were excluded from the benefits of this Bill. This was the more unjust because the Commissioners who inquired into the state of Greenwich Hospital reported that the only part of the establishment which required no reform was that which was under the control of the Medical staff. The hon. member concluded by moving as an amendment that in Clause 5, line 12, after the word "officers," the words "Medical officers" be inserted.

Mr. Childers could not consent to the proposed amendment, as, in the first place, the words proposed to be inserted were superfluous, the word "officers" including Medical officers; and, in the second place, because the Medical officers not being deprived of any advantage by the scheme, were not entitled to any benefit from it.

Sir J. Pakington thought that engineers as well as Medical officers were entitled to participate in the benefits of the

scheme. The Bill was most indistinctly worded, and the paper which had been laid before the House for the purpose of explaining the Bill omitted the two classes of officers from the list of those who were to share in the benefits of the charity.

Mr. Moore inquired whether the Medical officers were to be excluded from sharing in the advantages of the Hospital.

Mr. Childers said they were to be included in the general word "officers." There would be two occasions annually when the matter could be discussed. In the first place, when the Orders of Council in reference to the Hospital were laid upon the table, and, secondly, when the vote in aid of the Hospital was proposed.

Mr. C. Berkeley remarked that the Marine officers were not included in the list of those entitled to participate in the benefits of the Hospital.

Sir F. Kelly said the Marine officers were expressly included in that list, while the Medical officers were as expressly excluded from it. Notwithstanding the assurance the hon. gentleman had given them that Medical officers were included in the general word "officers," some hon. gentlemen had doubts on the subject which might easily be removed by the two or three words necessary being inserted in the interpretation clause.

Mr. Childers would take care that the wishes of the hon. and learned member should receive attention.

Mr. Hennessy wished to know exactly in what position the Medical officers were to stand, as the only paper purporting to give a list of those who were to share in the advantages of the Hospital expressly excluded Medical officers.

Mr. Ayrton trusted the Admiralty would not extend the benefits of the Hospital Fund to any class of persons not entitled to participate in it. The charity was founded for the relief of seamen, and not for the benefit of officers of any denomination.

Sir J. Hay thought the matter would be much complicated by interpolating the words "Medical officers," those officers being included in the general term "officers."

Mr. Hennessy said after the assurance of the Junior Lord of the Admiralty that the Medical officers were included in the word "officers," he would withdraw his amendment.

The amendment was then withdrawn.

Lord C. Paget would be sorry if the hon. member withdrew his amendment on the supposition that Medical officers were intended to participate in the benefits of the scheme. Medical officers held appointments in the Hospital at present, and those appointments they would not be deprived of, so that, as they lost nothing by the scheme, they could not fairly hope to derive benefit from it.

In reply to Mr. Hassard,

Mr. Childers said the clause did not affect individuals, but simply operated to give pensions to certain classes. He should take care that the interpretation clause was so framed that the word "officers" should bear the usual construction.

After some further conversation the clause was agreed to.

On Friday, June 9,

Sir L. Palk called attention to a fatal accident on the Great Western Railway, and asked the Government to make inquiries with the view of ascertaining whether the safety of the public may not be better assured by legislative measures.

Mr. Milner Gibson observed that the law subjecting railway companies to responsibility in damages for any negligence made it their interest to guard against accidents. The fault of the late accident appeared to rest with the platelayers, and he knew not how legislation could prevent such occurrences. Considering the number of persons employed upon railways, the wonder was that more accidents did not happen. He agreed that there ought to be a communication between the guard and the engine-driver, and on some of the principal lines there was such a communication.

In moving the British Museum Estimate, Mr. Walpole, on the part of the trustees, gave the customary exposition of the condition of the establishment and its collections.

After a discussion of no great length, in a very thin House, the vote was agreed to.

On Monday, in the House of Lords, after a long debate and division, the Union Chargeability Bill was read a second time.

In the House of Commons, Mr. Villiers, in moving the second reading of the Poor-law Board Continuance, etc., Bill, stated that the Bill made no change in the constitution of the Commission, which it proposed to continue for three years, and that in the amendments it made in the law there was nothing novel. He briefly explained the nature and effect of the amendments, the object of which was to give more effective operation to the administration of the Poor-law Board, in accordance with the recommendations of a committee of the House.

In the course of the debate, Mr. Neate stated that he thought the Bill ought to be turned into a mere continuance Bill. The position of the Medical Profession in connexion with the relief of the poor was a matter which deserved to receive full consideration.

Mr. Villiers said he had been astonished to hear his hon. friend the Member for Oxford assert that the committee, having given their attention to the Medical question, it should have been dealt with in this Bill. The fact was, the committee reported that there were no sufficient grounds for materially interfering with the present system of Medical relief.

Mr. Neate begged to explain. He had not said that the committee had come to any opinion on the subject. What he had said was, that the subject was one which had been very much considered by the committee, and that it ought to be considered by the House.

Mr. Villiers said the committee had come to the conclusion that there was no sufficient ground for changing the present system of Medical relief. This, then, furnished no ground for postponing the Bill.

On Tuesday, in the House of Commons,

The Greenwich Hospital Bill being re-committed,

Mr. Ayrton moved to insert in Clause 20, after the word "schools," the declaratory words, "whether belonging to the Royal Navy or otherwise employed in any service afloat." He thought a portion of Greenwich Hospital should be set aside as a Hospital for the reception of merchant seamen when sick and disabled. It had now become necessary that the Hospital ship the *Dreadnought* should be done away with, and accommodation should be provided on shore.

Mr. Childers recommended that the amendment should not be pressed, as it was unnecessary and might be misunderstood.

The amendment was withdrawn, and the clauses were agreed to.

On the motion that the Bill be reported,

Mr. Henley, who did not reach the House till late in the discussion, protested against the manner in which he considered that this Bill had been smuggled through the Committee without any public notice that there would be a morning sitting.

FROM ABROAD.—THE RUSSIAN EPIDEMIC—HOMŒOPATHY IN THE FRENCH SENATE—PROSECUTION FOR ILLEGAL PRACTICE IN FRANCE.

A STATEMENT appeared in a recent number of the *Wiener Medicinische Wocherschrift* to the effect that, although the foreign Physicians who have been despatched to St. Petersburg by their respective Governments, in order to study on the spot the epidemic prevailing there, have been received with the utmost politeness and hospitality, they have been denied free access to the Hospitals and the means of investigating the nature of the disease, and this that its pestilential character may be the better kept from the public view. Dr. Van der Corput, the well-known Belgian Physician, and the delegate of the Belgian Government, warmly denies the truth of this statement, declaring that he cannot feel too grateful for the cordial reception he has met with at the Hospitals of St. Petersburg, Moscow, Wilna, etc., the doors of which are freely open to those who wish to investigate the epidemic. He testifies, too, to the admirable activity and solicitude manifested by the Russian Government in meeting the emergency, adding that the supposition that a Siberian or other pestilence is raging is absurd. Recurrent fever prevails amongst certain classes of the inhabitants of St. Petersburg, and is accompanied by a considerable number of cases of typhus.

Some sensation has been excited in Parisian Medical circles by the presentation of a petition to the Senate, nominally on the part of five *ouvriers*, demanding that homœopathy should be introduced into the Hospitals. In that august body such a demand will, doubtless, as it would among our own legislators, meet with many sympathisers, and a committee has been appointed to report upon it. Senator Dumas, the distinguished chemist, has been chosen as the Reporter, and although the fact of his being a Physician certainly did not procure him the post he holds in the assembly, it will enable

him to discharge the present duty with advantage to the community. The committee, before coming to its decision, has also appealed to the Administration of Public Assistance for its advice, and M. Husson, the Director of this, is said to have transmitted an extensive and decisive memoir on the subject. The Professional view of such a demand will, therefore, probably be satisfactorily developed; but we are somewhat surprised to find a writer usually characterised by great rectitude of views, M. Latour, maintaining in the *Union Médicale* that the proper mode of meeting the advances of homœopathy is to admit its pretensions, secure that in the long run, whether as teachers or practitioners, its votaries will exhibit their nothingness. "To bring discredit on their procedures, admit them freely to your chairs and your Hospitals; while if you wish to increase their importance, submit them to martyrdom and persecution." We had thought that a sufficiently long trial had, in various parts of the world, been accorded, and that the verdict returned was well nigh unanimous; and however little compassion we may feel for any of the consequences ensuing upon the vagaries of fashionable frivolity in Medicine, we must protest against those who have in their hands the grave responsibility of providing for the wants of the poor and ignorant trifling with this and coolly handing them over to a set of visionaries, as if the result were a mere matter of speculative curiosity in place of being always a question of health and strength, and often of life itself.

It is gratifying, however, to find that, although a clever writer may sometimes mystify himself with speculations like those we have adverted to, they have a very practical way of dealing with quackery in France. At the beginning of this year one Morel and his wife, and their accomplice, a Madame Redon, were convicted at the tribunal of Niort, at the instance of the Medical Association of the Deux-Sévres, of illegal practice of Medicine, and of swindling by means of animal magnetism. For the 326 instances in which illegal practice was proved, the fine was 10 francs each, the penalty being cumulative, therefore amounting to the sum of 3260 francs; while for the swindling they were condemned to another fine of 1000 francs and a year's imprisonment. Against this conviction appeal was made to the Imperial Court of Poitiers; but it was affirmed, the imprisonment being, however, reduced to three months, and the 1000 frane fine to 200 francs.

The most remarkable circumstance in this second trial was the speech for the maintenance of the conviction delivered by M. Camoin de Vence, the Advocate-General, and reported in the *Union Médicale*, July 6. In scientific precision, accuracy of knowledge, and lucidity of statement, this was a model, and seldom has the history and pretensions of animal magnetism been better detailed and more effectually unmasked. A few passages may give some idea of the effectiveness of this discourse:—

"Whenever a scientific truth has been in question, in spite of whatever obstacles may have opposed its early progress, still it has advanced; for, let who will say to the contrary, truth has always triumphed over error. But, side by side with the sciences which have successively enlarged our intellectual domain, there is also a long chain of the errors of humanity—great impostures, which reappear from age to age, based upon that irresistible impulse of man to believe in the marvellous. . . . It has almost always been females who have served as the instruments of this kind of manœuvre. And so it will be at all epochs when the object is to pretend inspiration and to assume an appearance of being above the ordinary events of life, the bent of their ideas, the temper of their mind, and the mode of their organisation naturally predisposing them to play this kind of part."

"If this woman Morel was enabled in her vision to see into the body, how comes it that she could not see its exterior? Why need she always inquire the age and sex? We can easily see how necessary these indications were to obviate errors of such a grossness that they would have undeceived the most credulous and the most blind. She was able to tell all the diseases of those at a distance who sent her a lock of hair, but she was unable to divine their sex."

"I will admit the reality of the cures, and will admit as many as you like, and more than you ask for. I only deny their dependence upon supernatural vision. They prove cunning, intelligence, a certain habit of observation, a skilful empiricism, and nothing more. Let me explain myself. Practitioners give, as a general rule, too much medicine, and they are well aware of this,—at least, the most experienced of their number. This excess must not be solely attributed to them, but depends in a great measure upon the patients themselves, who only consider themselves as well treated upon condition of being well drugged. All at once, some wise Physician makes his appearance, imbued with the old and salutary idea that nature is the *summa medicatrix;* or some charlatan arrives empirically at the same conclusion. Active medicines are suppressed, the economy, so to speak, breathes again, and nature pursues her beneficent work. This woman Morel always prescribed simples, and nothing but simples; and for whom? Why, for people the subject, for the most part, of chronic disease, and wearied of medicines. Surely the explanation of the success is as simple as were the remedies employed. Another reason is to be sought for in the effects of the imagination. Is there a Physician or *savant*, however renowned he may be, who can rival, in his power of affecting the imagination, a creature who sees while sleeping,—can look into the depths of organs, and can see what is invisible and does not even exist? And it is not only on moral affections—that is, on diseases without material lesion—that the imagination exerts its empire, for it also acts very powerfully on affections which have such lesions. Of this, striking examples may be found in the works of the princes of Medical science. Is it not an adage that faith saves in medicine? and this faith is the product of imagination, spreading calm in all directions, re-establishing order in the functions, and reanimating all by means of hope. Hope is the life of man, and he who can give him the one restores the other; so that two powerful reasons—the repose of the economy under the salutary influence of simple treatment, and the effect of the imagination—superabundantly explain the recoveries obtained by the skilful empiricism of Morel. Here, then, is a natural explanation of all these facts without having recourse to supernatural visions which everything rejects and nothing proves. If the magnetic sleep was pretended, the offence of swindling is incontestible."

We may congratulate the Medical Association at having a lawyer of his stamp at their disposal.

REPORTS ON NEW ARTICLES OF FOOD AND DRINK.

"EXTRACT DE VIN DE CHAMPAGNE CREMANT."

We have great pleasure in introducing to our readers a new and very important article of luxury and medicine, and will endeavour to describe it to the best of our power. It reaches us in half-pint capsuled bottles, bearing the label "F. Abelé, Epernay," and that of the London agent, Mr. Frederic Class, of 36, Crutched-friars. The cost retail is, we believe, 3s. 6d. per bottle, and not dear either.

Now for the stuff itself. What is it?—wine? liqueur? spirit? or what shall we call it? It is a most cunning compound of all. In the first place, it has abundant and most fragrant vinosity,—all the *bouquet* of the best Champagne. It is sweet, but not clammy, nor unclean on the tongue; it has great alcoholic strength, which is said to be due to fortification with brandy distilled from Champagne wine; and it is admirably and fully aërated with carbonic acid, so as to be truly *creaming*,—*i.e.*, to part with its carbonic acid slowly and gently, without froth and explosion; and it does not quickly become flat. Its taste is delicious, and it stands dilution with water well. The purposes to which it is applicable are, first, as a compendious mode of taking Champagne to picnics, etc., etc., for one bottle mixed with iced water would make a capital potation, though here, for our own parts, we keep our allegiance to wine unfortified. Secondly, for travellers. Thirdly, as a liqueur after dinner—*i.e.*, in the drawing-room—with the coffee, the true place of a liqueur. Refinement must never be lost sight of, nor should one elegant social custom be intermixed with an almost obsolete barbarism. When people over-ate themselves, *more Johnsonio*, on boiled pork with currant sauce, marrow puddings, sucking pig, and the like, o

dram of brandy was handed round, openly and notoriously to quiet an over-tasked stomach. Brandy was *Latin for the goose*, as the vulgar said and still say. So if people will overeat themselves now, and the stomach begins to calculate what is in it, let it have a sip of brandy, whiskey, or other strong dram to appease it. But to hand round a fragrant and delicate sweet liqueur, say white Curacoa, with cheese as a dram is, to our thinking, a want of refinement, and putting pearls where they are not appreciated. These fine liqueurs belong to another place—to the drawing-room with the coffee or tea. We trust our readers will pardon this digression on the true place of liqueurs, but really there is a right and a wrong in everything. Lastly, for the Medical Practitioner who desires an agreeable and effective stimulant in those so common cases of *lowness* in which one feels at one's wits' ends for something that will gratify the stomach and give a fillip to the nerves. If these observations, and those of our Commissioner on wines (now, by the bye, published in a separate book), have any weight with our Professional brethren, they will, we hope, induce them to take broader and truer views of the relations of Food to Life, and rise above the petty and miserable calculations of mere "carbon" and "nitrogen," which are now dignified with the name of "science." It is not "carbon" or "nitrogen" which the animal body wants, but certain, yet unknown and very complicated, compounds of these, and a great variety of these. We yet have to learn the laws through which a feeble, irritable frame, with a stomach to match, shall demand variety amongst things which are all alike to the mere chemist, shall reject all ordinary and "wholesome" food (as the common saying is), and shall create, as it were, an instinctive longing for what is popularly thought "indigestible," unwholesome, and noxious. What prompts a patient lying in bed, sinking with feebleness, spite of the most lavish administration of all that the stomach will keep down, to awake at 5 o'clock on a Sunday morning and cry out for lobster and beer, to take them greedily with instant benefit? The art of keeping feeble people alive is the art of suggesting and administering, under the guidance of instinct and experience, food in such variety as to supply the living material with what it will take to itself in one shape if it will not in another. We may have too great variety of drugs, because we cannot study and know them all; but we cannot have too great variety of food for the assimilative powers of the aged and feeble. As to our own experience of this latest member of the *materia alimentaria*, we can only say that when we had satisfied ourselves of the properties of the sample bottle submitted to us at our own table, we corked it up, and took it to the wife of a neighbouring Medical man, who for a month had been struggling with intense and almost fatal prostration after a distressing confinement, and who on that very day had had a relapse and threatening of sinking, from sheer exhaustion first, and some amount of swelled leg subsequently. Certainly no patient can speak more gratefully than she does of its *uplifting* effects; and so we commend it to our readers, to add to that not too long list of powerful alimentary cordials which we turn to when life and death are nearly balanced in the scale.

DR. BROWN'S CEREALINA.

This is described in the prospectus as—

"A new, delicious, and invaluable article of diet, superior in nutritive and digestive qualities. Cerealina is far more nutritious, digestible, and palatable than farina, maizena, corn starch, tapioco, arrowroot, sago, oatmeal, rice, or any other farinaceous preparation, and may be cooked in the same manner, the requisite proportions of cerealina being less than in any of the above-named articles."

We have submitted this article to the only manipulative and experimental test which is worth anything—namely, that of the accomplished divinity who rules over our own kitchen—and we have solemnly eaten the pudding which was the result of her labours. With the exception that it is somewhat darker in colour than might please every eye, the said pudding was unexceptionable; it was not thin and creamy like the puddings made of mere starchy matter (nice as these are when cold with fruit), but had something substantial in it, and nothing disagreeable. As regards quantities required, it is said to be economical. Therefore, whoever wants a change of nursery puddings may try cerealina. We have not the pleasure of knowing Dr. Brown, nor do we imagine that either of the scientific family of the Fusci now in existence will quarrel over his invention. If he wished for immortality, Dr. Brown should have given his Christian name and whereabouts. Whether he be now in the land of shadows, and whatever he have ever been anywhere else, we know not. The agent is Mr. Keith, 1, Ingram-court, Fenchurch-street.

The cerealina appears to be a combination of various flours, as of the wheat, Indian corn, etc. We do not hear of any new cereal plant, and suppose the discovery resides in the combination.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF OXFORD.

(Continued from page 611.)

Balliol College.

Balliol, or, more correctly, Baliol, the third in order of the great collegiate foundations of Oxford, is of less interest to the Medical world than the two that preceded it (Merton and University), to which we have already directed the attention of the reader. To the general scholar, however, it offers many historical features and traditions, of character. The early history invests it with place and degree. The foundation dates from the time of the Third Henry, viz., 1263, the forty-seventh year of that long-reigning monarch, but the College was not ready for occupation until the year 1268. The founder was a bold knight and one of the most loyal followers of Henry, by the name of John Baliol, commonly writ now as Balliol, but, if the old chroniclers are true, not writ in that way correctly. Baliol was the successor of a Baron of Baliol in France, who had made his way to England with the Conqueror, had entered "Bo-peep" Bay, came out of it again with his master, had landed at Hastings, had fought against Harold, and had been rewarded after victory. This baron's son Guy, in the reign of the First Henry was raised to great position, and was the Guy of Northumberland in those days. His grandson, in the time of Henry, inheriting the virtues and vices of his family, was feudal lord of Barnard's Castle, and husband of a lady of a royal line, Devorguilla, daughter of Alan Lord of Galloway, and of Margaret of Huntingdon, niece of Malcolm the Fourth, King of Scotland.

For many years Baliol of Barnard Castle did no more than enter into endless causes for his king; at last, in his old age, it seemed as though he had an impression that he might do something for his country, and his fancy took the turn of erecting the college at Oxford which bears his name. In this design he was warmly seconded by his wife Devorguilla, who, in fact, added to that which her husband had commenced, and completed his work. This noble pair are noted for having left behind them not a college only, but an only son, John Baliol, the competitor of Robert Bruce for the throne of Scotland, by the grace of "proud Edward" the First, for some time vassal-occupant of the throne, then a rebel, a prisoner, an exile, once more a small lord of Baliol, and, in turn, a dead lord in the land whence his ancestors came forth to join the Norman conquerors. The College of Baliol at Oxford thus outlived the house of that name, and not only survives a throne, but sustains the memory of the fact that in connection with its name there is a royal odour, perchance now weak from its journeyings and infinitesimal diffusion through six centuries, but just perceptible, and, as it were, faintly musty.

The College in its early days was famous for its library, which was completed as a building and enriched with good old books and MSS. about two hundred and ten years after the foundation. In the course of time numerous additions have been made to the College, and many innovations have been introduced; so that it is doubtful whether the Lord and Lady of Barnards would, if they could be called up again, recognise their collegiate child; at the same time they would have no occasion to be ashamed of the progressive steps by which what they would now see has been developed, and need have no regret at having laid the first stones of a home for many and distinguished scholars.

Baliol College is governed by a master. There are connected with it eleven fellowships and ten scholarships. The scholarships are worth about £75 a-year each, and are tenable for four years. There are in addition several exhibitions.

Exeter College.

Exeter College follows in point of antiquity on Baliol. It was, like Merton College, a transferred school or academy. Its founder was Walter de Stapleton, Bishop of Exeter, who, having a college or scholastic establishment at Hart Hall,

transferred his students from that place to Oxford, about the year 1320. A house of a collegiate character was built for the accommodation of the master and students, but by what name it was designated during the life of Bishop Stapleton, or whether it ranked as one of the colleges of the University, like Merton, University, and Baliol Colleges, is not quite certain. It was not until Stapleton had long been dead that the college bore his name, and perhaps hardly his name then, for another Bishop of Exeter had a hand in the work. In 1404 Edmund Stafford, of Exeter, bishop of the diocese, having endowed two fellowships, obtained permission of Henry the Fourth and of the authorities of the University to name the foundation Exeter College. In this condition the college remained until the eighth year of the reign of Queen Elizabeth, when Sir William Petre added eight fellowships. Petre had been educated at Exeter College, became a fellow of All Souls, and was at one time principal of a seminary called the "Peekwater." The life of this Sir William Petre would form an interesting volume. In the most troublesome period of English history, when feeling exceeded judgment, and men for the smallest offence were sent to the scaffold or the stake, Sir William lived on through four successive reigns, holding in every case a position among the advisers of the Crown. He was discovered as an able man by Thomas Cromwell, the expurgator of monasteries, and was one of the commissioners for inquiring into and reporting on the condition of those institutions in the reign of Henry the Eighth, and he pleased mightily that potent monarch by exhibiting a kind of terse wit which told nothing, and never conveyed an opinion. Like the hero of Crabbe, Sir Richard Monday,—

> He'd that calm look which seemed to all assent,
> And that complacent speech which nothing meant;
> He'd but one care, and that he strove to hide,
> How best for William Petre to provide.

Towards the close of the reign of Henry he was Secretary of State, and in the reign of Edward the Sixth he was Counsellor, devoting himself now to legal pursuits. Again he was Secretary of State in the reign of Mary, and took part—indeed, the leading part—in arranging the unhappy marriage of that unhappy woman. When Elizabeth succeeded he still retained his office for a considerable time, and was a member of her Privy Council during the remainder of his life, securing for himself the good graces of puissant Bess by falling headlong into the Reformation, and assuming, if not exercising, an almost rigorous sanctity. The secret of his success and of his steady progress in the midst of difficulties lay in the peculiar gift of holding his tongue. He was essentially a safe man, who locked up everybody's affairs in his own brain, and divulged nothing to their harm or his own. His regard for Exeter College sprang from his early education within its walls, and his addition of eight fellowships gave to the College a position which placed it on a par with its rivals. Another fellowship was added in 1636 by Charles the First, about the time when the difficulties of that monarch were beginning to shape themselves into that terrible form which he might then have crushed had he possessed even ordinary foresight. In the year 1700 the fellowships were increased by the bequest of a Mrs. Shiers, who left endowments for two more fellows of Exeter.

The College as a building has been largely increased, and very much modified from its origin. In 1620 the Rector, Dr. Prideaux, afterwards Bishop of Worcester, a man whose life also is in itself a history, built a large house in the College for the use of foreigners, who came to Oxford to hear his oral teaching on divinity, of which study he was Regius Professor. Afterwards, when the followers of Calvin —for Prideaux was a staunch advocate of Calvinian tenets— no longer flocked to Oxford, this house became a private residence, but in time was absorbed by the College. In 1620 Sir John Acland erected a hall. In 1622 a chapel was added by Dr. George Hakewill, and in 1788 a library was erected, to which, at considerable cost, many valuable, rare, and classical works were contributed.

The College at the present is governed by a Rector; it possesses fifteen fellowships, twenty-two scholarships, and nine exhibitions.

Amongst the Medical notabilities educated at Exeter I find the name first of an eccentric and successful man who in the reign of Charles the First went by the nickname of "Sir Simon the Rich," but whose real name was Simon Baskerville. Sir Simon was the son of Thomas Baskerville, an apothecary at Exeter, and was born in Exeter, in the year 1573; took the degree of B.A. in Oxford on July 8, 1596, and of M.D. on June 20, 1611. Soon afterwards he came to London, started in practice, and was made Physician to James the First. On the accession of Charles, Dr. Baskerville continued as Court Physician, and received from the King the honour of knighthood. He was contemporary with Harvey, and must, I think, have been the predecessor in office of Sir Alexander Fraser. Sir Simon's fame as a Practitioner was astounding. He is reported to have had a hundred new patients a week, and by the side of him his neighbour, William Harvey, who was revolutionising the Medical world by his immortal discoveries, cut a sorry figure as a practical man. Baskerville, indeed, was one of those who, being above forty years old at the time of the discovery of the circulation, did not believe in the fact, but looked on it as new-fangled, and practised in spite of it. One wonders now how a man could possibly practise at all without knowing the circulation of the blood; but Sir Simon practised to the tune of a hundred new patients a week, got a knighthood from the king, and, as the index of his success, the cognomen of "Sir Simon the Rich" from the people. He was a man to be envied in his day; but who would not rather now be the fiftieth representative of William Harvey than the actual representative of Sir Simon the Rich?

Another celebrity in Physic—if it be correct to call him a celebrity—who was educated at Exeter College was Gideon Harvey, a man who in his day was noted for setting the Profession by the ears, and specially for trouncing the College of Physicians and detecting their "frauds, plots, and intrigues against patients." Gideon was a Surrey man, born at Godalming, probably in 1625. He studied first at Exeter College, then for Physic went to Leyden and to Paris, taking his degree in the latter city. Returning to England and settling in London, he became on the Restoration Physician to Charles the Second, for whom he had acted as Physician-General to the English army in Flanders. He continued to attend Charles until his death, was chosen by William of Orange as his Physician, and was appointed Physician to the Tower. He lived, despite his quarrellings and the evil influence of eternal hot water, until the year 1700, when he became absolutely quiet, and has not been heard of since, and I fancy little read. He left a good many books, seven of which any one who likes may find in the library of the Medical Society of London. I had them all in hand once, and read on at them until I came to a certain one called "The Vanities of Philosophy and Physic," which soon transformed itself into the vanities of Gideon Harvey, and got pitched back straightway with a whole bundle of dusty stuff into the grim corner where probably it has reposed unopened for eleven years at least.

Oriel College.

Oriel College was founded by Edward the Second in the last year of his reign—viz., 1326—and at a period when one would have thought a King so miserable would have been thinking of other and more selfish objects. Our common histories seem to delight in running down the character of this sovereign, who, it is true, was indolent, we had almost said effeminate, and who carried favouritism perhaps beyond reason; but it is not fair to ignore his better qualities. He was essentially a man of literature, and an advocate of civilised progress. He could not beat the Bruce of Bannockburn, he could not intrigue so well as his own wife, he had less ambition than his own son, and he had poor strength with which to meet sufferings, of which he became, unhappily, very rich. I can scarcely imagine a more singular picture than this King flying, I had almost said, for his life to Bristol, and surrounded by numberless enemies, yet remembering meanwhile the city of Oxford, and keeping to his determination to have another college built there, himself the founder. In his design there is little doubt that he was stimulated to exertion by Walter de Stapleton, Bishop of Exeter, spoken of above as the founder of Exeter College, for Walter Stapleton was on intimate terms with the King, had charge of the Tower in his Majesty's name in 1326, and paid dearly for the honour, inasmuch as he was dragged during a riot to Cheapside, was beheaded on the spot, and had his head sent on a charger as a present to Queen Isabel. Edward founded the college with conveniences for the residence and maintenance of a provost and ten fellows. It remained for many years a small institution, as compared with its present dimensions. The hall was not built until 1637, and there was no library until the latter part of the eighteenth century. The first provost of the college was one Adam de Brom, who was almoner to Edward the Second, and who has the credit of having been the first to suggest to the King that the foundation of Oriel would do honour to his name.

The college is governed by a provost, and at present main-

tains fifteen fellowships, nine scholarships, and twenty-two exhibitions.

I do not find that any celebrity in Physic is specially connected with this College.

Queen's College.

This fine old building, raised opposite to University College, followed soon upon Oriel. It was founded in the fourth year of Edward the Third; or, at all events, the charter by which it received the title and the privilege of a college was granted by the king in that year—viz., on the 18th of January, 1340. The founder was Robert de Eglesfield, the confessor of Phillippa, the Queen of Edward; and the name of Queen's College was given in honour of Her Majesty. For many centuries this college was famous for certain ceremonials, which are rather singular than imposing. Thus, the members of the college were summoned to dinner by the call of a trumpet, and on New Year's-day the burser gives to each of the members a needle and thread, saying at the same time, "Take this and be thrifty." The tradition runs that this custom is taken from the words *aiguille et fil*, (*needle and thread*), a play or pun on the name of Eglesfield, the founder.

Another custom, not peculiar to this college, but made much of within its walls at Christmas time, especially in the earlier periods of its history, consisted in the procession of the boar's head, which massive ornament of the table was carried with great state on Christmas-day, the "setting" of the head being accompanied with an old song or rhyme, intoned or sung in Latin. There is an excellent story connected with the origin of this custom. It is said that when Queen's College was first built there was a wood at no great distance in which the wild boar roamed at pleasure, greatly to the terror of the college and the disadvantage of learning; for in those days, it would seem, the students, under no fear of proctorial criticism, delighted to stroll out into the woods and bye-paths, and, in the solitude of the great temple, read their fathers — their metaphysics, and their humanities. The wood to which I have referred had thus become a favourite haunt until the learned wild boar took unprincipled possession of it, and made it, in fact, his private study. For a long time this learned pig reigned unmolested,—a terror to Oxford in general, and the colleges in particular. At last, one day a student of Queen's College, absorbed in the contemplation of Aristotle, entered the wood, book in hand, in solemn meditation. A noise roused him to every-day thoughts, and lo! breaking through the thickets towards him, with a roaring noise and gaping jaws, rushed that merciless boar. Alas! for the student and Aristotle—especially Aristotle. What shall our student do? Fly?—that were madness. Fight?—that were impossible. Stand his ground?—there is something in that. So our student stuck his heel in the earth, threw off his mantle, and waited for the enemy, until he came—his mouth, as I have said, wide open—within arm's length, to find, by a desperate and dexterous thrust, the huge volume lodging in his throat. The learned boar had a capacious swallow, but Aristotle was too much for him; his roaring windpipe, a moment ago so loud, was choked up, and the terrible animal suffered death by what we in these days would call asphyxia. The deed accomplished, our student, a hero for life, must back to the College for his friends, who, returning to the wood, cut off the head of the boar, and on Christmas-day following carried it in triumph to the banquet table. This is a good story, but, unfortunately, there is a missing link in it, to the discovery of which I would respectfully direct the attention of the Antiquarian Society. The M.S. volume of Aristotle dissected out of that boar's throat is lost. It is not in the Bodleian, the Radcliffe, or the British Museum libraries. It is worth a thousand pounds to any scholar who can find it and prove its history. Will nobody try?

The library of the college was built in 1694, and in 1739 the college received what is called its new foundation. A wealthy man by the name of John Michel, of Richmond, in Surrey, having endowed it with £500 a-year, for the support of eight fellowships, four bachelor scholors, and four exhibitions.

The college at the present time is governed by a provost. It owns nineteen fellowships; has one chaplain, fifteen scholars, and two bible clerks; and it offers numerous exhibitions, the highest of which are worth £75, and the lowest £10 a-year.

Of the Medical notabilities connected with Queen's College, two call for notice. One of these was Dr. Fraunces, who was provost of the college in 1561, and was Physician to Queen Elizabeth. He was a man of some wealth and position, but added nothing, as far as I know, to the literature of Physic. The other Physician was Sir John Floyer, M.D., who was a student of the college. Floyer was born in Staffordshire, near to Stafford, in 1649; practised at Lichfield, and died there at an advanced age in 1734. He graduated in Medicine at Oxford on July 8, 1680. He had a very large and lucrative practice, and attained the honour of knighthood for his skill in Physic. Beyond being a Practitioner of repute, Floyer had some philosophical and theoretical talent, mixed up, however, with the crudities so prevalent in his time. He wrote a book entitled the "*Touchstone of Medicine, Discovering the Virtues of Vegetables and Animals by their Tastes and Smells;*" also works on the Preternatural State of Animal Humours; on the Nature of Fevers; an Inquiry into the Right Use of Baths; treatise on Asthma; a translation from the Greek of Sybilline Oracles; an Essay on the Best Means of Preserving Old Men's Health, with an Appendix on the Use of Inunction with Oil, and on the *Régime* of the Young; a Commentary on Forty-two Histories described by Hippocrates in the First and Third Book of the Epidemics.

But Floyer's best labour is displayed in what he calls the Physician's Pulse-watch; or, the Explanation of Feeling the Pulse and of Comparing it by the Pulse-watch. Floyer, in fact, may be considered the first man who examined the arterial pulse scientifically—that is to say, in relation to time, regularity, and tone. He made himself conversant with the variations of the pulse at different ages and periods, and reduced to a kind of order observations that previously were rudely and imperfectly conducted. Queen's College may be proud of Floyer Sir John.

REVIEWS.

Lectures on Pathology and Treatment of Lateral and other forms of Curvature of the Spine. By William Adams, F.R.C.S., Surgeon to the Royal Orthopædic and Great Northern Hospitals, etc., etc. Delivered at the Grosvenor-place School of Medicine in the Session 1860-61. Illustrated by Five Lithograph Plates and Sixty-one Wood Engravings. London: John Churchill and Sons. 1865. Pp. 334.

In this volume Mr. Adams gives, in eleven lectures, the result of a long series of post-mortem dissections at St. Thomas's Hospital, and of observations on the living subject at the Orthopædic Hospital and elsewhere.

Curvatures of the spine, Mr. Adams insists, are in no way analogous to those curvatures which are met with in the limbs, and which are due to overcontraction of one muscle or set of muscles. There is little analogy between the joints of the spinal column and those of the extremities. The erect posture is maintained—not by a rigid contraction of the spinal muscles, but by the anatomical mechanism of the spinal column. The muscles are not in a state of "*active tension*," but of "*vigilant repose.*" When flexion has occurred, the muscles on the convex side are mechanically stretched and rendered prominent. Those on the concave side are found to be flaccid; whereas, had the curvature been caused by the excessive contraction of muscles, it would have been the muscles of the concavity which must have been so contracted.

Mr. Adams passes over the various forms of antero-posterior flexion with comparatively short notice, and proceeds to discuss the question of lateral curvatures of the spine. According to Mr. Adams it is a mistake, and one which may lead to errors of practice, to suppose that lateral curvature of the spine ever exists as a normal condition. It is not even an exaggeration of a normal movement, for morbid lateral curvature of the spine often commences in the lumbar region, a region in which there is absolutely no provision for lateral flexion as a normal function. Lateral flexion is not merely a bending of the spine to one side or the other; it is in reality a horizontal rotation of the vertebræ. The bodies of the vertabræ may rotate to such an extent that in a very severe case their anterior surface may look directly to one side, and thus it may very easily happen that considerable lateral curvature may exist without any appreciable deviation of the spinous process. The bodies of the vertebræ are displaced, while the position of the spinous processes is but little interfered with. Lateral deviation of the spinous processes is not then to be trusted to as a means of diagnosis. A better sign is projection of the ribs on the convexity of the curve, and a sinking in of the ribs of the opposite side, this being evidently directly due to the rotation affecting the transverse processes. Mr. Adams denies that lateral curvature of the spine is neces-

sarily associated with rickets. The worst cases which he has met with were totally unconnected with rickets, and unless distinct symptoms of the affection be present, he thinks it wrong to assume its existence. It is important, indeed, to draw a broad line of distinction between those cases of lateral distortion which are due to rickets, and those which are independent of it, for in the former alone is the pelvis implicated. This fact is of great importance with reference to the advice to be given to deformed females as to marriage.

In diagnosing lateral spinal curvature, it must be borne in mind that oblique distortion of the pelvis is often simulated. The hip on the concave side is predominant, because the muscles on that side have receded.

Mr. Adams believes that the causes of lateral curvature are partly constitutional, partly local. Whatever tends to weaken the vital powers predisposes to the distortion, and thus we find it most frequently in girls. The local or immediate cause is constrained posture too long continued. Sometimes the abuse of horse exercise is sufficient. Lateral curvature of the spine may result from a habit of resting more on one hip than on the other. The whole weight of the body is thus transmitted through the articulatory processes of one side.

The articulatory processes are remarkably soft and imperfectly formed at the age of puberty; they become wasted by absorption, and as their position is latero-posterior, rotation of the vertebræ is the necessary result.

Mr. Adams details with care the symptoms of lateral curvature, and enters into the question of diagnosis. In the tenth and eleventh chapters he classifies the cases and discusses their treatment.

He classifies lateral curvatures according to their cause.

1. Cases essentially of constitutional origin, or in which the constitutional largely predominates over the local causes.
2. Cases depending upon constitutional and local causes in about equal degrees.
3. Cases essentially depending upon local causes acting mechanically so as to disturb the equilibrium of the spinal column.

For the first class of cases the treatment is, of course, mainly constitutional, consisting in the free exhibition of iron and of hypophosphite of lime. In the other two classes more careful local treatment is necessary. Gymnastic exercises Mr. Adams regards as rather preservative than curative, and as of most service when combined with recumbency during a considerable portion of the twenty-four hours. The hand swing, the elastic chest expander, and the act of drawing up a weight from the ground, are the most useful. Mr. Adams altogether rejects M. Guérin's plan of cutting the spinal muscles; he also rejects the system of mechanical extension of the spine, but he is a great believer in the system of supporting the spine by means of portable mechanical contrivances. He has invented a very ingenious "rotation plate" instrument to counteract the rotation of the vertebræ, which is always present in cases of so-called lateral curvature of the spine.

Mr. Adams deserves great credit for the patient way in which he has worked out his subject. There can be no doubt that he has advanced the branch of our Profession to which he has devoted himself. The only objection we would make is, that, however advantageous to the student may be the frequent repetitions required in lectures, to the busy Practitioner it is far more convenient to have information served up to him in a convenient form.

Cultura das Plantas que dao a Quina. Con cinco estampas Lithographadas. Lisboa.

On the Cultivation of Plants Yielding Quina. With five Lithographed Engravings. Lisbon, 1865. 8vo, pp. 117.

We welcome the appearance of the present publication as giving proof of the interest taken by the Portuguese in the maintenance of a cultivation in their colonies of plants so vital to the health of the community. The work, if our observation does not mislead us, seems to be of the same quality, if not identical with a series of articles published in the *Diario do Governo* on the same subject. It appears largely indebted to the industry of our countryman Howard, in his "Nueva Quinologia de Pavon;" at the same time, it is not without its obligations to the well-known work of Mr. Markham, "Travels in Peru and India," which has met with so much approbation. We recommend to the notice of our readers this further development of the subject, the more willingly as it serves to show that both the Portuguese and their government are alive to their immense opportunities and responsibilities in respect to natural science.

Manual of the Turkish Bath. Heat a Mode of Cure and a Source of Strength for Men and Animals. From writings by Mr. Urquhart. Edited by Sir John Fife, M.D., F.R.C.S., Senior Surgeon to the Newcastle Infirmary. London: John Churchill and Sons, New Burlington-street. 1865.

Have any of our readers ever passed along Jermyn-street on a cold, bleak, disagreeable day, when they were themselves harassed with overwork, or tormented by incipient lumbago, or irritated by some disappointment? Have they observed a large open door with some mystic characters engraved above it, while a chromo-lithograph stands guard at the threshhold, and displays the wonders of the Hammâm? If so, we hope that they have entered and undergone all those mysterious ceremonies, which, in the opinion of the uninitiated, are comprehended in the term "a Turkish bath." We hope so, because we think there are few things so thoroughly enjoyable to a used-up man as a Turkish bath when it is properly managed. At the door of the sudatorium all care is left behind; it is cast off with the shirt and other clothes. One sees one's fellow-creatures in a new aspect; a new train of ideas is excited. As the perspiration begins to flow, muscular pains cease to be felt, and a pleasing languor steals over the body, and inclines the mind to look at everything through a rosy-coloured glass.

After undergoing the buffetings of the dark demons who inflict torture with impunity by calling it "shampooing;" after being curried and whitewashed; after enjoying the delicious plunge into cold water and the swim, all too short; and after sitting for a certain time in the amount of clothing to which the Western Indians are partial, one emerges into the outer world refreshed and springy, with new energy and increased confidence.

When we first became acquainted with the Turkish bath, we were simple and ignorant enough to look upon it merely as a magnificent hot-air bath, which could not fail to be of use in some forms of disease, and which we knew from experience to be agreeable in health. We wondered that such a source of pleasure and health had been so long neglected, and we felt grateful to Mr. Urquhart for the part which he had played in introducing the bath into England. We now, however, know how worthless was our opinion. We have read Mr. Urquhart's book, and we have learned that the bath is a religion, and that it is a panacea. It cures all moral and physical evils. If men will only adopt it they will live peaceably all the days of their life, and they will drop off at length like fruit overripe. Mr. Urquhart has been a great traveller. He has observed much and reasoned much. He has been struck with the utility of hot air and the advantage of "the Turkish bath," and the idea has taken hold of his soul.

We think he must dream about sudatoria, and see piscina in the clouds. We are sure that he never looks at the sun without thinking of radiating caloric. It would, indeed, be astonishing if this were not the case, because Mr. Urquhart has already saved his life on four different occasions by radiating caloric; and there is no sufficient reason why he should not go on saving it for six times more.

It is fortunate for us that Mr. Urquhart is such an enthusiast. Did he not prize the bath above its real value, it is impossible that he could have succeeded so well in introducing it to this country. Mr. Urquhart has constituted himself the *missionary of the bath*, and if he occasionally becomes bigoted in his devotion to it, it must be remembered that he has also sacrificed much.

It must, however, be confessed that Mr. Urquhart is occasionally rather provoking. He is convinced that he is right, and he will listen to no arguments against the object of his idolatry. The skin must be heated and scraped according to the Turkish fashion, or he will have none of it. If he is nonplussed for an instant by some fact brought forward, he tries to save himself by denying the fact; and he occasionally makes statements which are, to say the least of it, extremely inaccurate. Thus, he tells us at page 60 that he has searched again and again in Celsus, and has found nothing to quote on the subject of unguents used in the Roman bath. If he has searched Celsus in vain, he ought to have recollected Horace. We quote from Creech's translation:—

> "I sleep till ten, then walk or read a while
> Or write for pleasure; 'noint myself with oil
> Not such as Natta pours, the rich, the base,
> Who robs the dying lamps to grease his face."

Now, Celsus scarcely ever mentions the bath without referring to the practice of rubbing the body with oil or unguents,—a practice which he strongly recommends in certain cases. Thus,

in the third section of the first book we find the passage—"Si balneum est, ante omnia in tepidario sedere; deinde ubi paulum eonquieverunt entrare et descendere in solium; *tum multo oleo ungi*, leniterque perfricari, iterum in solium descendere," etc. Again, in the fourth chapter of the first book, Celsus writes:—"Si in balneum venit, sub veste primum paulum in tepidario insudare; *ibi ungi* tum transire in calidarium," etc. We might quote passage after passage to show that the Romans were in the constant habit of using oils in the bath, but these will suffice. The point is interesting because the *rationale* of anointing appears to be the very reverse of that of the ordinary Turkish bath. In the latter the pores are opened; in the former they are closed up. In the latter the blood is brought into more immediate contact with the air; in the former an additional layer is interposed between the blood and the external atmosphere.

If we experience benefit in cases of consumption both from the Turkish bath and from inunction, are we still to believe that their action is diametrically opposed?

The volume before us is a collection of essays and of short-hand notes of conversations upon the Turkish bath. Mr. Urquhart, in his zeal to convert the Medical world to his way of thinking, invited Medical men to ask questions and suggest difficulties about the bath, while he answered them. The conversations were jotted down by a shorthand writer. We hope that the guests had notice that their words were being stereotyped, and that they afterwards had an opportunity of revising what they said. We are tempted to make this remark because the conversations read as if what Mr. Urquhart himself said were the only part which had been revised. We have read this book with much pleasure, and with much profit; but both would have been increased had the author only taken the trouble to make himself acquainted with the elements of physiology before he ventured to write on a Medical subject.

On Diseases of the Throat; their New Treatment by the Aid of the Laryngoscope. By Thomas Dixon, M.D., Physician to the Metropolitan Convalescent Institution, Physician to the Paddington Maternity Charity, etc., etc. London: Henry Renshaw, Strand. Pp. 101.

It is only lately that we have begun to have any just idea of the diseases to which the eye, the ear, and the larynx are subject; and the whole of the progress that has been made has been due to our improved means of physical examination of the organs affected.

A number of different conditions are no longer classed together under the convenient title of "amaurosis.'

A polypus of the external meatus auditorius is no longer treated with injections of tepid water or blistering behind the ears; and aphonia is now known to be due to a variety of different conditions of the larynx and vocal cords.

Dr. Dixon's little book is written with the avowed intention of urging the more frequent use of the laryngoscope in throat disease, and of pointing out the efficiency of the local treatment which it is now possible to employ.

By the recently invented instruments for pulverising fluids it is now possible to direct a stream of medicated fluid not only into the trachea, but also into the bronchi, and the results which Dr. Dixon has obtained show the great superiority of this treatment.

Dr. Dixon's chapter on follicular disease of the throat is very good; few will read it without profiting by it.

The College Lectures.—Professor Fergusson brought his course of lectures to a close on Friday, June 16.

Arts Examinations.—It may be interesting to students to know that there will be a preliminary examination in general knowledge of candidates for the diploma of Member of the College of Surgeons on Tuesday next, the 20th inst., and that those gentlemen who pass this examination, or those at the College of Physicians or Hall, can enter on their Professional studies on October next.

Death of a Surgeon of the Belgian Legion in Mexico.—M. Lejeune, a most promising Surgeon, 29 years of age, who had volunteered as Surgeon into the Belgian Legion, was killed by a ball while in the very act of dressing the wound of a Mexican soldier at the end of the recent engagement at Tacamburo. There seems to be no doubt but that he was shot intentionally.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

May 27, 1865.

I see by this morning's paper that the number of deaths for the week ending May 20 amounted to 283, being an increase of 16 on the corrected average of the last ten years. Amongst the causes typhus still occupies a too prominent position, numbering 48, or 34 above the average. Small-pox numbers 15, of which 4 are stated as having been vaccinated. I am not aware of anything in the way of local Medical politics of sufficient interest to require notice in your columns, and I will at once pass on to narrate a few cases presenting special points of interest. A few days ago I saw Mr. Bickersteth remove a very large calculus from the submaxillary gland. The patient, a Medical man, noticed, twelve months ago, an induration, which gradually increased without involving any of the surrounding structures. When Mr. Bickersteth first saw him the right gland was almost the size of a hen's egg and as hard as scirrhus, a circumstance that very naturally created apprehension in the mind of the patient as to the nature of his complaint. A small probe was introduced through the duct, and a grittiness at once suggested the presence of a calculus. In every other respect the patient enjoyed good health. Mr. Bickersteth determined to remove the calculus by the mouth, so as to avoid that risk of leaving a salivary fistula which would have been incurred by adopting the simpler method of extraction by external incision. The operation consisted in slitting up the duct on a small director until the calculus was reached; the opening was then enlarged, partly by dilatation with the finger and the cautious use of the knife, until there was sufficient room to allow of the introduction of an ordinary pair of lithotomy forceps. The calculus was then seized, but being rather soft had to be removed piece by piece. I should say that it was about the size of an ordinary walnut. Dr. Edwards finds that it consists of pure tribasic phosphate of lime, appearing under the microscope to be aggregated in very thin layers. Since the operation the patient has done exceedingly well; some slight induration, the result of inflammatory action, still remains. It is exceedingly rare to find salivary calculi of so large a size; usually we find them small, blocking up the duct and impeding the flow of saliva into the mouth. For the cure of organic stricture of the urethra Mr. Long and Mr. Bickersteth have been making use of rapid dilatation, and in the cases I have seen in the Infirmary the results have been most satisfactory. An accident occurred the other day that is worthy of notice. Mr. Bickersteth was dilating with Mr. Henry Thompson's instrument a stricture of many years' standing when a crack was heard, accompanied with a sudden closure of the blades, and on withdrawing the instrument it was found minus the lever by which the blades are separated. A bougie was introduced, but the lost fragment could not be felt. The operation being incomplete, Mr. Bickersteth at once proceeded, with the aid of another instrument, to finish it, in order, by enlarging the urethra, to give the fragment the best chance of escaping with the flow of urine. This was accordingly done, and afterwards a No. 12 bougie passed easily. The strangest part of the case remains to be told, for on examining the last-used dilator the blades were found separated by a considerable interval, and on looking for the cause the lost fragment was found lying with its long axis corresponding with that of the dilator. This was a most fortunate termination to an accident that might have resulted in serious consequences. A Tuesday rarely passes without our finding something that will repay a visit to the operating theatre of the Royal Infirmary. On Tuesday, May 23, there were several cases of interest, Mr. Long performed Symes' amputation at the ankle-joint for disease originating in the os calcis. Mr. Bickersteth excised the shoulder-joint for disease of long standing. The head of the humerus, as far as the anatomical neck, had been entirely removed by absorption. I have seen this excision practised here on several occasions with the best possible results. Mr. Bickersteth then introduced a patient whose knee-joint he had excised twelve months ago, for the purpose of removing some dead bone. As far as the excision is concerned the result is all that could be wished, firm union having taken place of the cut surfaces of bone. It is to be hoped that the removal of some carious bone will be the means of enabling the patient to reap the full benefit of an operation

which is rapidly gaining the confidence of our operating Surgeons. At the Northern Hospital, a few days ago, Mr. Lowndes had to resort to re-amputation in a case of painful stump. Symes' amputation at the ankle-joint had been performed at Queenstown twelve months ago with success as far as concerned the healing of the stump, but the patient had suffered ever since most severe pain. Several measures had been resorted to, but without success. As there was no alternative but amputation, Mr. Lowndes, being anxious to save the original heel flap, made a long posterior flap so as to enable him to remove about an inch and a half of the bone and the whole of the old cicatrix. Examination showed that the anterior and posterior tibial nerves, but more especially the latter, were very largely dilated, and firmly adherent to the cicatrix. Since the operation the patient has been almost free from pain.

Tuesday, May 30.—I have just returned from attending the operations at the Infirmary. Mr. Bickersteth performed lithotomy on a child, aged three years. The calculus was composed of lithate of ammonia. In his remarks on the case, Mr. Bickersteth, when alluding to the question of mortality, stated that he had now operated on thirty-eight children, and only one had terminated fatally. These figures show that in children lithotomy may be regarded as an operation attended with comparatively little danger. I ought to add that the lateral operation has been the one almost universally practised.

IRELAND.

DUBLIN, June 8.

IN my last letter I gave a brief account of some of the "surgical appliances" to be found in our International Exhibition; in my present communication I shall direct my attention more particularly to the departments of chemistry, pharmacy, and botany.

Messrs. Bewley, Hamilton, and Co., of Sackville-street, chemists to the Queen, exhibit, in the north-east gallery, a case of very elegant preparations produced in their laboratory under the superintendence of their able chemist, Dr. Aldridge. The specimens of citrate of iron and quinia, and of valerianate of zinc, are particularly beautiful. Aloïn, strained from the fresh juice of socotrine aloes without undergoing any chemical process, is exhibited. Dr. Aldridge detected the crystals in the juice in 1852, and exhibited them before the Natural History Society of Dublin about the same time that they were observed by Pereira, without being aware of the researches of the latter distinguished writer. Citrate of iron and strychnia, first produced in the laboratory of Messrs. Bewley and Hamilton, guaranteed to contain 1 per cent. of strychnia, is also exhibited. This salt, as met with in commerce, is said to contain very variable proportions of strychnia, which is obviously a serious disadvantage. Hydrocyanate of morphia, another preparation first prepared in their laboratory, was originally suggested to Dr. Aldridge by Dr. Evory Kennedy, and was a great favourite with the late Sir Henry Marsh, who made it, combined with ipecacuanha, the basis of a form of pectoral lozenges. It possesses the virtues of hydrocyanic acid in an eminent degree, and must consequently be employed with caution. It cost some trouble to make. When morphia is put into prussic acid, these substances mutually decompose each other. Dr. Aldridge proposed to prepare the salt by decomposing cyanide of silver by means of muriate of morphia, but in this process some of the silver is apt to be dissolved, and to give the product a most disagreeably metallic taste. He now prepares it from very pure cyanide of potassium, sulphate of morphia, and alcohol (specific gravity 810). The product is always more or less coloured, but this does not appear to interfere with its activity. Among the other contents of the case are very beautiful specimens of iron alum, saccharated sulphate of iron, iodide and bromide of cadmium, arseniate of potash, iodide of ammonium, etc., etc.

In the Mauritius Department, M. Bouton, Curator of the Colonial Museum, and Secretary to the Royal Society of Arts and Sciences of the Mauritius, exhibits a case of medicinal plants indigenous to, or naturalised in, that island, the collection being described in an octavo volume of 147 pages from his pen, entitled "Plantes médicinales de Maurice." The plants described in the work are used medicinally by the Creole Practitioners of the island. In the temporary absence of Mr. Morris, the Colonial Commissioner of the Mauritius, attending the Exhibition, I shall be able on the present occasion to speak only of those plants which happen to lie at the top of the case.

The first I shall notice is the *Papaya edulis*, the fruit of which, on being incised, while still green, yields a lactescent juice often employed in the numerous cases of intestinal worms occurring among the children of the servile class in the island. The anthelmintic property of this remedy is said to have been discovered accidentally by a negress, who, having charge of her master's piggery, observed that when she gave the animals green Papaw fruit cut into slices, they usually passed worms. As she had herself long suffered from the same affection, and had taken different remedies without success, she tried that which chance had thrown in her way, and was cured.

Desmodium cæspitosum, little trefoil, much used among the Creoles as a cooling depurative and laxative. A decoction of the roots is employed in herpetic affections. The plant enters into an empirical remedy against the endemic disease called *tambave*.

Trichodesma Indicum, Indian borage; *Scutia Commersonii*, *Rhamnus lucidus*; the bark of the latter shrub, the *bambara* of the natives, is tonic and astringent, and is frequently employed by the Creoles to check chronic diarrhœa and dysentery. Lomatophyllum reflexum, *bois de chandelle*, known in Madagascar under the name of *Hassn*; the bruised leaves are used as a vulnerary for the cicatrisation of wounds. The plant, which is said to be a powerful astringent, is employed in the treatment of dysentery. In the *Dictionnaire des Sciences naturelles*, it is stated, on the authority of Commerson, that this plant is "a very powerful emmenagogue, too often abused by the female slaves of Madagascar; it is sufficient for them to eat one or two of the young bunches to produce the effect they desire." *Chenopodium ambrosioides*, vermifuge, a plant of very strong and repulsive odour; *Davallia tenuifolia*, little fern, forms the basis of the popular remedies against the *tambave*; *Pæderia sessiliflora*, used in diseases of the skin, diffuses an odour of sulphuretted hydrogen.

The admission to the Exhibition being now reduced on four days in the week to one shilling, and the weather being lovely, there is a great increase in the number of visitors; nevertheless, the space is so extensive, and the points of attraction are so many and varied, adapted to all tastes and pursuits, that inconvenient overcrowding has not yet been experienced.

GENERAL CORRESPONDENCE.

NAVAL MEDICAL OFFICERS AND GREENWICH HOSPITAL.

[To the Editor of the Medical Times and Gazette.]

SIR,—The net result of the discussion on the Greenwich Hospital Bill, as far as the Profession is concerned, is that we have unmistakable proof that the present Administration are resolved to treat Naval Medical Officers with contempt, and that the opposition are pledged on their advent to power to do the Medical officers justice.

A good deal more might have been said by the friends of the Profession in the House of Commons on the conduct of the Admiralty in this matter; but the feelings of hatred against Medical officers is so ingrained in the present Board, that nothing like fair dealing could be expected at their hands. And in justice to Sir Jno. Pakington I must say, as I believe, that he would have failed to make any impression upon them by any motion the rules of the House might have admitted.

In the proposed distribution of out-pensions the Admiralty in their bill proceed on the assumption that those classes only should benefit who lose by the bill a few sinecure appointments. But these very classes have long been in the enjoyment of out-pensions together with their appointments, and the pensions now proposed to be given are in excess of those they already enjoy. Whereas, the Medical appointments have been such, and such only, as the exigencies of the service required. It is, then, a mere pretence to say that because Medical officers will still be required to perform active duties at Greenwich Hospital the mass are not entitled to out-pensions from the funds of that institution.

To crown all, and to show the utter want of principle of the Board of Admiralty, I would mention that a sinecure office of governor is made permanent by a decision of the House of Commons in committee on the bill yesterday, with the entire concurrence of the Junior Naval Lord. And I would now, with your permission, repeat the caution I gave in a recent letter to the rising generation of Surgeons to avoid a service in which their Professional status will not be acknowledged,

and from whose rulers the commonest justice must not be expected. For my part, I do not believe that in these days of open competition any man presents himself for admission into the navy who feels that he is competent to undergo a competitive examination for the army.

But be this as it may, permit me, in conclusion, again to say to young Surgeons, put not your trust in Boards of Admiralty, and to entreat the members of the Profession generally to estimate the merits of the rival candidates at the forthcoming general election from a Medical point of view.

I am, &c.

London, June 14. A Physician.

THE NAVAL MEDICAL SERVICE.

[To the Editor of the Medical Times and Gazette.]

Sir,—The late startling naval *Gazette*, showing that, in this time of peace—stagnant as regards the number of ships of war employed—the Admiralty are unable to muster half-a-dozen Assistant-Surgeons for the contingencies of the service, must open the eyes of the Medical Profession, and prove also to the Lords Commissioners at Whitehall how successful have been their efforts to degrade and lower the position of the naval Medical officer, and how fully appreciated such efforts are by young Medical men.

Various letters have appeared from time to time in your journal, each alluding to some particular grievance; but I hope you will allow me, in a prominent page of the *Medical Times and Gazette*, to give a very brief statement of the grievances we labour under in a more comprehensive manner, showing the disadvantages of the naval Medical officer, even as compared to the military Surgeon, whose complaints have, with justice, received so much sympathy from the Professional press.

I will state, *seriatim*, the chief causes which, I know, are calculated to render the naval the most unpopular of all the Medical branches of the public service.

1. The want of continuous service. The naval Surgeon is placed on half-pay at the termination of his ship's commission, the term of which is generally three and a-half years. He remains on the list, for a considerable time, against his own wish, losing a large proportion of pay, as well as full-pay service time. It is found that a loss is thus incurred equal to, on the very lowest calculation, twelve months in every five years, or five in twenty-five. A full-pay service of twenty-five years is necessary for retirement, and it is evident that the naval officer must, before he can claim such, have been upwards of thirty-one years in the navy, and be not less than 53 years of age, while his brother in the army does not lose a day on half-pay, and retires at the comparatively early age of 46 or 47, having been but twenty-five years in the service. This is the great and crying evil of the Naval Medical Service, as compared to the army; the full-pay and half, as well as retirement, being the same after certain terms of full-pay service.

2. The most unfair distribution of prize money. In the army prize money and allowances are given according to the relative rank of the Medical officer. In the navy the ship's carpenter, the boatswain, the young sub-lieutenant, and lieutenant of marines share equally in prize money with the Staff-Surgeon (Surgeon-Major army), Surgeon, and Assistant-Surgeon. Rank is entirely ignored.

3. The want of a regular roster for active employment from half-pay. If loss of time on half-pay must from time to time take place, officers should be called to full-pay service in regular rotation; and it should not depend, as at present, on favouritism, caprice, political or other influences. Each officer would thus know when his turn for service was approaching, and be enabled to make necessary arrangements.

4. The want of proper cabin accommodation. This should be regulated according to relative rank. At present no Assistant-Surgeon can claim a cabin, and in many of our large ships the junior does not possess one.

5. The very limited number of inspectorial officers on the active list. As Surgeons are only allowed by recent regulations to retain appointments in Hospitals, dockyards, or the marine corps for five years, the same rule should be extended to inspectors and deputy-inspectors general. Thus all officers of good character might aspire to future promotion, as in the army.

6. Honours, military and civil, are not fairly dealt out to the naval Medical corps. A gross instance of this neglect has been observed and most acutely felt in the recent distribution of the Order of the Bath.

7. The Medical naval officer has also been excluded from the out-pensions of Greenwich Hospital, although all other classes have been included under the new Bill introduced by Mr. Childers.

The above I believe to be the main grievances my class labour under, as compared with the sister service, which complains most justly of the treatment endured, and which complaints apply to us equally, in addition to those I have submitted.

I have to apologise for the length of this letter, but feel certain the importance of the subject at this crisis will be my excuse to you.

I beg also to subjoin a table of the present and proposed scales of pay, based entirely on the loss to the naval Surgeon by the rule of half-pay; the proposed rates only equalising the pay of the naval and army Medical officers.

I am, &c. A Naval Medical Officer.

Table Showing the Present Rates of Full and Half-Pay, with a Proposed Increase, in Consequence of the Loss of Time occasioned by being Placed on Half-Pay.

Present Scale.

	Daily.		Annual.		
	s.	d.	£	s.	d.
Assistant-Surgeon—*Full-Pay:*					
On entrance to the service	10	0	182	10	0
After five years' service	11	6	209	17	6
After ten years' service	13	0	237	5	0
Half-Pay:					
On entrance	6	0	109	10	0
After five years' service	8	0	146	0	0
After ten years' service	10	0	182	10	0
Surgeon—*Full-Pay:*					
On promotion to the rank	15	0	273	15	0
After fifteen years' service	18	0	328	10	0
After twenty years' service (ten as Surgeon)	22	0	401	10	0
After twenty-five years' service	25	0	456	5	0
Half-Pay:					
On promotion	11	0	200	15	0
After fifteen years' service	13	6	246	7	6
After twenty years' do. (ten of which as Surgeon)	16	6	301	2	6
After twenty-five years' do. (with leave to retire)	18	6	337	12	6
Deputy-Inspector-General—*Full-Pay:*					
On promotion	28	0	511	0	0
After twenty-five years' service	30	0	547	10	0
After thirty years' service	34	0	620	10	0
Half-Pay:					
On promotion	21	0	383	5	0
After twenty-five years' service	22	6	410	12	6
After thirty years' service	25	6	465	7	6

Proposed Scale.

	Daily.		Annual.		
	s.	d.	£	s.	d.
Assistant-Surgeon—*Full-Pay:*					
On entrance	10	0	182	10	0
After five years' service	12	0	219	0	0
After ten years' service	14	0	255	10	0
Half-Pay:					
On entrance	6	0	109	10	0
After five years' service	8	0	146	0	0
After ten years' service	11	0	200	15	0
Surgeon—*Full-Pay:*					
On promotion to the rank	18	0	328	10	0
After fifteen years' service	22	0	401	10	0
After twenty years' service	25	0	456	5	0
After twenty-five years' service	28	0	511	0	0
After thirty years' service	30	0	547	10	0
Half-Pay:					
On promotion	13	6	246	7	6
After fifteen years' service	16	6	301	2	6
Retirement at any of these periods optional. — After twenty years' service	18	6	337	12	6
Retirement at any of these periods optional. — After twenty-five years' do.	21	0	383	5	0
Retirement at any of these periods optional. — After thirty years' do.	22	0	401	10	0
Deputy-Inspector-General—*Full-Pay:*					
On promotion	32	0	584	0	0
After thirty years' service	36	6	666	2	6
Half-Pay:					
On promotion to the rank	22	6	410	12	6
After twenty-five years' service	25	6	465	7	6
After thirty years' service	27	6	501	17	6
After thirty-five years' service	30	0	547	10	0

SUBCUTANEOUS INJECTION.

Letter from Dr. Alexander Wood.

[To the Editor of the Medical Times and Gazette.]

Sir,—Several of my Professional brethren have called my attention to a report in your paper for June 3 of a meeting of the Royal Medical and Chirurgical Society.

Mr. Hunter there gives an account of what he calls the "Hypodermic Administration of Certain Medicines." He is

reported to have said, "The hypodermic differs from the method of Wood."

To this I reply it does so merely in name. I called my method "subcutaneous," borrowing from the Latin; Mr. Hunter, in appropriating it, called it hypodermic, a Greek compound having precisely the same meaning.

He proceeds, "The injection was supposed to be efficacious simply through the localisation." Now, the theory may be wrong, but I still constantly see cases which other Medical men have attempted to cure by injections at a distance from the affected part, and which have yielded readily to the local injection properly applied.

But, after all, whatever credit be due for the introduction of this new practice ought surely to be his who showed the plan of using the cellular tissues as a medium for the introduction of remedies into the system.

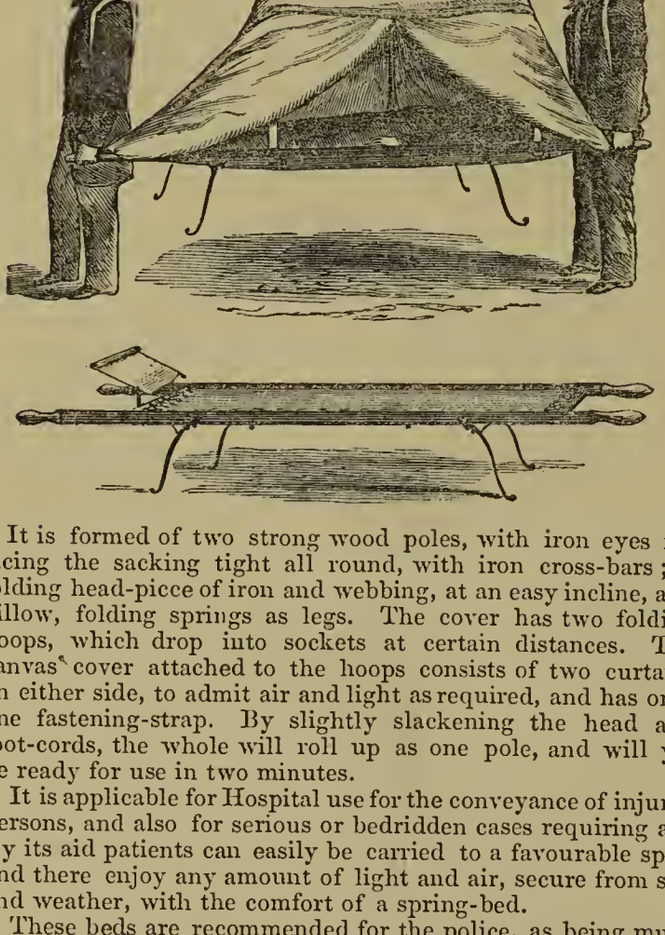
My paper has been translated into most foreign languages, and my practice is adopted over the globe; but, so far as I know, my claim to be the introducer of the practice has never been called in question till now, and certainly ought not to be so by one who has only slightly, if at all, modified some of the details. I am, &c.

Physicians' Hall, Edinburgh. ALEXANDER WOOD.

NEW INVENTIONS.

CAPTAIN RUSSELL'S STRETCHER.

THIS appliance, called "Russell's Camp Spring Stretcher or Dholee," obtained honourable mention from the Medical jury in the Exhibition of 1862. In the conveyance of injured men, it possesses the advantage of a flat, even surface, the avoidance of shock in changing bearers, and the ease of a spring-bed; and its cover protects from sun, weather, and exposure.



It is formed of two strong wood poles, with iron eyes for lacing the sacking tight all round, with iron cross-bars; a folding head-piece of iron and webbing, at an easy incline, as a pillow, folding springs as legs. The cover has two folding hoops, which drop into sockets at certain distances. The canvas cover attached to the hoops consists of two curtains on either side, to admit air and light as required, and has only one fastening-strap. By slightly slackening the head and foot-cords, the whole will roll up as one pole, and will yet be ready for use in two minutes.

It is applicable for Hospital use for the conveyance of injured persons, and also for serious or bedridden cases requiring air. By its aid patients can easily be carried to a favourable spot, and there enjoy any amount of light and air, secure from sun and weather, with the comfort of a spring-bed.

These beds are recommended for the police, as being much lighter than the rude stretchers now in use, and also as avoiding shock in change of bearers. The cover also prevents exposure. The straps enable a man to carry double weight, and leave his arms free for other purposes. Two can carry a weight that, with the ordinary stretcher, would require four. These stretchers would also be found most useful appliances at railway stations and in workhouses. They are manufactured by Alderman, of Soho-square.

MEDICAL NEWS.

APOTHECARIES' HALL.—Names of the gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, June 8, 1865:—

George Birch, Enfield-road, De Beauvoir-square; Richd. Jas. Andrews, Trinity-square, E.C.; Jas. Mortimer Fuller, Park-road, St. John's-wood; Samuel Gourley, West Hartlepool, Durham.

The following gentlemen, also on the same day, passed their first Examination:—

Thomas Frederick Hopgood, University College; William Spratt, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BLADES, CHARLES C., M.D. St. And., has been appointed Surgeon to the L Division of the Metropolitan Police.

BRICKWELL, JOHN, M.R.C.S. Eng., has been appointed House-Surgeon to the Royal Dispensary and Infirmary, Windsor.

GOODING, RALPH, B.A., M.R.C.S. Eng., has been appointed House-Surgeon to the Ipswich and East Suffolk Hospital.

HEAD, EDWARD, M.B. Lond., has been appointed Obstetric Physician to the London Hospital.

HOWARTH, GEORGE, M.R.C.S. Eng., has been appointed one of the Surgeons to the Bolton Infirmary and Dispensary.

ROBINSON, ALEXANDER H, L.K.Q.C.P.I., has been appointed to the Commission of the Peace for the Co. Tyrone.

TURNER, FREDERICK, M.R.C.S. Eng., has been appointed a Medical Officer to the Buxton Devonshire Hospital.

WADE, WILLIAM S., L.R.C.P. Edin., has been appointed Surgeon to the Police Force, Wakefield.

WILSON, M. S. W., M.R.C.S. Eng., has been elected House-Surgeon and Secretary to the West Norfolk and Lynn Hospital.

WINTER, JOHN, M.D., has been appointed a Member of the Legislative Council of the Island of Newfoundland.

DEATHS.

BROWNE, WILLIAM V., M.D. St. And., at Hayward's Heath Asylum, Sussex, on May 17, aged 40.

CLARKSON, J. JENKINSON, L.R.C.P. Edin., at Lausanne, Switzerland, on June 1, late of Lancaster.

COLE, EDWARD H., M.R.C.S. Eng., at Colaba, on April 14, aged 29, formerly of Great Plumpstead, Norwich.

COOK, ROBERT, Surgeon, of Gainsborough, in London, on June 4, aged 80.

DICKSON, —, M.D., at Gatehouse, of Fleet, on June 3, formerly of Lochmaben.

FOREMAN, ROBERT C., M.D. Edin., at Church-hill House, Brighton, on June 11, aged 43.

FURNIVALL, GEORGE F., M.R.C.S. Eng., at Egham, Surrey, on June 7, aged, formerly of H.M. 14th Regiment.

GARLICK, JOSEPH PRINCE, F.R.C.S. Eng., at 42, Park-square, Leeds, on June 4, aged 73.

KING, GILBERT LENNOX, Surgeon R.N., at Wyndham-street, Plymouth, on June 9, aged 32.

LUCAS, RUDD, M.R.C.S. Eng., late of Long Ashton, Bristol, at Clifton, on May 28.

MACLAGAN, DAVID, M.D. Edin., F.R.S. Edin., Surgeon in Ordinary to the Queen in Scotland, at 129, George-street, Edinburgh, on June 6, aged 81.

REVEIL, M., one of the *agrégé* Professors of the Paris Faculty of Medicine, and Professor at the School of Pharmacy, died suddenly on June 6, having recently suffered from some slight symptoms of angina pectoris.

RICHARDSON, Sir JOHN, C.B., F.R.S., M.D. Edin., late Inspector-General Naval Hospitals, at Grasmere, Westmoreland, on June 5, aged 78.

ROSS, ANDREW, M.D., St. And., at Chichester, on June 7, formerly of Waterloo, Hants.

SOUTHEY, HENRY H., M.D. Edin., F.R.S., at No. 1, Harley-street, Cavendish-square, W., on June 13, aged 82.

DEATH OF HENRY HERBERT SOUTHEY, M.D., F.R.S., D.C.L.—The death of this eminent Physician took place on Tuesday last, at his residence in Harley-street. Dr. Southey held the appointment of Lord Chancellor's visitor of lunatics, and was formerly Physician in Ordinary to George IV. The deceased was born in 1783.

DEATH OF SIR JOHN RICHARDSON, F.R.S.—This distinguished naturalist died somewhat suddenly at Grasmere on Monday last. He was born at Dumfries in 1787, and was educated at the grammar school of his native town. On leaving school at 14 years of age he entered the University of Edinburgh, and devoted himself to the study of Medicine. After passing through the University he entered the navy as Assistant-Surgeon, and served at the siege of Copenhagen in 1807. In consequence of the zeal and ability he displayed on that memorable occasion, and "for having served in the boats during a night attack upon a French brig in the Tagus," he was promoted in 1818 to be Acting-Surgeon of the *Hercule*, a 74-gun ship. During the war with the United States in

Canada and Georgia he served as Surgeon to the 1st Battalion of Marines, and in 1819 accompanied Sir John Franklin's Arctic expedition as Surgeon and naturalist. He also accompanied Sir John Franklin's second expedition in 1825, when he commanded two boats, in which he discovered the passage between the mouths of the Mackenzie and Coppermine rivers. In 1838 he was appointed by Lord Minto, then First Lord of the Admiralty, to be Physician to the Fleet, and in 1840 he was made Inspector of Hospitals. The deceased was the author of the "Fauna Borealis Americana," the "Zoological Appendix to Sir Edward Parry's Second Voyage," the "Icthyology of the Voyage of the *Erebus*, the *Terror*, and the *Sulphur*," and many reports and scientific papers. He received the honour of knighthood in 1846.

Death of Mr. Joseph Prince Garlick, F.R.C.S.—It is with sincere regret that we have this week to record the death of one of our highly-respected fellow townsmen, who, from being associated with some of the principal institutions of the town and district, will be missed from various public spheres of usefulness. Mr. Joseph Prince Garlick, Surgeon, died at his residence, Park-square, on Sunday, June 4, aged 72 years. He had for a short time been in a declining state of health, and his demise was not unexpected by his family and more immediate friends. As a Professional man, Mr. Garlick had long maintained a good practice, and he was not less respected by his Professional brethren than he was by all classes of patients who had experienced his great skill and mild and affectionate demeanour—by the latter often, almost as much as by the former, assuaging human suffering. In connexion with the Leeds Public Dispensary his name stands deservedly high, for he not only took an active part in the establishment of that excellent institution, but he was one of its Surgeons from its opening in 1824 to 1852, a period of twenty-eight years, during which many thousands of the humbler and poorer classes received the benefit of his Professional skill. In the Leeds School of Medicine, which is one of the most distinguished in the provinces, Mr. Garlick took a prominent position, along with other eminent Leeds Medical men, having been lecturer on different branches of science, including Anatomy, Physiology, and Surgery. The West Riding Medical Charitable Society—a society after his own Christian principles, and of which he was one of the founders, had the advantage of his personal aid for a long period, he having occupied the responsible post of Secretary for twenty-five years, and never having missed attending a single one of its annual meetings. Amongst the religious societies which had his warm support were the Pastoral Aid Society, the Church Missionary Society, and the Bible Society. Of the Leeds auxiliary of the latter he was for several years the Secretary, and of the Leeds branch of the Pastoral Aid Society he was for some years the President. He was a trustee of St. George's Church, and also of St. Stephen's Church, both in this town. His whole career, private and public, was one of uprightness and candour, liberality and charity, and he has departed hence in the well-merited esteem of his fellow-men. —*From the Leeds Intelligencer.*

The annual meeting of the Association of Medical officers of Asylums and Hospitals for the Insane will be held on Thursday, July 13, by permission of the President and Fellows, at the Royal College of Physicians. The President elect is Dr. Wood.

The ordinary monthly meeting of the Odontological Society was held on Monday, the 5th inst., at the Hospital, Soho-square, the President (Thomas Rogers, Esq.,) in the chair. Mr. Coleman called the attention of the Society to a case in which torsion had been unsuccessful, owing to the spiral shape of the fang, causing the tooth when turned, to come out of the socket. Mr. Woodhouse said his plan had been never to attempt torsion after the tooth had been through more than a year. Dr. L. Levison read a paper entitled "Some remarks on a few human skulls, as furnishing data in proof of the brain being under similar laws (organic) as induce the development or wasting of the muscular system; and that as most of these skulls are abnormal specimens, they furnish some suggestive explanations of certain forms of disease in the dental organs." Mr. Woodhouse read a paper "On the Use of Carbolic Acid in Dentistry." He said that carbolic acid in the operation of excavating a tooth for stopping, from its cauterising property, was exceedingly useful in rendering a fresh prepared surface of the cavity less sensitive before filling it. The acid was most useful in cases where the pulp was exposed, and where, without its aid, the general practice would be to destroy it. After describing the mode of treatment, Mr. Woodhouse read notes of cases prepared by Mr. Gibbons, in which the acid had been successfully applied to the treatment of sensitive dentine, exposed pulp, and alveolar abscess. A long and animated discussion followed, various members of the Society narrating cases where the application of carbolic acid had been most successful.

Overcrowding in the Dwellings of the Poor.—At a meeting of the Health Department of the Social Science Association, held at their rooms in the Adelphi, on Wednesday last, Dr. Lankester, F.R.S., in the chair, a paper was read by Dr. Hardwicke, "On the Evils of Overcrowding in the Dwellings of the Poor, and Means suggested for their Removal." Dr. Hardwicke pointed out that while other great sanitary improvements had been effected in the metropolis and elsewhere, comparatively little had been done to remedy the evils which were equally dangerous—the invisible poisons engendered by exhalation augmented by inferior house accommodation and overcrowding. After describing the deleterious effects of impure air, and referring to what had been done by various societies for many years past with little beneficial result, he proposed that parochial authorities, municipal corporations, and railway companies should be compelled to exercise powers which they possess of erecting house accommodation for the poor, that greater convenience should be given for suburban dwellings by cheap locomotion, that changes should be made in the duties and appointments of officers of health, an extension of the Common Lodging-house Act to compel registration and inspection of houses sub-let to several tenants, that the Board of Works should take charge of a systematic plan of cleansing, that the law might be adjusted for the purchase and transfer of land and houses like common property, and that the coroner should institute inquiry into the cause of disease and death produced by the neglect of sanitary precautions, and that such wilful neglect should be made penal. The meeting was unanimous in acknowledging the evil, but differed partially in the mode of dealing with it. Mr. Liddle, the Medical Officer of Health for the Whitechapel district, thought police supervision necessary, particularly at night, and doubted the expediency of establishing a "faubourg" in the suburbs, but rather that the poor should live more among the wealthy. Mr. Collins chairman of the Sanitary Committee of St. Pancras, described the difficulty of enforcing sanitary regulations, and thought that as the poor were entirely at the mercy of their landlords, the landlords should be compelled to let their property in habitable condition. Mr. George Godwin, F.R.S., thought that the only remedy was the extension of the provisions of the Common Lodging-house Act to inspection over houses where more than three families resided. Dr. Druitt and Dr. Buchanan gave numerous instances of the great necessity for a stricter system of supervision, the latter being in favour of registration. After some observations from Mr. Hastings, Dr. Hardwicke, and the Chairman, thanks were voted to Dr. Hardwicke for his valuable paper, and the meeting separated.

Pollution of the Thames at Kingston.—Vice-Chancellors' Court, June 9, 10, 13.—The Attorney-General *v.* The Mayor and Corporation of Kingston-on-Thames.—(*Before Vice-Chancellor Sir* W. P. Wood.)—The information was filed by the Attorney-General, at the relation of the Conservators of the Thames, for the purpose in effect of restraining the Corporation of Kingston from draining the sewage of the town and district into the Thames, and the case raised a question of the utmost national importance, affecting as it does not only the inhabitants on the banks of the Thames, but generally the population in the neighbourhood of all our navigable rivers, as the effect of the course proposed by the defendants will undoubtedly be ultimately, if not immediately, to neutralise the Main Drainage works now being carried on at such a vast expense, and turn the upper portion of the Thames into an open sewer dangerous both to health and life. Dr. Letheby, in his evidence, summed up the question as follows:—"This practice of making the rivers of England the receptacle of all the filth of the towns is becoming a monstrous evil, and will be, if it is not checked and corrected, a national disgrace; for although the effect at first is not very marked, yet little by little the solid part of the excrementitious matters accumulate, and in a longer or shorter time they become excessively offensive, killing the fish and destroying the vegetation." The Vice-Chancellor concluded his judgment in these terms: Looking at the provisions of the Act of 1847, the mere fact of draining into a navigable river was not in itself to be con-

sidered as a nuisance, since it was authorised to be done provided no nuisance was thereby occasioned. If, however, any case of injury to the cattle from drinking the water, or to the inhabitants on the banks had been at all established, then he should conceive that it was a case for interfering by injunction. But nothing like such a case was shown by the evidence. Further than this, some means of defecating or deodorising the sewage might have been applied before the nuisance actually arose. Was he, then, to stop the works of the defendants on a mere case of prospective apprehended nuisance? The Court would have full power to deal with the matter when any case of actual nuisance arose, and the proper course would be to dismiss the information, such dismissal being prefaced by a declaration that the Court was of opinion that the evidence did not establish the existence of any nuisance in respect of the works executed or intended by the defendants, or any case for the interference of the Court. The order would be without prejudice to any future proceedings on the part of the Attorney-General, in case the works should occasion a nuisance, and under the circumstances it was not a case for giving costs.

Bethnal-green.—On Monday an inquiry was held by Mr. Richards, Deputy-Coroner, at Bethnal-green, respecting the death of Frances Hogg, aged 48 years. The deceased lived with a married daughter, named Neale, in a room at No. 42, Old Nicholl-street. This house contained five rooms, in which lived twenty-eight persons. Each room was let furnished by the leaseholder at 3s. 6d. a-week. The sanitary condition of the place was described as something abominable. A short time since there was no water laid on for five weeks; and when the landlady, Mrs. Hurst, who lived next door, was applied to, she simply replied that the tenants should do as she did—do without it, or get it as best they could. The deceased got fever and died. Her son-in-law and her daughter were also taken with it. One of the witnesses who gave evidence on Tuesday last has been since seized with fever. Mr. George Bainbridge, surveyor to the Bethnal-green Vestry, gave evidence to the effect that there were drain pipes, etc., on the premises, and that the place had been put in repair twelve months ago by order of the Vestry. The landlord had been summoned to Worship-street Police-court once or twice, and fined. Witness never inspected a place until he was set in motion by the sanitary inspector to the Vestry. Dr. Henry Letheby, Professor of Chemistry, said that he inspected the premises in question on Monday last. The house was dilapidated, the ground floors and the flooring of the passages were decayed, permitting the escape of effluvium from the soil. The ceilings of the upper rooms were broken, and the water seemed to have flowed in from the roof. The yard was unpaved, and dirty; the closet, (which was now being repaired) was without proper drainage; the soil was received into a sort of pit, when it soaked into the earth for a considerable distance round. Close to the closet was the water-butt, which was uncovered, and open to the reception of filth and the offensive emanations from the closet. The neighbouring houses and Shepherd's-court and Inner Shepherd's-court, at the back, were in a similar condition, the water-butts broken and uncovered, and the privies overflowing with soil. The condition of the places was highly dangerous to the public health, and in his opinion it might at any time give rise to a serious outbreak of disease, which may pass beyond the locality. Such a condition of things could not have arisen without great neglect of sanitary supervision. The state of the yards, butts, and closets was not of recent origin; it was of old standing. Three persons within a month were attacked by typhoid fever. Witness believed that deceased died from typhoid fever, which had its origin in the putrid emanations from the soil and neighbourhood. Dr. Letheby, in answer to questions, said he had never seen a worse condition of things. There was a great want of proper inspection in Bethnal-green, not so much, perhaps, from unwillingness on the part of the officers, as from the want of a sufficient number to do the work. The evidence of Dr. Haycock, divisional Surgeon of Bethnal-green, went to prove that he was called in to the deceased on last Friday. He found her lying on an old sack on the floor. She was so dirty that he could not tell at first what was the matter with her; but she had typhus fever, and she died in half an hour. The coroner, in summing up, said that it was discreditable to the owner of the property—who held an exalted position—to draw a part of his income from places in such a condition; the intermediate party simply made money by grinding it out of the poor. There was certainly blame due to the sanitary officers for allowing such a state of things to exist to the danger of the general health. Mr. Bainbridge said that he believed the Marquis of Chandos was the landlord. The jury returned the following verdict:—"That the deceased died from typhoid fever, accelerated by the sanitary condition of the premises, No. 42, Old Nicholl-street, Bethnal-green, and the neighbourhood; and that the said condition was such that it was dangerous to human life, and showed great neglect on the part of the freeholder as well as the leaseholder of the premises, and also on the part of the sanitary and Medical officers of the parish; and the jurors further say that it appears from the evidence that there are not a sufficient number of sanitary officers for the inspection of so large a parish."

Collegiate Election.—The annual meeting of the Fellows of the Royal College of Surgeons of England appointed to be held on July 6 promises to be an unusually excited one, inasmuch as there appear to be no less than nine candidates coming forward to compete for the three vacant seats in the Council, caused, as already stated, by the resignation of Mr. Arnott, a life member, and the retirement, in the prescribed order, of Messrs. Richard Quain, of University College, and Alexander Shaw, of the Middlesex Hospital. These gentlemen, however, offer themselves for re-election, but will be opposed by the following gentlemen, given in seniority of Fellowship—viz., Mr. Thomas Turner, of Manchester, Surgeon to the Royal Infirmary and other Medical charities in that town, as also the author of some valuable contributions to science. He has been nominated by Messrs. Howitt, of Lancaster; Harrison, of Chester; Stubbs, of Liverpool; Southam, of Manchester; Teale, of Leeds; and Husband, of York. No. 2 on the list is Mr. William James Erasmus Wilson, F.R.S., of Henrietta-street, deservedly well known by his works on cutaneous diseases, as the author of the "Anatomist's Vade Mecum," and numerous contributions in this and other journals. He is nominated by the following gentlemen:—Messrs. Critchett, of Harley-street; Erichsen, of Cavendish-place; Adams, of Henrietta-street; Paget, of Harewood-place; Spencer Smith, of Queen Anne-street; and Henry Thompson, of Wimpole-street. No. 3 is Mr. Alexander Ure, of Upper Seymour-street, Surgeon and Lecturer on Clinical Surgery to St. Mary's Hospital, another valuable contributor to the literature of the day. He has been nominated by Messrs. Bowman, of Clifford-street; Dixon, of Portman-square; Erichsen, of Cavendish-place; Paget, of Harewood-place; Spencer Smith, of Queen Anne-street; and J. R. Lane, of Grosvenor-place. No. 4 is Mr. James Paget, F.R.S., of Harewood-place, Surgeon Extraordinary to H.M. the Queen, to H.R.H. the Prince of Wales, Surgeon to St. Bartholomew's Hospital, a member of the Senate of the University of London, late Professor of Anatomy and Surgery to the College of Surgeons, author of the Pathological Catalogue of the Museum of the College, and many other valuable contributions to science. He has been nominated by Messrs. Erichsen, of Cavendish-place; Coote, of Queen Anne-street; Thompson, of Wimpole-street; Hewett, of Chesterfield-street; Professor Owen, of the British Museum; and Bowman, of Clifford-street. No. 5 is Mr. Prescott Gardner Hewett, of Chesterfield-street, Mayfair, Surgeon to St. George's Hospital, late Professor of Anatomy and Surgery to the College of Surgeons, and another valuable contributor of papers to the advancement of science, this gentleman is nominated by Messrs. Hawkins and Lee, of Saville-row; Birkett, of Green-street; Paget, of Harewood-place; Cæsar Hawkins, of Grosvenor-street; and Savory, of Brook-street. No. 6 is Mr. Charles Hawkins, of Saville-row, the Government Inspector of Schools of Anatomy, and well known as the editor of the recently published works of Sir Benjamin Brodie; he is nominated by Messrs. Hewett, of Chesterfield-street; Lee, of Saville-row; Pollock and Broadhurst, of Grosvenor-street; Cartwright, of Old Burlington-street; and Powell, of John-street, Berkeley-square. No. 7 is Mr. Joseph Atkinson Ransome, of Manchester, Surgeon to the Royal Infirmary and other Medical charities in that town; he is nominated by Messrs. Windsor, Dumville, Southam, Mellor, and Fletcher, of Manchester; and Broadbent, of Altrincham. The candidates, therefore, for seats in the Council are Messrs. Quain, Shaw, Turner, Wilson, Ure, Paget, Hewett, Hawkins, and Ransome. Of the return of the retiring members there is great doubt expressed; indeed, the favourites openly mentioned are Messrs. Charles Hawkins, Paget, Hewett, and Turner. Several provincial and metropolitan Fellows have complained of Mr. Ransome offering himself in opposition to his distinguished townsman.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

The article entitled "Notes on Syphilis, No. II.," is unavoidably postponed this week.

We desire to call our readers' attention to a meeting to be held at St. James's Hall, Piccadilly, on the 22nd, the Bishop of Oxford in the chair, to consider the subject of domestic service.

Both Chemists and Druggists Bills have been abandoned for the present. With the evidence already obtained, and the report of the Committee, it is believed that Government will take the matter into its own hands, and prepare a Bill against the next session that shall deal with the compounding of prescriptions, the sale of poisons, and the due *status* and *differentia* of Medical Practitioners and chemists.

M.D., Paris.—Write for information to Dr. Francis Hawkins, at the Medical Registration Office, 32, Soho-square, London, W.

A Manchester Fellow.—You are too late. Monday was the last day for sending in applications. It is stated that the gentleman named purposes withdrawing; there may perhaps be another withdrawal.

J. H. B.—Dr. Tilbury Fox's work on "Skin Diseases" contains, perhaps, the "fullest" information; but either of Mr. E. Wilson's works, or Dr. Hillier's "Handbook of Skin Diseases," would, we should think, also give all the information required.

An Angry Member.—You cannot have read the advertisement which appeared from the College of Surgeons in this journal last week and in the current number. You *are* invited to the *soirée* by the Council, and have only to present your private card to the janitors to obtain admission. Official cards are only sent to high and official personages.

Poor-law Medical Reform.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I am sorry so frequently to trouble you, but events have transpired so unexpectedly during the last few weeks that it has been unavoidable, and I must again crave your permission for space to inform all the Poor-law Medical officers that a Poor-law Continuance Bill has been introduced into the House of Commons, and as I considered it would be a good opportunity to make a final attempt, this Session, to amend the Medical relief of the poor, I have forwarded a pamphlet on the subject to each member of the House of Commons, urging him to insist on clauses being introduced into the Bill now before the House.

I should have sent a copy of the pamphlet to each Poor-law Medical officer, but as I am already in debt, about £20, I do not feel justified in incurring further expense, but I have directed the printer to keep the type standing for a few days, to enable any gentleman to have a copy on forwarding six postage stamps to Mr. Sherren, Printer, Weymouth, or to myself. I sincerely trust that success will attend our efforts, and that the present Parliament will yet do us and the poor that justice for which we have so long toiled.

I trust every Medical man in the kingdom, but especially the Poor-law Medical officers, will without delay urge upon his member the necessity of Poor-law Medical Reform. I am, &c.

12, Royal-terrace, Weymouth, June 10. Richard Griffin.

The Subscription for Mrs. Walker, of Crick.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have lately had the pleasure of forwarding to Mrs. Walker, of Crick, the sum of £6 9s., the result of a collection by George Harday, Esq., M.R.C.S., West Haddon, Northamptonshire, and shall feel greatly obliged if you will allow this acknowledgment to appear in your forthcoming number. I am, &c.

Upper-street, Islington, June 12. Henry Osborne, M.D.

Medical Etiquette.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you be kind enough to give me your opinion on the following case? The husband of an old patient of mine—and who is away for the benefit of her health on my recommendation—is suddenly taken ill. The friends send for the nearest Medical man. He attends the case until the return of the wife, when, she finding that her husband does not improve, sends a note requesting my attendance. In it she states she told my friend that she intended to do so, and does not ask me to meet him. After seeing and prescribing for the patient, and just when I am about to leave the house, the wife said, "Will you see Mr. C.?' and thinking that it referred to the treatment that had been previously adopted, I replied, "There is no occasion for it." Now, was I upon this remark, and considering my previous position in regard to the patient, bound to call upon Mr. C. to consult with him on the case? An answer in your "Notices to Correspondents" will oblige. I am, &c.

A Subscriber.

*** Certainly not bound; but it would have been an act of courtesy, might have cemented Professional friendship, and been of use to the patient.

Case of Incontinence of Urine.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Miss ———, aged 15, had suffered since infancy from incontinence of urine, which had resisted every form of treatment hitherto prescribed, and her parents, considering the case hopeless, had ceased to seek Medical advice. They contented themselves with providing for the comfort of other members of the family, by removing her sleeping apartment to as great a distance as possible, and with using such precautions as were in their power to alleviate the discomfort of the sufferer herself. She was never allowed to take any fluids after mid-day, and an attendant slept in her room, whose duty it was to wake her in the course of the night. The incontinence, nevertheless, was of nightly occurrence.

On January 18, 1864, she was placed under my care, and I passed externally a galvanic current from the hypogastric region to the sacrum. She continued under my care until May 2, during which period the galvanic current was applied twenty times; the treatment was then discontinued, a month having elapsed without a return of the distressing complaint. Up to the present time the cure has been permanent.

I am, &c. Richard Lawrance, M.D.

Connaught-square, April 8.

COMMUNICATIONS have been received from—

Dr. John Whitmore; The Secretary of the Odontological Society; Dr. Herapath; A Subscriber; Dr. Henry Osborne; Mr. Thomas Warner; Messrs. Trübner and Co.; Mr. W. Menzies; Dr. Alexander Wood; The Royal College of Surgeons of England; Apothecaries' Hall; Mr. Hastings; Mr. Claude Wheelhouse; M. A. B.; Mr. R. Griffin.

BOOKS RECEIVED.

Homes without Hands. By the Rev. J. G. Wood. Part 18. London: Longman and Co.

*** The engravings to this popular work are always good, and the whole thing calculated to entice young people to the study of zoology. The account of the *shrikes*, which impale on thorns the small animals which they make their prey, is very curious.

The Home Nurse, and Manual for the Sick Room. By Esther Le Hardy. London: R. Hardwicke.

*** This seems to be a new edition, with little or no alteration.

A Dictionary of Science, Literature, and Art. Edited by W. T. Brande, D.C.L., and the Rev. G. W. Cox, M.A. Part 3. London: Longman and Co.

*** Begins with "Cognizance," and ends with "Drift."

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 10, 1865.

BIRTHS.

Births of Boys, 1008; Girls, 948; Total, 1956.
Average of 10 corresponding weeks, 1855-64, 1745·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	662	627	1289
Average of the ten years 1855-64	550·6	516·7	1067·3
Average corrected to increased population..	..	..	1174
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	4	5	3	2	5	4	10
North ..	618,210	1	..	5	4	11	9	10
Central ..	378,058	2	1	2	2	4	1	9
East ..	571,158	..	1	9	1	10	15	7
South ..	773,175	3	11	12	4	16	9	8
Total ..	2,803,989	10	18	31	13	46	38	44

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·167 in.
Mean temperature	63·6
Highest point of thermometer	82
Lowest point of thermometer	50·9
Mean dew-point temperature	54·1
General direction of wind	Variable.
Whole amount of rain in the week	0·00 in.

APPOINTMENTS FOR THE WEEK.

June 17. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

19. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

20. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.

21. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

22. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

23. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

ORIGINAL LECTURES.

AN INQUIRY INTO THE NATURE OF THE PHENOMENA WHICH CONSTITUTE "INFLAMMATION."

TWO LECTURES DELIVERED AT
The Royal College of Physicians.

By LIONEL S. BEALE, M.B., F.R.S.,
Fellow of the College; Professor of Physiology and of General and Morbid Anatomy in King's College, London; Physician to King's College Hospital.

Lecture I. *concluded.*

Of truly Vital Actions as distinguished from the Physical and Chemical Actions of Living Beings—Vital Phenomena of Inflammation—Of Vital Stimuli: Nutritive Irritability—Excitation and Irritation—The Nature of Irritation—Alleged Resemblance of Inflammation to Combustion—Oxidation not Increased in Inflammation—Of "Excess" or "Deficiency" of Vital Action—Of Living Matter and Formed Matter, and of the so-called Force-Conditioning Machinery of the Cell—No Analogy between Living Matter and a Lifeless Machine—On Inflammation—Changes in Living Matter—Of the "Cell" of different Tissues—Quickly Growing Structures Contrasted with Slowly Growing Structures—Changes in the Formed Material—Of Germinal Matter, and of its Origin—"Omne vivum e vivo."

(Continued from page 620.)

Of the Changes in the Living Cell.

I would not give up the use of the word "cell," for it is short and convenient, but I would offer a somewhat different definition from that which is usually given. I would say that a *cell* consists of a certain quantity of living matter and a certain quantity of lifeless or formed matter; I would therefore speak of all these elementary parts as cells. If you ask me what is a muscle cell, I say (pointing to the drawing) this mass of germinal matter, with a certain proportion of formed material around it, is a muscle cell. Here is another muscle cell, and here is a third; here is a fibrous tissue cell, and here is another, and so on. In some cases the formed material corresponding to each mass of germinal matter is distinctly marked and separated from its neighbours, as in an epithelial cell; in other cases the formed material of one mass becomes fused into the formed material of another mass, as in the cartilage cells. The portion included in that line would be one cell of nerve. And so of all other tissues. The term "cell" may therefore be retained; but instead of speaking of the cell as consisting of nucleus, cell contents, and cell wall, I would speak of it as consisting simply of living matter and formed matter,—formed matter that was once in a living state, but which is now, when we come to examine it, in a lifeless state, which possesses no wonderful properties like germinal matter, and cannot reproduce matter like itself. Muscular tissue—to take, perhaps, the most elaborate and complex formed material which, according to some, exhibits vital contractility—cannot produce muscular tissue any more than the outer part of an epithelial cell about to be cast off from the surface of the skin or mucous membrane, can produce hard cuticular matter or soft mucus, like that of which it is composed, or the outer part of a liver cell produce bile or the other materials of which it consists. The only active material seems to be this living germinal matter in the centre, and as long as even a minute portion of it remains alive, so long you may say, the cell lives; but when the whole is dead, the cell can no longer produce new matter of any kind, and no longer exhibits any of those phenomena which we speak of as *vital phenomena;* it cannot form, alter, or absorb the various constituents; it cannot change the constituents into other materials; in fact, it is a lifeless mass. The outer or formed material is, I believe, perfectly passive. It is, no doubt, of great importance in regard to *physical and chemical changes;* certain fluids permeate it, others will not permeate it; but I believe that all these phenomena may be attributed to the physical or chemical characters of the outer formed material of the cell; while, on the other hand, the forming power—the power of converting pabulum into matter of a totally different chemical composition—is possessed by the germinal matter of the cell, and by this only.

I shall venture to draw your attention more particularly to these points, because it will be quite impossible for me to explain the notions I entertain of the nature of the inflammatory process unless I enter into this somewhat considerable detail.

For the production of formed material, and for the conversion of this material into the proper substance of the tissue, a certain time is required. It is really a slow process; so that we shall find that in all those cases where tissues are characterised by a large amount of formed material they have been slowly produced. All the hard tissues of the body have grown very slowly; while, on the other hand, those tissues which contain a large amount of germinal matter in proportion to the formed material, are tissues which have grown very quickly. We may contrast, for example, the different appearances which we observe in the villi of the intestine, or, rather in the cells upon the surface of the villi, with those of such a tissue as cartilage. We find, supposing these are stained with carmine, that the so-called cells upon the villus are close to one another, so that there is scarcely room for anything to pass between them. There can be little doubt that the nutrient material is absorbed by the germinal matter of these cells, which is stained red; that, in fact, the cells live upon the pabulum and grow at its expense. Then the very matter of which the cell is composed dies, and in dying it becomes resolved into other constituents, which pass onwards into the lacteal vessels or into the blood-vessels, and so become absorbed by other cells, and at length applied to the nutrition of the body.

If, on the other hand, you compare such a structure as this, in which the proportion of germinal matter is very great, with fully formed cartilage, in which the proportion is small, you cannot fail to observe a very great difference. Cartilage is a very slowly growing tissue; a considerable time is required for the formation and accumulation of the hard formed material. These remarks apply to diseased as well as to healthy tissues. The rapidly growing cancer contains a greater proportion of germinal matter in relation to the formed material, than the slowly growing normal tissue.

We may likewise contrast the same tissue at different periods of its life, and similar facts will be noticed. In the adult, there is an opportunity of doing this at any age in the case of the epithelium covering the skin, or the epithelium of the tongue. Here is one of the small processes from a compound papilla of the tongue, covered with a thick layer of epithelium. If you take a portion of tissue such as this, you find that the quantity of germinal matter is very great indeed, as compared with the quantity in a space of corresponding extent in the older tissue. As these cells gradually move away from the situation of the blood-vessels where the nutrient matter is poured out, the formed material increases, and the changes taking place in the cell become slower and slower. The changes going on in the youngest cells are active indeed compared with those going on in the most mature cells. The changes in cells which have already reached the surface have almost ceased; the germinal matter is reduced to a minimum, and perhaps in many of these cells that small quantity is not in a living state—the cell is *dead*, and is about to be cast off.

The formed material is at first invariably soft, and as the change goes on it becomes condensed, and in many cases contracts and loses bulk. I may adduce as an instance a common hair, in which, as is well known, the bulb exhibits twice or three times the diameter of the shaft, and contains a considerable quantity of germinal matter in proportion to that existing in the shaft. The shaft consists of flattened cells lying very close to one another; these cells are composed of a firm, hard material, with scarcely a trace of germinal matter. But the bulb is composed almost entirely of germinal matter, and as this matter becomes converted into formed material, contraction goes on; and this is, no doubt, the explanation of the diameter of the shaft of the hair being so much less than the bulb. It is the same in the case of vegetable tissues. Look at the growth of any rapidly-growing tree, such as the elder tree, and you will find that the new shoots are twice the width of the old stems from which they are growing. As the soft new tissue undergoes condensation, it contracts until it becomes of less diameter than the trunk or branch upon which it grew. These and many other facts to which I might allude show clearly that contraction and condensation take place in many tissues soon after they are produced, and that the hardest textures are soft when first formed.

Next, with regard to the changes taking place in the substance of cells under certain conditions. The *colouring matters*

in cells result from changes occurring in the germinal matter, but the colouring matter itself is not living; it probably results from the death of the germinal matter. The living material from which the coloured matter is produced is colourless. The petals of a coloured flower when young are perfectly colourless; but as the petals grow, the action of light and other external conditions cause the death of certain particles of germinal matter of the cell, and in dying, these become converted into beautifully coloured materials. The same holds good with regard to red blood corpuscles. The red material of the blood corpuscle is not living germinal matter; it is lifeless formed matter. Here we have the coloured matter in a frog's blood corpuscle. This part, represented brown, is formed lifeless matter; this, represented of a carmine tint, is in nature perfectly colourless, and consists of germinal matter. So, in the human subject, there are numerous blood corpuscles which consist partly of formed material diffused, as it were, amongst the germinal matter; and that this is so, is shown by the fact that the germinal matter which is living sometimes makes its way out of the general mass, leaving the coloured material behind it. The coloured matters of cells then result from changes taking place in the germinal matter.

Pigment is formed normally in certain animal cells; and there are certain cells in health containing no pigment, which nevertheless contain a considerable amount in disease. During the inflammatory process, or rather when the active changes have ceased, many cells develope pigmentary matter. Certain cells around the vessels of the brain are often seen to contain yellow colouring matter. In many parts of the body there are dark pigment cells containing a considerable quantity of dark granular matter, while the corresponding healthy cells do not contain any. No doubt in many cases this deposition of dark pigmentary matter depends partly upon imperfect oxidation.

I propose now to say a few words concerning the changes taking place in the germinal matter; for it is impossible for us to enter into the consideration of the inflammatory process without discussing briefly the nature of some of these changes. Many inflamed tissues differ from the healthy tissues principally in the greater amount of germinal matter that they contain. A tissue which contains a very small amount of germinal matter, like a tendon, may assume the character of tissue like the cells of the intestinal villus, which consist of a large amount of germinal matter.

Masses of germinal matter possess the power of movement, and are capable of dividing and sub-dividing. This is seen in the case of the white blood corpuscle, or the pus-corpuscle, or the amœba, or any mass of germinal matter not surrounded by a thick layer of formed material. Let one of these masses represent the "mucus corpuscle" which is embedded in soft viscid mucus. The living mucus corpuscle (as I mentioned in 1860) undergoes a change in form; portions of the mass move away from the rest, and the peculiar movements which are represented in this diagram can be almost invariably seen. These three outlines represent the different forms taken by one single oval mass in the course of a minute of time. The most curious changes occur in the form of masses of living matter, which are free to move in any soft material, and these precisely correspond to the changes which take place in the amœba and other cells of low organisation. In fact, if the pus from a case of disease of the bladder, in which the urine contains but a small quantity of urea and other constituents, be examined soon after it is removed, not unfrequently the pus-corpuscles will be seen to exhibit these unusual and irregular shapes [drawing on the board]. In some cases I have sought in vain for a single circular corpuscle; all, however, become spherical after they have remained for some time in the water.

While these cells are upon the surface of the mucous membrane they are moving and forming these various processes or outgrowths, and every now and then one of these processes moves a considerable distance from the parent mass, the little pedicle which connects it becomes broken down, and thus a new pus-corpuscle is produced. It is in this manner, no doubt, that the very rapid multiplication of pus and lymph-corpuscles and other cells, which is very striking in many diseased structures, takes place. At the same time that these outgrowths occur and are detached, the germinal matter continues to absorb nutrient matter and to increase. The germinal matter may divide in *all* directions, in *two* directions at right angles to one another, or it may divide in a linear direction only. These masses of germinal matter, originally continuous, may separate from one another, a fibre being drawn off, as it were, during the process. Rings of germinal matter may be formed in different masses, extending and growing round one another, and from these fibres may result. It is in this way that the interlacement of fibres so commonly seen, not only in nervous tissues, but in ordinary fibrous textures, is produced. The complex arrangement of fibres results from the arrangement and movements of the masses of germinal matter which gave origin to them, and without which they could not have been formed. There is reason for thinking that in certain instances new contractile tissue is formed in the very centre of an elementary muscular fibre, and that the so-called nuclei in this situation move from one end of the space in which they lie, to the other, forming the new fibrillæ as they go.

The germinal matter is, doubtless, alone concerned in reproduction. The formed material is perfectly passive. If a cell of common mildew be exposed to adverse conditions, it becomes surrounded by layer after layer of hard formed material, resulting from the death of the germinal matter, and at last perhaps it contains only a mere trace of living matter in its centre; but, when exposed to the action of moisture and a warm temperature, a change takes place, and this hard material, which is perfectly passive and dead, becomes softened by the action of the moisture, just as, under similar conditions, a mass of dry gelatine would imbibe moisture. It swells up, and becomes more permeable to fluid; nutrient fluid thus gets into the interior, and this fluid comes into contact with the small portion of germinal matter, which absorbs it and grows. As soon as the germinal matter increases, and makes its way through the softened envelope, it comes into contact with the nutrient material, and immediately grows much faster, and the width of the growing mass becomes very much greater after it has passed out of the original spore than at the point where it hasemerged. This is the explanation, I believe, of the extreme contraction always observed at the point of connexion between the branch as it grows away from the particle of mildew or other sporule or cell. In this way the germinal matter of the mildew increases in bulk when nutrient material comes into contact with it.(a)

With regard to the origin of germinal matter, this may be summed up in a few words. Every particle of living or germinal matter comes from a pre-existing particle of germinal matter. No doubt all in this theatre are well aware that upwards of 200 years ago Harvey, who, as Dr. Munk has truly said, was the greatest physiologist the world has seen, stated his opinion that all creatures came from ova. "Omne vivum ex ovo" is an aphorism as true now, if it be taken in its widest sense, as it was when Harvey uttered it; but, in order to make it apply to the results of recent observation and experiment, instead of *ovum*, let us say *germinal particle*,—"Every living thing springs from a germinal or living particle." It is curious that by a very slight alteration in the Harveian maxim a statement is made which, I believe, cannot be controverted in the present day—by an alteration in two letters only: "*Omne vivum e vivo*" is an aphorism which is unassailable, and which I venture to think will long remain so.

Oxford Commemoration.—Among those whom the University this year have selected for the honour of the D.C.L. degree appear the names of Dr. Christison, of Edinburgh, and Dr. Stokes, of Dublin.

Mr. Robert Debenham, the Surgeon charged with manslaughter, for having shot a supposed burglar on his premises, on the night of Whit-Monday, has again appeared before the magistrate. Mr. Smith, the prosecuting solicitor, stated that Sir George Grey had acceded to the request that the body might be exhumed, for the purpose of making a complete post-mortem examination. The inquiry was adjourned for another week.

Waterloo Day.—Sunday last was the fiftieth anniversary of the great battle, and it may not be uninteresting to our readers to know that of the 190 gallant veteran officers still surviving we have the following belonging to our own Profession, viz.:—Deputy-Inspector-General R. Dawn, M.D.; Assistant-Surgeon George Evans; Surgeon F. Gilder; Surgeon J. Harrison; Surgeon W. Hunter, M.D.; Assistant-Surgeon M. Kenney, M.D.; Surgeon R. A. Pearson, M.D.; Surgeon D. Perston, M.D.; Surgeon T. Smith, M.D.; Surgeon to the Forces, R. Scott, M.D.; and Surgeon W. H. Young.

(a) See a paper "On the Structure of Tissue; with some Observations on their Growth, Nutrition, and Decay," *Archives*, vol. ii., p. 179.

ORIGINAL COMMUNICATIONS.

AN IMPROVED SPECULUM FOR THE EYE.

By J. Z. LAURENCE, F.R.C.S., M.B.
Surgeon to the Ophthalmic Hospital, Southwark

I SHALL briefly enumerate the disadvantages of the wire speculum in ordinary use for exposing the eyeball for operations and the remedies I have introduced in my own form of instrument.

1. The parts of the instrument which are directly employed in separating the eyelids are too short—they do not separate them in their entire lengths; in my instrument these parts of the instrument are increased to about seven-eighths of an inch.

2. These same parts are straight; in my instrument they are gently curved, in conformity with the natural curves of the palpebral sinuses; thus any separate and unnatural dragging on individual parts of the eyelids is avoided.

3. Whenever the patient resists, more or less violently, by powerful spasmodic action of his orbicular muscle, the separation of the eyelids by the wire speculum, the eyelids, especially the upper one, are forced down over or under the wires, so that the part of the eyeball exposed to view is materially diminished; indeed, in certain operations (*e.g.*, those on the cornea, iris, and lens), more especially when the eyeballs are much sunken or small, the action of the wire speculum is practically annihilated.

This disadvantage I have met by substituting for the wires, which should separate the eyelids, grooves of metal—troughs, if I may so say—which receive the eyelids and absolutely prevent their overlapping, and thus contracting the Surgeon's field of operation.

1. With the head-rest (described in a former number of the *Medical Times and Gazette*) fix the head; 2. With this speculum expose the globe fully; 3. With bulldog forceps fix the eyeball itself, and you may operate on the most unruly subjects and children without assistants, without chloroform (where the nature of the operation does not specially indicate it), with the greatest ease and certainty. My own experience in all kinds of operations on the eye of the preceding method of securing immobility for the purposes of operation is most favourable. I now submit it to others less prejudiced perhaps than myself.

The "groove speculum" is made by Messrs. Weiss, 62, Strand, London.

London.

A CASE OF ATTEMPTED SUICIDE BY CHLOROFORM AND PRUSSIC ACID.

By W. S. CARMICHAEL, M.D.

MARCH 28, 1865, 10·30 a.m., I was sent for to see a foreigner, 46 years of age, and of robust form, who had swallowed, about ten minutes before, two ounces of chloroform and half a drachm of Scheele's hydrocyanic acid mixed together. He appeared confused, but was sensible. I gave him an emetic of mustard, and afterwards a drachm of sulph. zinc, which operated freely. I then introduced the tube of the stomach-pump, and pumped in and out five or six tumblerfuls of warm water; his jaws being separated, and kept separate with the greatest difficulty. He was then carried to an easy chair near an open window. As his head was cooler than the rest of his body, cold water was not applied to it; but hot bottles were applied to his feet. Soon after he was taken to the window, and about an hour after he had taken the poison, his pulse became very small and weak. I gave him more than a glass of whisky, and a drachm of sp. ammon. ar. with water; he was not yet quite insensible, and was forced with some difficulty to swallow most of this. The pulse improved; the window was shut, and the chair inclined backwards, so as to lower his head a little. About one and a-quarter to one and a-half hour after taking the poisons he was quite comatose, his respiration being rather hurried, pretty full, and more or less impeded and noisy from mucus in the trachea, becoming occasionally inaudible when the respiration was less profound, and the trachea cleared. His pulse remained generally about 70 or 80, full, but very soft, becoming sometimes smaller and softer, on which occasions a feather dipped in whisky, sp. ammon. ar., and water several times, and applied to the tongue and palate, seemed to strengthen it; this was done every ten or twenty minutes, partly to moisten the tongue and palate, as the respiration was oral. The pupils were somewhat dilated, and did not contract on exposure to the light. About 1·30 p.m. I left him. 3·30 p.m.—He remained very much in the same state; legs rather chilly; friction and hot bottles ordered. 5 p.m.—Professor Christison saw him, and had him put to bed, where he could be more easily kept warm. 6 p.m.—Circumstances apparently unchanged; strong smell of chloroform; ordered his body and extremities to be carefully kept warm. 8 p.m.—I was sent for. There was slight convulsion of both arms; forcible pronation. Extremities cold, notwithstanding my repeated injunctions to keep them warm. Hot bottles and friction ordered. Cold water was not applied to the head, because it was already rather cold. 8.15 p.m.—I saw him again with Dr. James Duncan. Sinapisms to chest and legs ordered. 11.15 p.m.—There was a change for the better; no appearance of convulsion; he had turned on his side, and was moving a little; sometimes opened his eyes, but appeared bewildered; seemed to understand his wife when she spoke to him, but did not answer audibly. Ordered beef-tea and milk, with a little whisky or brandy.

29th, 8 a.m.—He was quite lively, eagerly shaking hands, like a person pleasantly excited by drink. Ordered the stimulant to be withdrawn. He remained in this state during the day; gradually becoming calmer.

30th.—8.30 a.m.—He was very desponding; said he was dying; had been vomiting; looked more bilious than usual; complained of pain in the lower part of the back bone, in the legs, arms, and chest; no pain in the epigastrium or in the head, except a feeling of fulness or pressure at the temples. Ordered soda powders with excess of alkali, a blue pill or two, some sp. ammon. ar., and wine or wine negus.

31st.—Rather better. Vomiting was troublesome for some days; brandy and water and claret alleviated it, and it gradually left him. No sleep.

April 7.—He still complains of weakness, of faintness on standing, of pain in the back, oppression at the chest, of occasional pain about the heart, which he has been troubled with for years, and particularly of want of sleep.

13th.—Almost the only complaint he now makes is of oppression at the temples, a feeling of bursting in the region of alimentiveness, a sort of tic, which continued till he left this part of the country, about April 20; it may have originated from the almost spasmodic compression of the jaws (trismus) during the first hour, and from the violent opposition which he made to their separation.

In this case half a drachm of Scheele's acid seemed to have little effect; the pressing together of the teeth may have been owing to it. The absorption of the acid may have been partly prevented by dilution with the chloroform, and its expulsion from the stomach thereby effected to a greater extent, and the chloroform may have acted as an antidote, the stimulant narcotic neutralising the pure sedative.

I have ascertained that a quantity of Scheele's acid, equal to that taken, and from the same store, contains fully one grain and a-half of pure acid.

About an hour after the poison was taken I expected that the patient would recover, because by that time most of the danger from the prussic acid might be supposed to be past; and we find that chloroform, considering the immense number of cases in which coma has been induced by it, is not a very dangerous poison; that serious danger is generally indicated at an early period by a striking failure of the pulse or respiration; and that death when it occurs seems partly owing to some defect of constitution, to the neglect of necessary stimulus, or to the want of fresh air from the mode in which it is generally administered.

3, Annandale-street, Edinburgh.

THE GRESHAM PROFESSORSHIP OF MEDICINE.—Owing to the recent death of Dr. H. H. Southey, of Harley-street, a vacancy has been declared for the Gresham Professorship of Medicine. The appointment, which was held for many years by Dr. Southey, is in the gift of the Corporation of the City.

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Medical Times and Gazette.

SATURDAY, JUNE 24.

THIRD-CLASS MEN?

The *Irish Times* of June 6 contains a very interesting report of the annual meeting of the Irish Medical Association at the Dublin College of Surgeons, under the presidency of Dr. T. L. Mackesy. Of course, a large number of topics were discussed, and chiefly of a politico-Medical kind. The speakers urged upon the Profession the necessity for energy and unanimity of action in the approaching election. We advert to this meeting, however, mainly for the purpose of reproducing an extract from a letter received by the Chairman from the Director-General of the Army Medical Department. The communication bears date May 27 last, and states that—

"So far from being third-rate men, the majority of the successful competitors for his Department are above the average of those who pass through the schools, as is proved by the fact that, although all must have legal qualifications to practise both Medicine and Surgery, one-third of those who competed at the last examination failed to obtain the minimum number of marks required to qualify them for admission into the service."

We do not feel inclined to enter into a controversy with the Director-General as to the definition of a third-class candidate. One-third were too bad; the rest were good enough. Good official logic this. We will not adduce the common impression that the examination, once good, has been lowered till it has become ridiculous as a scientific test;—that the subjects of study have been reduced, and the age increased. Let us turn to a picture of the candidates, as drawn by one of themselves.

It was not so very long ago that a probationist contributed to a Professional journal his "Sketches of Life at Netley Hospital." These sketches came to an untimely end, for the name of the writer leaked out, we suppose, and, a gentle pressure being applied, he speedily recognised his indiscretion, and publicly expressed his regret, etc. One of his paragraphs, however, is too amusing to be buried in oblivion. After stating that Irishmen, as in all of the later sessions, are most numerous, he continues:—"Most of them are excellent fellows, both Professionally and socially, but it cannot be denied that there are some few whose appearance and bearing tend to lower very much the general character of Irish Professional men; but although we have this few amongst our ranks, yet they are the exception; and so far we are much above the Scotchmen, who are, without almost a single exception, men who none of us care to know. The Englishmen here are few in number, and we hope are not to be considered as typical specimens of that noble race. They include two classes, possessing characters totally different from each other—one set are, in their own opinion, very fine gentlemen; the other, perhaps, would find their level amongst the Caledonian candidates."

We are heartily glad that the London College of Physicians has seen fit to take up the cause of our Profession in the public services. Its influence, and the universal reputation which its President possesses for his moral and intellectual qualities, must ensure attention from the Government. We confess, however, that we range ourselves among the number of those who disbelieve in any great good being effected so long as candidates are forthcoming in sufficient numbers.

We have been compelled to study the grievances and wants of the Medical officers with a good deal of attention, and they may be summed up, we think, in the following:—1. A fair and honest construction of the original Warrant. 2. Some means for lightening the list of the junior ranks, and of accelerating and regulating the stream of promotion. No Assistant-Surgeon certainly should serve as such beyond twelve years. 3. An earlier retirement, say twenty years, which would have the effect of accelerating promotion and of maintaining a good supply of young men equal to the fatigues and exposures of a military life. 4. Some increase of pay for Surgeons, for at present a Surgeon, if he be a married man, can barely maintain himself and family with decency and respectability upon his pay.

MODERN DERMATOLOGY.—No. VIII.

We have shown that great and striking advance has been made of late years by dermatologists in the etiology of diseases, in the recognition of the essential differences and alliances between various diseases and forms of disease, so as to simplify and reduce the dimensions of their formidable nosology, in the simplification of their therapeutics, and in their powers for cure; but their most signal triumphs have been achieved over that class of maladies now known as "parasitic diseases of the skin;" and especially by the recognition of the vegetable parasites. The discovery, by aid of the microscope, that many, formerly most obstinate and intractable, cutaneous diseases are due to the presence of a vegetable parasite has resulted in the fact that these affections, instead of being the despair alike of doctor and patient, are now among the most easily and certainly curable of maladies.

Of the skin diseases caused by animal parasites we shall allude only to scabies, and about that we shall not say much. It is now almost universally acknowledged that the essential cause of this disease is the acarus scabiei or sarcoptes hominis. We are obliged to say only "*almost* universally," because we observe that Dr. Frazer remarks, "from a protracted series of investigations upon the subject of scabies, I am disposed to doubt that the acarus which so generally accompanies it is the real cause of the eruption;" and Mr. Hunt says, "the real cause of scabies is *dirt*. Dirt originates it, sustains it, propagates it. . . . . The acarus is an accidental result of dirt." Dirt may encrust a person to any amount and he may not have scabies, and scabies may exist without dirt. Mr. Hunt seems to consider sulphur absolutely essential to the cure of scabies; if so, surely something more than dirt is required to originate it? Perhaps, however, Mr. Hunt includes the acarus within the term dirt, on the Palmerstonian definition of this, as matter in the wrong place. Mr. Hunt speaks also of an "endemic scabies;" the "eruption consisted of pustules and boils," cleanliness "practised almost to a fault," sulphur, etc., failed to cure it; but it was got rid of by a "greater variety of food, and more exercise in the open air." Neither of these gentlemen would have written as they have, probably, had they had more exact ideas as to what scabies is. M. Bazin gives an admirably clear and precise definition of it. "On doit considérer la gale comme une affection de la peare, contagieuse, produite par l'acarus scabiei, caractérisée par une éruption specifique (l'éminence acarienne et le sillon), et par des éruptions inflammatoires symptomatiques, qui varient suivant l'âge de la maladie, l'âge du sujet contaminé, et les prédispositions individuelles."(a) Scabies, properly so

(a) Leçons Théoriques et Cliniques sur les Affections Cutanées Parasitaires. Par le Dr. Bazin. Paris: 1858. P. 222.

called, knows only one cause—the presence of the acarus scabiei; and the specific eruption—the acarian eminence and furrow—disappear with the destruction of the parasite, while the symptomatic eruptions—vesicles, papules, pustules—may remain for a varying length of time afterwards, according to the sensibility of the skin, the general state of health, and the previous duration of the disease. The amount and intensity of the pruritus caused also varies greatly with the degree of sensibility of the skin—in some it amounts to torture, in others it is scarcely more than a very endurable annoyance; but we fear that very few sufferers from it—in England at least—can be found to agree in the sentiment, attributed to James the First, that the itch is a disease fit for kings only—the titillation and excited scratching being so royally pleasant. Perhaps, however, the effect on Scotch skins is happier, though none of our dermatologists note any difference. We commend the point to their notice as a curious physiological question.

The hand is the principal and favourite habitation of the acarus, and the eruption which appears elsewhere is certainly to a great extent caused by sympathetic irritation (some authorities appear to believe that it is also due, in part at least, to the introduction into the system of some specific poison by the insect), but dermatologists differ as to the extent to which this obtains. Mr. Wilson says,—"The acarus scabiei in this country, and amongst cleanly people, has its habitation only in the hands; in foreign countries it is said to be more generally distributed, and to be found in other parts. Being present, therefore, only in the hands, the eruption which is thrown out upon the rest of the body is the result of an irritation communicated through the nerves." This statement is certainly too exclusive, for the acarus has been found elsewhere even in England—as on the nates and thighs, the feet, and the female breast, in the axilla, and, though very rarely, on the face. In France it is said to be very commonly found on the penis. According to M. Hardy, the disease in man commences on that organ much more frequently than on the hands.

"The treatment of scabies is expressed in a single word—sulphur." So saith Mr. Wilson, and so say, more or less decidedly, all dermatologists. The disease may, without doubt, be cured by iodide of potassium ointment, and by some other agents; but sulphur seems to be the quickest and most certain remedy, and the methods of applying it only differ in severity. Mr. Wilson, believing that the parasite inhabits the hands only, is content to apply the sulphur ointment there only, and to use sulphur soap to the rest of the body. His plan of treatment is certainly the mildest and least unpleasant. All the authorities speak of concealing the smell of the sulphur by the addition of oil of bergamot, or some other perfume, to the ointment. We remember that an eminent teacher at St. Bartholomew's used to call this "only adding a smell to a stink."

The common skin diseases due to the presence of a vegetable parasite are four in number—viz., Favus; Tinea tonsurans—of which there are three varieties—1. Herpes circinnatus, 2. Sycosis, 3. Herpes tonsurans; Alopecia areata; and Pityriasis versicolar. We have given the nomenclature employed by Dr. M'Call Anderson(b), but most, if not all, of these diseases, rejoice in many synonyms, whence has arisen no little confusion.

Mr. Wilson classes these diseases as "phytodermic or dermophytic affections," and denies that the so-called parasites are really vegetable growths. In the *Brit. and For. Med.-Chir. Review* for January, 1864, he published an article on the "Phytopathology of the Skin, and Nosophytodermata, the so-called Parasitic Affections of the Skin," in which he maintained that the parasitic growths are produced by granular degeneration of normal tissues. We have not space to give his arguments at all fully, but in his last work he says:—

"The morbid or phytiform tissue is composed of globular nucleated granules, and these granules have the properties of proliferation and growth; by *proliferation* they increase in number without change of figure; by *growth* they become elongated into diaphragmated cylindrical shafts, and have the power of throwing off shoots from point to point, and assuming a branched or phytiform character, the medium of growth being the division of their nuclei. In botanical language these elements are termed, the nucleated granules, *sporules*, or seeds, the cylindrical and ramified shafts, *mycelium*; and as they resemble in every respect mucedinous fungi, they have been classed with these vegetables, under the names of microsporon, tricophyton, and achorion. . . . . What is this phytiform growth? Is it, as we maintain, an alteration of structure of the elementary components or granules of the cell-tissue of the rete mucosum? or is it an independent organism—a plant originating from a sporule or seed conveyed accidentally to the skin, fixing itself in the skin, drawing nourishment from the skin? . . . . We maintain that we have seen the cells of the rete mucosum passing through those stages of growth which have converted their nuclei into granules, the so-called sporules; we maintain that the granular condition is the normal fœtal structure of the young epidermal cell, and that the morbid condition in question is an arrest of development of those cells at their fœtal stage, and the cause of their consequent modification of destiny, no longer to rise through those higher stages of animalisation which culminate in the production of horn, but doomed in their crude condition to the lowest function which belongs to immature organic matter—namely, proliferation. We can find no better word to express this degradation of structure than the term 'granular degeneration.'"

Mr. Wilson has been very fully and ably answered by Dr. Tilbury Fox in an essay reprinted from the *British Medical Journal*.(c) He shows that "the attributes possessed by the so-called parasites are sufficiently distinctive of vegetable bodies; they are, briefly, *structural*, *chemical*, and *vital*. *a. Structural.* We are able to distinguish the presence of cellulose externally, and internally the primordial utricle coloured by iodine; also the *tubed* mycelial form and fructification: the latter being unrepresented in animal structures. *b. Chemical.* Ether, chloroform, and spirit of wine render epithelial tissues transparent, and dissolve all fatty substances; while vegetable parasites remain unchanged. *c. Vital.* The parasites will grow when removed from the influence of living tissues, and away from the influence of the blood—a property which no one will accord to animal tissue." He further observes that when a specimen of one of these diseases is well and carefully "put up" for the microscope, the animal structures—hair, epithelial cells, and the like, undergo fatty degeneration, while the parasite will grow, freely, though not perfectly, the external air being shut out. We cannot quote him more fully, but the weight of argument certainly does not remain with Mr. Wilson.

Allowing that the parasite is a vegetable growth, some authorities (Mr. Jabez Hogg, *Transactions* Microscopical Society, vol. ii., 1859) assert that it is the result, not the cause, of the disease; to which it is answered that the true parasitic disease never exists without the parasites, and cannot be cured unless the parasites be destroyed or die.

Again, Dermatologists differ as to whether there is only one vegetable parasite or several in the diseases we have named. Hebra, Tilbury Fox, and others believe in one fungus only. Dr. Fox's opinion is that "there exists but one parasite common alike to the several so-called distinct kinds of tinea. The variations are mostly in the external characters, in the *superadded* rather than the *essential* conditions; the superadded concomitant states, by their variations, fully account for the

(b) "On the Parasitic Affections of the Skin," by T. M'Call Anderson, M.D., Fellow of the Faculty of Physicians and Surgeons, Physician to the Dispensary for Diseases of the Skin, etc. London: Churchill and Sons. 1861.

(c) "The Nature of So-called 'Parasites' of the Skin." By W. Tilbury Fox, M.D. Lond., etc. T. Richards, 1864.

observed differences in physical and minute appearances." Dr. Jenner (*Medical Times and Gazette*, 1857, and "Holmes's System of Surgery," vol. iv.), Dr. Hillier, and others support the opposite view. The whole subject of the vegetable parasitic diseases of the skin will be found most fully treated of in Dr. Fox's work.(d) Authorities differ also as to the influence of special conditions of the general health as to whether "a special condition of the soil" is necessary for the growth of the parasites. Certainly dirtiness is a powerful predisposing cause. Hebra very happily illustrates this in speaking of favus,—"In order to favour their growth and development (the germs), repose and a certain temperature and moisture are necessary. . . . . If one leaves an ink-bottle at rest for some time, there is soon a development of fungous matter to be seen, while this does not form if it is in constant use." The same may be noted in the solutions of gum in ordinary use,—"The same is the case in favus. In cleanly, well-to-do people, as well as in children who receive a rational physical education, it never makes its appearance, but only among persons who live in dirtiness and misery, in whose cases the combing and the cleaning of the hair is neglected."

Some fitness of soil seems clearly necessary to the propagation of the parasites, for though the diseases dependent on them are contagious, they are by no means contagious to all; but in what the necessary fitness consists is not known. As to treatment, there is happily little real difference of opinion. Mr. Hunt stands almost, if not quite, alone in the belief that these skin diseases can be cured without the employment of local means; his experience leads him to rely on the internal employment of arsenic for obtaining a perfect cure, but the general experience agrees with Dr. Frazer's—"I have not been fortunate enough to observe such results in any instance." In all the diseases, except pityriasis versicolor, it will be necessary, or at least well, to improve the general health and nutrition by the exhibition of tonics and cod-liver oil; and, of course, to remove any state of ill-health that may exist, and the affected parts must be cleaned from all crusts, etc., and kept clean; great improvement may be thus effected; but to *cure* the disease, the parasite must be killed, and killed effectually. The severity of the measures required will depend on the length of time the disease has existed, and the extent and depth of its ravages; we use the word ravages advisedly, for the parasite may have burrowed deeply into the cutis, have infested the hair follicles, and the hairs themselves, so as to render its total destruction, its wonderful reproductive powers being remembered, no easy matter. In bad cases epilation is necessary, but when necessary not very painful, if carefully done by means of forceps, for the hairs, being thoroughly diseased, are loosened. With that, or in less severe cases without it, some form of parasiticide must be employed—a solution of corrosive sublimate, or sulphurous acid, or iodine, will do; or a solution of hyposulphite of soda, with the addition of a little sulphuric acid. In tinea tonsurans of the scalp frequent blistering is also recommended; in alopecia, tincture of iodine, equal parts of olive oil and tincture of cantharides, and occasional blistering. In pityriasis versicolar milder measures will suffice, frequent washing with soft soap, and the use of sulphur soap, or a weak solution of corrosive sublimate. That sulphur will cure it we learnt years ago from a patient for whom we had prescribed sulphur internally, and who, arguing that if the sulphur were to be the means of cure, it could not be applied too directly, anointed himself with the electuary instead of swallowing it, and quickly rid himself of his skin disease.(e)

(d) "Skin Diseases of Parasitic Origin; their Nature and Treatment." By W. Tilbury Fox, M.D. Lond. R. Hardwicke. 1863.

(e) Besides the papers and works already mentioned, the following may be consulted with advantage:—"Reports on Parasitic Diseases," by Mr. Jonathan Hutchinson; and "Lectures on Parasitic Diseases," by Dr. M'Call Anderson, in the *Medical Times and Gazette* for 1858-59, and 1861. "Die Parasitären Hautaffectionem," von Dr. Kleinhaus. "Klinische und Experimentalle Mittheilungen aus der Dermatologie and Syphilidologie," von Dr. Heinrich Köbner. Both published by Enke, Erlangen. 1864.

The "madura foot," or "mycetoma," which is caused by that most terrible of all human vegetable parasites, the "Chionyphe Carteri," we do not notice, as it is happily unknown in this country; for a like reason we have made no mention of the true lepra or elephantiasis, though our knowledge of its pathology has been much increased lately, and very largely through the labours of the able and indefatigable pathologist to whom we are indebted for a knowledge of the true cause of "madura foot,"—viz., Dr. H. V. Carter, of Bombay.

We have only noticed, and very imperfectly, the advances made in the knowledge and treatment of the commonest skin diseases. The syphilides have been so ably noticed lately in this journal, in the articles on "Modern Syphilographers," that there is no need to say a word more about them. And now we must bring these papers to a conclusion, congratulating the Profession and the public on the rich reward that has attended the labours of those who have studied skin diseases as a part of general Medicine, and have brought to bear on them all the knowledge and science of accomplished Physicians and Surgeons. We have made no effort to award individuals the credit of particular steps in advance; but we cannot conclude without acknowledging that we are deeply and especially indebted to some of the German and French dermatologists, among whom we must, above all, distinguish Bazin, Hardy, and Hebra.

THE WEEK.

LORD PALMERSTON AND THE HOMŒOPATHS.

A PARAGRAPH has been going the round of the newspapers—chiefly, it is said, the religious ones—to the effect that Lord Palmerston has discarded his ordinary Medical attendants, and has entrusted himself to the hands of two homœopathic Practitioners—Dr. Quin, a Physician, and Dr. Ayerst, a Surgeon. We hear, on the best authority, that there is no foundation for this statement.

THE CHAIR OF MIDWIFERY AT UNIVERSITY COLLEGE, LONDON.

IN consequence of the retirement of Dr. Murphy, the Chair of Midwifery at University College becomes vacant at the end of the present Summer Session, as also the appointment of Obstetric Physician to the Hospital. It is considered very probable that the choice of the Council will fall on Dr. Graily Hewitt, whose high position as a writer, Practitioner, and teacher point him out as peculiarly fitted for undertaking the Professional and other duties of the appointments.

THE CONVERSAZIONE AT THE ROYAL COLLEGE OF SURGEONS.

WE may remind our readers of the *conversazione* to which Fellows and Members of the Royal College of Surgeons are invited by the Council, on Wednesday, June 28, at 9 p.m. Visitors are admitted on presenting their cards, and are requested to appear in evening dress. The annual dinner of the Fellows will take place at the Albion, in Aldersgate-street, on Thursday, July 6, at half-past 6, Philip Chilwell De la Garde, Esq., of Exeter, in the chair. Gentlemen intending to dine should forward an application, accompanied by Post-office order (on *Store-street*), for 23s., to E. C. Hulme, Esq., of 38, Gower-street, on or before Monday, July 3.

TESTIMONIAL TO DR. ALDIS.

WE learn that a meeting has recently been held by some Medical gentlemen and others, when it was resolved,—"That a testimonial be presented to Dr. Aldis in acknowledgment of the successful efforts which he has made in sanitary progress during a period of twenty-one years, and for the untiring energy with which he has fulfilled the duties of Medical Officer of Health to the parish of St. George, Hanover-square, for more than nine years." We know that in 1844 the Report

of the Health of Towns Commission contained some important evidence of Dr. Aldis—the result of his experience as Physician to the London, Surrey, and Farringdon Dispensaries. He subsequently joined the Health of Towns Association, the Metropolitan Sanitary Association, and assisted in establishing the City and Liberty of Westminster Sanitary Association in 1847, of which he was chairman of the committee during two years, while Lord Ashley, now the Earl of Shaftesbury, was President, and Lord Ebury, then Lord Robert Grosvenor, Vice-President. He also gave evidence before the Metropolitan Sanitary Commission when the outbreak of fever occurred at Westminster School and cloisters. During this period sanitary reformers met with much opposition in certain quarters, were thought to be visionaries, and were treated with a good deal of contempt; but the progress of knowledge, and of the sense of the duty of taking care of human life, buoyed them onwards in their inquiries into the causes of the great mortality occurring in towns compared with that of the country. They, moreover, devoted much time and money to the object in which they were engaged, and became the pioneers of that sanitary legislation which has produced immense benefit to the labouring population. Among these Dr. Aldis has had a very large share of earnest work; he was always one of that body of unrequited labourers amongst the poor—the Dispensary Physicians; he has delivered lectures to the working classes on sanitary subjects; in fact, long before he obtained the moderate emoluments of office, his time, purse, and brains were at the service of the poor and of those fellow labourers who desired evidence or information to strengthen their cause. Therefore, we heartily wish success to "the Aldis Testimonial Fund," which the following gentlemen, with others, have already consented to promote—namely, Viscount Walden; the Hon. and Rev. Robert Liddell, Incumbent of St. Paul's, Knightsbridge; the Rev. Messrs. K. B. Foster, J. Cooper, and Lusignan; Dr. Druitt, President of the Metropolitan Association of Medical Officers of Health; Drs. David Davies, Ince, S. Day Goss, W. H. Jones, O'Flaherty, W. Pearse, Yearsley, Synnot, Way, Walte, and Webb; Messrs. J. R. Lane, J. Teevan, C. A. Elliott, F. Hatchard, and J. Randolph.

We should be glad to see the names not merely of clergymen and Professional friends who may be willing to make their modest contributions out of good will to a veteran in a good cause, but those likewise of the owners of property whose poor tenants have been frequent visitants at the London, Surrey, and Farringdon Dispensaries; of the rich firms whose artisans have received the like benefit; and, above all, of the subscribers, governors, and other petty grandees of these charities, who have really been themselves reaping the benefits of the Dispensary Physicians' labours. Of all earthly delusions (unconscious ones, of course), few are equal to that of the people who think they have discharged their duty to the poor when they have doled out their annual one pound one, and got the "privilege of having one out-patient always on the books of the Charity." Of all the means of seeming to do good, this is the cheapest. A poor fellow-creature comes in labouring under illness: does our charitable personage—say any ordinary middle-class London resident—give food or clothing, or a bottle of wine, or a well-cooked joint of meat, or nice soup or pudding made in his own kitchen? or does he say, "Go to my Doctor, and he shall attend you at my expense?" Not a bit of it. He gives a *ticket* to a Dispensary, where the poor wretch gets bad drugs and no creature comforts, but only the glimpse of a compassionate Physician, who, perhaps, more weary and exhausted than any of the crowd who throng about him, smothers his disgust at their squalor and fœtor, and uses his well-gained acuteness and experience in detecting and prescribing for their ailments. Very probably the grandee who relieves a sick man at the rate of $\frac{21}{365}$ths of a shilling a day conceives himself entitled to rate the Doctor soundly for any fancied neglect; whilst all the while all the salt of human kindness, all that true influence of charity which acts as balm to the soul, which the poor have experienced, have proceeded from the words and acts of the Dispensary Physician. We fear we have been wandering from our subject, which is the testimonial to Dr. Aldis as a sanitary reformer and Dispensary Physician. If Dispensary subscribers think we have scolded them, we ask their pardon. *Quis talia fando temperet à* strong words? We entreat them to accept this wholesome practical truth, that a handsome donation to the Dispensary Physician is the fitting complement of the annual guinea to the institution itself. It is one of the truths that is not told at Dispensary sermons, meetings, and in circulars and "appeals." Dispensary work now-a-days is mere drudgery to the Physician. He cannot obtain scientific materials from out-patients, neither does he get repute amongst the wealthy. It is a mistake to create and to hold such offices; but for all this, the man who has done the work ungrudgingly and unflinchingly does deserve recognition at the hands of those whose instrument he has been in executing ever so imperfect an instalment of charity.

INQUEST AT RUNCORN.—ONLY A CHILD DROWNED.

When we have found it difficult to conceal our indignation at some particular instance of neglect or inhumanity committed by persons outside the pale of the Profession, although we may have confined ourselves to a repetition of the barest details, we have been accused in some quarters of sensational writing. In the subjoined case the actors were members of the Medical Profession. Fortunately for ourselves, however, it requires no comment. The report tells its own story, and points its own moral so unmistakeably that it would be impossible to heighten its effect. If the gentlemen concerned have not forgotten every dictate of humanity, the lesson has by this time been indelibly impressed; if otherwise, anything we might add would be powerless to deepen it.

"On Thursday morning last an inquest was held before James Nicholson, Esq., coroner, at the Bridgewater Arms, Runcorn, on the view of the body of a little boy, who was drowned in one of the locks on the previous Tuesday afternoon.

"Alice Wheeler deposed that she was the wife of Samuel Wheeler, captain of the flat *Exiphoid*, and the deceased, who was 8½ years old, was her son, and was with her and her husband, and other children, on board the flat on Tuesday afternoon, passing through the docks at Runcorn on their way to Winsford. She saw him safe on the deck when the flat was in the last lock, and on her returning from turning a bridge near at hand through which they had to pass she missed him. She went down into the cabin, and found the other children safe there. She asked where Samuel was, and her daughter Alice, five years old, said he was on deck. Such, however, was not the case, and she gave an alarm that her boy was in the lock. She got the lock stopped and dragged, and the body was soon afterwards found by a man named Samuel Bowyer. She sent for a doctor but he would not come; had he done so the child's life would have been saved. She would have paid him if he had come. Samuel Bowyer deposed that on Tuesday afternoon he dragged the lock No. 8, and found the body of the deceased. He frothed at the mouth, but he did not perceive him breathe. He was immediately taken in hand by persons, who rubbed him with salt, and gave him some brandy. She left him in their care. They used means for nearly an hour to bring him round, but were unsuccessful. Ann Higginbottom said she went to Dr. Mouritz, and requested him to come to the assistance of a little boy who had just been taken out of the water. He put on his hat and came to the door, and then asked her who would pay him. She said she could not tell, as the boy was not her own. He said, 'I cannot come; I am liked to be paid.' He then told her to go to the town's Doctor, Mr. Batterton, and went into the house again. She went to Mr. Batterton's, and saw a gentleman, who said he could not come. A conversation ensued, in which several jurors took part, and spoke in strong terms of the conduct of the Medical gentlemen in the town on such occasions. The Coroner said he regretted Mr. Mouritz had put his objection

in the shape of requiring a fee, as that gave it a very awkward appearance. Had he been in his place, he should have gone at once, as a matter of humanity, and he believed it was the practice of Medical men in most places. Mr. Waight said he was sorry to say that it was not the practice in Runcorn—an opinion which was endorsed by other jurors. The Coroner said Mr. Mouritz might, for aught he knew, be a gentleman with an extensive practice, and as these things were of common occurrence he might have deemed it necessary to lay down a line of conduct to prevent him being too much called upon. As to Mr. Batterton, he had no more right to go than Mr. Mouritz; for he, as town's Doctor, could only be put in motion by the relieving officer. The jury returned a verdict of 'Accidentally drowned,' and accompanied it with the following remarks:—'The jury regret to find from the evidence of Anne Higginbottom that Dr. Mouritz refused to attend the deceased, unless he should be paid for his services, and they think it very probable that, had Medical skill been at hand, the deceased's life would have been saved.'"

PARLIAMENTARY. — UNION CHARGEABILITY BILL — DISTRICT LUNATIC ASYLUMS (IRELAND)—ENGAGEMENT OF DR. SUTHERLAND.

In the House of Lords on Friday, the 16th, the Union Chargeability Bill passed through Committee.

In the House of Commons Mr. Blake asked the Chief Secretary for Ireland whether he had any objection to state if the Irish Government, before appointing persons to the office of Resident Physician to the district lunatic asylums, required satisfactory proof that they had acquired a practical knowledge of the treatment of insanity; and whether candidates were examined as to their fitness to be entrusted with the care and treatment of the insane by the inspectors of asylums, and a report made thereon to the Lord-Lieutenant.

Sir R. Peel said that full and ample inquiry was always made as to the efficiency of the Medical men appointed to lunatic asylums. He might mention that on a recent occasion the former Resident Physician of the Waterford Asylum was appointed to the Asylum at Castlebar, and the vacancy thus created had been filled, or was about to be filled, by the appointment of Dr. M'Kay, a gentleman whom the hon. member himself had very strongly recommended. The inspectors of lunatic asylums always endeavoured to obtain accurate information as to the qualifications of future Resident Physicians before the appointments were made by the Government.

On Monday, the 19th, Sir S. Northcote asked the Under Secretary of State for War in what capacity Dr. Sutherland was employed by the War Department; what pay and allowances he received; whether he was paid by salary or by day pay when actually employed, and if by day pay for how many days in the year he was employed on an average—from what vote of the Estimates the payment was made; whether the arrangement had received the approval of the Treasury; and whether there would be any objection to lay upon the table of the House a copy of the terms of his original appointment, and of any correspondence between the War Office and the Treasury on the subject.

The Marquis of Hartington said the House would recollect that at the conclusion of the Crimean war a Royal Commission was appointed to inquire into the sanitary state of the army. The result was that several sub-committees were subsequently appointed to consider and report upon the best mode of carrying out several of the subjects which had been reported upon by the Royal Commission. Dr. Sutherland, who had been a member of the Royal Commission, was appointed to serve on four of these sub-committees, and he still continued to serve on one, and the most important of them—that originally called the Barrack and Hospital Committee, and now called the Army Sanitary Committee. The duties of that Committee were to consider and report upon all questions relating to sanitary improvements in existing barracks and Hospitals, and the most healthy form of construction for new buildings. Dr. Sutherland's great experience and knowledge in such matters enabled him to render services upon the committee more valuable probably than those of any other gentleman who could be found. As to the rate of remuneration, it was fixed by the right hon. and gallant gentleman (General Peel) at £3 3s. a day, and afterwards, upon the recommendation of Mr. Herbert, then President of the Royal Commission, it was continued so long as he was completely occupied upon these duties. Dr. Sutherland's time had since been entirely occupied on the details of the business of the Sanitary Committee, and he therefore continued to receive the above rate of remuneration. His salary was charged to the sanitary vote of the Army Estimates. Under vote 14 a sum of £20,000 was taken for sanitary services. The arrangement made for the payment of expenses incurred by this committee was generally approved by the Treasury, and there would be no objection to lay upon the table all the correspondence between the War Office and the Treasury on the subject.

In reply to Colonel P. Herbert,

The Marquis of Hartington said he was unable to answer the question whether there was no officer of the army who was qualified to discharge the duties performed by Dr. Sutherland. It was the opinion of the present Secretary of State, and it had been the opinion of two or three of his predecessors, that these duties were better performed by Dr. Sutherland than they could be by any other person. He was unable to answer the question about Dr. Sutherland's superannuation; but should rather imagine that, under the circumstances, he was not qualified to receive superannuation.

The Greenwich Hospital Bill was reported, with amendments; no further mention was made of good service pensions for Medical officers.

In the House of Lords, on Tuesday, the 20th, the Union Chargeability Bill was read a third time and passed.

FROM ABROAD.—FERMENTING MILK AND RAW MEAT IN PHTHISIS —VENICE TALC IN WOUNDS AND BURNS.

Any one who announces a new cure for phthisis is at all events secure of an auditory, and Dr. Schnepp, with his treatment by *galazyme*, will form no exception; at all events, there is no mystery or quackery about his procedure, and, although it is probably destined to fail, as its numerous predecessors, he has said enough in its favour to induce others to test its efficacy. Dr. Schnepp, as an inspector of mineral waters at Eaux-Bonnes, belongs to a class of Practitioners who by preference seek for their remedies from among general measures and dietetic objects rather than from amidst the stores of the chemist. His attention was drawn to the great immunity from affections of the chest enjoyed by the nomadic tribes of Baschkirs and Kirghiz, who wander about the steppes of Eastern Russia, and attributed popularly among themselves to their great consumption of mare's milk while in the state of fermentation, and termed by them *kumis*. Although admitting, also, that the exposure to the free air enjoyed by these tribes and their almost exclusively animal diet may contribute to the immunity they enjoy, Dr. Schnepp has convinced himself that this abundant drinking of *kumis* plays no unimportant part in accomplishing the result, and he has determined to introduce an imitation of the practice. Of course, it can be only an imitation, as mare's milk in any quantity is not obtainable in France, and even that of asses, which M. Schnepp uses as a substitute, is so expensive an article that he is obliged to dilute it with the milk of the cow. However, this may be immaterial, as the mare's milk was originally used merely from its abundance in the countries where this practice originated. But if M. Schnepp cannot give us the original article, he can at least coin a scientific name—*galazyme* or *galactozyme*, or milk in the state of fermentation. In his experiments, conducted by adding yeast or other ferment to asses' milk, at a temperature of from 15° to 18° C., good fermentation was produced, small bullæ being disengaged from the surface, and a mild acidity, accompanied by a slightly vinous flavour, being developed. The milk retains its whiteness and fluidity, and may be thus kept in a state of fermentation during two or three days, or even for a longer period. It is administered as soon as the fermentation has become complete. But this would form a too expensive preparation for general use, and M. Schnepp undertook a long series of experiments with a mixture of cows' and asses' milk in different proportions, finding that two parts of the latter with one of the former submitted to a temperature of from 15° to 18° C. entered into fermentation in from ten to fifteen hours, and was

fit for use after twenty or twenty-four hours. A pleasant homogenous fluid results, disengaging abundance of gas, having the odour of new wine, and imparting a pleasant acidulous taste. The Basehkirs and Kirghis, after feeling their way a little with the mare's milk, so as to obviate the slight diarrhœa it at first produces, drink it in enormous quantities, commencing at two bottles a day, and going on to seven or eight, and in many cases even fifteen or sixteen. It is only during the great heats of summer, the drinkers remaining the while exposed to the open air, that these vast quantities are drank, a medium quantity being, however, from eight to ten bottles. It is found that, in proportion as the air is dry and hot, a larger quantity may be taken, and proves more efficacious, while in cold and wet weather less can be taken and less benefit even in proportion is derived. M. Schnepp, however, contents himself with much smaller quantities for his patients, beginning with half a glass fasting, and another in the evening, and increasing it gradually, according to its effects, the heat and dryness of the air, and the activity of the habits of the patient. In a few days as much as two bottles may be given, but he has not gone beyond the maximum of five bottles. While taking the galazyme, all other forms of milk diet, uncooked fruit, and acid or crude articles of food are prohibited, the patient taking his most solid meal at the middle of the day. As to the physiological effects of *kumis*, no accounts have been published, nor has the process of cure under its use been watched by Practitioners. One fact, however, has struck every one living near or among the nomad tribes resorting to it, namely, the rapidity with which a condition of *embonpoint* is attained, three or four weeks sufficing to render a patient scarcely recognisable. M. Schnepp has instituted some experiments by weighing his patients while taking the fermenting (not fermented) milk, with the following results:—1. A man, in the first stage of phthisis, 31 years of age, weighing 54 kilogrammes, increased to 55 kilos. in thirteen days, and to 56·300 kilos. in thirty-seven days, and six days after the end of treatment. 2. Another, aged 22, at the commencement of the second stage, increased from 61·250 kilos. in thirty-five days, and fourteen days after end of the treatment, to 63·800 kilos. 3. A chlorotic woman, aged 21, increased from 28·500 kilos. in thirty-eight days, and fifteen after the end of the treatment, to 31 kilos. 4. A woman, with softened tubercle, weighing 31 kilos., increased to 33·500 after twenty-five days of treatment. 5. A man, with softened tubercle, increased from 59·500 kilos. to 66·500 kilos. in fifty-four days, and twelve days after the end of the treatment. It is to be supposed, then, that patients treated with *galazyme* derive from it some powerful elements of nutrition which are not exclusively dependant on the fermentation, since the carbonic acid and alcohol derived from this are equally met with in English beer. Its first effect is to appease thirst and excite the appetite, and when too fresh it may give rise to the generation of wind and diarrhœa. If the fermentations be continued somewhat farther, these inconveniences cease, and constipation usually supervenes. Under small doses, the urine becomes clearer, more limpid, and larger in quantity, this increasing as the dose is raised. At first the pulse seems but little influenced, but after the dose of the milk has been raised, for some hours after this has been taken, it becomes slower, softer, and larger—and that in persons in whom all other articles of diet, of even a glass of new milk, give rise to acceleration of pulse. "Like the *kumis*, the *galazyme* gives rise to a peculiar kind of calm inebriety, attended at most with a little loquacity, and followed by somnolence or sleep, with a strong inclination to quietude of mind and body, and a marked indifference to everything."

M. Fuster, of Montpellier, has also his remedy for phthisis, producing, he states, marvellous results, even upon persons who seemed to have scarcely a day to live. All but those who would not follow out the regimen have at least prolonged their lives, and still live; while this means seem just as efficacious in subduing the symptoms of purulent infection. It consists in the exhibition of a mixture of raw meat and alcohol, but we have not yet seen its details.

For the treatment of burns, M. Gouyon recommends strongly, in a communication to the Academy des Sciences, powdered Venice talc (a silicate of magnesia and aluminium), which, perfectly inoffensive in itself, immediately on its application relieves the pain, cleans the wound rapidly, and favours the formation of healthy granulations. This simple and cheap substance is, indeed, applicable to all wounds, whatever their nature or character, adhering to their surfaces and following all their irregularities. It is best applied by a powder-box having very small holes. It is also an excellent hæmostatic in venous and capillary hæmorrhage. In bleeding from leech-bites and epistaxis it is also a valuable agent.

THE NAVAL MEDICAL SERVICE.(a)

(From a Correspondent.)

On the late occasion when the College of Physicians considered it politic to ignore the Report of their own Committee on the condition of the Army and Navy Medical Departments, rather than accept an incontrovertible document, which from the unpalatableness of its contents, might set the College at variance with State Departments, the whole Profession protested against their decision. It was felt that the important section of the Profession employed in the Army and Navy should be freed from a sense of injustice and neglect, and be bound by affection to their respective services.

It is in vain that the *élite* of our Profession shut their ears to the increasing cry of injustice that arises from the public services, and, ignoring the facts, state that there are no grounds of complaint. Ample evidence must have appeared to induce their Committee to put forth the statement which surprised the less inquiring portion of the College. The letters in our columns, which have been published from time to time, have been convincing enough of the necessity for some rigid examination into the best means of renewing the spirit of the Medical Department; and this necessity is again brought before us in a stronger light and more concise form by a pamphlet on the "Requisitions of the Naval Medical Officers, based on the Principle of Equality with the Army." The author, Dr. F. J. Brown, formerly an Assistant-Surgeon Royal Navy, who resigned his appointment in dissatisfaction with the status of the Medical officers, proves his deep affection for the service to which he once belonged and his desire to see that service amply furnished with the best talent from our Medical Schools.

In a few pages he displays the comparative disadvantages of the twin services in a more definite manner than has been done before; and not venturing to question the data with which he appears so familiar, we express our increased astonishment that any young Medical men once acquainted with the facts should adopt the sea service in its present state, provided that the land service remain open to them.

The comparative disadvantages are exposed under the heads "rank," "privileges of rank," "retirement," in the whole of which the Naval is shown to be inferior to the Army Medical officer.

In reviewing the vexed question of rank of these officers, whose duties are not those of command, he has placed it in a new light, by showing that the naval regulations prevent any clashing of army and navy commanding officers, when either is serving within the province of the other, reserving to the officer thus deprived of command, all the personal privileges and advantages belonging to his rank. Dr. Brown points out the error and invidious injustice of not extending this usage to the Medical officers of the navy.

Accepting the validity of the argument, we are disposed to widen the ground on which it stands, believing that under many circumstances the duties of the Medical officer cannot be performed without an exertion of his "directing authority," or the functions of command under another name, without

(a) "Requisitions of the Naval Medical Officers, based on the Principle of Equality with the Army." By Fred. James Brown, M.D. Lond. and Edin., F.R.C.S., etc. London. 1865.

which the discipline of Hospitals and the care of the sick cannot be effected and maintained.

The good of the soldier and sailor demands that this Medical authority, which exists in fact, should be rendered inviolable at the will of the so-called commanding officer, and we feel assured that where, through the good sense of individuals, this principle fully operates, it is always to the advantage of the public service. Our views coincide strictly with those expressed by Dr. Warren Webster, of the United States army:—

"Let me not be understood to ask for Medical officers enlargement of military authority, or increased rank, on account of mere personal advantages. Rather let the suggestion be placed upon the sole reason of the public good. He who, in army or civil life, attains deserved eminence in the Medical Profession of the United States, has little need of the gratification of military command. Army rank will, of itself, not give logic to the thought, clearness to the eye, or dexterity to the hand of the Surgeon, as he takes up the operating knife; but, if superadded to all needed Professional qualities, it *will* tend to give that soldierly *esprit* without which we may be Doctors, but not Army Medical Officers, who *prevent*, not less than cure disease."

Dr. Brown lays stress upon the fact that retirement from active service is not compulsory in the navy so early by five years as it is in the army, a regulation which brings sluggishness of promotion, destroys the chances of the seniors, and confines the better emoluments of the service to a few, in comparison with those of the army corps.

This must operate prejudicially to the class generally, as the prizes of the service are so much slower in rotation. "Whether it be wise or not to compel Surgeons to retire at 55, and inspectors at 65," it is the rule of the one department, and it is but fair to make it so in the other.

The question of optional retirement after twenty years' full pay service merits consideration, as with that contingency in view every Medical officer would strive to reach that bourne as early as possible, and then seeing no hope of advancement he may, while energy remains, seek elsewhere to improve his condition. Few possibly would avail themselves of the option, and the State would have secured a fair amount of service—"twenty years of the springtide of life," none but the really incapable falling short of that period of service.

To compare this with what happens generally in the service it would be necessary to examine, for instance, whether above 22 years of age other classes show an average of twenty years' full-pay service. It may reasonably be anticipated that such a standard fairly applied would exhibit results favourable to an optional retirement at the period stated, the more so as it still leaves a large margin for services that would be voluntarily performed by Medical officers whose career did not stop at that point. In our own day, when the temple of Plutus is more and more accessible to the class from which the Medical Profession rises; when by commerce fortunes accumulate a hundred times more rapidly and numerously than in olden times, the prospect of the Naval Medical Officer is by no means a promising one. Unless very fortunate in his career, he may calculate on the average reward of long service—years spent in various climes and absence from domestic comforts—an income that will increase slowly from £180 to £400 per annum, closing in an annuity of £337 for the remainder of his life.

This, we fearlessly assert, is but a moderate inducement to Professional men of good education and ordinary ambition to quit the open course of civil life. If to it we add the virtual exclusion of Naval Surgeons from the honourable distinctions which render old officers respectable in poverty, an exclusion which Dr. Brown proves to exist, there can be no ground of surprise that the Admiralty have arrived at the impossibility of deluding able Medical officers to enter the service they thus fatuously control.

This is rigidly the Professional view of the case, and Dr. Brown deserves the warm thanks of the Profession at large for having given it form; and a good augury attends this exposition, emanating, as it does, from an entirely disinterested source.

In the appendix to the pamphlet there are found quotations that prove the heroic Nelson to have been the advocate of Medical officers at a time when the state of the service seems to have been in most respects the same as it is now; for, in the long interval between that time and our own, the governing class seems to have maintained its superiority and exclusive advantages unimpaired. More than this, in the matter of emolument, it is convincingly displayed, in tabular form, that in fifty years the junior lieutenant and the junior Assistant-Surgeon have gone on, *pari passu*, increasing full pay 50 per cent; but there is a wide departure from equality from that point in their respective careers, "so that at length the junior captain has benefited 93 per cent., and the junior rear-admiral 90 per cent.," "while their equals of the Medical service have not exceeded 8 per cent in the increase of emolument, to meet the ever-advancing needs of our social state."

We feel that our Naval brethren may safely rest their claims for redress on the statements thus advanced.

THE MEDICAL HISTORY OF ENGLAND.

By B. W. RICHARDSON, M.A., M.D.,
Senior Physician to the Royal Infirmary for Diseases of the Chest.

THE MEDICAL HISTORY OF OXFORD.

(Continued from page 635.)

New College.

One of the most striking historical figures in English history is connected with New College, Oxford. I refer to William Wickham, or, as his name is commonly writ, William de Wykeham. Thomas Cromwell has the repute of having risen from the lowest to one of the highest positions in the nation, and Wolsey is quoted in similar and familiar example; but I doubt if either of them have any place by the side of William de Wykeham: they battled against less, they won less, and they left far less behind them. This Wykeham, Bishop and Lord Chancellor, takes his name from his birthplace, Wykeham, in Hampshire, a small town, in which William's parents lived on the smallest possible means in the smallest possible way. The boy grew up strong, and of some mental possession from the first—a boy of parts, who at play or work stood above his comrades, and who attracted the attention of older heads as a wise boy. Perhaps he wrote poetry, or showed skill in handicraft, and certainly he showed skill in letters, which was a branch then of mystery to the masses. At last his name, and he himself too, became known to a great lord in those parts, a feudal prince, whose word, as a matter of course, was the law, under the word of the King only—one Nicholas Uvedale, lord of the manor of Wickham. Nicholas, the wonderful man of his time, to whom men bent as they would not bend now to all the kings of the earth fused into one body and headpiece for the crown of the whole planet,—Nicolas, little weening that at the moment he was doing the only thing he would ever do to link his name with the future, sent the lad to Winchester to school, and some years later got him appointed secretary to the Bishop of Winchester. In all these positions William of Wykeham did well; he won golden treasures, and, what is more and better, he won golden opinions, so that Edward the Third, a very brave and far-seeing man, must hear enough of him to feel that he, Wykeham, would make a right royal servant. Wykeham, meanwhile, has turned architect and surveyor, and in this capacity he enters the king's service, signalising this part of his career by pulling down and rebuilding some three-fourths of the castle at Windsor, and building the famed castle of Queensborough, in the island of Sheppy. He also took to the improvement of ecclesiastical architecture, and in this character advanced in the moral not less than in the material science, for he ascended to the altars he had raised as priest before them. Once in holy orders, he rose rapidly, until he became Bishop of Winchester, and once in favour in the Church, he made the Church the step to his political ascendancy. One year after he was Bishop (in 1367) he was made Chancellor. He continued to hold high office under Edward until the close of the reign, and in the reign of Richard the Second he was again Chancellor. He died an old man, 79 years, in the early part of the fifteenth century, September 27, 1404.

To the theological scholar the name of William of Wykeham is of interest, because he reads in it the origin of that expurgation of monasteries which in later days became so decided a fact; for William himself, though not an expurgator, was a reformer of the monastic order. To the architectural scholar the name of William of Wykeham is of interest, because its owner mastered the art of the builder and sustained old grand designs, if not invent new ones. To the general scholar the name of William of Wykeham is of interest, because the name is set in history with Winchester School and New College, Oxford—Winchester School to be the preliminary residence, and New College the final scholastic residence of the student.

The New College was founded by the Bishop in the year 1379, and his patent of foundation from the Pope bears the date of that year; but it is recorded that previously—viz., in 1375—he had raised a preparatory house, and had received scholars into it. The foundation-stone was laid by the Bishop himself, with great ceremony, at eight of the clock in the morning of March 5, 1379.

On the first opening of the College, provision was made for a warden and seventy scholars, clerks and students in theology, canon and civil law, and philosophy. Twenty of these were permitted to study laws, fifty to study philosophy, and two astronomy. Nor was the gentle art of healing all forgotten: two of the students were to be allowed to study Physic, but all were to be in priest's orders. To show his gratitude to the school where he was educated, William de Wykeham linked his gift to Oxford with one to Winchester. Seventy of the Fellows and Scholars of New College were to be elected from Winchester School. The kindred of the founder were to be Fellows on admission; the others were to be Scholars for two years. Some privileges were also obtained for all the members—that, for example, of being permitted to undergo examination for degrees in their own society instead of the public schools.

Such was the gift of the famous Bishop of Winchester to this nation. A noble life picture his for English youth to contemplate. A representative man in every sense, he was great in all that he did, in building a house, building a fortune, or building a fame. He was essentially a constructive man, the only man who can live. He understood the synthesis of success. Any man can take to pieces, analyse, and tear up the past? But who can build on the present? That is the man who is to be. Is it not a fact, friendly reader, that when you recall the lives of men in our own Profession, and in all others, you find that no man ever bore fame who merely analysed and tore up? It is so. Those of our class who have lived a little longer than their deaths have been the men who have patched up neatly old and crumbling mental edifices which once were true and noble, but have decayed in the ages, have been oxidised, as we would express it physically, by time. Those who *always* live, and, though dead, speak to us with voice as soft and clear as ever over the silent chasm of thousand years—those were, like our friend William, constructors on new ground of new thought and action. But the mere analysis men, though they often fill a prominent part in their century, who tear up and do not rebuild, who would excavate the very planet, if they could, till the crust, with all that was on it, fell on their own heads—these rats die as they deserve, are resolved historically into their elements, and are seen no more.

I dwell on the name of William of Wykeham as a self-made man, who has gone through the struggle of the world, and lived beyond it—who has won and worn immortality even in the life that is. I admire his power, his perseverance, his generosity, and, above all, his grasp, or, as monad humanis would say in irony—his own one idea putting out every other light—"versatility." I like the motto of the good old Winchester prelate, "Manners makyth man;" so quaint it is and stript of the common reading, which implies that the bowing down of the poor body after endless scraping of it up means all manners and nothing more, I see in the phrase a good broad sense and business which savours of healthy success of long duration. Lastly, that little touch of family feeling about William, that his own kith and kin should have a home always at the New College and just the recognition of immediate residence; there is something in that of gentleness without offence which shows that there was a true and faithful heart beating in the breast of that priestly Lord Chancellor; architect and surveyor; born in a hut; buried in a grand tomb at Winchester, hands across breast, crosier by his side, and mitred crown on his head; founder of Winchester School and New College Oxford, and still an eloquent English preacher, though he has long closed his mouth, and the nation, legally or illegally, has transformed his faith. Preaching William of Wykeham, never finishing his discourse, age upon age, and always new and eloquent to those who will listen to him, is a subject, in fact, hard to leave when one is once under him. It comes natural to take out a pencil and jot down all he seems to say. The only way to escape him is to break from him resolutely; we must and will do it. Away! (a)

At the present time New College is governed by a master; it has thirty fellowships and thirty scholarships. The scholarships are tenable for five years, and are filled up annually, at an election, from boys educated at the School of Winchester. They are worth £90 a-year, including rooms and tuition. Of the fellowships, fifteen only are open to those who have been educated at Winchester or have lived for twelve terms as members of New College. The other remaining fellowships are without limitation. There are three chaplains to the College and three choral scholars.

Much of the old college still remains, little changed, though the revolutionary wars spared it not altogether, and though revolution of taste has altered many parts and added some. The chapel, once the pride of the University, so rich, so costly, was squared after the Reformation into the new order, and made cold and comparatively plain. A library was in modern days added, and the Hall has received, from time to time, decoration and redecoration and picture on picture. Altogether, it is a fine College, full of the old and the new not unhappily blended.

The Medical celebrities connected with New College are not numerous. In 1599 Dr. Martin Colepepper, M.D., was warden. Colepepper was in holy orders, and was Dean of Chichester. I do not observe that he added anything to Medical literature. In 1561-2 Dr. Raley, M.D., was a member of the College, and Queen's Professor of Physic. He was one of the Physicians to Queen Elizabeth; but he leaves no further scope for the historian than to write his name. There is only one other name in relation to New College to which I would call attention, and the owner of this name was not a Medical man. The name is that of Dr. Bruno Ryves, who was a member of the College, and afterwards was Dean of Chichester. He is of note as having been the originator of one of the earliest English newspapers, the paper in its day known as the *Mereurius Rusticus*. The writers on New College are fond to claim *Mercurius Rustieus* as the first newspaper. There was, however, prior to that a paper published by Queen Elizabeth's printer, Christopher Barker, and called the *English Mereurie*. It came out in 1588, then lapsed, and left the country without news, in print, until the year 1622. Then there started a paper called *The Certaine News of this Present Week*, edited by Nathaniel Butler; and contemporaneously with it, or a little later, there came out three "Mercurics," of which that by Dean Ryves was one—viz., the *Mereurius Anlieus*, *Mereurius Rustieus*, and *Mereurius Civieus*. *Mereurius Rustieus* was of much service in its way—it opened the royal road to free expression of thought; and we may pardon New College men for claiming for their famous house the honour that is due to it, and a little more, in regard to the introduction of the fourth estate into this realm.

Lincoln College.

Lincoln College was founded in the year 1427 by Richard Flemming, Bishop of Lincoln. Much of the College remains as in its first days. The founder raised it for the maintenance of a rector and seven fellows, but various benefactions have been made since, and at the present time it has a rector, twelve fellows, eighteen scholars, and two Bible clerks.

In this College Dr. Radcliffe, to whom I have already referred, became a Fellow after he had left the University College.

The College produced a Physician of great repute in the metropolis in the middle of the seventeenth century. This was Dr. Christopher Bennet, who was born at Raynton, in Somersetshire in the year 1617. He entered Lincoln College in 1632, took out his M.A. at Oxford, and soon afterwards his M.D.; then he moved to London and was raised to the Fellowship of the Royal College of Physicians, and soon obtained a large and lucrative practice. He wrote and published a book under the title "*Theatri tabidorum seu Exercitationes dianoeticæ cum historiis et experimentis demonstrativis.*" He made the disease phthisis pulmonalis his special study, and died of the disease (not because he made a study of it, by the way,) on May 1, 1655. He also published and enlarged a book written by a Thomas de Muffett, "On the nature, method, and manner of preparing all kinds of food used in this nation." The works were crude, and evidently unfinished.

The famous John Wesley was educated at Lincoln College, and became a Fellow in 1726, being soon afterwards appointed Greek Lecturer. From that College he went forth in due time to play the wonderful history which all men, however they may differ from him, accord to him; while the College, still the same as it was, and admitting none of his teachings as canonical, is not less ambitious to claim him as one of its sons.

All Souls' College.

All Souls' College was founded by Henry Chichele, Arch-

(a) The family of Lord Saye and Sele is lineally deseended from William of Wykeham.

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bishop of Canterbury, in the year 1437. The college in past time had a warden, forty fellows, and six clerks, but now the society is formed of a warden, thirty fellows, two chaplains, two clerks, and two Chichele professors, one professor taking "International Law and Diplomacy," the other "Modern History" as his subject.

In the year 1536 a Physician by the name of John Warden, M.D., was warden of the college, and he held office until the year 1555, when he resigned: he was a scholar, but not a man of great Medical learning. After his time two members of our Profession, for whom we entertain much reverence, rose from this place, and adorned it each in his own peculiar way. I refer to Linacre and Sydenham. Linacre, who was born at Derby in 1460, and received his elementary education at a school at Canterbury, went to Oxford in or about the year 1480. He became a Fellow of All Souls' College in 1484, and some time later formed one of an embassy to Rome. Once in Italy, he remained there a long season, studied at the most noted of the Italian schools of letters and science, then in all their unfaded glory, and graduated in Medicine at Padua before returning to England. On his return he took up the Medical degree at his own University of Oxford, was appointed Physician to Arthur, Prince of Wales, and to Catherine, Princess of Wales, afterwards known as the unhappy queen of Henry the Eighth, and probably settled in practice in the metropolis. On the accession of Henry the Eighth Linacre was made Physician to the King, and by his influence succeeded in obtaining from the monarch the incorporation of the Royal College of Physicians. To further the interests of the College, which became a distinct and legal body in 1518, he left by will his house, situated in Knight Rider-street, to the Fellows, and during his whole lifetime gave them accommodation, and presided over their councils. Tired of physic, or having stronger predilections, he entered the Church in 1520, and became rector of Wigan. He died in London on October 20, 1524, and was buried in St. Paul's.

Linacre was not an original thinker or worker in Medicine, but a man of profound learning and great liberality. When at Rome he was intent on his studies in the rich library of the Vatican, and had the good fortune to secure the friendship and assistance of the Patriarch of Aquileia, Hermolaus. This noble Venetian, himself deeply interested in natural science and a close scholar of Pliny, probably turned the mind of Linacre from the political mission on which he was engaged to that scientific mission for which he was more pre-eminently qualified. Linacre read in the library of the Vatican two books—Aristotle and Galen; the first made him a philosopher, the second made him a Physician. In his after life he was ever a follower of Galen, and he translated into Latin the three books De Temperamentis, the De Methodo Medendi, and several other of the Galenic essays. Friend, the Medical historian, gives Linacre a first niche amongst our Medical worthies of the past, and the truly learned in physic ever since his day have held him to be the Father of English Medicine.

Sydenham, the next Medical celebrity of All Souls' College, and the last I shall have occasion to name in connexion with it, was born at Winford Eagle, in Dorsetshire, in 1624. He went to Oxford to study in 1642, during the revolutionary period, and was obliged to leave. I believe that he is claimed as having entered first as a student at Magdalen Hall, but he was afterwards at All Souls', and he received his degree of Bachelor in Physic on April 14, 1648. He took his Doctor's Degree at Cambridge, and then probably, as was the custom, went for improvement on the Continent. In 1660 he was in Westminster, beginning a large, but probably not very fashionable practice, and here he continued until his death, which arose from a choleraic disorder on December 29, 1689. He was buried in St. James's Church, Westminster. Various estimates, mostly very favourable, have been formed of Sydenham. Locke compared him to the "incomparable Newton," and Boerhaave said of him,—"Unum eximium habeo Thomam Sydenham, Angliæ lumen, artis phœbum." The moderns in England have followed him as a great man, rather, I fear, by name than by deed. His name is on all our lips; but I have never as yet met a man who practised in any way from him. In fact, we worship the name, and whenever we reach that pitch of worship the man becomes obscure and his work mystical. I have nothing to say against Sydenham; on the contrary, I believe that in his day he did good labour, like an honest observing scholar. I should grieve to see his name off our lists of history. But it is time to be just, and to give up idolatories. Sydenham, a representative man in his century, went out with it in reality. In the next century he held in history because there was nothing better in his line to come forth. He has floated along to us, and we have labelled him, in classical prudery, to a book society. But withal, who knows Sydenham, or, knowing him, practises as Sydenham practised? Himself with us this day, he would not be the Sydenham of old; nor would he, I take it, relish the manner in which he is accepted as authority. Let us, and All Souls' College, and Magdalen Hall, recognise Sydenham—"Angliæ lumen." But, let us recognise him as he was—Sydenham of the eighteenth century, *sans* stethoscope, *sans* microscope, *sans* thermometer, *sans* test-glass, *sans* chloroform, *sans* oxygen, *sans* everything with which the modern Physician is most familiar. Then, leaving him thus, let us go to our new tasks like men, *sans* Sydenham as a child's cry!

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, June 14, 1865.

In my present communication I shall revert to the Surgical departments of the International Exhibition. Mr. Morrison, of Edinburgh, exhibits a very imposing "pneumatic battery" for the painless extraction of teeth. The spectator is at once struck by the extent of the machinery brought to bear upon so small an organ. The principle of the apparatus is that of a *cold* blow-pipe. By means of an ice-chest and condensing syringe in connexion with a series of suitable hollow tubes, a stream of cold air is made to impinge in a jet upon the gum until the requisite degree of anæsthesia is obtained. After the extraction of the tooth warm air is made to play upon the part until it has thawed and been restored to its normal condition.

In the Italian department is a very interesting series of mineralised anatomical preparations, preserved without spirits by the process of the exhibitor, Domenico Messedaglia, of Brescia. The process, whatever it may be, seems to be perfectly successful, the preparations being quite dry and free from any unpleasantness, while the several parts are admirably seen. The principal specimens are: a human hand dissected, showing part of the muscular and the whole of the osseous systems, preserving the natural colour of the skin, of which a small portion is left as an example; a goat's kidney bisected, retaining its natural colour and freshness of appearance, the fat adhering; the trachea of a calf; a piece of brain; a snail preserved and subsequently broken in pieces; a lizard preserved intact. These preparations, of course, are not exposed to the public gaze, but will be shown to any one interested in such matters on application to the obliging superintendent of the Italian department.

The trusses, belts, and pads exhibited by Mr. T. P. Salt, of Birmingham, to which I alluded in my letter published in your impression of June 3 (p. 582), would appear from their excellency and finish to call for an extended description. They are models of good workmanship and of adequate contrivance. They may be classed under the following heads:—

1. *Orthonemic Trusses.*—These are an improvement on the old form, inasmuch as they afford that upward lifting force which is so great a desideratum in the construction of trusses, by means of the vertical springs, by the aid of which the pads exert their pressure against the hernial openings, and to which they are attached so as to permit of their freely rotating to a certain extent, to prevent friction and displacement, thus supplying every desirable motion; whilst, at the same time, all those movements which might affect the security of the truss are completely guarded against. The pads are made by a new and peculiar process, which does away with the cumbrous and uncomfortable stitching used in ordinary truss pads, by employing a metallic clip to bind together the various parts, leather, padding, etc., which form the cushion in the same manner as the Florentine buttons are made; this renders their surface and edges exquisitely soft and smooth. The workmanship and finish of the whole is of the best possible quality.

2. *Trusses with Patent Pads.*—These are ordinary trusses, of a superior quality, fitted with pads of the same manufacture as those employed in the orthonemic trusses, except that they are pear-shaped instead of being oval. They are of various qualities, the better class having their springs plated or gilt, to prevent rusting from the perspiration and moisture of the skin.

3. *The Uni Duplex Truss.*—This is an article suited for the foreign market, as a truss made on this principle can be made to serve for right, left, or double hernia, one of the pads, with its spring, being removable. The pads are the same as those of the orthonemic trusses.

4. *Children's Umbilical Belts.*—These belts are remarkable for their simplicity and facility of application. They consist of a soft elastic band, which hooks on to a small circular patent pad, by means of a pair of clasps which rotate upon the stud in the pad, so as to prevent displacement.

5. *Adult Umbilical Belts.*—These are similar to those last described, except that the pads are larger, and have a spiral spring coiled in their centres, which follows the protrusion in its return, and securely retains it within the abdomen.

6. *The Orthoreidic Abdominal Belt.*—This is an invention for the more effectual and comfortable relief of dropsy, obesity, umbilical hernia, etc., and for affording support during the period of gestation, or in enlargement of the abdomen, from whatever cause it may arise. For these purposes it is especially suited, as it admits of being enlarged with the increasing dimensions of the abdomen, and also affords an upward support in the direction of the muscles, instead of a straight one antagonistically to them, as is the case in belts which have their fibres of elasticity arranged longitudinally. The oblique pressure is obtained by arranging the fibres in the desired direction, and making the straps which fasten it to exert their pressure obliquely from the bottom towards the centre and top, thus completely supporting the bowels.

GENERAL CORRESPONDENCE.

THE NETLEY SCHOOL.

[To the Editor of the Medical Times and Gazette.]

Sir.—I am given to understand that military journals have boasted of the supply of candidates as a proof of the popularity of the Army Medical Service, and the groundless nature of the complaints. It would seem that the Horse Guards have invariably treated the members of our Profession with that amount of respect and consideration which was accorded to the rude leeches of a generation long past. If all I have heard of the quality and conduct of these Medical candidates, about whom there has been such boastful congratulation, be true, then the authorities have gone far to create some grounds for their opinion and conduct. I have been told, Sir, stories about unseemly contests with cabmen, exhibitions of drunkenness and dissipation, and many other expressions of a "gentle life" among these candidates, which forcibly illustrate the vulgarities of the extinct Bob Sawyer type of Medical student, and those sketches by the late Albert Smith which made one bite one's finger ends with indignation and vexation. We are told that these men are not third-class men, but I have heard of some of the candidates who could hardly tell you how many h's there were in "which;" men who knew nothing of the vernacular, much less of the meaning of scientific terms—men who were well nigh bereft of all language with the loss of their pocket Johnson. Mind, I do not say that all the men were of this stamp. Some were well-educated gentlemen, I know, and they viewed matters probably with the same amount of indigation as I do. If these rumours be true, Sir, the authorities are inflicting a great wrong on the soldier, the Medical Department, and, through it, on the Profession to which you and I, Sir, have the honour to belong. I am, &c.

Southampton, June. Medicus.

GREENWICH HOSPITAL AND NAVAL MEDICAL OFFICERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—The Greenwich Hospital Bill passed its second reading last night, without one syllable being said by any honourable member on the unstatesmanlike conduct of the Admiralty in excluding Naval Medical Officers from all participation in the Greenwich out pensions, at a period when there is a complete dearth of candidates for Assistant-Surgeoncies, and when everything should be done to make the service popular.

Instead of directing the serious attention of the Government and the country to this lamentable state of things, some honourable members thought it more becoming to trespass upon the time and patience of the House by descanting upon the grievances of Sir Richard Bromley. And failing in their efforts to obtain for this much injured gentleman all that he desired, they appear to have allowed the bill to pass without further criticism. Young Surgeons can now judge for themselves of the advisability of entering a service which is governed by a class and for a class. In this, the latest instance of class legislation, they have the best possible evidence of the unwillingness of the Admiralty to treat their Medical officers with justice; and if young Surgeons will join the Navy with their eyes open to this wretched injustice, they will deserve the disappointment which in future years they will assuredly experience.

For my own part, I cannot be persuaded that any competent men do offer themselves while there are vacancies in the army at home and in India open to them. But, lest any one might through ignorance or inadvertence do so, I would, through your columns, beg to caution them to beware how they take a step which they will have cause to regret, and to select any service rather than the Royal Navy.

The present generation of naval Medical officers have much to thank you for, considering the frank and considerate manner in which you have opened your columns to their use, but above all for the very able and pointed leading articles which have appeared from time to time in reference to their affairs. For your criticisms on this precious Greenwich Hospital Bill they are particularly indebted to you. I am, &c.

London, June 20, 1865. A Physician.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 13.

Dr. Alderson, President.

Dr. J. B. Sanderson and Mr. J. W. Hulke gave an account of a

CASE IN WHICH A SIXPENCE WAS LODGED IN THE LARYNX DURING TEN WEEKS.

On November 2 the patient was conversing in a public-house, having a sixpence in his mouth, when something in the conversation having excited his laughter the sixpence disappeared, and immediately he fell to the ground suffocated. For about an hour there was excessive dyspnœa, which, however, subsequently disappeared so completely that on the following day he experienced no bad effect from the accident, excepting that he was unable to speak aloud, and had slight dysphagia. During the succeeding ten weeks he lost flesh and strength, but experienced no difficulty of breathing, either on exertion or otherwise; the voice remained as at first. On January 6 his breathing again became embarrassed. After lasting for some hours the dyspnœa suddenly ceased, apparently in consequence of his having tripped in going down stairs. On the following day he attended at Middlesex Hospital for laryngoscopic examination. The sixpence was seen without difficulty on the first introduction of the laryngeal mirror. It was horizontally placed in the glottis, below the false vocal cords, which covered a portion of its circumference at each side, being in such a position that a transversely oblong breathing space was left between its free edge and the arytenoid cartilages. Several attempts having been made without success to extract the coin through the upper opening of the larynx, by means of loops of wire specially contrived for the purpose, it was resolved to have recourse to laryngotracheotomy. An incision an inch and a-half long was made in the middle line from the thyroid cartilage downwards, the edges of which were held apart above and below with two pairs of Trousseau's dilators. The coin could be readily felt by forceps introduced through the wound. Several attempts were made to seize it, in one of which it was displaced upwards into the patient's mouth. At that instant the patient made a sudden gulp, the coin slipped out of reach, and the patient, who had become conscious, made signs that he had swallowed it; it was recovered on the following day. After the operation the patient progressed so favourably that he was able to leave the Hospital on January 18, feeling no effect from the accident, excepting that the voice was still husky and feeble. By February 20 it had regained its natural character.

The President said that several cases of this kind were on record, but none since the introduction of the laryngoscope. The case was one of great interest.

Dr. Webster referred to several cases on record, and especially to the well-known case of the celebrated engineer. He adverted to a case which occurred in his own practice in which a cherry-stone remained in the bronchus sixty-eight days, and was then expelled by coughing. Louis relates a case in which a small gold coin remained four years in the trachea, and Dupuytren one in which a coin remained ten years. John Stevenson, an old Covenanter, had a bit of mutton bone the size of half a hazel-nut in his trachea fourteen years and nine months, and then coughed it up and got well. M. Sue met with the case of a girl who had had a piece of chicken bone in her bronchus seventeen years. She coughed it up and got well. Dr. Webster then asked the opinion of the Surgeons present as to the advisability of opening the trachea in such cases.

Mr. Birkett said the object of the operation in Brunel's case was to enable the patient to take in enough air to enable him to expel it in coughing. Mr. Birkett then referred to the importance of Surgeons being provided with a fitting instrument to pass from the opening in the trachea in order to dislodge a body from the larynx into the mouth. He related a case in which a child was brought to the Hospital in *articulo mortis*, after having swallowed a piece of walnut shell. She recovered, but no foreign body could be detected in the larynx, at the operation, by a probe passed through the tracheal wound. Next day, by passing a larger instrument, an elastic catheter, a piece of walnut shell was dislodged into the mouth.

Mr. Henry Lee said that, in Brunel's case, Sir Benjamin Brodie's object in performing tracheotomy was really to enable him to seize the coin through the opening, but he (Mr. Lee) thought the advantage of opening the trachea was correctly explained by Mr. Birkett. Mr. Lee then related the case of a boy who swallowed a fourpenny-piece. It was supposed to have passed into the larynx, and every time the boy was reversed he was nearly suffocated. He was sent to St. Thomas's Hospital, and one day whilst there felt an inclination to vomit; he heard something chink against the water-closet, and was afterwards well. Mr. Lee repeated that he thought Surgeons had had an idea of putting forceps in to take out the coin, but he thought that Mr. Birkett's remarks showed that that was not the proper reason for performing tracheotomy in such cases.

Dr. Gibb observed that the case brought forward demonstrated the value of the laryngoscope in proving the actual presence of the sixpence, and showing its position in such a manner that its removal by the mouth was all but an impossibility. He thought, however, that if the laryngoscope had been used at an earlier period successful extraction without a resort to tracheotomy might have been successful, before the coin had assumed the horizontally fixed position it was seen afterwards to occupy; indeed, he was astonished the patient was able to breathe well at all under the circumstances, for in similar cases death was usually instantaneous from suffocation. Although well acquainted with the literature of the subject, he knew of very few cases indeed upon record where a coin of any kind occupied a similar position to that described by Mr. Hulke. When at Salisbury, in March of last year, he visited the Infirmary, and a case was related to him in which a bronze halfpenny was removed from the larynx of a young man by one of the Surgeons, after lodgment for some days, by cutting through the pomum Adami and separating the alæ, no inconvenience to the patient resulting. The position of the coin was vertical within the cavity of the larynx, and in a direction from before backwards, which readily permitted of its extraction, and had not exposed that obstacle to breathing which a horizontal or more or less oblique position would have done.

Mr. Solly related the case of a navigator who had been brought to St. Thomas's Hospital after having swallowed a pebble. He was then nearly suffocated. Mr. Solly opened the trachea with the double object of admitting air and relieving spasm. The patient was repeatedly reversed, but the pebble still remained lodged in the trachea. He went out and soon got drunk, and had a violent fit of coughing and died. At the autopsy the pebble was found lodged in one of the bronchi. Mr. Solly entirely agreed with Mr. Birkett and Mr. Lee in their explanation of the advantages of the operation. He then spoke of the advantage of the button-headed probang in extracting bodies from the œsophagus, and related a case in which he had hooked out a piece of mutton bone in a patient who was suffering from laryngitis in consequence of the irritation caused by the foreign body.

Mr. Durham related the case of a child who was seized with a "fit" whilst eating an apple. The child was apparently dead, but by artificial respiration was brought round after the performance of tracheotomy. The larynx was then carefully examined by pushing a probe up and by the finger, but nothing was discovered. Something larger than a probe, as recommended by Mr. Birkett, should have been passed up. The child, who had had several fits, had another attack and died. At the autopsy a piece of apple was found in the ventricle of the larynx. Had a laryngoscopic examination been possible, the piece of apple might have been discovered during life, but the real cause of death was tubercular meningitis.

Mr. Holmes Coote said that when the trachea was opened the patient could not cough. Hence, in opening the trachea, this way of getting rid of the foreign body was not applicable. He could remember several cases in which foreign bodies had been expelled by coughing.

Dr. Wynn Williams said that in Mr. Brunel's case an apparatus was contrived by which he was reversed. The advantage of tracheotomy in the case was that it prevented spasm of the glottis.

Mr. Henry Lee said that Sir B. Brodie had had forceps made on purpose to catch the foreign body. In reply to Dr. Webster, Mr. Henry Lee said the wound was kept open, and it was expected that the coin would have passed through it.

Mr. Spencer Wells said a drawing of the forceps which Sir B. Brodie had had made in the case was to be found in an article which he (Mr. Wells) had written in the "Cyclopædia of Surgery." They were very long, and were intended to reach the coin in one of the bronchi.

Dr. A. P. Stewart said that the great advantage of the operation was that it quieted spasm. To this Dr. Latham had attributed the chief advantage of the operation of tracheotomy in œdema of the glottis.

Mr. Thomas Smith begged to be allowed to add to the various means for dislodging foreign bodies from the larynx that had been mentioned, one other expedient,—namely, that of drawing through the larynx from below a small piece of sponge attached to a piece of silk. This plan he had adopted successfully in a case of laryngeal obstruction after tracheotomy, where a small tent of sea tangle weed had escaped into the cavity of the larynx, and had become lodged there. The thread in this case was passed on a probe through the tracheal wound and larynx into the mouth, and the sponge, being tied to the opposite end, and traction made the foreign body present itself in the mouth. The advantage of tracheotomy in these cases was obvious. If the foreign body were in the larynx, it allowed air to enter the chest freely, so as to give the full expulsive effect to coughing when the tracheal wound was for a moment closed; by means of it the Surgeon could, without danger to the patient's life, make attempts to dislodge the foreign body from below; while if the foreign body were in the trachea or bronchus, a large tracheal opening gave the best chance of escape. He related two cases—the one under Mr. Skey's care, the other under Mr. Paget's, at St. Bartholomew's—where a plum stone in one case, and a tamarind stone in another, were shot out from the wound by a strong expiratory effort within a few minutes after the performance of tracheotomy. He believed that attempts to seize moveable foreign bodies in the trachea by means of forceps were quite useless, while he could bear testimony to the value of Mr. Birkett's advice, that if attempts were made from below to push foreign bodies out of the larynx, a good sized elastic catheter should be used, and not a silver probe.

Dr. Wynn Williams said that one of his patients, whose trachea he had opened for epilepsy, on Dr. Marshall Hall's recommendation, could not cough unless he put his finger over the opening.

Mr. Hulke replied that it was a mistake to suppose that the operation was not directly successful in removing the coin from the larynx—for this was actually dislodged upwards into the mouth during the attempt to seize it with the forceps introduced through the wound. The present case differed from those brought forward during the discussion in that the coin was in the larynx, and not in the trachea or bronchi, and in its position being accurately known before the operation. Indeed, it was this exact knowledge of its position which determined the particular operation.

Dr. Sanderson remarked that among the most remarkable features in the case were the remarkable immunity of the

patient from dyspnœa during so long a period as ten weeks, and the absence, from first to last, of all symptoms of larnygeal irritation, although the sixpence was undoubtedly in the larynx during the whole time. This seemed to be accounted for by the singular passiveness of the patient's larynx, but by its relatively large size, and by the volume of his chest. Like most large-chested men, the patient breathes slowly—at the present time, five months after the operation, only twelve or thirteen times in a minute,—and is thereby enabled to make the better use of the air he takes into his lungs.

SYPHILISATION.

Mr. Henry Lee introduced to the notice of the Society a patient who had been sent from this country, and who was supposed to have been cured in Norway by Syphilisation, under the care of Professor Boeck. Mr. Lee stated that the patient was shown in order that the Fellows might have an opportunity of judging for themselves of the nature of the case, and of the effects of the treatment pursued. He (Mr. Lee) wished to be excused from giving any opinion upon either of these points upon the present occasion. Professor Boeck had honoured him by becoming his guest during his present short stay in this country, and he merely wished, as Dr. Boeck was unavoidably absent, to present the patient to the Society in Dr. Boeck's name. He (Mr. Lee) might, however, briefly state the principles upon which Professor Boeck professed to act, and some of the physiological results at which he had arrived. Professor Boeck believes that there are two kinds of infecting sores, one of which appears as a soft chancre, and subsequently becomes indurated. This sore has no period of incubation, and is auto-inoculable. The other infecting sore has a period of incubation from two to four weeks, is not generally auto-inoculable, and secretes only thinnish pus or a serous fluid. It was with this last-named secretion that Professor Boeck, as Mr. Lee understood, carried on his process. But inasmuch as naturally the chancre last named produced no inoculable pus, before the process can be commenced an inoculable secretion must be established. This is effected by constantly applying some sabine powder to the surface of the sore until an inoculable secretion is produced. This mode of artificially producing an inoculable secretion was based upon an original experiment of his (Mr. Lee's) own, in which he used sabine ointment for the same purpose. Having obtained an inoculable secretion from an indurated and naturally non-inoculable sore, Professor Boeck proceeds to make three punctures on the sides of his patient. At the expiration of three days, these points in their turn yield a puriform auto-inoculable secretion. This fresh secretion is then, in like manner, inoculated, and three fresh pustules are produced. In this way the inoculations are continued every third day, the inoculated matter being always taken from the last-formed pustules. It is found that the inoculations continually produce less and less effect, until at last no result follows. In this way a series of some twenty or twenty-five inoculations may be performed with the secretion of a naturally non-auto-inoculable indurated sore. Now, supposing that a series of twenty such inoculations had been performed, the inoculations first made would be sixty days old, and the tenth inoculations in the series would be thirty days old. If, at this time when, in the direct descent, no further effect can be produced with the inoculations last made, some of the secretion be taken from the tenth set of inoculations (thirty days old), that will be found to be inoculable again ; and, curiously enough, the series of inoculations from that set may be continued for the same, or very nearly the same, number of times as those previously made from the same source : that is to say,—if the total number of the first series of inoculations were twenty, then, if the secretion were taken from the tenth set (then thirty days old), ten more inoculations, and no more, may be produced from this source, so that the number of inoculations in the direct descent and those by collateral branches is in all cases nearly the same. When the life of this germ has been exhausted, some fresh matter is taken from another source, and the process recommenced. Fresh parts of the body—as the thighs—are then taken, and the process repeated until no further inoculations with this kind of matter can be produced upon any part of the patient's body. Immunity from inoculation from this kind of matter, from whatever source derived, has then been arrived at, and the patient is said to be "syphilised." It is found in performing these inoculations, that when a particular series has come to an end—at the expiration, we will say, of the twentieth set of inoculations—in a patient, A, and the same has occurred at the same time in another patient, B, that the sores which are still suppurating on A may, nevertheless, be inoculated on B, and B's sores, which would no longer produce any effect on himself, may nevertheless be inoculated on A. The two series of inoculations, which have come to a natural termination on the patients themselves, may thus be crossed so as to be continued. The seed, which will no longer grow in the soil in which it had been so often sown, will, nevertheless, take root in other ground, and, after it has continued there for a certain time, may be re-transferred to its original bed. Thus, in the case supposed, A's first series of inoculations will continue for sixty days, and B's series will continue for the like period. If, then, some matter from one of A's suppurating sores (say, from fifteenth set) be inoculated upon B, they will take, and this collateral series may then be continued ; and if, in like manner, the secretions from B's fifteenth set be inoculated upon A, the inoculations will take, and the series may be continued. After an interval, the secretions from these collateral series may again be re-transferred to A and B respectively. When a patient has been in this way syphilised so that no further inoculations can be produced from matter derived originally from an indurated chancre, Professor Boeck considers that he is proof against any fresh infection, and that he is cured of that which he previously had.

After these observations, the patient was, with the permission of the President, introduced to the Society, and the Fellows had an opportunity of investigating his case for themselves. On examining the patient, a small cicatrix appeared on the frænum ; this was depressed. On chest and thighs were a large number of cicatrices, some of them of considerable size, depressed, and showing that there had been evident loss of substance. Very extensive destruction had taken place at the back of the throat, extending forward through the entire length of the soft palate. The nose was depressed upon the right side, showing that there had been loss of substance either in the bone or cartilage in this situation. The upper lobe of the right lung was found to be, in part, consolidated. On the left leg was a circular cicatrix, in the course of the internal saphena vein, the remains of an issue which had been made to cure a chronic ulcer. The history which he gave was, that the ulcer on the frænum, the cicatrix of which was left, appeared in 1855 ; it remained open six weeks ; it was very painful, and bled ; it left no hardness. There was some swelling in the groin at the time, and this was treated by the external application of the nitrate of silver. The sore on the frænum appeared some six weeks or two months after he supposed he had exposed himself to contagion. About twelve months after this sore he had severe ulceration of the throat ; this got better and worse several times. There was at this period some loss of hair. He never had had any eruption on the body, and had never tasted mercury. He was 33 years of age, with a large pupil ; "all the family were weak in the chest." Had had ten brothers and sisters, all of whom had died of consumption. The patient, who wore a false palate, expressed himself in the strongest terms as being most grateful to Professor Boeck for having cured him of his disease.

OBITUARY.

CHARLES WITTEN CROWDY

Was educated at the grammar school at Marlborough, under the mastership of the Rev. J. T. Lawes. At the early age of 16 he became an articled pupil for four years to Mr. West, of Greenwich ; he then entered the Medical School of the united Hospitals of Guy's and St. Thomas's, where he remained as an attentive and working student for nearly three years, during one of which he was a dresser under Mr. Long. He passed the Hall and College in 1821 ; and for two years he became assistant to a gentleman in the country, of kindred tastes, between whom subsisted an affectionate friendship of life-long duration.

At this early period of his life his health became disturbed, and after consultations with eminent men of the day, Mr. Lawrence recommended him to apply to Dr. Prout (in 1823), by whose treatment, founded on a more accurate diagnosis, he experienced speedy relief ; with this distinguished and sage philosopher (whom Mr. Crowdy playfully denominated "the alchemist") he maintained an intimate Professional friendship.

In 1827 Mr. Crowdy settled at Brixton, where he succeeded in the course of time in forming an excellent practice ; but neither the doubts and anxieties attendant at the outset, nor the full employment of his time at the period of success,

diverted him from a thoughtful and studious course. Conscientious study and practice of his Profession, both as regarded his patients and his Medical brethren, were habitual with him; he never suffered those tastes to slumber which his early education and subsequent self-training had created; his Horace and Virgil were his not unfrequent companions; and even when at length actively engaged in extensive practice he habitually, during the summer months, employed an hour or two before eight o'clock breakfast in the pursuit of literature of the highest class; nor did he neglect the devotional callings which later in life he followed with more warmth and with deeper convictions.

He was subject to bronchial affections, and in the winter of 1843 and 1844 he had so severe an attack of pleuro-pneumonia that he was compelled to relinquish practice and to go to Torquay; thence to Madeira, and then to Italy, where he remained three years, employing himself partially in Medical practice and in varied pursuits, acquiring a taste for and knowledge of Italian literature. In 1849 he returned to England (becoming a Licentiate, and afterwards Member, of the College of Physicians), and practised at Brighton, where he speedily obtained the confidence, goodwill, and high appreciation of his Medical brethren, and was elected Physician to the Dispensary. His state of health during this period was frail, and in 1856, after nearly losing his life from a wound when engaged in making a post-mortem examination, he retired to Bath, where he died on April 25 last. During the last three or four years, when from various causes his health was declining, he was still pleasingly occupied in his varied intellectual resources; amongst them Medical and physiological science still maintained its deep interest; and, above all, his sincere and unobtruded religious principles became more strongly impressed on his mind—an habitual reading of the New Testament in its original language, and an increasing sense of personal religion, all marked the earnestness and reality of his convictions.

In conversation his language was correct, and at all times apposite and forcible, clearly expressing the sentiments resulting from a well-stored and thoughtful mind; and the same good qualities were conspicuous in his genuine and unstudied epistolary correspondence, which was unostentatiously interspersed with an occasional apt quotation and humorous allusions.

It is too common with the Medical Profession, and with general Practitioners more particularly, to complain of a want of due consideration towards them of the better classes, of their not holding that "status" (this is the word so frequently used) which they claim to be their due. The Medical calling, with its various accessories and accompaniments, in itself precludes its members from the pursuits and associations of fashionable life; but I venture to contend that an educated gentleman assiduously and conscientiously employing himself in relieving the sufferings of his neighbours will verily meet his reward, and by cultivating such arts and elegancies as graced the life of my departed friend, he will obtain a "status" in the social scale, where he will meet with congenial minds, and in which he will be valued and respected. T. W.

DEATH OF EDWARD DANIELL, ESQ.

We announce with deep regret the death of a much respected and well known member of the Medical Profession, Edward Daniell, Esq., lately of Newport Pagnell. Mr. Daniell died on Friday, the 16th, at Stoney Stratford, of the exhaustion consequent on a large carbuncular boil which had formed at the back of his neck about three weeks previously. During his illness he was attended with assiduous care by his two sons, Mr. Alfred Daniell, of Kegworth, and Mr. William Daniell, of Stoney Stratford. He was also visited several times, in consultation, by Dr. Richardson. For a time there appeared to be fair hope of his recovery; but three or four days before his death irritability of stomach and other unfavourable and depressing symptoms set in, and from that time he gradually sank. He had only a few weeks retired from active practice, and had left Newport Pagnell in order to spend the remainder of his days in retirement at Stratford. Mr. Daniell was a man of great ability and force of character. His love for his Profession knew no change and no alloy. He was fond of literature, and wrote and spoke with fluency, learning, and good style. He was a sound and far-seeing Practitioner, and was ready at all times to be engaged in every good and useful work. As the originator of the British Medical Fund, as a Medical reformer, and as a Poor-law reformer, Mr. Daniell is so well known that we need not dwell on his exertions in these departments. He was one of the directors of the Medical Provident Fund, and an active member for many years past of the British Medical Association. He was born in the year 1795, and is one of the few remaining scholars in Physic of whom Joshua Brookes was the teacher and almost the idol. Mr. Daniell's last contribution to literature was a sketch, life-like to the letter, of the poet Clare.

MEDICAL NEWS.

Apothecaries' Hall.—Names of the gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, June 15, 1865:—

John William Armistead, Leeds; Frederick Robertson Haward, Halesworth, Suffolk; Alfred Jones, Cardigan; Hy. Wm. Alex. Mackinnon, Portugal-street, Lincoln's-inn.

The following gentlemen, also on the same day, passed their first Examination:—

Barnabas Walter Lamb, St. Bartholomew's Hospital; William Square, St. Bartholomew's Hospital; Benjamin Neale Dalton, Guy's Hospital; Arthur Bowes Elliott, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Ashton, Thomas J., M.R.C.S. Eng., has been elected Honorary Surgeon to the Infirmary, St. Marylebone Workhouse.

Banbury, Richard, Surgeon Bengal Medical Service, has been appointed Superintendent of the European Penitentiary, the Central Gaol, and the District Gaol.

Brighouse, John, M.R.C.S. Eng., has been elected one of the Honorary Medical Officers of the Royal Pimlico Dispensary.

Colman, Walter, M.R.C.S. Eng., has been appointed Resident Surgeon to the Tower Hamlets Dispensary.

Cumming, Arthur J., M.R.C.S. Eng., has been appointed Surgeon to the Devon and Exeter Hospital.

Edye, John, M.R.C.S. Eng., has been appointed Consulting Surgeon and Honorary Governor of the Devon and Exeter Hospital.

Lycett, John, L.R.C.P. Edin., has been appointed Acting Medical Officer of the Royal Northern Sea-bathing Infirmary, Scarborough.

Slack, Henry W., L.R.C.P. Edin., has been appointed Surgeon to the East Dispensary, Liverpool.

Steventon, William, M.D., M.R.C.S. Eng., has been appointed Medical Officer to the Presteigne (Radnorshire) Union.

Sutton, H. G., M.D., has been appointed Assistant-Physician to the Hospital for Diseases of the Chest, Victoria-park.

DEATHS.

Bond, Charles, M.D. Edin., at Lutterworth, Leicestershire, on June 11, aged 42.

Cauty, Henry J., M.R.C.S. Eng., at 33, Norton-street, Liverpool, on Jun 11, aged 63.

Cunningham, Alexander, late Surgeon 86th Regiment, at Fettes-row, Edinburgh, on June 11, aged 82.

Edwards, Francis S., M.D, at New York, on June 1, aged 39.

Fletcher, John Wells, M.R.C.S. Eng., at Upton-on-Severn, Worcestershire, on June 16, aged 36.

Hampson, Adam, M.R.C.S. Eng., of Bolton-le-Moors, at Staplehurst, Kent, on June 9, aged 42.

Macy, Henry J., M.R.C.S. Eng., of Westown, near Bristol, at Gosport, on June 9.

Matthew, Thomas P., M.R.C.S. Eng., Staff Surgeon-Major, at Malta, on June 8, aged 45.

Nelson, Charles, M.D., at Pitcox, East Lothian, N.B., on June 12.

Odell, William, M.D., Deputy-Inspector-General of Army Hospitals, at Carrigafoyle Castle, on June 3.

Pointer, Henry, Surgeon, at 3, South-crescent, Bedford-square, W.C., on June 11.

Wilson, James G., M.D., at the Free Church Manse, Mary-hill, Glasgow, on June 10.

Royal College of Surgeons.—The half-yearly examination in general knowledge of candidates for the diploma of Member of this College took place on the 20th, 21st, and 22nd inst., when ninety-six gentlemen presented themselves, being an increase of seven over the corresponding period of last year; the ages of the candidates ranged from 15 to 32 years, giving an average of 18 years to each gentleman.

Collegiate Election.—The interest in the forthcoming contest for seats in the Council of the College of Surgeons increases. In some quarters a strong wish exists to secure the re-election of one of the retiring members. The expected resignation of more than one candidate has not yet taken

place; the nine candidates mentioned last week are, therefore, still before their constituents. The election will take place on Thursday, the 6th proximo.

THE COLLEGE SOIRÉE. — Several correspondents — members of the Royal College of Surgeons—have complained at not receiving cards to attend the *conversazione* on Wednesday next; these gentlemen cannot have paid any attention to the advertisements which have appeared in all the Medical journals for some weeks past, inviting the Fellows and Members desirous of attending simply to present their private address cards to obtain the entrée, when we think they will not be disappointed at the entertainment provided for them by the Council of the College.

POLLUTION OF RIVERS.—Instructions have been issued from the Home Office to the Commissioners appointed to inquire into the pollution of rivers, directing them to take selected river basins, illustrating different classes of employment and population, with a view to ascertain whether a measure absolutely prohibiting the discharge of the refuse of mines and manufactories into rivers, or absolutely compelling town authorities to carry town sewage on to the lands, might not be remedying one evil at the cost of an evil still more serious in the shape of injury to health and damage to manufacturers. The Secretary of State suggests that the following river basins might be taken:—1st, the Thames Valley, both as an example of an agricultural river basin, with many navigation works, such as locks and weirs, and mills affecting the flow of water, and many towns and some manufactories discharging their sewage and refuse into the stream from which is mainly derived the water supply of the metropolis; 2, the Mersey Valley, including its feeders, particularly the Irwell, as an example of the river basin most extensively polluted by all forms of manufacturing refuse, particularly that arising from the cotton manufacture, and processes connected therewith; 3, the Aire and Calder Basin, as an additional example of the same class, particularly in connexion with the woollen and iron manufactories; 4, the Severn Basin, for the same reason, but in particular connexion with the great seats of the iron trade; 5, the Taff Valley, in connexion with mining and industry applied to metals; and 6, a river basin, comprising a mining district in Cornwall.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Handfield Jones's Lectures on the "Pathology of Nervous Diseases," delivered before the Royal College of Physicians, will be commenced in our next Number.

Prof. Pirrie's paper on Acupressure shall appear as soon as the accompanying engravings are completed.

A review of *Mr. Solly's Surgical Experiences* is in the printer's hands. Bernay's "Notes on Chemistry," fourth edition, shall also receive an early notice.

Articles on "Sanitary Measures and Metropolitan Vestries" and on "Syphilis" are also ready for publication.

The Author of the *Report on Cheap Wines* purposes to send us from time to time a series of observations on articles of Food and Drink, especially new ones. The object will be, not merely to say what can be known of their properties and to make known their probable uses, but likewise to examine the hypotheses on which they are brought forward. Thus a picture of the state of Medical logic may be drawn from Nature.

A Surgeon, Tunbridge Wells.—The name of the individual alluded to does not appear in the list of Fellows of the Royal College of Surgeons of England.

Oxford.—The late row was disgraceful in the extreme to the young men implicated, and still more so to the authorities who neglected to vindicate and maintain discipline.

Poor-law Salaries.—The Ormeskirk Board of Guardians have voted Mr. Woods an increase of *seven* pounds *per annum* on his salary of £53, on which, as they confess, he is worse paid than a day-labourer. They think him sufficiently rewarded by the fact that his abilities and kind-heartedness have gained him a good private practice. There is no help for this. If Medical men will take such salaries, guardians, as men of business, may be excused for not giving more.

POOR-LAW MEDICAL REFORM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In answer to Mr. Richard Griffin's letter in your last issue, permit me to suggest, if Poor-law Surgeons were exempt from assessed taxes for one groom, one horse, and one trap, and that at all times they were allowed to travel toll free in their own districts, a great boon would be conferred on them. I am, &c.

Sussex, June, 1865. ONE OF THEM.

THE GRIFFIN TESTIMONIAL FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—At a meeting of the Committee on the 12th inst. it was unanimously resolved that the above fund should be finally closed on October 1st prox. Intending subscribers would oblige by forwarding their contributions. The following subscription has been further received:—Heynes Hardwicke, Esq., Saxlingham, 5s. Amount previously announced, £124 11s. 9d. Received at *Lancet* office, £9 9s. I am, &c.

145, Bishopsgate-street Without, June 21. ROBERT FOWLER, M.D.

CANDIDATES AND THEIR QUESTIONERS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—We look to your journal for a little liberality and good sense, so I hope you will let me caution my Professional friends against raising the anti-homœopathic cry at the coming elections. We do not like homœopathy, and know it to be an absurdity; but many of those who are deluded by it really know no better, and may be useful members of Parliament. If a man is a fool keep him out, whether homœopath or not; or if we decide to vote against homœopaths let us do so; but it is not a question that can be raised with credit or advantage to us. Men are not patients and homœopaths always and everywhere, and the least likely way to cure them of this delusion would be to get up a kind of No Popery howl against them. See this week's *Owl*.

I am, &c. COMMON SENSE.

COMMUNICATIONS have been received from—

Dr. MARSHALL HOLMES; APOTHECARIES' HALL; M.D. EDIN.; Mr. T. M. HARDING; Dr. J. FAYRER; Mr. T. OSBORNE WALKER; ONE OF THEM; Mr. CHARLES HUNTER; A PHYSICIAN; ETHNOLOGICAL SOCIETY OF LONDON; Dr. J. WARD COUSINS; ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Dr. HARRY LEACH; Dr. ROBERT FOWLER; "WESTERN MORNING NEWS;" A SUBSCRIBER; Dr. HENRY BARBER.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 17, 1865.

BIRTHS.

Births of Boys, 1028; Girls, 985; Total, 2013.
Average of 10 corresponding weeks, 1855-64, 1699·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	669	535	1204
Average of the ten years 1855-64	573·2	514·0	1087·2
Average corrected to increased population..	..	..	1196
Deaths of people above 90	..	..	..

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1861.	Small pox.	Measles.	Scarlatina.	Diphtheria.	Whooping-cough.	Typhus.	Diarrhœa.
West ..	463,388	3	6	4	2	5	7	15
North ..	618,210	4	1	5	2	7	8	18
Central ..	378,058	2	..	2	1	8	4	17
East ..	571,158	2	..	12	1	13	22	18
South ..	773,175	2	10	4	1	10	14	25
Total ..	2,803,989	13	17	27	7	43	55	93

APPOINTMENTS FOR THE WEEK.

June 24. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; King's, 2 p.m.; Charing-cross, 1 p.m.; Lock Hospital, Dean-street, Soho, 1 p.m.; Royal Free Hospital, 1½ p.m.

26. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital, 1½ p.m.

27. *Tuesday.*

Operations at Guy's, 1 p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.

ETHNOLOGICAL SOCIETY OF LONDON, 8 p.m. Captain Wilson, "Report on the Indian Tribes Inhabiting the Country in the Vicinity of the 49th Parallel of North Latitude."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Mr. Spencer Wells, "On Ovariotomy." Dr. Drysdale, "Against the Use of Mercury in Syphilis." And other Papers by Mr. T. Smith, Dr. B. Howard, Mr. Gant, Mr. J. L. Clarke, Dr. Fenwick, and Dr. Sutton.

28. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.

29. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Surgical Home, 2 p.m.; Royal Orthopædic Hospital, 2 p.m.; West London Hospital, 2 p.m.

30. *Friday.*

Operations, Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

King's College Hospital.—The following Operations will be performed on Saturday (to-day) at two o'clock:—

By Mr. Fergusson—Excision of Scapula; Removal of Tumour from Breast; Removal of Tumour from Lower Jaw.

By Mr. Smith—Excision of Necrosed Fibula; Removal of Tumour from Parotid Region.

INDEX.

LIST OF ILLUSTRATIONS.

LIST OF ERRATA.

Page 11, column 2, line 36 *for* "present," *read* "promote."
Page 161, column 2, line 36 from bottom, *for* "prosecutor," *read* "prosector."
Page 338, column 1, line 10, *for* "eczema," *read* "a vesicle."
Page 349, column 2, line 4, *for* "Lenton," *read* "Linton."
Page 377, column 2, Note on Mr. Bryant's Case.
Page 463, column 2, line 34 from bottom, *for* "60 grains," *read* "℥ss."
Page 616, column 2, Note of Dr. Benee Jones.

END OF VOLUME I. 1865.

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