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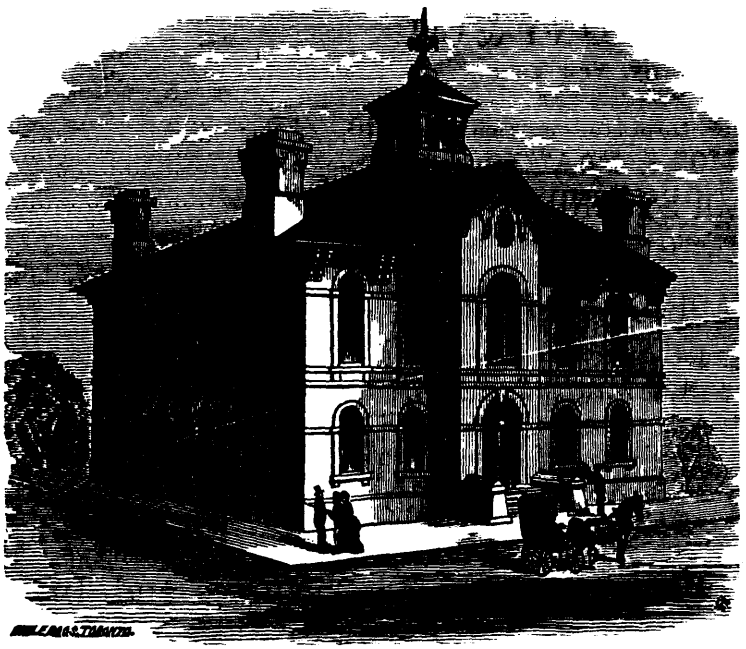

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Demonstrator's Ticket (including material for dissection)	10 00
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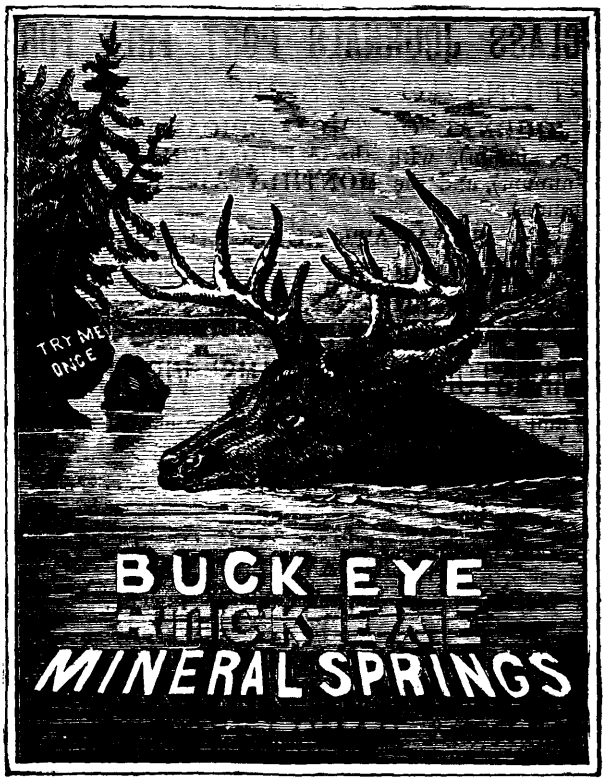

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TORONTO, MAY, 1876.

Selections: Medicine.

CLINICAL DEMONSTRATIONS OF PHTHISIS,

Delivered at the Hospital for Consumption and Diseases of the Chest, Brompton.

By JAMES EDWARD POLLOCK, M.D., F.R.C.P.,

SENIOR PHYSICIAN TO THE HOSPITAL.

LECTURE I.

Gentlemen,—I know of no subject more difficult of clinical illustration than phthisis. This is partly due to a shifting pathology, which must be followed if we are to keep pace with the increasing knowledge of the day. It also arises from the difficulty of illustrating living cases by post-mortem appearances, and this again is due to the rapid changes undergone by the morbid product in the lung. These changes, as you are aware, are partly chemical and partly vital, and the life of tubercle is short, although the life of the patient may be long. Still, it is so highly necessary to rational clinical teaching that we should associate pathological changes of structure with the living phenomena of disease, that before proceeding to the wards I have endeavoured to arrange the pathology of the day with the natural classes of phthisis. In this I have been partially successful. Yet there are many cases in practice of which we cannot say with certainty to what form of phthisis they have originally belonged, or what morbid influence has given rise to them. If I were to clear up this uncertainty by a dogmatic classification, I should deceive you and myself, but if I can throw the several varieties of this multiform disease into some natural groups, I shall have helped you to a better understanding of that which you see in the wards.

Let me therefore briefly review the leading points of the teaching of the last thirty years about consumption. In my early days the doctrines of Laennec ruled Western Europe. The grey granulations, semi-transparent, disseminated, or grouped in the lung, were the essence of the disease. They were considered as new formation, not old tissue. From their inherent tendency to degenerate and decay they became caseous—what we now call fatty degeneration,—softened and ulcerated the lung, and formed a cavity more or less large in which all the lung tissues were merged and destroyed. Laennec was opposed by Broussais, who advocated the inflammatory origin of this as of most diseases. Heat of opposition and strong argument are not, as you are aware, likely to beget changes of opinion, and the two rival theorists did not modify their views and strike a balance, whereby we might perhaps have been gainers. At all events, Laennec's theory had this merit, that it harmonized remarkably with clinical experience or the living forms of disease.

But in this country there have always been independent observers, and Addison, Stokes, and others recognized the fact that in many cases of phthisis inflammatory products played a chief part, while in many others no tubercle at all was to be found. A more careful microscopical examination has done much for us, unsettled some of our views, and, without doubt, created uncertainties; but it has also clearly proved that some of our forms of tubercle, and of those, too, which ulcerate and

break up the lung, originated in inflammatory action, and consist of inflammatory products. Still later Burdon Sanderson, who I am proud to think was one of our colleagues, advanced the opinion that tubercle, or the *materies morbi* in consumption, is only a hyperplasia or overgrowth of the natural structure found in all lymphatic glands, in the lung surrounding the vessels and air-cells and entering into the interlobular tissue, found also, as we know, in the omentum, peritoneum, and spleen. This he calls *adenoid*, and he holds that it is subject to degenerative changes, may liquefy, soften, and be expectorated, or become caseous without softening, and dry up or become cretaceous. It will do all, in fact, which the so-called tubercle is known to undergo. It is capable of another change also—it is convertible into or causes the hypergrowth of *fibrous or fibroid tissue*, which is found naturally in the lung. This fibroid plays an important part in all old cases of slow phthisis. It extends through the lung, surrounds and strangles the bronchioles and vessels, furnishes walls to cavities, and branches through the lung in all directions to the pleura. It binds together and consolidates all tissues and contracts the lung, causing the chest walls to fall in. Of this form of disease I shall have occasion to speak again. Out of these several pathological conditions arises a somewhat natural classification, of which we shall avail ourselves. But first we must have a definition of phthisis which will fit all cases. We will call it a disease which ulcerates the lung and wastes the tissues of the body. It is not merely a lung disease either in antecedent history or in actual symptoms. Local and constitutional disorder co-exist, and if there be such a thing as a purely local disease, it is surely not phthisis. Therefore it is not to be studied with the stethoscope only, nor to be appreciated by symptoms alone. To define the local disorder more minutely, we will say that it is a deposit or thickening in the lung, blocking its tissues, with great proneness to change or liquefaction, fatty degeneration or caseation. Till you get this there is no phthisis. Add co-existent irritative fever and waste of body, nutrition interfered with, and till you get this there is no phthisis. The diagnosis lies in the union of signs and symptoms. Auscultation may tell the amount and degree of lung disease, but not the vital cause nor the state of the patient. We are too proud of our stethoscopes! The most careful study of symptoms will fail at times to discover phthisis, although a practised eye will often tell the stage of established disease without examination.

We will take in order the forms of *phthisis of inflammatory origin*, and afterwards the *lymphatic*, and finally *fibroid* phthisis. But, first, I must say a few words about *acute miliary tuberculosis*. You do not often see it in these wards, for its rapidity and our delay in admitting patients exclude it. Patients die of this form of disease in a few weeks, I had almost said days. I need not therefore detain you long about it, for it is intractable and uninfluenced by treatment, and always fatal. There are two forms. 1. The *acute*, with rapid softening of a deposit which is spread through both lungs. A high temperature and pulse denote the excessive constitutional suffering. The physical signs spread over both sides reveal deposits and softening in its various stages at the same time. With these there are commonly gastric symptoms —red tongue, thirst, vomiting, anorexia—and delirium, which is rare in chronic phthisis, may occur before death. 2. The other form is a comparatively passive exudation, as it were, of miliary tubercle throughout both lungs which has no time to soften. But from exhaustion the patient rapidly sinks. The physical signs denote pretty uniform impaction of the lung—diminished resonance, feeble respiration, and lessened movements. I have seen this form prove fatal in three weeks, and the patient has scarcely coughed; but the temperature was high and the nervous exhaustion great. These cases, like the former, are uniformly fatal.

To facilitate our study of phthisis, I have drawn out for you a table (see next page), which will be found to include all varieties, from the lightest form of alveolar catarrh to the most advanced and chronic case. In constructing it I have had in view the modern theories, but it is not the less true that in one or other of these niches you may find all your cases in practice. The theory or the name may change, but facts remain and the often-repeated features of disease.

But first let me say that the eminent and inseparable feature of phthisis is the localization of the disease. Stokes used to say "localized bronchitis with dulness is phthisis;" and so is localized pneumonia which does not clear up within a certain time.

The very first on our list, *simple alveolar catarrh*, derives all its importance from its being limited to one part of the lung. If spread over the whole, or over both lungs, it becomes a bronchitis. A localized alveolar catarrh has often the notoriously insidious character of phthisis. Its approaches may be unannounced. With subfebrile symptoms your patient will have slight cough, some wasting and impairment of strength. Your physical examination may or may not detect dulness, but harsh breath-sounds, and even crackle are soon heard. He thinks he has a cold; you are uncertain whether he has not a consumption, for the case runs on for weeks, or even months. The physical state consists in a block of the minute tubes, thence to the alveoli, which become filled with cellular products. These disintegrate, become fluid, are expectorated, and he recovers. In more severe cases, the alveoli are blocked by large granular cells, which speedily undergo fatty degeneration, and are expectorated, but the walls of the alveoli are damaged and collapse, and the disease stops here. The chest-walls fall in slightly, there is some flattening and impaired movement, and the breath-sounds are deficient. There is, indeed, a small portion of lung not breathing at all. There is no *tubercle* in this case, and the patient recovers. But alveolar catarrh may have a second termination. The cellular products of disease undergo fatty degeneration, the fluid matters are absorbed, it becomes cheesy or cretaceous, and may remain so for years. This is one form of obsolescent tubercle.

PHTHISIS.

Acute tuberculosis.

1. Passive invasion of the whole lung by miliary tubercle.

2. Progressive deposits; rapid softening.

Simple alveolar catarrh.

1. Cellular products expectorated (recovery).

2. Alveolar products soften; collapse of walls (recovery).

3. Alveolar products remain, become caseous, cretaceous (obsolescent tubercle).

Catarrhal pneumonia,
Broncho-pneumonia,
Lobular pneumonia,

Alveolar walls, lung-tissue destroyed (cavity).

Lymphatic phthisis,
Adenoid (Sanderson),
Tubercle (Laennec),

Overgrowth of lymphatic tissue; lobular pneumonia deposits; softening; vomica.

Fibroid phthisis.

Of various origin. Interstitial fibrous growth; contracted lung (chronic phthisis).

A *catarrhal pneumonia* is accompanied by a greater exudation of inflammatory products, which produce a more intense block of the lung. This is a broncho-pneumonia, or lobular pneumonia, often seen after pertussis and other acute affections of early life. It is limited to one portion of a lung. Not only the minutest bronchi, but the alveoli suffer, and their walls break down and liquefy. All tissues of the lung are ulcerated through, and what is called a "cavity" is formed. These changes are accompanied by the most violent febrile symptoms, temperatures from 101° in the morning to 104-6° in the evening, followed by excessive sweatings, and accompanied by rapid wasting of tissues. All this may cease, as you will afterwards have occasion to see, and your patient may partially recover, and a dry cavity result, or a chronic secreting cavity, or a chronic extending cavity ending in secondary deposits in the lung and progressive waste. And of these various terminations I shall show you examples. Now bear in mind that all these forms of disease—that is, alveolar catarrh (mild or severe) or catarrhal pneumonia—may exist in local parts of the lung and yet there may be no tubercle according to modern pathology. At the same time these were the very changes in the lung well described by Laennec!

We come now in our list to consider *lymphatic phthisis*, with which I have classed the *adenoid* of Sanderson and the *tubercle* of Laennec. Tu-

bercle properly so called is, according to modern teaching, a morbid growth of the lymphatic class, a hyperplasia of gland-tissue—not a new formation, nor an extraneous product, but an overgrowth of that which was always there. For, according to Burdon-Sanderson, adenoid tissue is found normally in the follicles of lymphatics, in the spleen surrounding the Malpighian follicles, in Peyer's glands, and in the lung around the bronchial tubes and the vessels which it accompanies. It is also found under the pleura, just as it is seen in the omentum and around the vessels of the peritoneum. Cell-formations in tubercle do not differ from inflammatory exudation, nor from those normally existing in lymphatic structures. An *overgrowth under irritation* is the term now applied to this extension of adenoid growth. It consists of grey granulations in the alveolar walls, in the connective tissue, around the vessels, and under the mucous membrane of the bronchi, and is vascular. Its tendencies, the changes which it undergoes, are of the last importance to us, for in them we find the history of advancing or of retrogressive phthisis. Adenoid is capable of fatty degeneration, breaks up, liquefies, is removed, just as you see in the chronic or acute suppurations of lymphatic glands; for if you watch the external glands in suppuration, you have under your eye the changes which lymphatic tissue undergoes in the lung. Again, it is capable of fibrous transformation. It is convertible into fibrous tissue, in fact, and so furnishes walls to cavities in the lung, surrounds and obliterates vessels and bronchi, binds together and contracts the lung, and as we see in all cases of chronic phthisis, preserves life for a time by conversion of the light vesicular lung, with its immense supply of blood and ever-moving tissues, into a dense, almost impervious, mass, scarcely capable of expansion, while it narrows and obliterates the blood and air conduits, and so arrests the circulation that hæmorrhages are comparatively rare.

Burdon-Sanderson regards artificial tubercle, which, as you know, he produces in certain animals by inoculation, as an *overgrowth*, and not a new growth. And I will briefly state the results of his experiments on the rodentia in order that you may compare them with what you see in phthisis. After inoculation the lungs are found disseminated with minute nodules of lobular catarrhal pneumonia; the alveoli are choked with epithelial cells, and the alveolar walls are thickened by growth of adenoid tissue. These masses coalesce, and each one caseates in its centre, becomes opaque and soft, and disintegrates; in fact, a vomica is formed. This result of inoculation is very like, indeed, almost identical with, that which takes place in ordinary tubercle in man. I am not here going to diverge into the question of the inoculability of tubercle in man—that is another question, not yet settled; but it is quite likely that primary deposits in the lung may propagate themselves by secondary deposits, the result of a kind of inoculation. These experiments on animals are of the very highest importance, inasmuch as they are pictures of an obscure disease, producible at pleasure, and a disease, too, which we have hitherto been content to refer to that ill-defined power, constitutional disorder. In the present state of our knowledge, then, it is not to be forgotten that any morbid or septic matter introduced into the blood will produce effects on the lung like tubercle, and also that hitherto only one class of animals—the rodents—appear to be susceptible of such inoculation.

But you must bear in mind that other opinions besides those of Burdon-Sanderson prevail. Williams holds that tubercle is not a mere adenoid growth, but an excessive multiplication of perishable cells, or leucocytes, such as the corpuscular lymph of Paget, and the croupous of Rokitansky. With these theories I have nothing to do now, my object being to give you intelligent clinical illustrations of phthisis, and to show you into what classes or varieties you may distribute the cases you meet with in the wards. The pathological theory may change, but the facts abide with us in indelible characters. These destructive forms of disease—the lymphatic, ordinary tuberculous, or pneumonic, including what was formerly called struma—may be fitly considered together, as they comprise most cases of ordinary phthisis.

I shall also ask your attention to still another form of phthisis, which includes several varieties. It has been called *fibrous* or *fibroid phthisis*,

as it is characterized by an excessive interstitial fibrous growth. It has been considered as in itself a separate idiopathic disease with such distinctive features as, in the opinion of some most careful observers, to entitle it to a different name and identity of its own. As I believe it to be the sequence and inevitable result of many forms of disease, and inseparable from several varieties of consumption, I must describe it to you as I have seen it, and can show it to you, as of various origin. Thus a catarrhal pneumonia attacks the fibrous stroma of the lung, or that interlobular tissue which gives sheaths to the vessels and bronchi, and which underlies the pleura. Inflammation increases its growth—*growth under irritation;* and thus the vessels and bronchi become strangled, the alveoli collapse and are surrounded, and, when cavities form, their walls are provided with a fibrous covering. Trabeculæ are left traversing the whole lung, which becomes contracted, and the side falls in and organs are displaced. In like manner all the forms of the lymphatic phthisis are attended in their more chronic stages by overdevelopment of fibrous tissue, producing contraction of portions of lung, and hardening and blocking its tissues. Indeed I know of no form of phthisis, excepting the acute varieties (where there is an invasion of tubercle throughout the pulmonary structures), in which the hyper-development of fibrous tissue does not occur. In the acute tuberculosis there is neither time nor (as it were) space for such overgrowth. The disease is too short, and it never reaches the period of fibrous transformation. But in the chronic forms, that which is called tubercle, or adenoid, by its very chronicity affords time and opportunity for such changes. For take the most advanced disease met with in the post-mortem room—examine that lung riddled from end to end by irregular cavities till no vesicular tissue remains in it, and what is it? Why, fibrous tissue and pigment; thickened, degenerated pleura; anfractuous cavities with more or less tough walls, obliterated vessels, and air-tubes crossed by bands of thickened tissue: all that remains, in fact, is converted fibrous stroma, without which, strong in its resistance to degenerative and ulcerative processes, there would be no lung left at all. Recognising fibrous change as the character of all chronic inflammatory and tuberculous disease, I cannot therefore teach you from this place that there is an idiopathic fibrosis of the lung, which, from its very beginning, possesses separate and recognisable characters. There are, indeed, cases, which I shall hereafter show you, in which the fibrous becomes the preponderating element; but these have no features which totally separate them from ordinary chronic disease, and will be best treated as varieties with a common origin, and not as a separate class.—*London Lancet*, March 18, 1876.

SALICIN IN RHEUMATISM.

Dr. T. Maclagan has used salicin in rheumatism. He employed it in eight cases, and arrives at the following conclusions:

1. We have in salicin a valuable remedy in the treatment of acute rheumatism.

2. The more acute the case, the more marked the benefit produced.

3. In acute cases, its beneficial action is generally apparent within twenty-four, always within forty-eight, hours of its administration in sufficient dose.

4. Given thus at the commencement of the attack, it seems sometimes to arrest the course of the malady as effectively as quinine cures an ague, or ipecacuanha a dysentery.

5. The relief of pain is always one of the earliest effects produced.

6. In acute cases, relief of pain and a fall of temperature generally occur simultaneously.

7. In subacute cases, the pain is sometimes decidedly relieved before the temperature begins to fall; this is especially the case when, as is frequently observed in those of nervous temperament, the pain is proportionally greater than the abnormal rise of temperature.

8. In chronic rheumatism, salicin sometimes does good where other remedies fail; but it also fails where others do good.

The dose employed was from ten to thirty grains every two, three, or four hours, according to the severity of the case. Fifteen grains every three hours Mr. Pemberton conceives to be a medium dose for an acute case.—*London Lancet.*

CLINICAL LECTURE ON PULMONIC CONSOLIDATION FROM PRESSURE ON A BRONCHUS, ETC.

Delivered in Bellevue Hospital,

BY PROF. A. L. LOOMIS, M.D.

GENTLEMEN: It is not often my privilege to present to you, nor, indeed, is it my fortune to see, many cases similar to the one I now bring before you. The history of the case I will recapitulate briefly. It is as follows: The patient, a man of thirty-five years of age, about three years ago was struck in his left chest by a package weighing two hundred and fifty pounds, which had fallen about fifty feet, and caused an injury at a point a little above the nipple. For ten days after this he was ailing, but after that he was able to attend to his duties of a seaman till four weeks ago, though periodically he suffered from attacks of pain in the chest anteriorly and posteriorly. Four weeks ago he began to spit up blood of a bright-red colour, but not more than a teaspoonful at any one time. The pain about this time increased in severity, but at no time did he have fever till he entered this hospital, one week ago. After admission to hospital he developed fever of a malarial type. He has now a cough, and this cough is not without its importance in a diagnostic point of view, for it is not of the laryngeal variety, not that of pneumonia, pleurisy, or phthisis, but is of a spasmodic kind, such as is heard in cases of membranous bronchitis.

After the patient has coughed for some time, he expectorates a glairy mucus, and at times blood. The temperature on the diseased side is 102¼ degrees. When we examine the chest there is no expansion on the left side, nor is there any vocal fremitus. On putting the ear to the chest on that side no respiratory sounds are heard, with the exception of a distant murmur of a harsh character. When we percuss the same side we get a note nearly flat; indeed, it may be considered flat. We thus have the signs of subacute pleurisy, but, when the heart is examined, we find it beating in its proper place, proving that the causes which give rise to the physical signs cannot be fluid. To settle this point absolutely, the needle of an hypodermic syringe was inserted, and no fluid obtained. Now in regard to the diagnosis. We have to consider under what circumstances it is possible to have nearly all of the physical signs of fluid in the pleural cavity, with the exception of displacement of the heart, and yet no fluid. To my mind this can only be accounted for in one way—either a small aneurism, an enlarged gland, or some other agent, has, by pressure, obliterated the calibre of the left bronchus, and as a result we have pulmonic consolidation. Now, this at first seems strange, if not improbable, but when we consider the mechanism of it it will not appear so.

When obstruction of a bronchus, from any cause, takes place, there follows partial or complete collapse of the air vesicles beyond; with the collapse of the vesicle there is a diminished pressure on the capillary vessels, resulting in their dilatation and increased supply of blood to the vesicle. Now, in accordance with a well-known pathological law, rapid cell-formation takes place, distending the lobule to its normal size, and giving us a condition closely resembling the third stage of catarrhal pnuemonia.

I have seen three cases in which autopsies proved the result of the morbid process which I have described, and in all of them the cause of the pressure on the bronchus was due to an aneurism. When we listen closely to the posterior part of the chest near the scapula, we hear the heart-sounds distinct, and we hear also an indistinct bruit synchronous with the systole of the heart. While it is not improbable that this bruit may be caused by a small aneurism, we are not justified, so far, in making a positive diagnosis, though we may be justified in suspecting it. You may recollect that the patient spat up some blood occasionally, and you may be puzzled to know where it came from. I think it came from that part of the bronchus which is subjected to pressure, for continuous pressure at any given point along the line of a large bronchus would readily account for it.

In regard to the element of fever, which has been present in this case, we are justified in considering it to be due to malaria, for the reason that he has been sufficiently long under observation to come to a decision on the matter.

It may be, before the session is over, that additional developements will take place to render our diagnosis more positive.—*New York Medical Journal.*

HEADACHES OF THE DECLINE OF LIFE.

S. Weir Mitchell, M.D., of Philadelphia, contributes the following to the Medical and Surgical Reporter: "These cephalagias are for me always full of suspicion. If a person who has been free of headaches begins late in middle life to have them, the case is usually one which will need every care we can give it. In such cases, after excluding the eyes as a cause, it is most needful to make sure that the headache be not remotely due to albuminuria from contracted kidneys. In an article in the Philadelphia Medical Times for August, 1874, on the nervous accidents of albuminuria I have already spoken of this matter, and have there given three cases of headache, in all of which albuminuria was the unsuspected parent of the pain. But after putting aside these and the still more common causes of headaches, as gastric disorder and the constipation of old age, there yet remain headaches which have often, I think, some relation to causes which in the old produce hemiplegia. These headaches are apt to occur on one side of the head, or to be most felt on one side when even the whole heah aches. They are liable to be attended by a sense of fullness and by throbbing, and they are extremely apt to be felt every morning on awakening from sleep. Headache is one of the near prodromes of hemiplegia, according to the books, but in my experience it is not a common one; while as a more remote warning it has value, but still not very frequent. I have hesitated in these brief clinical sketches to speculate much on the causes of symptoms, nor do I see my way here to say what it is in the state of a head with degenerating vessels which gives rise to pain; yet, practically speaking, I am sure of the fact. I every now and then meet a man who has headache and slight numbness on one side, and who may or may not have had a slight hemiplegia. I bleed this man by leeches a few ounces. I am perfectly sure he will be free of pain and eased of numbness for some time to come. I take the blood from the temple and from the back of the ear on the worst side. The immediate connection in these regions with the brain-breeding vascular areas beneath them is clear and abundant, and it does seem as if the local depletion eased a local overplus, and that the distended vessels did not give way anew for some time to come; but this is a speculation merely, while the valuable fact as to the use of leeching rests unchanged, however we explain or do not explain it. Hard, too, to fully comprehend is the other fact, as to which I am quite as sure, that in a florid man well on in the fifties or over them, with a strong heart, throbbing headaches, and hints of hemiplegia in the way of unilateral numbness or tingling, the leech is made of longer use and even of permanent value by restricting the diet to vegetables, milk, and fruit. I could easily quote case on case in support of these assertions, but one shall answer: A stout, somewhat ruddy gentleman, aged sixty-one years, from Delaware, called on me two years ago with the following symptoms: a strong pulse and heart-beat; slightly beaded radial arteries; a faint senile arc; large, tortuous, visibly full temporal arteries; an occasional increasing numbness of the left side, ending in a slight hemiplegia, two years ago, but before this and since he had daily headache on awakening, and of late attacks of dull, throbbing ache, not worse on one side, but when present nearly always accompanied by a sensible over-action of the heart and by increased left-side numbness. Cardiac sedatives and purgatives aided him none, but a full leeching gave immense relief. In three weeks it had to be done again, and in two months yet again; then I urged absolute deprivation of meat, and that has succeeded, so that only once since has he been leeched. Tobacco had something to do with the first of his headaches and was at least potent in ability to bring one on when used in excess. At last he learned this, and ceased to smoke as much, which presently lessened the number of attacks, but did not prevent them altogether. At last he acquired curious cardiac sensitiveness to tobacco which grows on some old smokers, and he was forced to abandon it. Nevertheless the head-aches remained. There is one most remarkable fact in this history of neuralgic headache (megrim): it is very apt to cease as men grow old, but also it is apt to disappear and return no more in those who have had a single hemiplegia attack however slight. I find in my note-books seven causes of hemiplegia, three right and four left, in which are noted this most interesting peculiarity."—*Louisville Med. News.*

THE INOCULABILITY OF DIPHTHERIA.

Until a comparatively recent period it has been generally considered that diphtheria could not be inoculated directly, either in man or the lower animals. This view, however, must be allowed to have been somewhat contradictory to the well-known fact of the conveyance of the contagion of diphtheria by means of pieces of false membrane, and to such cases as those of Professor Valleix of Herpin and Gendron in France, and other similar cases in England. The belief was grounded on the negative results of some experiments on himself by Trousseau, and also more especially by Peter. The results of these experiments seem to have been accepted far too readily as evidence of non-inoculability of this disease. It should be borne in mind that a large number of experiments under varied conditions must all equally lead to a negative result before a belief in the non-occurrence of any given result can rightly be entertained; and even then a single positive result outweights all the negative ones. In fact, the experiments of Trousseau and Peter were quite inconclusive. Trousseau dipped a lancet into some false membrane recently expectorated, and made punctures with it on his arm and on the velum palati. Peter made three experiments: in the first he allowed a small piece of false membrane, coughed up during tracheotomy, which lodged in his eye, to remain there without attempting to wash it out; in the second he scraped his soft palate and tonsils with a pair of pincers in which was held a piece of false membrane recently coughed up; and in the third, he inoculated a puncture of the mucous membrane of his lower lip with diphtheritic exudation. Of these somewhat foolhardy experiments only two can be considered as at all likely to have succeeded, and it is scarcely necessary to observe that scores of similar cases of escape from apparently certain infection with animal poisons might be cited, which yet only prove that there is a possibility of failure in the experiment. On the other hand, there is now abundant evidence that diphtheria can be inoculated, even in the lower animals. Thus Trendelenburg made experiments on pigeons and rabbits during an epidemic, and succeeded, in 11 out of 68 experiments, in producing diphtheritic false membranes in the larynx by placing in it pieces of recent exudation. Oertel even states that he has succeeded in nearly every case in inoculating rabbits; but in many cases blood-poisoning, rather than true diphtheria, seems to have been produced. Some experiments have recently been made on rabbits by Dr. Gabriel Duchamp. From his results he concludes that the false membrane, when placed in the larynx and trachea of the rabbit, may give rise to a true diphtheritic process, whilst, in the absence of false membranes, the other products from the human larynx in a case of diphtheria did not appear to give rise to it, although they were very poisonous. The injection of diphtheritic exudation suspended in water into the subcutaneous cellular tissue, or into the jugular vein, gave rise either to no results or to septicæmia or pyæmia; and inoculations of the skin with false membrane were equally without result both in the rabbit and the horse. The number of experiments was, however, too limited to allow of our accepting these negative conclusions in an absolute manner. The subject is one of considerable importance, from its bearing on the mode of conveyance of the contagion of diphtheria; so far as experiments go at present, they would seem to show that the primary contagion is local, and that its effect depends on the existence of certain conditions of the mucous or other surfaces favourable to its reception, which is entirely in accordance with clinical experience. The existence or non-existence of fungus in the false membranes, and its dependence upon their presence is, it need hardly be said, an entirely different question.—*London Lancet.*

Dr. Warburton Begbie, of Edinburgh, is dead. This distinguished physician had the largest consulting practice out of London. His father was a consultant of the first rank, and young Begbie, as Warburton was commonly and formally termed, commenced life under most favourable circumstances. He was a very popular man, and his knowledge of his profession was excelled only by his urbanity.

CHANGE OF CLIMATE IN CONSUMPTION.

In the *British Medical Journal*, Dr. C. Theodore Williams puts and answers these questions:—

1. What cases are most benefited by sea voyages?

2. What ones by dry climates?

3. Are moist climates beneficial?

1. The cases which I have seen do best are, first, cases of hemorrhagic phthisis; second, cases of limited consolidation with no pyrexia, occurring in young men overworked at in door occupations, and who have suffered from the septic influences of life in great cities, such as clerks, shopmen, secretaries, and the like. This form of treatment is far better suited for men than women.

2. As to the second query, as to what class of patients profit most by dry climates, it has been shown that, taking collectively all forms and degrees of phthisis, the dry climates are the most likely to arrest the disease; and also that a dry and moderately warm climate, like that of Southern Europe, is most successful in the treatment of consumption of inflammatory origin. The question whether a cold dry or a warm dry atmosphere is the best for ordinary chronic phthisis, depends, to a great extent, on the individual's power of maintaining circulation and temperature. When these suffice, the cold climates are preferable; but in the majority, and especially for women, whose circulation is weaker, the warm and dry are the best, for they are thus enabled to live more in the open air. Elevation is of some importance; and I should always choose a mild climate with elevation than one without it. Mountain air is not beneficial solely on account of its purity, for on this point sea and desert air may vie with it; there is another factor in the low barometric pressure and atmosphere rarefaction, and the expansion of the lungs thereby caused may be of great value in chronic first stage cases. At present, the trial of mountain climates must depend on the supply of suitable accommodation and food for invalids. If in the Andes sanitaria these articles were of a nature fit to offer to our comfort-loving British consumptives, I would not hesitate, after the evidence of Archibald Smith, Walshe, and others, to recommend them, as some can also boast of a warm winter temperature; but, alas! those who repair thither at present must be content with Spanish habits, Spanish food, and an unsettled government. The Alpine elevated sanitaria do not, according to my experience, supply in winter sufficiently good food for British consumptives; and, although they attract crowds of German and Swiss, they must not expect our countrymen in equal numbers until they feed them properly.

3. As to the desirability of moist climates for consumptive patients, the evidence is decidedly against their use in the treatment of ordinary chronic phthisis. The addition of warmth only makes the damp tell more unfavorably, though a strong saline element and invigorating breezes do something to counteract the humid influence; still, even these do not place a moist climate on the same level as a dry one. There is one exception, however. Phthisis, of catarrhal origin has been shown to profit most by a warm and equable climate, even though accompanied by a certain amount of moisture, as the evidence of Madeira witnesses.

Finally, in all climate questions, full note must be taken of the patient's inclinations, means, and, above all, of his disposition and temperament; and exile must not be decreed to those who are incapable of making themselves happy under the changed conditions of life, or all our scientific grounds for a climate decision may collapse like a house of cards.—*Medical and Surgical Reporter.*

Dr. Flint in his last work on phthisis states that he has found whiskey in free quantity, combined with plenty of fresh air, in some cases yield remarkable results; he also repeats an important statement respecting alcohol, which he has elsewhere insisted upon, viz., that "among the great number of cases of phthisis in which he has advised alcoholics to be taken as a therapeutical measure, he has never known a single instance of a patient becoming addicted to their use."

SMALL POX CONVEYED FROM INDIANA TO CALIFORNIA BY LETTER.

Our readers will be interested in the following letter, written by Dr. Thomas Ross, of Woodland, Yolo Co., Cal., to Dr. Cluness of Sacramento, and forwarded to us by the latter gentleman with the consent of Dr. Ross:

WOODLAND, Jan., 24, 1876.

A very peculiar and interesting case illustrating the subtlety and power of the small pox contagion has occurred in the practice of our mutual friend Dr. Markell.

Mr. Dutton, tinsmith, residing in Cacheville, Yolo Co., received a letter from his sister residing in Indiana, informing him that she, her husband, and their three children had small pox, and that she feared that the babe would die. Here she stopped writing, and on the next day resumed, stating that their babe died of small pox. This letter Mr. Dutton received on the 14th or 15th of Dec. last, and on Dec. 27th took sick with a train of symptoms which Dr. Markell regarded as a bilious attack, and as he was a friend of the Doctor's and was in a cold room, Markell took him to his house, supposing he would be well in a few days. But on the 31st an eruption appeared on the face, then on the other portions of the surface, which at this date, (Jan. 4th) has developed into a well marked case of discrete variola. Markell states that there is no doubt of the accuracy of his diagnosis, as the eruption presented the characteristic umbilicated appearance of the pustules, and you see that the course of the disease is regular, the period of incubation being ten or twelve days, the time elapsing between the receipt of the letter and the time the man took sick. There is no small pox in the neighbourhood or in the county, and Dutton has not been out of Cacheville for a year, and no other source of contagion can be traced. The people there are very much alarmed, and some families have moved off—such is their dread of the disease. They of course avoid Dr. Markell, whose business is destroyed for the time being.—*Pacific Med. and Surg. Journal.*

THE survivors of the British Medical Corps of Waterloo are now two in number.

TYPHOID FEVER IN A CHILD WITH RUPTURE OF THE SPLEEN.

Dr. Wittman, from observations in the Children's Hospital at Pesth, declares that in all cases of typhoid in which hemorrhage from the bowels occurred, it was preceded for a few days by slight hemorrhages from the mucous membrane of the mouth and gums. He gives the history of a well marked case of typhoid in a boy of ten, admitted to the hospital Dec. 29th, with the history that he had been seriously sick for five days. The temperament ranged between 104° and 106° F., the pulse from 120 to 132; there was delirium at night, slight bleeding from the lips and gums appearing on the 30th. The cold water treatment was not used, because a little girl, on whom it had been used under similar circumstances a few days before, had died of hemorrhage from the bowels. On Jan. 2nd, however, delirium increasing, he was put in a wet pack. The next day there was sensitiveness over the region of the spleen, and the bleeding from the mouth continued in spite of various modes of treatment. On Jan. 5th the stools contained blood, and he fell into a state of collapse and died, the temperature falling from 104° to 97.2° F., during the last six hours. At the autopsy, an ulcer, with hemorrhagic appearance of base and edges, and half an inch wide, was found in the posterior wall of the pharynx, between the orifices of the Eustachian tubes. The stomach and intestines contained altered blood; the Peyerian patches were the seat of the characteristic lesions of the disease, and the peritoneal cavity contained about a pound and a half of dark fluid blood. The source of this was found in the spleen, which organ was enlarged to four times its natural size and was the seat of two long and deep lacerations or ruptures, one of them two and a half inches long and an inch deep.—Jahrb. F. Kinderbeilk.—*N. Y. Med. Record.*

Professor John Morgan, F. R. C. S. I., Professor of Anatomy in the Royal College of Surgeons, Ireland, died suddenly, of enteric fever, March 4th. He was born in 1829.

DIAGNOSIS OF EMPYEMA.—A new method of differentiating between serous and purulent effusions in the pleura, "founded on a physical law,—namely, that the vibrations of sound in liquids are transmitted *inversely* to their density," has been proposed by Prof. Guido Baccelli, of Rome. "In a serous liquid, therefore, the sound passes more readily than in a purulent; and it is found that whereas the whispered voice (la parola aforcieamente syllabata) can be heard clearly, accompanied with bronchial expiration, at the base of a *serous* effusion, the spoken voice is not transmitted nor bronchial breathing heard over a purulent exudation. Immediate auscultation must be employed, the naked ear being pressed firmly against the chest, and the other closed against the entrance of extraneous sounds by pressure with the finger." A mixed effusion—*i.e.*, one consisting "of a serous exudation, in which flakes of fibrine and a moderate amount of leucocytes are contained," may be recognised in the same way, since the fibrine and leucocytes "by their subsidence" to the bottom, "prevent the passage of the whispered voice over the area which they occupy."

THE TREATMENT OF RHEUMATIC ARTHRITIS WITH SALICYLIC ACID (Stricker: *Berliner Klin. Wochenshrift*, Nos. 1 and 2, 1876).—All cases of articular rheumatism which have presented themselves at Traube's clinic for some months, in whom the local affections were marked, have been treated with salicylic acid. The pure pulverized acid was given in doses of 0.5-1.00, and the patient in no instance took less than 5.0 or more than 15 grms. daily. The results which were attained were surprising, for all the patients after the lapse of forty-eight hours (the majority of them much sooner) were freed not only from increase of bodily temperature, but also what is of much more importance, from all local symptoms.

These observations were fourteen in number, and Stricker regards salicylic acid as the most active and perhaps almost a specific remedy for acute articular rheumatism.

DR. PARKES, the author of the most elaborate work on Hygiene in the language, died of chronic pneumonia, March 15, 1876.

THE INOCULABILITY OF RELAPSING FEVER.—Dr. Motschutkoffsky, of Odessa, has been experimenting for several years with inoculations upon man and animals with the matter of typhus, typhoid, and relapsing fever, and was successful in the case of the last disease only, and in the human subject. He succeeded only by the use of the blood, taken during a paroxysm of fever, and it made no difference whether it contained spirilla or not. The disease thus induced differed in no respect whatever from that due to other causes, nor was any other form of fever ever developed from inoculations of the blood of relapsing fever. The period of inoculation was between five and eight days. Blood kept hermetically sealed for two days in a capillary tube yielded positive results, as did also blood diluted in equal parts with a watery one per cent. solution muriate of quinine, but when diluted with the one-tenth part of spirit the results were negative.—*N. Y. Medical Record.*

A SIMPLE MEANS OF ARRESTING OBSTINATE EPISTAXIS, REBELLIOUS TO ALL TREATMENT.—An abundant epistaxis resisted all the means usually resorted to for arresting such hemorrhages—mustard foot-baths, cold, ice to the nucha, plugging to the nasal orifices, elevation of the arms, injection of the perchloride of iron, as practised by my freind M. Crequy, ect. If the patient be not already enfeebled, fainting spells will soon come on if the hemorrhage continue. What is to be done? A simple means has frequently succeeded in my hands. A light emetic, quickly administered, soon provokes nausea, then vomiting, and hemorrhage is incontinently arrested.

This plan of treatment has proved very successful this summer during the great heats.—[*Trib. Medical. Dr. G—.*

A MOTHER'S MILK POISONED BY OPIUM.—The *Medical Press* says that a coroner's jury in Manchester, Eng., rendered the verdict in the case of a child two days old, "Found dead from the effects of opium poison through the mother's milk." The mother had been used to taking an ounce of opium in a week.

Surgery.

CLINICAL LECTURES ON LISTER'S TREATMENT OF WOUNDS AND ABSCESSES BY ANTISEPTIC METHOD.

BY THOMAS SMITH, F.R.C.S.,
Surgeon to St. Bartholomew's Hospital.

LECTURE I.

GENTLEMEN,—As many of you are aware, I am endeavouring at the present time, with Mr. Vernon's assistance, to carry out Mr. Lister's method of treating wounds antiseptically, and as some of you may be interested in the result, I propose in this lecture to explain as briefly as I can the theory upon which Lister's antiseptic treatment is based, the facts from which that theory is adduced, and the advantages Mr. Lister claims for the plan.

I shall not at present give the results of my experience, nor shall I now express any opinion as to the merits or demerits of this treatment. I would rather wait until a fuller experience justifies me in speaking with some authority.

In taking up a subject of this kind it is very difficult to avoid a spirit of partisanship, since on the one side there are surgeons whose opinion is entitled to respect who are opposed to the system, either on *à priori* grounds or in consequence of an unfavorable experience of its results; and on the other side are ranged those who have come to an opposite conclusion, and mostly after having put the plan to a practical test.

Under existing circumstances I would advise you to form your own independent opinions from your own observation of results. I intend to do so, and I propose to give the plan at least one year's trial, employing the treatment especially in what may be called test cases; I mean in cases where the antiseptic method is fairly put on its trial, and where an opportunity occurs for such advantages as it is said to possess to become plainly apparent.

There are two preliminary conditions which Mr. Lister has a right to demand of those who profess to make trial of his system: first, that they should at least provisionally accept his theory; secondly, that they should know what his practice is, and should carry it out even to the minutest particular. They must provisionally accept the theory, or the details of the practice will in some respects appear so frivolous that they are sure to be occasionally neglected; while if the soundness of the theory be accepted, it will be seen that the observance of these details is thoroughly reasonable. Mr. Lister has a right to insist that those who profess to give his practice a fair trial should observe its minutest details, since no one can be truly said to carry our Lister's plan who stops short in the execution of details prescribed by the author as necessary to success.

Now, in order to fulfil the first condition, I have, for the present at least, agreed to accept Mr. Lister's theory (what it is I will tell you directly.) And lest I should fail in the second through a want of knowledge, I visited Edinburgh myself last summer, and had the advantage of personal instruction from Mr. Lister himself; and subsequently my house-surgeon, Mr. Vernon, was good enough to stay there for a time, when both Mr. Lister and Mr. Annandale gave him every opportunity of learning the practice of antiseptic surgery. These gentlemen not only succeeded in teaching Mr. Vernon the details of their treatment, but happily fired him with the enthusiam necessary to carry them out with a good will on his return to London. Whatever may be the result of antiseptic surgery in my wards, I shall remain very much indebted to Mr. Lister, Mr. Annandale, and Mr. Vernon.

The theory, or, one may now say, the facts on which Mr. Lister's antiseptic treatment rests are as follows:—

1st. That in the dust of the atmosphere, and on matter with which it is in contact, there are the germs of minute organisms which, under favourable circumstances, induce putrefaction in fluids and solids capable of that change, in the same manner as the yeast-plant occasions the alcoholic fermentation in a saccharine solution.

2nd. That putrefaction is not occasioned by the chemical action of oxygen or any other gas, but by the fermentative agency of these organisms.

3rd. That the vitality or potency of the germs can be destroyed by heat, and by various chemi-

cal substances, which we call, in surgery, "antiseptics."

Now, I am not going to ask you to believe these statements on my authority, but I will shortly refer to the results of experiments performed by Pasteur, Lister, Sanderson, Tyndall, and others, which justify the above conclusions.

It is scarcely necessary to state that organic fluids, like milk, urine, and blood, infusion of meat, &c., if kept in contact with the air at ordinary temperatures, will ere long decompose or putrefy, and will give evidence of putrefaction by turbidity (if the fluid be originally clear), by the evolution of offensive gases, and by the development within them of bacteria.

Again, I need do no more than remind you that prolonged boiling will not of itself preserve such fluids from putrefaction. Yet any of these or similar fluids may be kept free from putrefaction for an indefinite time, in spite of free access of the atmospheric gases, provided that the fluid has been boiled at the outset to destroy any organisms in it, and that the dust of the air is excluded. The exclusion of the dust may be effected in various ways. In some of Pasteur's first experiments it was done by having the neck of the flask which contained the liquid drawn out by aid of heat into a fine tube bent at various angles, in which form, though open at the end, and allowing perpetual entrance and exit of air, it arrested all particles suspended in it, and the urine or other fluid which was the subject of experiment remained permanently unaltered. Or, again, the same object may be attained by having the mouth of the flask plugged with a mass of purified cotton-wool, which effectually filters of its dust the air that enters the vessel in consequence of the condensation which alternates with expansion in the diurnal changes of temperature. But if the neck of the flask is broken short in Pasteur's experiment, or the plug of cotton-wool removed, organisms are sure to show themselves before many days have passed. Even more striking is the method adopted by Mr. Lister, who decants the boiled organic liquids into wine-glasses purified by heat, and each covered with a glass cap similarly purified, and a glass shade, scrupulous care being taken to avoid the entrance of dust during the process of decanting. Neither cap nor shade fits closely, so that a constant interchange takes place between the external air and that in the wine-glass, yet the double protection afforded by the cap and shade effectually excludes dust, and the result is, that although the organic fluids gradually diminish in bulk by evaporation, and in the course of months dry up altogether, no organisms make their appearance from first to last, nor does putrefaction or any other fermentative change occur. If, however, the glass shade and cap are removed for a few minutes and replaced, fungi or bacteria soon show themselves. But he has found that if the glass cap be only lifted for a second or two in an ordinary apartment free of draughts there is practically no risk of the entrance of any organism in the short period of exposure.

Further, it has been shown by Pasteur and other observers that it is by no means essential to the success of such experiments that the organic liquids should be boiled, but that when circumstances admit of their being withdrawn uncontaminated from their natural receptacles, such as the urinary bladder, the blood-vessels, the udder of the cow, or the shell of a fresh-laid egg, they will remain free from organisms and from putrefaction when kept in pure vessels and protected from dust.

It has also been discovered that impure air will purify itself by mere subsidence of its dust. Pasteur long ago proved that putrescible fluids could be kept free from putrefaction in air taken from cellars free from draughts, when the solid particles of the atmosphere had had time to deposit themselves by subsidence; and Prof. Tyndall has recently subjected air purified by being kept at rest to very searching tests to ascertain if it will excite putrefaction in putrescible solutions. He has found that solutions of meat, cheese, turnip, &c., first subjected to a high temperature, can be kept free from putrefaction for an indefinite time exposed to the air-closed boxes that have been kept at rest a day or two, to allow the dust to subside, precautions being taken to prevent the said dust rising again, by coating the inside of the box with glycerine. The same experimenter has demonstrated the fact that the air which has been thus rendered incapable of exciting putrefaction—*i.e.*, aseptic

—is also optically pure: that is, that there are no particles or motes to be detected in it when illuminated by a beam of electric light in a darkened room.

I think, then, we are justified in concluding that in the dust of the atmosphere there *are* such things as fermentative particles, organisms, germs, or whatever you like to call them, and that these, under favourable circumstances, induce putrefaction in fluids and solids capable of the process; that without these germs putrefaction and the formation of bacteria does not take place; and, finally, that these germs can be destroyed or removed from the atmosphere by the various means that I have above described.

Let me here remark, as having an important bearing upon Mr. Lister's practice, that in the case of any of those fluids that have been kept free from putrefaction by any of the above described means, the addition of the smallest drop of ordinary water, or the contact of a glass rod that has not been specially treated to render it aseptic, will almost certainly excite putrefaction, though all other prescribed conditions are scrupulously carried out to prevent its occurrence.

On the other hand Mr. Lister has found that when any portion of apparatus used in investigations on this subject cannot conveniently be purified by heat, the object may be attained by washing the glass or other material with a strong watery solution of carbolic acid, and drying it with a carbolised rag, and in the course of a long series of experiments he has invariably found this antiseptic agent as efficacious as the flame of a spirit-lamp in preventing the growth of organisms and the occurrence of putrefaction.

Mr. Lister's object in the treatment of wounds and abscesses is to exclude from them these germs or organisms that float in the atmosphere and are the causes of putrefaction, and the means he employs for effecting this purpose he recommends, not as the best that can be used, but as the best that he has been able up to the present time to devise; and although Mr. Lister considers the truth of his theory incontrovertible, yet he does not claim to have brought his practice to perfection.

Mr. Lister claims for his plan that when it can be carried out with due care and proper observance of details, he can, as a rule, secure that an open wound should heal after the manner of a subcutaneous injury—that is, without inflammation or constitutional fever, and for the most part without suppuration; while, if suppuration occurs, he secures that it shall not be putrefactive—that is, accompanied by the changes that we consider evidences of putrefaction, such as the formation of bacteria and the evolution of fetid gases.*

In the treatment of abscesses by the antiseptic method, Mr. Lister believes that he has effected an entire revolution in the course of the disease after the cavity has been opened, and to this I will more particularly allude in my next lecture. But I may here mention that, along with many local advantages, the patient is said to be free from all danger of irritative fever as the immediate consequence, and from hectic at a later stage.

I said that these advantages are claimed for the antiseptic method when it can be carried out with due care and a proper observance of details—that is to say, in cases where the surgeon himself inflicts the wound on an unbroken skin; for in this case he can protect the part against the entrance of putrefactive ferments, whereas when sinuses have formed, or when a wound has been some time exposed to the air, abundant sources of putrefaction already exist in the wound or abscess; nor is there at present any means by which, under these conditions, they can with certainty be all destroyed. You can thus understand how it is that Mr. Lister considers himself sure of success where he applies his treatment to an abscess which he himself opens, or to a wound he has made, and that he would generally expect success when dealing with a recent compound fracture or wound into a joint; whereas he would scarcely be disappointed at a failure if he applied his treatment to a case where sinuses already existed, or where an open wound had long been exposed to the air.

* The local advantages, if secured in individual cases, must of course affect the general salubrity of a hospital. On this subject see The Effect of the Antiseptic Treatment on the General Salubrity of Surgical Hospitals, by J. Lister, F.R.S., Brit. Med. Jour., 1875, vol. ii., pp. 769.

I must state these things explicitly to you in justice to Mr. Lister, that you may judge fairly of the results of the antiseptic treatment, understanding what it cannot do, as well as knowing the advantages claimed for it by its author. It is also only just to Mr. Lister, and essential, in order to enable you to form a fair estimate of the results of his method, to remember that he is far from regarding putrefaction as the only cause of suppuration. On the contrary, he has long since pointed out that any antiseptic substance, such as carbolic acid, if applid continuously to the exposed tissues of a wound, stimulates them to granulation, and the granulations to the formation of pus, giving rise to what he has termed "antiseptic suppuration," due to the direct chemical stimulus of the antiseptic. He has also expressed the belief that putrefaction acts in a precisely similar manner in causing suppuration, the products of putrefaction being acrid chemical substances; but that there is this all-important difference between the two cases —that the antiseptic acts only on the part to which it is applied, whereas putrefaction, being a fermentation, extends itself into all the recesses of a wound or abscess, where blood or sloughs, pus or serum, affords a nidus for the development of the bacteria. Further, Mr. Lister has directed attention to the important truth that suppuration, besides being brought about in this manner by the direct stimulus of chemical irritants, may be produced by ordinary inflammation without the access of any external disturbance, putrefactive or otherwise, as in the familiar case of an ordinary deep-seated abscess, the contents of which when evacuated are free from putrefaction. This ordinary inflammation he believes to be due to excited nervous action, and the commonest of all causes of it in surgical practice is tension, occasioned by blood or serum being pent up within the cavity of a wound; and he has insisted upon the fact that, in consequence of the irritating influence of the antiseptic material in the spray and sponges, the sanguineo-serous discharge is greater in the earlier periods from a wound treated antiseptically than from one managed in the ordinary way. Hence it is doubly necessary to provide free escape for this serous effusion, which is done by means of drainage-tubes; and if these be neglected or inadequate, tension will inevitably result, with corresponding inflammation, and in due time suppuration. Lastly, we must bear in mind that inflammation caused in this manner by tension, like any other ordinary inflammation, will be attended in proportion to its intensity by constitutional disturbance or fever.

If, therefore, we see suppuration make its appearance, or inflammatory disturbance and febrile excitement, in any case treated antiseptically, we need not necessarily infer that the antiseptic method is at fault until we have seen if we can discover some cause, other than putrefactive, which may account for the phenomena.

It will be obvious to those of you who have followed me thus far, that though all that I have stated may be absolutely true in theory, and though Mr. Lister's practice may be thoroughly sound in a chemical sense, yet pathologically it may be unsound. I mean that the antiseptic treatment may succeed in preventing the occurrence of putrefaction and the development of bacteria in wounds and open abscesses, yet this freedom from putrefaction does not necessarily imply an absence of local inflammation and constitutional irritation. Now this is what I want you especially to observe for yourselves; first, if the secretions of wounds and abscesses treated antiseptically are free from putrefaction; and secondly, if, together with this absence of decomposition, you have an absence of local inflammation and constitutional fever—other sources of these conditions being excluded.

That you may judge of these things the better and more certainly, I use the antiseptic method to those cases which, under ordinary treatment, are specially liable to local manifestations of inflammation, and are generally the sources of well-marked constitutional disturbance. I have not used the plan in ordinary amputations, removals of the breast, tumours, operations for hernia, nor in the treatment of acute superficial abscesses, for in these the result of surgery in a healthy hospital is usually satisfactory; but in resections of large joints, in wounds of joints and compound fractures, in deep abscesses, and especially in chronic abscesses connected with joint disease or caries of bone.

In judging of the results of the antiseptic treatment in our hands, I must beg you to bear

in mind the facts which were published by Prof. Tyndall in January last. I must ask you to observe that even in the chemical labratory there are difficulties to be overcome and minute details to be observed in order to obtain uniform results; and that, even in the hands of masters of the art, notwithstanding all care, sources of error will sometimes occur, and a fallacious result be obtained. Now, if this be the case under the circumstancees I have referred to, how much more difficult must it be to carry out the necessary details when beginners like ourselves are dealing with the living tissues of the human body.—*Loudon Lancet.*

ON THE MORE COMMON FORMS OF ENLARGEMENT OF THE LYMPHATIC GLANDS.

BY J. WARRINGTON HAWARD, F.R.C.S.,

Assistant-Surgeon and Lecturer on Practical Surgery at St. George's Hospital; Assistant-Surgeon to the Hospital for Sick Children.

It has been so much the custom to regard enlargement of the lymphatic glands as the special characteristic of scrofula, that many glandular swellings, having no relation whatever to that disease, are frequently classed and treated as scrofulous. This is especially the case with regard to swellings of the cervical or submaxillary glands; yet it is certain that the majority of these enlargements are of a local and not of a constitutional character. The epithet "scrofulous" is, in fact, often applied very loosely, and seems sometimes to be used rather as implying some mysterious influence or peculiarity, than as indicating that a person is affected by a definite disease. Yet the symptoms of scrofula are sufficiently well defined, and enlargement of the lymphatic glands is but one, and that not a constant one, of these; and it is no more reasonable to call a child scrofulous because it has enlarged or even caseous cervical glands than it is to apply the term to a chronic inflammation of a joint in an otherwise perfectly healthy child, or than it would be to call a person syphilitic, because he had a periostitis of his tibia. An examination of any considerable number of cases of enlargement of the superficial lymphatic glands, will show the majority of these to have a local origin. The glands most often seen swollen are the cervical and submaxillary, and the greater number of such swellings depend upon inflammation of the scalp or gums. Slight cases of eczema, or impetigo capitis are exceedingly common in children, and are very frequently the cause of enlarged cervical glands; but the eruption being but trifling is often overlooked, and the surgeon's attention asked only to the condition of the glands. So also inflammation of the gums, during teething, stomatitis, ulceration of the throat, and disease of the middle ear, may give rise to swellings of the associated lymphatic glands. Glands affected in this way may attain a considerable size, but as a rule will recover their natural condition on the removal of the irritation. Usually several glands are affected; they are not distinctly isolable from the surrounding cellular tissue, nor are they freely movable; they are, moreover, painful and tender; sometimes they suppurate. A peculiarly acute and painful inflammation of the posterior cervical lymphatic glands is occasionally seen in connection with scalp wounds; this usually runs a rapid course, and subsides without the formation of matter. Doubtless if any of the above-named irritations occur in a scrofulous person, the glandular enlargement is prone to show an increase and a persistence, out of proportion to the severity or duration of the exciting cause, and thus it may pass on to caseation or necrosis; but this is by no means necessarily the case, for the lymphatic vulnerability varies greatly in scrofulous persons. Caseation must not be looked upon as the distinctive mark of scrofula, for almost any chronic enlargemant of a lymphatic gland may result in caseation, and certainly this process may occur in an otherwise perfectly healthy subject. A single caseous, and in some parts cretaceous, gland was removed five years since from the neck of a boy who was the picture of robust health, and who I know remains so at the present time, and has never shown the slightest trace of scrofula.

Inflammation and chronic disease of a joint will cause indolent swelling of the associated lymphatic glands; and this in persons who are not in the least degree scrofulous. One of the earliest symptoms of disease of the hip-joint is

often a slightly painful enlargement of the inguinal glands, and there are few cases of hip disease in which some swelling of the glands is not found In disease of the cervical spine also, swelling of the posterior cervical glands often occurs, and it is important to remember that the stiffness of the neck in such cases may depend, not upon the painful glands, but upon the joint disease. The glands do not increase very greatly in size, but will remain for months swollen to about the size of filberts, and slightly tender to the touch; and as the joint disease subsides, they regain their normal condition; excepting the tenderness, they precisely resemble amygdaloid glands of syphilis. In many robust persons this condition of inguinal or axillary glands ensues upon any severe exercise of the arms or legs, such as rowing, or prolonged walking, and seems to be quite unassociated with any delicacy or weakness of constitution.

The true scrofulous disease of the lymphatic glands is a slow and almost painless enlargement, usually of the superficial glands, and most commonly affecting those of the groin or neck. It commences simultaneously in several glands; they are at first soft, and surrounded by a little cellular swelling, so that the shape of the gland is not very well defined. As the enlargement increases the glands become firmer and more defined, in this respect differing markedly from Hodgkin's disease, in which, by their growth, the glands become fused together. In the course of time caseation ensues, and goes on either to cretefaction or to softening and abscess. Suppuration is much more rarely seen in the deeply situated, than in the superficial glands; and when it does occur, takes place slowly and with scarcely any pain; there is but little disposition to pointing, and the matter is ill-formed and mixed with caseous débris. The skin thus often becomes extensively undermined and ulcerated, and thus result the unsightly scars and puckerings so often seen in scrofulous persons. An examination of a scrofulous gland reveals a general hypertrophy, with close packing of the cellular elements, leading, by a compression of its blood-vessels, to an anæmia, and consequent want of nutrition of its tissues. Fatty change soon ensues, and a subsidence of the swelling may take place; but usually the degenerated tissues either break down into cheesy material which eventually becomes calcareous; or suppuration takes place, accompanied by some little surrounding inflammation. Even if suppuration has occurred the abscess may not open, but may dry up, leaving only a little caseous matter unabsorbed; but this is very prone to become the seat of residual abscess, and thus to cause subsequent trouble; so that an abscess having once formed, its evacuation is to be desired.

The *treatment* of lymphatic glandular swellings must of course depend upon the diagnosis. The simple enlargements depending upon neighbouring irritation will, if left alone, subside upon the removal of their cause. I say, *if left alone*, for if the skin over them is irritated by the application of iodine, poultices, or blisters, they may be provoked, as one so often sees, into still further enlargement, or even suppuration. Nothing in therapeutics is more curious than the way in which some practitioners paint tincture of iodine over every imaginable kind of swelling; to some minds the mere existence of a tumor, seems at once to suggest the local application of iodine, and to these, painting with iodine seems their refuge in all cases of doubtful diagnosis, as though changing the colour of the skin were supposed to affect the character of the growth beneath it. Unfortunately the staining is not the only harm done by such applications, for they inflame the skin and thus keep up or increase the glandular irritation for the cure of which they are used, or render the parts unfit, for a time, for necessary operative treatment. An acute swelling of a single lymphatic gland may be sometimes rapidly cured by puncture. A narrow thin knife should be thrust into the centre of the gland and withdrawn, and the part then covered with a piece of cotton wool; the pain and swelling at once and quickly subside.

Single caseous or cretaceous glands, in healthy persons should be removed if their position does not render the operation dangerous; when superficial, they are easily turned out, and the scar left is very slight. Gland-swelling in connection with diseased joints are of course an indication for rest. I have seen one case of hip

disease, in which there was reason to believe that the joint affection was the result of suppuration spreading from the inguinal glands.

The scrofulous enlargements will be chiefly benefited by the constitutional treatment of the disease of which they are part; and for this, nothing is to be compared to the influence of sea air and cod-liver oil. Small doses of iodide of potassium, in combination with preparations of iron, may be advantageously given with the oil. This is far more efficacious than the syrup of iodide of iron, which I believe to be an entirely useless preparation. The local treatment, as long as the glands are only swollen and tender, should consist in simply protecting them from cold, pressure, or other irritation, which is best done by covering the part with cotton wool. When, however, matter forms, or the caseous material softens and liquefies, a very small puncture should be made through the skin, and the contents of the abscess gently squeezed out, pressure being made by a pad of lint on each side of the opening. The puncture may require to be occasionally reopened with a probe; but by this means, adopted early, the integrity of the skin is preserved, and the unsightly scars and puckerings often seen in such cases are prevented. It is, moreover, very desirable, when possible, to get rid of the caseous products of inflammation, for they are otherwise liable to be the seat of constantly recurring suppuration, or may perhaps be the origin of a future tuberculosis.—*Medico-Chir. Review.*

Fracture of the Anatomical Neck of the Humerus.

A patient, aged forty, received an injury to the shoulder, and, on examination, the diagnosis of fracture of the anatomical neck of the humerus was made. The reasons for the diagnosis were crepitation at the shoulder-joint, without depression below the acromion. When the humerus was rotated the tuberosities rotated with it, showing that the fracture was undoubtedly at the anatomical neck. On measuring the arm, a shortening of one-third of an inch was detected. The treatment consisted in the application of a plaster-of-Paris bandage over the arm and shoulder, so as to keep the fragments at rest and in position.—*Eclectic Medical and Surgical Journal.*

CONGENITAL ABSENCE OF THE EYE-BALL.

BY M. F. COOMES, M.D.,

Assistant to the Chair of Ophthalmology and Otology in the Hospital College of Medicine.

Mr. T—— consulted me on the 22nd of February, 1876, in regard to some defect about his child's eye. The child is a male, about four months old, perfectly healthy in every respect, and has been so since birth It is very sprightly, much more so than most children of that age; its complexion is fair, with light hair and pale blue iris. The left side of the head, face, and thorax are perceptibly smaller than the right. There is no difference in the size or length of the upper or lower extremities on either side; they are as large and perfect in function as they should be. The tongue and palate are perfectly normal in function and size. From all that can be observed the vocal organs seem to be perfect. There is a complete absence of the eyeball on the left side. The lids are smaller on that than on the other side, though well formed, with perfect lash and brow. They move with almost as much freedom as those of the opposite side. The tears flow just as profusely from that eye as the other when the child cries, showing that the lachrymal gland is present and endowed with its proper function. The palpebral fissure on that side is about one-third of an inch in length. The cavity of the orbit looks very much as if the globe had been enucleated, with the exception that it is not so deep and the concavity is more regular. The right eye is somewhat smaller than it should be, though its form is perfect in every particular as far as can be determined by the naked eye and the ophthalmoscope. The retina presents the appearance of that met with in fair complected persons. The right eye is affected with nystagmus and convergent squint. The child is able to fix his eye upon an object for a few seconds, but soon changes its position. Any undue excitement increases the rapidity of motion in the globe.—*Louisville Med. News.*

Sir John Cordy Burrows, F.R.C.S., President-Elect of the Brit. Med. Association, and the eminent Dr. Traube, of Berlin, are dead.

BELLEVUE HOSPITAL, NEW YORK.

SEPARATION OF THE EPIPHYSES.

To the ordinary practitioner, cases of separation of the epiphyses of the bones are rare, and it is only where a large number of surgical cases are under observation, as in a hospital, that the injury can be studied to good advantage. At the present time there are two cases of this species of fracture in the surgical wards: one, separation of epiphyses at the upper end of the humerus, and the other separation at the lower end of the femur.

The first case occurred in a boy fourteen years of age. It was produced by falling on the shoulder. On examining the case, cartilaginous crepitus was obtained, and on pressing the arm inward the humerus was made to project outward. The case differed from one of fracture of the anatomical neck, in the fact that when the arm was rotated the tuberosities of the humerus did not rotate. It differed also from fracture of the surgical neck in being too high up, and from there being but slight displacement. The case was treated by reducing the fracture and applying a shoulder-cap and side-splint.

The second case of separation of the epiphyses happened in a boy aged twelve. The injury was received by falling from a coal-box to the pavement.

When he was examined in the hospital, an effusion into the knee-joint was detected, and at the same time, on manipulating, cartilaginous crepitus was found near the joint, with a false point of motion. The case was treated by making extension and putting the extremity up in a fracture-bandage.—*Eclectic Medical and Surgical Journal.*

International Medical Conference.—We have been requested by Dr. David of Montreal to state that the meeting of conference of American and Canadian Medical Associations has been postponed from June (the time announced in our last issue), to September 2nd. This has been done in consequence of many Canadian medical men wishing to attend the International Medical Congress which meets in Philadelphia in September.

TORONTO GENERAL HOSPITAL REPORTS.

CASE OF THORACENTESIS.

R. J., aged 17, admitted March 6. Patient had been complaining for about two weeks before admission. On his entering the Hospital, it was concluded after a careful enquiry into the history of the case, together with physical examination of the chest, that the right pleural cavity was filled with fluid. He suffered principally from pain, cough, and rapidity of breathing. Respiration 40, pulse 100, heart somewhat displaced to the left side.

Feb. 7th, Dr. Aikins tapped the chest, inserting ordinary trocar and canula. After drawing out the trocar he passed an india-rubber tube, with a stop-cock attached, through the canula, the other end of the tube being under water. The part in which the stop-cock was, accurately fitted the canula. In this way 39 oz. of reddish brown coloured fluid were drawn off. No cough, or bad symptoms of any kind followed and the patient is now doing well. Dr. Aikins mentioned in a clinical lecture on this case, that he had operated similarly on a patient in the Central Prison, when he drew off 32 oz. Patient did well in every particular.

CASE OF NECROSIS OF THE LOWER PORTION OF THE SHAFT OF FEMUR.

W. M., aged 19, admitted Feb. 28th; patient had typhoid fever about a year and a half ago. Was then for four months in bed, two or three weeks after the commencement of the disease pain and swelling were noticed in the lower part of the thigh. Suppuration followed and open sinuses remained up to the time of admission. Patient was operated on by Dr. Aikins, March 2nd. A very large sequestum was removed. The operation was accompanied by severe hæmorrhage, notwithstanding which the patient made a good recovery. The incision was made from the side of the thigh.

Death of Prof. Steiner.—Prof. Steiner, author of a "Manual of Children's Diseases," which was lately translated into English, died at Prague on the 15th of February.

Midwifery.

THE CHANGES IN MIDWIFERY PRACTICE AND IN THE TREATMENT OF UTERINE DISEASES DURING THE LAST TWENTY YEARS IN THE ROTUNDA HOSPITAL, DUBLIN.

BY LOMBE ATTHILL, M.D.,

Master of the Hospital; Vice-President of the King and Queen's College of Physicians in Ireland.

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The rule which guided obstetric teachers when I was a pupil was this, "that meddlesome midwifery was bad," a rule not devoid of truth when applied to the attempts made by ignorant practitioners to accelerate delivery, but to be utterly repudiated when applied to the skilful efforts of the educated accoucheur. The effect of the rule was this, that women were allowed to linger in agony for fifty and sixty hours—aye, and even for a much longer time—without any attempt being made to relieve them. The results, I need hardly say, were lamentable both as regards the mother and the child. Many mothers sank, worn out by long-continued suffering, or died subsequently of peritonitis, the result of unduly prolonged uterine action. In others sloughing of the vagina followed, caused by the long-continued pressure exercised by the fœtal head on the soft parts of the mother. This again was followed either by the formation of dense bands occluding the vagina to a greater or less extent, and which often opposed serious obstacles in subsequent labours, or by the formation of vesico or recto-vaginal fistulæ, a source of the most intolerable misery to the unfortunate patient, rendering her loathsome alike to herself and to others. Nor were the results as regards the child less lamentable. Women were allowed to linger on in labour till, their children being dead, the perforator was used—an instrument harmless enough to the dead infant, whose life, however, was not the less sacrificed to a rigid adherence to the rule of non-interference.

All this is now changed. It is the recognized rule, followed by every well-informed practitioner, that women should not be left to linger on in suffering, but that delivery should be accomplished by the forceps when once we are satisfied that Nature, unaided, is unable to effect delivery within a safe period. What that period may be cannot be fixed by any definite rule, each case must be judged by itself; but the axiom in general adopted is this, that when once the head ceases to advance, or to advance so slowly that delivery by the natural efforts cannot be expected to take place within a reasonable time, the forceps should be used. Some idea of the change in practice in this respect may be formed from the fact that in 6,634 deliveries which occurred during three years of the mastership of Dr. Charles Johnston, whose pupil I was, the particulars of which are recorded by Drs. Hardy and M'Clintock, the forceps were used but eighteen times, or less than once in every 360 cases; while in 7,027 deliveries which occurred under the mastership of Dr. George Johnston, between November, 1868, and November, 1874, the forceps were applied 639 times, or once in about every 11 cases. The difference is so startling that we are naturally inclined to ask, Is the frequency of recourse to the forceps absolutely necessary? I am not prepared to give a definite answer to this question; but of this I am sure, that while no injury is inflicted by the forceps on either mother or child when the instrument is used by skilful hands, the most lamentable results followed the old practice of non-interference.

So much as to the frequency of the use of the forceps. Now as to the rules which were laid down for its use as compared with those at present acted on.

The conditions "which were considered indispensable in order to render the forceps applicable, and without which they were not used," by Dr. Charles Johnstou were these: (*)

1. That the child be alive.
2. That the head have remained stationary for six hours at least.
3. That the membranes be rupturing, and the os uteri fully dilated.
4. That the head of the child be so circumstanced that the ear can be distinctly felt.
5. That the state of the soft parts be such as denotes the absence of inflammation.

* "Practical Observations." By Hardy and McClintock, 1848. p. 89.

Time well not permit one to contrast *in extenso*, as I might with profit do, the great divergence which has taken place in the present day from the practice laid down, and rigidly adhered to, by those who were my teachers; I must content myself with summarising.

The 1st and 5th rules are still admitted by all practitioners, only with this great difference, that we never now wait till the life of a child is in any danger, and as a consequence of our prompt interference "inflammation of the soft parts" is now virtually never met with during labour. Therefore, though we admit the truth of the principles inculated by these rules, the necessity of acting on them is never likely to arise in our practice. Rules 2 and 4 we altogether repudiate.

I am not able to give you any definite one in place of rule 2. I can only say that, if once we are satisfied that the powers of the mother are insufficieut to accomplish delivery within a reasonable time, we at once proceed to effect delivery by means of the forceps I should not think of leaving a patient to linger on in suffering for one hour, much less for six, after I was satisfied that the head had ceased to advance, and not unfrequently I apply the forceps even though I am satisfied that it is slowly advancing. Gentlemen, the rule I refer to is now discarded by all obstetric authorities. I recommend you to discard it also. I can, with equal confidence, advise you to disregard rule 4. Many years have passed since I felt the ear of the child, for the simple reason, that I never try to feel it. I lay stress on this, because I find that many candidates for the licences of the College of Physicians, whom it is my duty to examine, when questioned as to the use of the forceps, say that the ear should be felt before it is applied. I presume these gentlemen practice what they say, and that practice I pronounce to be wrong.

(To be continued.)

FŒTUS WITH TEETH.—Dr. J. N. Upshur recently attended a woman in labor who gave birth at full term to a healthy infant which had two incisor teeth.

DIAGNOSIS AND TREATMENT OF THE CURABLE FORMS OF FIBROID TUMORS OF THE UTERUS.

Dr. Alfred Meadows, in a paper on this subject, read before the Harveian Society of London (*British Medical Journal*, Nov. 13, 1875) said, that these forms of morbid growth being more amenable to successful treatment than was generally supposed, their diagnosis in relation to the uterine walls was of the first importance, and Dr. Meadows relied very confidently on the differential indications of hemorrhage and pain. Hemorrhage, according to his experience, pointed to an intra-uterine, submucous, and curable form of tumor; whilst pain was usually associated with the subperitoneal or almost incurable class. Coming to more exact means of diagnosis, it was found that cervical displacement arose from a growth in the opposite direction; that a closed os, and small and rigid cervix, were almost fatal signs of incurability; the larger and softer the cervix, the better being the operator's chances; and that, by the use of the sound, very valuable information might also be obtained. As the subperitoneal variety of tumor did not encroach on the cavity of the uterus, there was none of that elongation which was met with in the submucous form in direct proportion to its size; and by working with the sound, in conjunction with the finger in the vagina, one could tell, by the thickness of tissue intervening between these points, whether the morbid growth occupied the anterior or the posterior uterine wall. As regarded the drug-treatment of these cases, he had only derived real benefit from ergot, which frequently acted well in small soft tumors, by cutting off their supplies of blood, and causing steady compression by contraction of the unstriped muscular fibres in which they were imbedded. Operative measures were next discussed; and gastrotomy, which was occasionally performed for removal of subperitoneal growths, was only justifiable if the tumor were fairly out of the pelvis, and the cervix, as well as a good part of the body of the uterus, free from disease. In the submucous varieties, the tumor was reached by dilatation of the os and cervix; and, its investing capsule being broken down, enucleation was done more or less completely with the finger; valuable aid

being derived in very large growths from Greenhalgh's olive-shaped cautery, removal being then completed by the expulsive action of the uterus, aided, if necessary, by ergot. As regarded after-treatment, rest was, of course, all-important. Hemorrhage must be checked by styptic plugging; septicæmia, by antiseptic injections; and inflammation, by opium; it being pointed out that cystitis more frequently followed operations on the anterior than on the posterior uterine wall, in consequence of the larger quantity of cellular tissue which lay between the uterus and bladder, than between that organ and the rectum.—*Abstract of Medical Science.*

Uterine Asthma.

Mr. J. Waring-Curran records (*The Practitioner*) a plan of treatment which he has found most efficacious in that form of asthma met with not infrequently in those patients at a particular time of life, who suffer from uterine tumour. The drug which will relieve the asthma, at any stage, he says: "Is belladonna applied locally and given freely internally. The extract I find the most satisfactory and reliable preparation for external use, and the tincture I give internally, combined with full doses of the bromide of potassium. In the intervals I prescribe iron and strychnine, and apply iodine locally. All new-fangled remedies have failed in my hands, and subcutaneous injections have never proved either safe or satisfactory. In any instance where there is prolapse of the womb with a tumour behind, and uterine asthma occurring, I use a belladonna suppository. The effect on the eye is sometimes complained of, but there is little choice in the alternative of this temporary inconvenience and the nature of the suffering which uterine asthma induces. I may say in conclusion that the extract of belladonna should not be confined alone to the region where the tumour is situated, but that the spinal nerves should get the benefit of a little, spread on a piece of lint, and applied along the lower dorsal and lumbar spines; but applications to the chest afford about as much relief as they would to the knee in incipient hip-joint disease."—*Monthly Abstract, April* 1876.

AMYL-NITRITE LOCALLY FOR OBSTRUCTIVE AND NEURALGIC DYSMENORRHŒA.

For some months past Dr. L. B. Edwards has treated several cases of obstructive and neuralgic dysmenorrhœa by placing a gelatin capsule containing three or four drops of amyl-nitrite against the os uteri, while the patient is lying on her back. Within a few minutes the capsule dissolves and the amyl is poured out against the cervix, which sometimes causes a momentarily stinging pain about the part. The relief from pain is almost instantaneous, and in the cases of obstructive dysmenorrhœa the menstrual discharge is soon established regularly. The patient herself may introduce a second and a third capsule at intervals of four hours should the "young labor pains" recur. The Doctor's experience thus far is limited to five cases, but he has had opportunities to repeat the experiment in four of them. The treatment is not curative, of course, but palliative; however, in one case of neuralgic dysmenorrhœa the suffering was much less intense at the last period than at the former month, when the amyl was used. He thinks he has noticed a longer relief in the two last instances in which he has combined belladonna extract with the amyl in the capsules. The more general effect of amyl upon the capillaries of the upper portion of the body has not been observed after these vaginal applications. In ordering the capsules in the first instance, Dr. Edwards had half a dozen prepared by a neighboring apothecary. In about an hour, or less, the amyl had dissolved the capsules left in the pill box, and the odor of amyl pervaded the whole house. The lesson is, charge the capsules at the moment they are needed—not before.—*Virginia Medical Monthly.*

Sudden Death After Uterine Injection of Iron.

The following case was reported by Dr. Cederschiöld before the Swedish Medical Society, and it is of interest, as being another instance where injection of fluids into the uterine cavity has been followed by sudden death. The patient was pregnant for the second time.

A considerable hemorrhage followed the birth of the child, the uterus did not contract fully, and the fundus could be felt over the pubes. Ergot was of little use, and the hemorrhage recurred fram time to time. Eighteen days later a strong solution of the perchloride of iron (1 : 7) was injected into the uterus. Every precaution was taken; the syringe was freed from air, the pressure of the piston was gradual, etc., but when the injection was half completed the woman suddenly complained of pain in the breast, stretched backward, drew a few short breaths, and was dead. (Pulmonary embolism or heart clot?)—*Medical Record.*

CASE OF OCCLUDED VAGINA WITH RETAINED MENSES; OPERATION.

The following case occurred in the service of Dr. T. Addis Emmet, in the Woman's Hospital, New York:

The patient was a girl fifteen years of age, well developed, and florid in appearance. She had never menstruated, but for the past eight months had suffered pain, referred to the pelvic organs, at regular monthly intervals.

Physical examination showed the vagina to be either absent or entirely occluded. With a finger of one hand in the rectum and the other hand on the abdomen, a large fluctuating tumor —the distended uterus—could be distinctly felt.

Having placed the patient under ether, March 14, 1876, Dr. Emmet introduced one finger of the left hand into the rectum, and, having an assistant hold a metal sound passed into the bladder, proceeded cautiously with a pair of blunt-pointed scissors to divide the firm tissue between the urethra and rectum. Partly by cutting, and partly by tearing with the finger, a depth of about an inch and a half was gained. A small trocar was then thrust into the uterus, and the escape of thick, black fluid confirmed the diagnosis. A large opening was then made and over a quart of fluid evacuated. The neck of the uterus could then be distinctly felt, by rectal touch, less than two inches from the anus. The cavity of the uterus was thoroughly washed out with hot water containing a little crude carbolic acid, and a closed glass plug was placed in the vagina to prevent union of the fresh surfaces.

THE TREATMENT OF OVARIAN CYSTS BY ACUPUNCTURE (Semeleder: *Wiener Med. Presse*, No. 52, 1875.)—Two years ago S- learned that a patient who was known to him had been treated by acupuncture (?) galvano-puncture in Dresden with good results, and that she had afterwards been subjected to the same treatment in Vienna, by which she was entirely cured. Since that time he has tried this mode of treatment in the following three cases:

1. A virgin, aged 18, with an ovarian cyst on the left side. At the end of four months the circumference of the abdomen had markedly diminished, and at the expiration of two months more the cure was complete.

2. A married woman, aged 24, who had borne two children, presented herself with an ovarian cyst as large as the head of a child aged two years. He reports that this patient was cured at the end of two months, the remains of the tumor forming a hard mass of the size of a small apple.

3. A married woman, aged 42, with an ovarian tumor reaching to the umbilicus. The duration of the treatment in this case was six weeks. In neither of these cases were there any alarming intercurrent symptoms, and there has been no refilling of the cysts noticed. S. thinks that the good effects of the treatment are owing to the property of producing coagulation in albuminous fluids which is manifested at the positive pole of a battery. He thinks that the presence of several cysts is no contra-indication for the employment of acupuncture, and suggests that further experience will possibly show whether this mode of treatment may not be advantageously combined with puncture and the injection of iodine.

Each sitting was of but short duration, and some galvano-caustic action was not always avoided. Similar good results might be obtained from the employment of acupuncture in the treatment of a echinococci.

ENLARGED TONSILS.—Caustic soda and lime in equal parts will remove enlarged tonsils. The preparation is made at the moment of using it, by adding a few drops of absolute alcohol, and mixing thoroughly, and applying it by means of a glass rod.—*Dr. Ruppaner.*

Translations.

From the Paris *Médical* of the 2nd March, we clip, and give in brief, the following :—

First a *case of Cysticerci* is reported. A coachman, aged 27, on the surface of whose body a number of small tumors, from a third to a half an inch long, and about half that width, made their appearance. One day he fell from a horse, having been seized with loss of consciousness. About seven months after he noticed the beginning of a little tumor on the breast, soon after others appeared. He had another attack of loss of consciousness in the hospital, but no convulsions. M. Broca diagnosed cysticerci and the microscope confirmed the diagnosis. The treatment consisted in puncturing the cysts with a cataract needle, to the number of three hundred and sixty-five; after that they would slowly disappear. The patient passed tapeworm during and for four years before the existence of the cysts.

A Case of Hemiplegia and Aphasia Occurring in an Intermittent form (not in the periodic sense of the term) resulting from syphilis,—Is reported under the care of M. Mauriac. Partial recovery took place, a result ascribed, by M. Mauriac, to time and iodide of potassium. Syphilitic rupia and gummatous exudations had made the diagnosis easy.

Subcutaneous Injections of Ergotine for the arrest of hemorrhage is the subject of another article. A case is recorded where there was a continuous slow hemorrhage, from a fibroid tumor of the uterus. There was slight pulmonary œdema and vomitings. A solution of 4 parts of ergotine to 15 each of glycerine and water was made, and 20 drops injected daily. In fourteen days the metrorhagia ceased.

Death During, or soon after, Thoracentesis has been made the subject of study by Mr. Foucart who has investigated the causes of sixteen cases. In some he ascribes the cause to the heart, in others to the lungs. In the heart cases he found clots in the heart or pulmonary vessels, clots due to a bad, anæmie cachexia. If the lungs have been the cause there is congestion and pulmonary œdema, with or without albuminous expectoration. The following precautions are recommended: to avoid during the operation all movements and emotions which may produce syncope; to operate as much as possible in the horizontal position; to remove the fluid *slowly* and stop its flow if necessary; not to take too much fluid away at once; if an aspirator is used, have as small a canula as possible.

Employment of Ice in Hysteria and Epilepsy.

M. Charcot (in *Progrès Médical*) advises the use of ice in these cases. It is broken into pieces the size of a walnut, and put into a bladder. In hysteria it is laid over the ovarian region, at first for half an hour, and afterwards for an hour, and an hour and a half, morning and evening.

It is applied over the pericardial region in cases of epilepsy when the seizures follow the occurrence of an increased frequency of pulse, palpitation, and pains in the preicordial region.

Accidents in Hypodermic Injections.

The Paris *Médical* of 23rd March, after referring to the occasional occurrence of very severe pains, and of abscess as a result of hypodermic injections, refers to another, but very infrequent, accident spoken of by Mr. Chouppe. When the canula enters the cavity of a vein the patient is seized, in about twenty-five or thirty seconds, with creepings in the hands; soon they go through the whole body; almost at the same time the veins of the neck swell; the face becomes red; the arteries beat violently; the pulse rises to 120, 140, and soon 160. The head becomes giddy; the patient has profound anguish, it seems to him as if he were going to fall. In about a minute and a half a cold sweat pours off the body. In a few minutes all comes right again, except that the heart sometimes remains excited for hours.

To avoid this accident he recommends that the canula be introduced unattached to the syringe, and that if the practitioner observe that blood flows from it he must either introduce it in a fresh place, or send it on through both walls of the vein, before injecting.

In Diptheria, some physicians in Naples are using oxalic acid (one part in 20 of water or one in 7 of glycerine) as a local application, whilst they gave sulphenate of Quinine gr. $\frac{2}{4}$ to grs. 3, four times a day. Dr. Francesco speaks highly of the Sulphenate of Quinine also in the grey hepatization of pneumonia.

In Tetanus, Jaborandi in daily doses of a drachm of the leaves, in infusion, has been said by Dr. Brompart to effect a cure. It produced profuse diaphoresis and salivation. The editor of the *Paris Médical* expresses his belief in its efficacy and highly extols it as a sudorific, and attributes its failure, in the hands of some practitioners, to the fact that some of the piperaceæ have been palmed off for it in the European market. It has been highly extolled by others for its action in removing serous effusions. In a previous number of the *Paris Médical* is a report of a case of tetanus cured by chloral.

Application of the Thermometer to the Uterus as a Means of Diagnosis.

D. Colinstein, in the *Archiv. für Path. Anat. and Physiol.* has an article on the above subject, of which we may briefly say that he has found the temperature of the neck of the normal uterus when unimpregnated, and of a uterus containing a dead fœtus, varies very little from that of the vagina; whereas the temperature of a uterus containing a living fœtus is from one to two degrees [F.,] higher. The existence of fibroids and endo-anperi-metritis also raises the temperature somewhat. The bulb is introduced into the os, a proceeding which he admits to be apt to induce abortion in certain cases; but nevertheless worth the risk in others.

Mediate Dilatation of Urethral Stricture.

This method, pointed out by M. Longlebut, requires, 1st a series of conductors, formed each of a bulb-pointed gum elastic catheter, with a thin wall split lengthwise from its free, to within two inches, or a little more, of its vesical end; 2nd. A series of whalebone dilators made thin and flexible, ending in olive-shaped or fusiform bulbs, about an inch or so long. Both are graduated in millimetres. The size of the conductor required is measured by the size of solid bougie which can readily be passed through the stricture. The conductor is then introduced, its split [for obvious reasons] towards the superior wall of the urethra. A dilator which would open the split a millimetre [393 of an inch] is then introduced and pushed into into the stricture, the greased bulb being pressed gently against the lower wall of the conductor. An increase of a millimetre is thus gained, and this may be doubled or tripled at once, by the use of larger dilator. Afterwards constantly increased dilators are used. According to its orginator this method would avoid wounds on the healthy parts of the urethra.

Phenic Acid in Skin Diseases.

Beidgen recommends its topical use:

In chronic eczema in a solution of 5 parts of alcohol and 120 of water, applied every morning with camel's hair pencil.

In acute eczema it is contra-indicated.

In psoriasis, on the other hand, it answers well.

In obstinate psoriasis, the following may be used; phenic acid 5, alcohol and distilled water 20 parts. It has to be stopped every three or four days on account of its irritant action.

In prurigo a solution of 5 to 500 parts is used.—*Progrès Medical.*

Hypodermic Injection of Distilled Water.—The *Progrès Médicale* again calls attention to this method of anæsthesia, introduced by M. Lafitte, of Paris. A patient attacked with the most acute articular rheumatism has obtained almost instantaneous relief, and could move, after the injection of water in the vicinity of the painful joints. M. Lafitte reports the case of a woman afflicted with the most painful lumbago, which was immediately relieved by the injection of four syringefuls of distilled water. Cases of facial neuralgia, pleurodynia, sciatica, etc., are reported, in which the results, however, were not always definite. M. Lafitte believes that, after more extensive trial of this agent, we may have acquired a remedy which, without the disadvantages of morphine, possesses its efficacy as an anæsthetic.—*N. Y. Med. Journal.*

THE CANADIAN
Journal of Medical Science,
A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, MAY, 1876.

THE MEDICAL COUNCIL EXAMINATIONS.

THE written examinations by the Medical Council began on the 4th of April, and the students were summoned to the city for the oral examinations on Tuesday, the 11th, but some of the examiners were not ready to report on their papers till Wednesday noon, and consequently the Board was not able to proceed with the oral examinations before Thursday morning, when this part of the work began, and proceeded under difficulties until three o'clock on Friday morning. In the mean time, from the peculiar appearance and manner of some of examiners, the students got the idea that proceedings were being delayed by the intoxication, and factious conduct thereby induced, of those before whom they had to appear, and manifested their disapprobation by groaning and hissing at the door of the chamber in which the examiners were meeting. These demonstrations were continued more or less till the close of the examinations on Friday morning, when they culminated in three of the examiners, Drs. Dewar, Wm. Clarke, and N. Bethune being assaulted with eggs, stones and other missiles as they were leaving the University in advance of their colleagues.

Now, when we find so large, intelligent and respectable a body of young men from all parts of the Dominion either taking part in or countenancing such riotous proceedings, we may be quite certain there is something radically wrong, and that it is high time the Council should inquire into the matter.

The students assert that some of the examiners were intoxicated, and thereby delayed the proceedings, keeping them in the city on expense a much longer time than necessary, but we are not called upon to deny or vouch for the truth of the statement. When, however, we see men for a few hours tearing about the room, vociferating, gesticulating, swearing, foaming, and shouting like a lot of wild Irishmen at a Donnybrook fair, or for all the world like a lot of mad bulls, and then all at once become peaceful and courteous for the remainder of the day, "a too hypercritical public" may put a very uncharitable construction on their conduct.

The proceedings of the Medical Council and its Examining Board have always been noted for their turbulence and riotous character, some members of the Council always taking advantage of its meetings to indulge in bacchanalian revels which should cause a blush of shame to mantle the cheek of every well-wisher of the profession, and more especially of the electors who send them to the Council, term after term, when it is well known they are always in a state of chronic alcoholism. It is not many years since some of these gentlemen, while attending a Council meeting in Hamilton, in one of their saturnalias, battered in the chamber doors in the hotel where their colleagues were sleeping, and we are told by members of the Council, that the same disgraceful proeeedings which characterized the late meeting of the Examining Board have been repeated by the same parties year after year, both at the Council and Board meetings, until our informants have gone home, over and over again, thoroughly heart-sick, and nothing but a profound sense of their duty to the profession has induced them ever to return to the scene of such proceedings. It is with a feeling of profound regret we thus write of an institution we helped to create, and which, both through the press and by personal influence, we have supported with all the energy begotten by a strong conviction of the necessity for its existence; but we candidly confess that if these proceedings are to be tolerated by the profession or condoned and rewarded by the majority of the Council who do not take part in them, it will be better to wipe the Council out of existence. One hundred and thirty-seven candidates

presented themselves for examination this year, and we suppose that is about the average number every year; and we ask the Council and the members of the profession who elect them, what kind of an example they are placing before these young men, or what degree of respect these gentlemen will carry with them into the world for a profession, whose chosen guardians make such an exhibition as these one hundred and thirty-seven students saw and heard at the recent Council examinations?

We are happy to know that a majority of the Council disapprove of the riotous conduct of their colleagues; but so long as they allow themselves to be ruled by such a minority, and even confer positions of honor and trust upon them, we must hold all alike responsible. The whole remedy does not lie with the Council, however; for so long as the profession will send to the Council, as their representatives, men of known intemperate habits, these proceedings will recur and the Council will be partially powerless in the matter. We should be very sorry to have the Council destroyed; but with such men on its Examining Board there is a growing conviction that neither the public nor the profession have any guarantee that their interests are in any better hands than under the old *régime*, while the students assert that they are passed or rejected according to the mood of the examiners, instead of their own merits or professional attainments.

THE MEDICAL COUNCIL'S BOARD OF EXAMINERS FOR 1876.—The examiners appointed by the Medical Council to conduct the recent examinations were, Dr. Wm. Clarke, of Guelph; Drs. Edwards and Henderson, of Strathroy; Dr. Daniel Clark, late of Princeton; Drs. N. Bethune, U. Ogden, C. V. Berryman, and D. Campbell, of Toronto; Dr. Dewar, of Port Hope; and Dr. M. Lavell, of Kingston.

MIDLAND AND YORK.—Dr. James Ross, Midland and York, representative on the Ontario Medical Council, desires us to state that he will be pleased to receive the names of those medical men in his division who may wish to be appointed examiners at the next meeting of the Council.

THE COUNCIL OF THE COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

It is a matter of deep regret that it becomes our duty to refer in any other than a complimentary manner to any part of the management of this body at the present juncture. Recent developments, however, in connection with the Examining Board of the Medical Council, render it imperative, as a duty we owe to the profession and the general public, that we should let our voice be heard in unequivocal terms. With many conscientious members of the profession there were grave doubts at the outset as to the possibility of rendering such a composition of the Council as that now existing, effective for the objects contemplated. It was doubted whether elements so antagonistic could ever be brought into such harmony as to effect the great purposes of the amalgamation, and so result in the elevation of the profession in this Province. Events subsequent to the passing of the Medical Act in its present shape largely justify the conclusion that the fears that have been entertained have not been without foundation. Not one single meeting of the Council has passed over without scenes most discreditable to all concerned. Those calling themselves the "regular" profession, either wittingly or unwittingly, have constantly indulged in insinuations against the honesty of those holding views in opposition to them. As would naturally be expected, these insinuations have been met with sharp retorts; and the result has generally been that the annual meetings of the Medical Council have been little better than "*bear gardens*," and have come and gone with very little work accomplished, and that at times of a very indifferent class. True, one result has followed which, all other things being equal, would render the present law a great boon to society. The standard of education, preparatory as well as professional, has been made uniform for the entire Province. There is reason to believe that, in some particulars also, the standard has been elevated, although, with the information that has reached us from time to time, even this statement might admit of some doubt. But granting that there has been a *bona fide* improvement in these two particulars, they are

entitled to be regarded as strong points in favor of the existing law, if this law can be carried out harmoniously and to the entire satisfaction of all concerned. The history of the deliberations of the Medical Council and their entire management of professional matters have not been such as to encourage the hope that this important end will ever be accomplished. New causes of grievance are constantly liable to occur; unpleasant references by one school of Medical faith to the absurdities of the opinions of those holding opposite views will be made; and thus, whatever benefits might be expected as a result of the amalgamation may fail of realization.

But apart from this view of the existing law, there are some features in the management of the affairs of the College of Physicians and Surgeons by the present Council to which we feel bound most strongly to object. It may fairly be questioned whether it is prudent for the Council to appoint themselves the Examining Board for that body, or to appoint any one of their number as a member of such Board. They are supposed to be the appellate body to whom any student must submit his grievances, if he has any. If, therefore, they are in a position to adjudicate upon their own actions in a capacity entirely outside of their positions as members of the Council, their value as an appellate body is completely destroyed and the student is left without any proper tribunal before which to seek redress. It is a privilege, moreover, belonging to the Council through their advisory committee, to have a general supervision over the Examinations while such Examinations are in progress. But certain members of this advisory committee are made Examiners themselves. Who are left, in such a case, to exert a controlling influence over these Examiners? Great injustice may be done in many ways, and yet there is no reliable means of redress. We do not pretend to doubt for a moment the competency of any member of the Council who has acted in the capacity of an Examiner. But we do most seriously object to their occupying a relation in which they may afterwards have it in their power to cover up irregularities or improprieties of which they may have been guilty, without any efficient means being accessible for the prevention of such an issue. If a member of the Council, in his capacity as an Examiner, is guilty of conduct not only reflecting great discredit upon himself but disgrace upon the body whom he represents and the profession in general, the most abundant facilities should be provided in the shape of an authority to which he must be amenable, and over which he can exert no improper control. This cannot be so long as the same man who, as an Examiner, perpetrates an offence, has an equal power afterwards as a member of the body appointing him to stifle investigation into his behaviour. We have no hesitation, therefore, in pronouncing the principle a vicious one in every particular, and one which ought to be discontinued as speedily as possible. Surely it will not be said by any one that there was any real necessity for adopting such a precedent. The material at the disposal of the Council in this Province is sufficiently abundant, in all conscience, to have enabled them to make selections as Examiners against which no valid objection could have been raised.

Upon the reported behaviour of certain members of the Examining Board during the recent examinations, we have not much to say at present. It is barely possible that they may be judged harshly and that the heinousness of their offence may be greatly exaggerated. We must, however, express the hope that, at its next session, the Council will spare no pains to ascertain the truth or falsity of the rumors recently in circulation. We cannot afford to compromise the dignity of a profession so noble and philanthropic as ours, in the smallest degree; and if, after an impartial investigation of all the facts and circumstances, those gentlemen whose conduct now appears in so unfavorable a light before the public, are able to show that a great injustice has been done and that the tongue of calumny has again been at work, let them be honorably acquitted and the responsibility rest upon the proper shoulders. If, on the other hand, the charges against them can be substantiated upon reliable testimony, it is also to be hoped that the Council will not fail to mark its disapprobation of such conduct by forever placing itself beyond the power of the

reproach which must necessarily attach itself to the existence of such gross abuse.

It is a matter for deep regret that some of the students should have so far forgotten themselves as to resort to such means of redress as they are reported to have adopted. Open rebellion is an expedient justifiable only under the most extreme circumstances. In these days, when men in almost every possible emergency have milder means of redress at their disposal, we cannot justify the adoption of such weapons of defence as seem to have been adopted in the circumstances referred to. It would have been sufficient to have invalidated the entire examinations, so far as they were conducted by the gentlemen charged, if the charges could have been substantiated; and the students would then have had all the justice they could reasonably have desired. It was at least a pity, therefore, that the means adopted for securing redress had not been tempered by more discretion.

THE death of Dr. Henry Letheby, for many years Lecturer of Chemistry and Toxicology, in the Medical School of the London Hospital, is announced. Until two years ago Dr. L. also occupied the position of Medical officer of Health and chemical analyst to the city of London.

DR. GEO. JOHNSON has resigned his recent appointment of Examiner in Medicine to the Royal College of Surgeons. Dr. George Johnson has been appointed to the chair of Clinical Medicine in King's College. Dr. Beale has been appointed Professor of Medicine.

CANADIANS IN ENGLAND.—Blackader, A. D., of McGill College; Fraser, D. B., of Trinity College; Scott, W. F., of McGill College; and Tucker, Milton M., have passed their primary examinations at the Royal College of Surgeons, England.

EXAMINATION QUESTIONS.—We are obliged to hold over until June the questions given at the Examination of the Medical Council.

Communications.

TRICHINA SPIRALIS.

BY WM. OSLER, M.D.

(Concluded from the April Number.)

When a student with Prof. Bovell, of Toronto, I had several opportunities of studying these parasites. In the month of February, 1870, while dissecting a subject with Dr. Zimmerman in the Toronto School of Medicine, we discovered numerous trichinæ throughout the whole muscular system, all of which were densely encysted, many having become calcified. From a single drachm of one of the muscles of the arm I obtained 159 cysts, the greater number of which enclosed healthy-looking worms. This man was a German, and had been janitor at the hospital, where I had known him for over two years. He died of an acute affection, having nothing to do with the trichinæ. In all probability they had been encysted in his muscles for years, and the disease at the time had been mistaken, as it usually was before Zeuker's discovery, for typhoid or rheumatic fever. Oddly enough, on the 29th of March of the same year, while working at another subject, the same condition was found; trichinæ capsules existed through all the muscles of the body, and were more numerous and less degenerated than in the first case. They existed most abundantly in the muscles of the abdomen and arms, in the diaphragm, but above all in the tongue, which was so occupied with the cysts that a pin could hardly be driven in at any point without striking one.

With a view of artificially producing the disease in the lower animals, and studying the development of the parasites, I performed several experiments with flesh obtained from these subjects.

Experiment I.—On the 23rd February, 1870, I administered to a healthy rabbit ʒ iii. of trichinous flesh from the first case. A week after, as no effect followed, the dose was repeated. Fourteen days from the last administration the rabbit was killed, and the muscles carefully searched for trichinæ, but without success.

Experiment II.—On March 1st, to a full grown cat, ʒ iv. of flesh from the first case was

administered. On the 8th, the dose was repeated. Animal killed on the 14th. Intestines and muscles carefully examined: negative result.

Experiment III.—On March 1st, to a full grown terrier dog, ʒ iv. of muscle from the first case was given. Dose repeated on the 8th. Animal killed on the 21st. Muscle and intestines examined with negative result.

I had scarcely anticipated a successful issue in these experiments; the cyst walls were so densely impregnated with salts of lime that the action of the gastric juice could not have sufficed for their dissolution.

Experiment IV.—On March 30th I administered to a six months old pup ʒ v. of muscle from the second case. Dose repeated on April 2nd. Animal killed on April 14th. Neither intestinal nor muscle trichinæ found.

Experiment V.—On March 30th, ʒ iii. of muscle from the second case was administered to a full-grown rabbit. From the appearance of the animal a few days after the feeding I felt sure it was becoming affected, and did not repeat the administration. It was listless and indisposed to walk about, though its appetite was not much impaired. On the morning of the 21st the animal was killed. Examination of the muscles revealed the presence of numerous immature trichinæ. They were most abundant in the muscles of the thigh and abdomen. Many exhibited slow sluggish movements, boring between the bundles of muscles fibres; a few were becoming encysted.

For some reason or other experiments with dogs are not very successful; the worms appear to develop in the intestines, but nothing further results.

The only case I have had an opportunity of seeing in the human subject occurred in the clinique of Professor Traube, of Berlin, in November, 1873. Though a severe attack, the patient, under a stimulating treatment, recovered. I was much struck with the extreme prostration and helplessness of the patient, and the excessive tenderness of the muscles, many of which were swollen and firm.

Since, then, we obtain trichinæ almost exclusively from eating uncooked or semi-cooked pork, this barbarous custom is to be unsparingly condemned. Nothing will suffice for safety but thorough roasting or boiling, so that all parts of the meat shall have been exposed to a temperature of at least 150° F., in which case, even if the parasites are present, they may be eaten with impunity. The danger chiefly arises from the different forms of cured pork which are partaken of by many people in a partially cooked state. Sausages constitute another, and very common, source of danger. They should be thoroughly done, never presenting a reddish hue in the centre. Care should also be exercised that fresh roast pork be as well cooked in the interior as on the surface.

There can be very little doubt that the hog is the original bearer of the trichina, and that the disease is propagated from one to another through the filthy habits of the animal, aided by the negligence of the breeders. For some years the hog was believed to obtain the trichinæ by eating rats, in which they are not uncommon; but Zeuker and several other German authorities have shown that the trichinous rats are almost invariably inhabitants or frequenters of the shambles, where they obtain the parasites by feeding on the scraps. As is well known, numbers of swine are kept in the neighbourhood of shambles, and Zeuker calls attention to the prevalent custom of "feeding them with the waste meat, and of pouring into their troughs the water with which the chopping blocks and other instruments have been washed." Whole droves have become in this way trichinous. There can be very little doubt that the too common practice of making the stomach of the hog the receptacle of all the abominations upon earth is very dangerous, and frequently reacts with terrible effect. In this country we have happily, to a great extent, escaped; but whether from our civilized habits, or the immunity of the hogs from disease, it is impossible to say. Caution should be exercised, especially with bacon and hams from the Western States, where the disease among swine is almost as prevalent as in Germany; indeed, some of the worst epidemics in the latter country have been caused by eating the bacon imported from that locality.

THE McCONNELL CASE.

(Concluded from our last.)

The *Times'* report of the instructions of the Judge to McConnell's jury, shows that His Lordship adheres to the stereotyped "*right and wrong,*" or as the *Globe* not inaptly styles it, "*rough and ready,*" rule of decision. His Lordship appears also to hold that *delusion* is an essential element in the constitution of insanity. A perusal of a few of the latest eminent authorities on the subject of insanity, I feel persuaded, would not fail to relieve him from both mistakes. If our jurists would extend their researches od the subject of insanity, in its legal relations, to the works of distinguished foreign writers, they would hardly fail to profit largely by the labor. Among these, *Mittermaier*, the erudite Professor of Law in the University of Heidelberg, ranks pre-eminent. This writer had the great advantage of having studied medicine, before law, and of having, throughout his life, cultivated a close acquaintance with the insane, and with those charged with their care.

After laying down four excellent rules for the guidance of those who would form a positive opinion on the presence of insanity, Mittermaier goes on to say, "that in this way we may be enabled to know the influence of mental derangement at the moment of the perpetration of a crime, and the symptoms that support the opinion. Of no less importance is it to review the reasons which authorize the supposition that the commission of the crime marks the highest degree of the malady, the *detent* which often follows its accomplishment, the more or less considerable remissions which appear according to the nature of the disease."

"It is a noticeable circumstance," says Brierre de Boismont, the reviewer of Mittermaier, "that in many mental affections the deranged sometimes find solace for their own sufferings in the crimes they commit. The amelioration felt by them after the perpetration of the culpable deed, the return to reason, usually but of short duration, *but sometimes also permanent*, have been observed by all physicians for the insane. They have given to this state the name *detent*, and consider the crime as the highest degree of the disease." Mittermaier admits such a form of insanity of *transient mania*, but he says, whenever pleaded it should be submitted to special examination. He also treats very judiciously of another form which our judges will continue to ignore until they study insanity more largely and sedulously than they yet have done;—to wit, *reasoning insanity*. It is beyond all doubt that the editors of the *Globe* and *Times* would promptly take up arms against all such doctrines, though their own productions might go far towards establishing their truth, for if not striking illustrations of reasoning insanity, they might savour very strongly of insane reasoning.

Well, it finally culminates in this essential requirement "*for the interest of the State,*" that although, "for the good of the insane, the insanity law of the doctor is," in the words of the *Times*, "the best; for the safety of the lives of citizens the Judges' insanity law is indispensable," and it is therefore advisable "to hang a murdering madman once in a while." Now, it so happens that in the United Kingdom about one such each year has been hanged since the commencement of the present century. Has the immolation put an end to murders by madmen? Within a very short time past a Commissioner in Lunacy was killed by a lunatic in the ward of an asylum. Why had not this madman learned to fear the law? But, Oh, interposes the *Times*, we call for the "hanging of a madman once in a while," not for the terrorising of the insane, but for the edification of the sane. Does the *Times* "lay the flattering unction to his soul," that the hanging of an insane murderer will ever operate, or ever has operated, to the prevention of murder by the sane? It never has so done, and it never can do so. Its natural—inevitable—result is but to bring the administration of Justice into contempt. Such result ensued in a case, a few years ago, in the north of Ireland, where a man, to me, and to the most eminent medical alienistic jurist in America, manifestly insane, was hanged for murder. What was the moral impression on the unruly mass? They strained every nerve to murder the hangman, before he escaped from the town, and undoubtedly would have hammered him but for the protection of the police.

The following extract from the address to

the jury, in the Tierney case, by the Advocate Depute, (the prosecuting counsel,) Professor Muirhead, of Edinburgh, appears to me so clearly marked by good sense, and an advanced knowledge of the nature of insanity, that I cannot avoid here presenting it.

The Advocate Depute "argued that there was no ground for thinking the prisoner insane at the time the act was committed, either from the recurrence of his malady, or from an accession of homicidal mania." (*Note.*—Tierney had been insane for a considerable time sixteen years before, and was said to have had several short relapses.) "There was, however, an intermediate view that might be taken. They might, upon the evidence, feel themselves persuaded, that, *through the operation of disease,* at an earlier period, there had been, as regarded this man, a diminished power of regulating his actions. What would be murder in a man whose mental faculties had never been affected by disease, might, in the case of a man who had been so affected, and whose mental faculties were for the time obscured by disease, be looked on more leniently. If the jury, looking on all the evidence, felt that they could conscientiously pronounce a more lenient verdict, he asked them to find that the panel was guilty of culpable homicide." How utterly different is the preceding utterance of Professor Muirhead from the blood-beseeching address of the prosecuting counsel to the jury in McConnell's case! Professor Muirhead regards insanity as a *disease.* Mr. Sinclair pooh-poohed the idea that fracture of the skull was a fact worthy of any consideration in estimating the mental condition of McConnell!

I have, indeed, heard and read of cases in which severe fracture of the skull, resulting in actual loss of a portion of the brain, has transformed idiotic or half crazy persons into sensible men. I trust no such serious accident will ever befall McConnell's prosecutor. He has a splendid forehead, the beauty of which I would not see effaced for the exchange of any amount of mental frailty, for augmented rationality.

Dr. Yellowlees, the present Superintendent of the celebrated Gurtnavel Asylum, at Glasgow, and the writer of the article on Tierney's case in the *Journal of Mental Science,* contrasts the legal directions given to the jury in the trial of one Blamfield, a workman in the Chatham dockyard, by the judge, with the more rational charge of Lord Ardmillan. The English judge based his directions on the oft-quoted definitions of insanity by his predecessors and brethren; "but so contrary," says Dr. Yellowlees, "did these definitions seem to what justice required in the case, that the jury deliberately disobeyed the instructions, and acquitted the man on the ground of insanity."

Only a few days intervened between the murder by Tierney and that by Blamfield, and their trials were nearly co-temporary; but the Scotch are a thinking, shrewd and progressive people; the English cling to antiquity and plum pudding.

Dr. Yellowlees makes one observation which appears to me deserving of serious consideration by the framers of our criminal law. He says, "I am unable to see why, in a case like this, (Tierney's) the wife's testimony should not be admissible as to the past history of her husband. Let her statements be carefully tested, and let there be such reservation or deduction in receiving them as the other evidence seems to demand; but it appears strange deliberately to reject the witness who must be the best informed as to the history and habits of the accused."

Never were more sensible words than the above written. Every physician who has been called upon to treat a case of insanity in either a husband, a son, or a daughter, well knows the vast importance he attaches to the statements of the wife or mother. Who, so well, so intimately, so minutely *can* be acquainted with all the guiding, instructive and most important facts, an accurate knowledge of which is indispensable alike to the diagnosis of the case and its judicious treatment? And yet in the case of a husband accused of any offence whatever, British jurisprudence seals the lips of the very witness whose testimony might throw a flood of light on the great psychological difficulty! I can affirm from abundant experience and observation that in the cases of husbands, sons and daughters, I have found the details given me by wives and mothers, though sometimes almost tiresomely exuberant, yet unspeakably

valuable. I venture to say that physicians examining husbands alleged to be insane, seek in every equivocal or obscure case, for the most reliable information from the wives.

I have never allowed the consideration of McConnell's doom to weigh one straw in my expression of opinion as to his mental condition. He is in the hands of an enlightened representative of a just, wise, and God-fearing Queen. If royal elemency be extended to him, I shall be thankful; if it is withheld, I may regret it, for the grave will not reveal my error of belief, and no man should be ashamed to confess his mistakes, "which is," as a great writer has said, "but to acknowledge that we are wiser to-day than we were yesterday."

But whatever disposal may be made of McConnell, of the propriety of one requirement I am overwhelmingly convinced; he never should have an opportunity of committing another homicide, be he sane or insane; for, sane or insane, he is a dangerous man; more dangerous, in my belief, if insane than if sane.

In taking leave of this painful, though to me, in a scientific view, deeply interesting subject, I cannot refrain from assuring the numerous friends of the lamented Mr. Mills, of my heartfelt sympathy in their bereavement. To plead for truth and dispassionate judgment is one thing; to excuse or palliate *actual* crime is quite another. If what I have written will but awaken thoughtful inquiry on the momentous question of the responsiblity of the mentally diseased, I shall think very lightly of all the rash and harsh words that have been written or uttered against me.

JOSEPH WORKMAN, M. D.

Toronto, 28th Feb. 1876.

To the Editor of the Canadian Journal of Medical Science.

MR. EDITOR,—Will you ask Mr. McKim, the janitor of the University, if he will please give me a certificate of character for sobriety, &c., as I wish to apply for the position of Examiner for the Medical Council next year.

Yours, &c.,

MEDICUS.

P.S.—Just tell him it was not I who vomited on the carpet of the Chancellor's room during the recent examinations.

M.

Miscellaneous.

WOUNDS IN RELATION TO THE INSTRUMENTS WHICH PRODUCE THEM.—The *Glasgow Medical Journal*, for Jan. 1876, contains some interesting investigations on this subject by Dr. Wm. Macewen. Seventy-one cases, and one hundred and four wounds, produced by fifty-one different kinds of articles are detailed. Most of the wounds noted were seen within a short period after their production, while they were yet fresh and bleeding. The greater number were brought to the central police station in Glasgow.

The following conclusions are formulated by Dr. Macewen from the examination of these cases:—

"1. Blunt instruments sometimes produce scalp wounds, having straight outlines and sharp clean edges, which in these respects could not be distinguished from wounds produced by sharp-cutting instruments.

"2. Scalp wounds, which exhibit entire hair bulbs projecting from the surface of their sections, have been produced by a blunt instrument.

"3. Wounds, exhibiting nerve filaments or minute blood-vessels bridging the interspace between the lips of the wound, toward the middle of the depth of the section, while the tissues have receded all round them below as well as above, have been produced by blunt non-penetrating instruments.

"4. When a wound, even with sharp well-defined margins, bears in contour a resemblance to an osseous ridge in close proximity, there is a *probability* that it was produced by a blunt instrument through forcible impact against the underlying osseous ridge.

"5. *Cut*-hairs found in the immediate vicinity of a wound are valuable aids in determining whether a sharp or a blunt instrument has been made use of.

"6. As to the diagnosis between wounds produced by instruments of the knife kind and other sharp-edged substances, such as glass, earthenware, etc., no dependence can be placed on the mere regularity of outline or sharpness of edge, or the reverse.

"7. Sharp clearly-defined wounds in certain cases present peculiarities in their terminations which may be sufficient to enable a probable diagnosis as to whether they were produced by a knife or a portion of glass or earthenware.

"8. The same instrument, used by the same person in delivering several successive blows, may produce wounds of different characters."—*Monthly Abstract.*

EXAMINATIONS OF THE COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.—*Primary Examination.* — John Armour, Thomas H. Ashby, N. H. Barkwell, William D. M. Bell, G. H. Bowen, W. H. Burton, Duncan H. Cameron, Arthur Dalziel Campbell, Gilbert Cannon, Charles E. Carthew, C. K. Clarke, Alexander Davidson, Jonathan Day, Fred. J. Duggan, John Dunfield, M. Esmond, Alexander Fraser, J. W. Good, H. S. Griffin, Kenneth Henderson, William Honeywell, Andrew Hourigan, B. Andrew, James B. Howell, David Jamieson, George Kennedy, G. A. Marlatt, A. H. Miller, L. F. Miller, Thomas M. Miller, Henry Minshall, G. T. McKeough, Eugene McNichol, M. D. Oakley, R. B. Orr, W. T. Parke, D. Phelan, W. Parker, R. A. Ross, A. F. Pingle, V. A. Routledge, (*Homœopathic*), S. T. Scovill, James A. Sinclair, Thomas Smellie, William G. Stark, R. M. Stephen, Duncan Stewart, Marshall Sutton, F. B. Wilkinson, W. E. Winskell, — Wood, W. F. G. Grant, (1st year's examination); all the foregoing candidates passsd without any oral examination :—T. M. Dumble, D. M. Faulkner, Byron Field, S. H. Glasgow, Peter Graham, Andrew Grant, F. S. Holmes, Edward Kitchen, W. A. Munro, A. H. McKinnon.

Final Examination.—Albert C. Bowerman, Wesley Jones Burns, Alexander Douglas, Wm. Douglas, John William, James Fulton, Walter W. Geikie, W. Hanover, H. G. Lachner, Jas. Munro, John B. Murphy, R. Mylius, Stewart McArton, Archibald McCurdy, James McWilliam, L. M. Mackie, William Nichol, J. B. Phelan, H. H. Pringle, R. W. Powell, Jno. W. Smith, Malcolm Stalker, Dougald Stewart, W. F. Strangways, Archibald B. Taylor, Robert Shaw Tyrell; the foregoing passed without an oral; William Adams, J. E. Birdsall, Fred. C. Cluxton, J. W. Gray, Tiffany Heartwell, Benj. Hickey, Elijah Jackson Jessop, J. S. King, Alexander Kennedy, — McBean, Henry McCrea, John McLean, Thomas Potter, Levi Secord, John P. Sivewright.

IODOFORM IN OTORRHŒA.—Dr. Heustis remarks that he has found a mixture of iodoform ℥j, and glycerine ℥j, most excellent to drop in the ear in cases of otorrhœa.

POST-MORTEM EXAMINATION OF THE BODY OF SARAH MARIA BARRY.

Thorax: Both lungs congested, especially at the posterior part. They floated when entire, but small portions from the posterior part were consolidated, and sank when separated from the rest of the lung. Mucous membrane of trachea and bronchial tubes very red, thickened and inflamed.

Heart: Normal.

Abdomen: Viscera covered with semi-purulent lymph; grumous decomposing matter exuding from pelvic cavity; liver very dark and friable; kidneys, spleen and bladder normal. On the posterior surface of the uterus a ragged, ulcerated opening with everted edges. This opening communicated with the uterine cavity. The diameter between the outer edges was 3 inches. (The opening being 1½ inches across, and the everted edges ¾ inch thick each.) Lying on this ulcerated surface was a small mass of partially decomposed substance, believed to be placenta. In the vagina, on the posterior wall, about one inch from the os uteri, was an ecchymosis about the size of an English sixpence; a larger one was found in a similar position on the right side. In the position usually occupied by the os uteri, two openings were found, separated by a superficial transverse band a little thicker than a match. Owing to decomposition it was impossible to state positively whether one of these openings was or was not caused by laceration. On the posterior portion of the inner surface of uterus, below the opening before described, was found a partially attached portion of a substance similar to that found lying on the edges of the opening. Length of uterus on external surface 5½ inches. Breadth between fallopian tubes 3 inches. The walls at the fundus about ⅝ inch thick. Weight about 5¼ ounces. Upper surface of left ovary somewhat eroded —on its surface a prominence was seen which seemed from external appearance to be a corpus luteum about the size of a coffee bean. The ovary was so blackened by decomposition that on section of this prominence no definite characteristics presented. Right ovary more firm, but without anything resembling a corpus luteum.

TRINITY COLLEGE MEDICAL SCHOOL.—The following gentlemen have passed their primary and final examinations in this University :—

For M.B., :—W. A. Adam, W. J. Burns, W. J. Douglass, A. Douglass, J. Fulton, W. C. Freeman, W. W. Geikie, R. J. McKinnon, S. McArton, A. McCurdy, J. McWilliams, A. R. Pingle, J. W. Smith, W. S. Strangways, J. Stalker, J. P. Sivewright, A. B. Taylor, W. S. Washington. Primary :—T. H. Ashby, H. A. Bonnar, R. H. Barkwell, A. Davidson, J. Dunfield, J. Fulton, P. L. Graham, W. Honeywell, A. H. Miller, G. A. Marlatt, T. M. Miller, M. Macklin, C. T. McKeough, J. McWilliams, H. Minshall, G. O'Connor, H. H. Pringle, W. Parker, R. A. Ross, W. G. Stark, D. A. Stewart, R. M. Stephens, J. A. Sinclair, M. Sutton, W. Tisdale, and W. E. Winskell.

Honor Men :—University Gold Medallist—J. Fulton; University Silver, do.—J. McWilliams; Faculty Gold Medallist—W. J. Douglass; Faculty Silver do.—J. Stalker.

Certificates of honor were awarded to the following gentlemen :—Final :—W. S. Washington, J. W. Smith, A. Douglass and W. J. Burns. Primary : D. A. Stewart, R. M. Stephens, J. Dunfield, A. Davidson, R. A. Ross, M. Sutton, W. Tisdale, W. Honeywell, J. M. Miller, W. G. Stark, J. A. Sinclair and A. H. Miller. First Year's Scholarship ;—J. D. Bonnar and H. Meek. Second Year's Scholarship ;—H. A. Bonnar and G. T. McKeough.

D. A. Stewart receives the recommendation of the Faculty to the Trustees of the Toronto General Hospital, for the position of resident hospital assistant for one year.

RAPID DIMINUTION OF A REMARKABLY LARGE SPLEEN UNDER THE HYPODERMIC EMPLOYMENT OF ERGOT.—In the *N. Y. Med. Record* for April 15th, is reported a case of enlarged spleen where very gratifying results followed the hypodermic use of Ergot, after the failure of remedies usually employed in such cases. The first injection was made Feby. 6th, continued daily, with the exception of the 9th, until the 14th of the month, at which time we are assured the spleen was normal. The author of the article does not inform us of the preparation or dose made use of.

THE COLLEGE OF SURGEONS AND ITS MIDWIFERY BOARD.

The following letter appears in the *Medical Times and Gazette*, of March 25th :—

To the President, Vice-President, and Council of the Royal College of Surgeons, England : Gentlemen,—The duty imposed upon the Midwifery Board to examine for the College licence on Midwifery "persons" who shall not be required to submit to an adequate examination in medicine and surgery, has compelled me to reconsider my position as a member of that Board. The Council calls upon the Board to aid in placing on the Medical Register "persons" possessing only fragmentary medical skill, but who will, notwithstanding, acquire a practical, if not a legal right to practise far beyond the limits of their qualification. Knowing, as I do, that obstetrics is an integral part of medicine; knowing that it cannot be rightly understood or safely practised without a fair knowledge of the other parts of medical science, and feeling deeply the injustice and danger of making women and children the subjects of inferior medical skill, I cannot reconcile it to my sense of right to assist in carrying out the College Charter in the spirit expounded by counsel. With extreme regret, but without hesitation, I resign the office of Examiner in Midwifery to your College.

I have the honor to be, Gentlemen,
Your most obedient servant,
ROBERT BARNES.

Grosvenor Street, March 16, 1876.

THE NORMAL DIGESTION OF INFANTS.—The most important conclusions which Dr. Wegscheider (*vide Centralblatt*, No. 3, 1876,) draws from his researches on the fæces of infants in relation to their digestive functions, are the following :—(1) The albuminous constituents of the milk are completely absorbed; (2) the white residue which is found in the fæces, and is usually regarded as casein, is not casein, but chiefly fat, with some admixture of intestinal epithelium; (3), the unabsorbed fats leave the bowel partly as soaps, partly as free fatty acids, and perhaps partly as unaltered fat; (4) urobilin and unaltered bilirubin occur in the fæces, and biliverdin is also found in diarrhœal stools.

PROPAGATION OF TYPHOID.—At Sedgeley Park School forty-two boys became affected with "genuine typhoid." No nurse, no master, servant, or adult of either sex was attacked. Why? They all lived in the same house, drank the same water, ate the same food, cooked in the same way, and several of the masters slept in the same dormitory with the boys. The boys, however, used closets opening into a cesspool emptied in the holidays. These had been used a hundred years and no injury had resulted. A boy one day complained: he had been only four days at the school. His illness turned out to be typhoid. All his evacuations were thrown into the cesspool of the closets which the boys used. All the masters, servants, &c., used closets at a distance. Hence the difference; the boys used closets in the cesspool of which typhoid evacuations were passed, and forty-one, besides the first case, had typhoid fever. The masters and servants used other closets and did not suffer. The first case had been only four days in the school, and had therefore caught the disease elsewhere. Two years before a different kind of outbreak had occurred in the same school. This time, masters, servants and boys were all affected "indiscriminately." There was diarrhœa, sickness, great languor, and much prostration. Seventy persons were attacked. The water was found contaminated with sewage from a drain leaking into the well. This was remedied, and the disease ceased forthwith. It was not typhoid fever, but another gastro-intestinal attack. During the next two years the health of the school was satisfactory.—*Practitioner.*

CHLORAL SUPPOSITORIES.—The production of a chloral suppository containing a sufficient proportion of this drug to cause sleep has heretofore been deemed impossible. Mr. H. Mayet, in the *Druggists' Circular*, has, however, devised the following formula, by which he manages to get forty-five grains of chloral in each suppository:—

℞. Ol. theobromæ, gr.xxv
Cetacei,
Pulv. chloral, āā gr.xlv.
For one suppository.

These suppositories are of good consistence, and may easily be put into use.

WALL'S METHOD OF GIVING COD-LIVER OIL.—Prof. O. A. Wall, in a communication to us for April, 1874, suggested the following new and valuable method of administering cod-liver oil, which, in consideration of its importance, we take the liberty of republishing:

"I lately had occasion to prescribe cod-liver oil for a lady patient, but after having unsuccessfully tried the various plans usually recommended to render this oil less obnoxious to the taste, the patient refused to continue the use of the medicine. I then tried the following plan, which answered the purpose admirably and is an excellent method of giving the oil: Cut a wafer (such as is sold in drug stores for the administration of nauseous powders, pills, &c.) into pieces about three inches square, moisten one of these pieces and place it into a deep tablespoon, then pour a dessertspoonful of oil upon the wafer and fold the edges carefully over the oil, fill the spoon with lemon syrup, or if preferred, with syrup of lactophosphate of lime, with which all sides of the wafer must be moistened. Then let the patient swallow it at one gulp and it will pass down without other taste than that of the syrup. If taken soon after a meal, the oil becomes mixed and is digested the food, and the disagreeable regurgitation of the oil is completely avoided. I think this method will be found useful when the patient cannot otherwise take the oil."

In the *Practitioner* for August, 1875, Dr. Jas. Sawyer writes that he has rarely found gelsemium fail to give decided and lasting relief in cases of neuralgic pains in the face and jaws associated with carious teeth. He usually gives 15 minims of a tincture prepared as follows:—Take of gelsemium root coarsely powdered 2oz., of rectified spirit 20oz. Moisten the root with 10oz. of the spirit, and allow the mixture to stand for 24 hours. At the end of that time pack in a percolator, and add the remaining 10oz. of spirit. When the fluid has ceased to flow, remove the contents of the percolator and press them. Add the pressed liquid to that obtained by percolation, filter, and make up with rectified spirit to a pint. Eleven minims of this tincture are equal to about one grain of the root.—*Edin. Med. Journal.*

BROMHYDRATE OF QUININE.—This preparation (*Gaz. Hebd.*, Febuary 18, 1876, and also *Gaz. Hebd.*, September 17, 1875) has been recommended by M. Gubler as having especial properties, independent of those of bromine or of quinine, apparently the result of the combination. The drug has the same effect as sulphate of quinine, but it acts less on the auditory apparatus. M. Soulez (*Journal de Therapeutique*, December 10, 1875) finds that the bromhydrate is effective where the sulphate has failed; also, that its action is more rapid; if given one hour before the time of chill, the access of the chill will be checked. It is much more soluble than the other salts of quinine, and can be used, therefore, more readily, subcutaneously.—*N. Y. Medical Journal.*

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS, KINGSTON.—The following gentlemen have passed their primary and final examinations in this institution:—Primary—G. H. Bowen, J. Day, T. H. Dumble, F. L. S. Holmes, A, B. Hourigan, R. Henderson, H. A. M. Hubbs, E. M. Higgins, L. F. Miller, E. C. McNichol, D. Phelan, and S. S. Scovill; Final—G. H. Care, R. A. Davies, A. Kennedy, J. B. Murphy, S. Porter, and J. McGourex.

FRENCH MEDICAL DEPUTIES.—The total number of medical men elected as deputies to the present National Assembly on Feb. 20 and March 5 amounts to 44, thus constituting a very large representation of the medical profession in that body.

Drs. Ringer and Murrell, in their experiments on the physiological action of *Gelseminum*, finding that the drug so profoundly depresses the functions of the cord, thought that it would prevent or arrest the tetanic convulsions produced by strychnia. They experimentally determined that such was the case.—*Lancet.*

SIR GEORGE BURROWS, from increasing professional engagements, having declined the honour of re-election, J. Risdon Bennet, M.D., Edinburgh, F.R.C.P., London, F.R.S., has been elected President of the Royal College of Physicians, London.

APPOINTMENTS.—Chamberlin Arthur Irwin, Esq., M.D., of Wolfe Island, to be an Associate Coroner in and for the County of Frontenac. R. C. Butler, Esq., M.D., of the village of Kirkfield, to be an Associate Coroner in and for the County of Victoria.

Births, Marriages, and Deaths.

BIRTHS.

At Delaware, Ont., on the 9th inst., the wife of A. MacLaren, M.B., etc., of a daughter.

DEATHS.

At 57 Adelaide Street, Toronto, on April 4th, Lizzie Isabel, daughter of Uzziel Ugden, M.D., aged 15.

In London on the 21st inst., Ellen Rae Campbell, infant daughter of Dr. A. J. Campbell, aged 9 months and 20 days.

At London, on the 23rd April, of typhoid pneumonia, Annie Edith, youngest daughter of Dr. Oronhyatekha.

VALENTINE'S MEAT JUICE.

This dietetic, first offered to the Medical Profession of the United States in 1871, has, in the meantime, been fully tested by them, and through them it has acquired its present position. We desire to submit brief extracts from the testimonials of some of these well-known medical gentlemen for the consideration of the profession in Canada. Any further evidence of the value of the Meat Juice than is contained in this summary of results from its use will appear unnecessary.

The Meat Juice is a liquid extract, from which all fat, fibre, and other matter, not readily assimilable, have been excluded. It can be prepared (with cold water) in an instant, at the bedside of the sick, in travelling, or whenever concentrated nourishment is urgently demanded.

Our Circular—Book—with extended reports, and the recommendations and directions of the practice of the United States, will be forwarded by us, when requested. To the trade we will send our price-letter when advised. The Meat Juice may be obtained in any of the cities of the United States, and in Montreal and Toronto.

IRA W. BLUNT, Agent, Valentine's Meat Juice.
RICHMOND, Virginia, United States.

TESTIMONIALS.

I prescribe Valentine's Meat Juice daily, and like it better than any preparation of the sort I ever used.
——— J. MARION SIMS, M.D., New York.

I consider the Meat Juice invaluable. It is *par excellence* the Medicine Food of the age.
——— WM. BRODIE, M.D., Detroit, Mich.

Valentine's Meat Juice has, in my hands, served a more valuable purpose than any other similar preparation. ——— S. M. BEMIS, M.D., New Orleans, La.

Valentine's Meat Juice is the best preparation for invalids that I have seen.
MONTROSE A. PALLEN, M.D., St. Louis, Mo.

For convenience of administration, extent of application, and reliability as to nutritive and restorative powers the Meat Juice is invaluable. ——— H. BLACK, Blacksbury, Va.

I have found Valentine's Meat Juice all that is claimed for it.
——— R. W. HILLARY, M.B., Aurora, Canada.

I consider the Meat Juice of inestimable value in many cases of disordered digestion, Chronic Diarrhœa, Cholera Infantum, &c. HUNTER MAGUIRE, M.D.,
——— Prof. Surgery, Va. Med. College.

I give Valentine's Meat Juice the preference over all other preparations which have come under my notice. ——— ADDDINELL HEUSON, M.D., Phila.

Valentine's Meat Juice is probably second only to transfusion, without any of the dangers of the latter expedient. R. L. MADISON, M.D., Surgeon and Prof. Physiology, Va. Mil. Institute.

The Meat Juice is the nutrient *par excellence* for a *tired* stomach, or to fortify the system against any of exhaustion. GEO. L. BEARDSLEY, M.D., Late Surgeon in charge Bellevue Hospital, N.Y.

As a concentrated food, I can hardly speak too highly of the Meat Juice. *We have not found a single case in which it was not beneficial, and in which it did not agree with the stomach.*
A. REEVES JACKSON, M.D., Surgeon-in-chief, Women's Hospital, Chicago.

Valentine's Meat Juice is digestible, extremely nutritious, and contains a large amount of nutrient material, in small bulk. ——— T. GAILLARD THOMAS, M.D., N.Y.

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J. EDGAR CHANCELLOR, M.D., Jordon Alum Springs, Va.

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F. L. TOWN, Surgeon U. S. Army, Post Hospital, Fort Preble, Maine.

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The Meat Juice affords opportunity to administer nutriment to the very large class in our Insane Asylums who refuse food in bulk. It is the "*multum in parvo*" that exactly meets the case.
AND. McFARLAND, M.D., Supt. Oak Lawn Retreat, Jacksonville, Ill.

As an easily digested, concentrated, rapid blood-making, and agreeable nutrient, Valentine's Meat Juice is, in my opinion, superior to any of the various preparations of meat in the market, and I may say that my experience with them during the past fifteen years—in both military and civil practice—has been considerable. OSCAR C. DEWOLF, M.D., Chicago, Ill.

I consider the contents of your little bottle most invaluable in all acute and wasting diseases.
W. M. FITCH, M.D., Charleston, South Carolina.

1876.

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