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THE CANADA LANCET.

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.

VOL. XXIV.] TORONTO, APRIL, 1892. [No. 8.

Original Communications.

ACUTE NECROSIS OF GROWING BONE.*

BY GEO. A. PETERS, M.B., F.R.S.C. ENG., TORONTO.

My reason for bringing this subject before the Association is that it is so frequently overlooked as to justify the remark of Holmes that the presence of this disease is more often discovered in the *post mortem* room than at the bedside—this statement illustrating at once the virulence of the disease and the difficulty attending its diagnosis. Of the many names that have been used to designate this disease, I have chosen that employed by Mr. A. H. Tubby, as uniting simplicity and significance. Other names under which the disease has been described, are: acute infective osteomyelitis, phlegmonous periostitis, necrosial fever, bone-typhus, and, by Ollier of Lyons, juxta-epiphyseal osteo-periostitis—a name sufficiently cumbrous, though certainly comprehensive. The symptoms of the affection are sufficently described by the relation of a very typical case occurring in practice of Dr. W. P. Caven, which I saw in consulation with him, and from which the specimen and the cultures shown were obtained.

The patient, a girl æt. 9, was of healthy parentage, but had grown rather rapidly, and was always thin and delicate. One brother died of spinal caries, and a brother and sister of heart disease following rheumatism. Patient was first seen Feb. 21, '91. She complained of pain in the right knee, which was red and tender, but not swollen. Pulse 100, temp. 102°. The next day she complained of pain in the right thigh, but there was no swelling as was proved by measurement. She also complained of pain in the right elbow and left shoulder. Urine, normal.

Feb. 13, pulse 120, temp. 103°. Pains in various joints. A slight increase in the circumference of the right thigh was observed, and this part was excessively tender, but no fluctuation could be detected.

It now became evident that the child was suffering from acute necrosis of the lower end of the shaft of the femur. The usual objections, however, were offered by the parents to any operative interference, and in the meantime the suppurative process, at first confined, probably, to the lower end of the diaphysis of the femur, was set up in distant parts. Pleuritic and pericardial rubs were heard with great distinctness, and a swelling shortly appeared in the right submaxillary region.

When finally the objections of the parents to operation were overcome, it was found that the patient was in so low a state that the administration of an anæsthetic would be attended with the greatest danger, and, moreover, the evidence of pyæmia, which the presence of the above-mentioned complications afforded, rendered the prognosis absolutely fatal in any case.

She could be induced to take neither nourishment nor stimulant, and gradually sank, dying on the 9th day of the disease.

Only a partial post-mortem examination could be obtained. An incision was made at the site of the proposed operation wound, viz., between the tendon of the biceps and the ilio-tibial band at the outer side of the lower end of the right femur. On incising the periosteum, thick dark pus gushed forth with some force, indicating that it was exerting considerable power in dissecting the periosteum away from the bone. On enlarging the incision it was found that that membrane was separated from the bone throughout its whole circumference below, and that the separation extended to about the middle of the femur. It was strikingly noticeable, however, that the separation stopped short at the epiphysis, and that the knee-joint was quite unaffected. These points are well seen in the specimen. On making a longitudinal section of the bone, the tissue on the shaft side of the epiphyseal cartilage was observed to be in a condition of acute inflammation. The prevailing redness was interrupted at numerous points by yellowish spots of suppuration, and these small abscesses were scattered, not only throughout the cancellous tissue, but also in the medulla of the

*Read before the Ont. Medical Association, June, 1891.

lower three inches of the shaft. Though the epiphysis as a whole appeared to be quite firmly attached to the shaft, it was found upon making a thin longitudinal section through both epiphysis and shaft, that the former was so nearly separated that its remaining attachments were scarcely able to sustain its own weight. It is evident that if life had been prolonged for a few days, complete separation of the epiphysis—epiphysiolysis—would have occurred.

Though an examination of the viscera was not permitted, the clinical signs of pericarditis and pleurisy were unmistakable, and every analogy would lead us to believe these inflammations were purulent in character. In a case of which I saw the *post-mortem* in University College Hospital, London, there was present ulcerative endocarditis, with numerous small abscesses in the spleen and kidneys, illustrating the intense virulence of the causative germ in this disease.

The phenomena of this disease point clearly to the view that it is an acute infective disease of a specific character, occurring exclusively among those in whom growth has not ceased. Ollier of Lyons, however, states (*) that he has seen cases of suppurative osteo-myelitis with separation of the epiphyses of tibia, humerus, etc., in patients between 30 and 40 years of age. He points out that throughout life the position of the epiphyseal cartilage is represented by an ossified line, which keeps its direction accurately, and separates the longitudinal system of lamellæ of the epiphysis from those of the diaphysis. He asserts that the juxta-epiphyseal portion of the shaft is more vascular than the epiphysis itself, and attributes to this circumstance the fact that the ends of the shaft are the favorite seats of osteitis and necrosis.

The subjects of the disease are usually children, most frequently males, who are generally strumous or in feeble health, the result of a recent attack of some specific disease, as scarlet fever, measles, etc. The immediate exciting cause is now known to be the fungus, designated *staphyloccocus pyogenes aureus*. This germ flourishes in many conditions, and is the most common organism found in all forms of acute suppuration. It is met with in boils, acute mammary abscess, thecal abscess, and suppurating wounds, yet we do not look upon any of these conditions as excessively virulent or immediately dangerous to life. What is the reason then that when this coccus lodges in the growing end of a long bone it produces a train of symptoms that are exceedingly alarming, and not infrequently gives rise to processes which destroy life in a few days? The answer to this inquiry is perhaps found in the peculiar anatomical structure of growing bone. During its growth bone is traversed by large numbers of new, and imperfectly developed capillaries. Neumann (*), has also pointed out that the capillaries of medullary tissue are not less than four times as large in calibre as the arterioles which supply them. These giant capillaries moreover communicate freely with the large and thin-walled veins of the part. This arrangement, it will be observed, is admirably suited to the implantation of floating micro-organisms, and the growth and multiplication of these is further fostered by the abundant supply of pabulum carried to them, and by the facility with which their waste products are got rid of through the large venis of the medulla. Moreover, leucocytes laden with the germs as the result of their phagocytic action, are easily swept into the stream and carried to all parts of the body, and if the germs are deposited in favorable soil they multiply and give rise to abscesses, and thus a condition of pyæmia is established.

The exact point of commencement of the disease has been the subject of much dispute. German and French surgeons assert strongly, that the primary focus of the disease is in the medulla, whereas English pathologists are quite as positive that it commences in the periosteum over the bone. Tubby,* following Ollier, of Lyons,† places the initial focus in the juxta-epiphyseal portion of the shaft, and has done much to establish his contention by experiments upon rabbits. It must be borne in mind that the medullary canal does not by any means reach the epiphyseal cartilage, and that the bulk of the growth takes place in that portion of the bone immediately adjacent to the shaft-side of the epiphysis. Moreover, the beneficial results of early incisions down to this point, tend to confirm the view that the disease com-

* International Cyclopœdia of Surgery, Ashurst, Vol. III. p. 769.

* Principles of Surgery, Senn. p. 235.

*Guy's Hospital Reports, Vol XVII, p 92.

†International Encyclop. of Surg., Ashurst, Vol., III p. 766.

mences most frequently in the cancellous tissue on the shaft-side of the epiphypsis, though it is only too well known that it may reach both the medulla and the periosteum in a remarkably short space of time. The progress of the disease, after reaching the medulla proper and the periosteum, is rapid, and within a week, if the patient survive so long, the whole medulla may be full of pus, and the periosteum may be raised by pus throughout the whole length of the bone between the two epiphyseal cartilages. Too often, however, before this extent of local disease is reached, the patient has succumbed to septic poisoning, inflammation of the serous membranes, or other pyæmic manifestations.

(To be continued.)

HÆMATURIA.*

BY WM. BRITTON, M.D., TORONTO.

When baffled in tracing the origin of pathological phenomena, the temptation to hide the imperfections of a much-loved science is at times too powerful for its votaries; a garb meagre and out at elbows is obscured from the public gaze by a coat of tinsel, and medical vocabulary is amplified by the coining of another euphonious word. The ceremony of christening is orthodox enough in its way; but, like Tristram Shandy, unfortunate even *ab initio*, the child may be doomed to pass through the natural period of its existence bearing a name much corrupted in the giving, and therefore sadly misleading; the symptom is accorded a position of too exalted dignity, and in the course of constant usage comes to be looked upon as the disease itself, with the inevitable consequence of haphazard treatment. In such a class of symptoms hæmaturia occupies a leaning position not only on account of its importance, so far as the interests of the patient are concerned, but also owing to the multitude of subjects opened up by an investigation of the matter. Indeed, a full and intelligent discussion of its many ramifications would fill a volume; and had I the requisite ability it would be quite impossible in the length of an ordinary paper, to do more than touch upon each. Endeavoring to do so as briefly as possible, less attention will be given to the theoretical than to those features which appear to be of most practical utility. Therefore, as a sign of diseased conditions, which it is, and nothing more, its relations of cause and effect, together with a passing reference to some remedial agents, will be the limit.

At the outset the line of distinction may wisely be drawn between it and hæmatinuria, which, in many features, it so closely simulates, and with which, as to origin, it is occasionally identical.

The difference between the two conditions is broadly stated in the fact that the red corpuscles are apparent in the former, while in the latter the coloring matter is present, those bodies having been broken down and only a detritus remaining.

It is obvious that escape of blood into any part of the urinary passages may be produced by—1st—Depraved conditions of the blood-current, the structures themselves being intact. 2nd.—Congestion, active or passive, of any portion of that tract, such as may occur in the early stage of Bright's disease. 3rd—Solution of continuity either from external injury or internal concretions and parasites; and 4th—by the unhealthy vascular condition of, or irritation arising from, neoplasms.

Other exciting causes being equal, the more marked the dyscrasia, the more likely the corpuscles are to undergo disintegration either before or during extravasation; therefore, if by any influence the vital force is lowered, a true hæmaturia may be transformed into hæmatinuria.

For example, a blow on the back, which ordinarily would excite renal hæmorrhage, might, if the system is saturated with malaria, be followed by hæmatinuria.

Red corpuscles break down more rapidly than the white, especially in alkaline urine; consequently hæmorrhage is not always discoverable microscopically, if the secreting function of the bladder is sufficiently abnormal to favor alkalinity, particularly so if the blood has escaped slowly and been retained for any length of time in that viscus. Chronic poisoning by arsenic, phosphorus and iodine, and the depraved habits of body engendered by scurvy, pyæmia, septicæmia, yellow fever and notably malaria in its malignant form, may be mentioned as the most frequent causes of hæmatinuria. This as a complication of intermittent fever is rare, excepting in tropical climates, although I can recall two cases of this character

* Read before the Ont. Medical Association, June, 1891.

in my own practice, one of which was contracted in Canada, and the other an importation from Florida; and in both of which the hæmorrhage was controlled only by the most heroic administration of antiperiodics. It is said that the ordinary astringents without the aid of quinine or its succedanea, are quite useless. The extreme jaundice found in such instances does not appear to be the product of a defective liver, but rather one of the results of rapid cell disintegration,

As there is almost invariably more or less renal congestion present when hæmatinuria occurs, no matter what other causes may be contributory, it is common to find tube casts in the urine.

In both hæmaturia and hæmatinuria the urine will respond to the ordinary spectroscropic and chemical tests, and to the naked eye there may be no appreciable difference; only it may be said that in cases of hæmatinuria the urine is ordinarily more orless darkened, never a bright red, as often occurs in true hæmorrhage, the depth of the smoky shade varying according to the intensity of the disease; and, therefore, the only reliable distinction, apart from the symptoms and history, must be elicited by means of the microscope. It is ordinarily quite easy, by the gross appearances alone, to detect the presence of blood in the urine, in which it may appear either normal in color or having any of the aforementioned shadings; the former, if rapidly poured out, especially when of vesical origin, in which case it is apt also to be in part coagulated. Alkalinity preserves the brightness of the blood, while a prolonged retention in acid urine produces the darkened tints.

It should be borne in mind that the ingestion of various substances will discolor the urine sufficiently to deceive the eye—for example, senna, rhubarb and beetroot, will turn it red, and carbolic and salicylic acid will give it a brownish tinge.

For this reason, also because diagnosis is often urgent, even when the quantity of blood is very small, other tests than the gross appearances are required, amongst which are the following:

1st. Albumen is always present and responds to the usual reagents, but it must be remembered that true albuminuria is often a marked characteristic of the disease which causes the hæmorrhage, for example in Bright's disease; and, therefore, the proportion of albumen is not always a criterion of the actual extent of hæmaturia.

2nd. Teichmann's test—glacial acetic acid and sodium chloride evolving brownish rhombic crystals of hæmin.

3rd. With the spectroscope two dark absorbent bands are seen, one between the yellow and green and one in the green.

4th, and most important, the microscopic appearances, which include not only the corpuscles but also other organic, granular or crystalline substances, varying in character according to the diseased state and the location of the hæmorrhage, for example, in a case of renal calculus of uric acid the characteristic crystals will probably be found, together with red corpuscles, cylindrical epithelium, and perhaps granular or coagulated tube casts. On the other hand, hæmorrhagic cystitis will give, not only corpuscles, but also squamous cells, and, in many instances, phosphatic crystals.

Seeing that each part of the urinary apparatus is prone to its own peculiar forms of disease, the presence of blood being once assured, the first step towards providing a remedy is location of the lesion, and reference to the plan of procedure may be prefaced by enumeration of the diseased conditions in the order of their occurrence. I have come across a table compiled by Reginald Harrison, in which he arranges them numerically in the following order: Renal calculus, hypertrophied prostate, stone in the bladder, cystic and prostatic tumors, mostly malignant, tuberculosis, urethral stricture, cystitis, passage of oxalate or uric acid crystals from the kidney, traumatism and the irritation produced by the presence of Filaria Sanguinis. To this list might be added the parasites Bilharzia Hæmatobia and Strongylus Gigas, the latter of which is much less common in man than in some of the lower animals.

As has been said, each portion of the urinary tract, from the malpighian corpuscles down to the meatus urinarius, having its own individual histology and functions, is subject to own peculiar diseases, and therefore, as hæmaturia may accompany almost any urinary ailment, the first and most important step from this starting point towards

(To be continued.)

Dr. Peifer, son-in-law of Prof. Koch is said to have discovered the bacillus of influenza.

Correspondence.

To the Editor of the CANADA LANCET.

TORONTO, March 8th, 1892.

Dear Mr. Editor,—Some weeks ago a rumor reached me that members of the profession connected with the Toronto General Hospital were very much agitated concerning a statement accredited to me. This alleged statement was to the effect that the Local Board of Health and myself in establishing a hospital, intended not only treating persons suffering from diseases of an infectious character, but also that we purposed receiving those suffering from non-infectious disorders. Now in view of the fact that the name "isolation hospital" clearly indicated that the institution would be used only for cases of infectious disease, I did not consider it necessary to contradict this rumor.

But as I am again informed that the impression conveyed by this rumor regarding the isolation hospital still exists among many of the profession, and, further, that had they not been given so to believe, they would never have appeared before the Board of Health in the matter, I consider it but right to state publicly that this statement is absolutely untrue and without foundation.

NORMAN ALLEN,
Medical Health Officer.

Selected Articles.

THE MEDICAL TREATMENT OF CYSTITIS.

The medical treatment of cystitis does not furnish a very satisfactory chapter in therapeutics. It includes such treatment as the physician is called upon to use supposing the exciting cause, such as a stone or obstruction in the urethra, to have been removed, whenever possible. I say whenever possible, because the enlarged prostate which is responsible for so many cases of cystitis is, in the vast majority of cases, not removable even in these days of brilliant surgical results. It must also include the treatment of a certain number of cases in which no removable cause is ascertainable, as well as cases where, as with a long previous gonorrhœa, the cause has long since been removed, but has left a deep-rooted tendency scarcely eradicable.

It should be stated, too, at the outset, that the vast majority of cases of so-called cystitis are inflammations of the neck of the bladder and of that part of the urethra passing through the prostate.

Acute cystitis is far less commonly met by the physician than the chronic form, while its treatment is far simpler, and I may add, more satisfactory, at least so far as the removal of the acute symptoms is concerned. Rest in bed is a primary and essential condition. Leeches to the perineum should be applied more frequently than they are. A poultice to the same region and over the abdominal region is always useful, while a brisk saline cathartic should never be omitted.

As the feverish state which always accompanies cystitis is more or less constantly associated with a scanty urine, concentrated and irritating to the inflamed mucous membrane, it is desirable at once to increase the secretion, and thus dilute it. Copious libations of pure water, to which the citrate or acetate of potassium is added, in 15 to 20 grain doses for an adult, should be allowed. The ordinary spirits of nitrous ether in 2 drachm doses every two hours is an admirable adjuvant, and may be combined with the officinal liquor potasii citratis, which contains about 20 grs. of citrate of potassium to the half ounce. Formerly the mucilage of flaxseed or flax-seed tea was much used as a diluent menstruum for the diuretic alkalies indicated, but I am doubtful whether it is any more efficient than a like quantity of water.

Where there is much pain and straining, as is often the case, especially where cantharides is the cause of the inflammation, opium is indispensable, always in the shape of a suppository, half a grain to a grain of the extract being thus administered, or a proportionate amount of morphine. Iced water injections into the rectum, or pieces of ice similarly applied, are very efficient in allaying the pain and irritation where additional measures are needed.

The successful treatment of *chronic cystitis* is a much more difficult task, for three evident reasons. (1) The constant presence in the bladder of the urine with its irritating qualities, especially to an inflamed mucous membrane. (2) The difficulty in getting remedies to reach the inflamed surface. (3) The pent-up inflammatory products, which in their decomposition often make the urine still more irritating by exciting in it ammoniacal changes. There is no doubt that, if the urine could be kept from entering the bladder during the existence of an inflammation, the latter would rapidly heal; that cure would be facilitated by obtaining ready escape for the pus and mucus formed in the inflammatory process; while happier results might also be reasonably expected if we could secure readier access for remedies to the inflamed areas. None of these indications can be met entirely, hence the difficulty in attaining a cure. They remain, how-

ever, the conditions to be fulfilled, and while none can be thoroughly secured, they may be approximated to in various degrees. To do this should be the object of treatment.

First, the irritating qualities of the urine may be diminished by the use of diluents, as already recommended in the treatment of acute cystitis. Almost any of the negative mineral waters, so highly recommended by their owners, are useful for this purpose, just as good as pure spring water, or even Schuylkill (river) water, and better is distilled water. From one to two quarts should be taken daily. If the kidneys are equal to their office, a large quantity of light-hued urine, of low specific gravity and relatively weak in solids, will be secreted.

When it is proposed to go further and add to the efficiency of diluents, mistakes are often made. While one can scarcely go astray in adding alkalies to the fluid ingested in acute cystitis, it is very different with the chronic form. In this the urine is often alkaline, or ready to become so on the slightest addition of alkali to the blood. Such alkalinity of urine in turn favors decomposition, the effect of which is to convert the pus, if present, into a tenacious glairy fluid which the bladder cannot evacuate. Notwithstanding this tendency, I have known liquor potassæ and other alkalies to be administered under precisely these conditions —adding fuel to the flame. The indication under the circumstances is to render the urine acid, if possible, although this is very difficult to accomplish. Benzoic acid has the reputation of doing this, and it probably is true of it when administered in very large doses. It may be given in the shape of a 5-grain compressed pill, of which at least six must be given in a day to produce any effect. The same property has been assigned to citric acid, but this is a mistake, as all of the vegetable acids, when ingested, are eliminated as alkaline carbonates.

The second indication is to medicate the inflamed surface. Two ways, of course, suggest themselves: (*a*) by the internal administration of drugs; (*b*) by the injection of medicated liquids into the bladder.

To carry out the first method, an enormous number of infusions, decoctions, and fluid extracts of vegetable substances have been suggested, the vast majority of which are absolutely useless except as they serve by their quantity to act as diluents. Among the best known of these are buchu-pareira brava, uva ursi and triticum repens. I have never known any beneficial results from any of them, and have long ago ceased to prescribe them.

The only class of remedies I have found of service in cystitis through their internal administration are the balsams. Of these the balsam of copaiba is practically unavailable, because not one stomach in a hundred will submit to its ingestion in sufficient doses or for long enough time to permit it to be of any use. On the other hand, I have found sandal-wood oil very useful, and it is about the only remedy of which I can say this for its direct effect upon the mucous membrane of the bladder. It is also comparatively well borne by the stomach, and is best administered in capsules containing ten minims. I believe it has heretofore been the usual custom to give these and like remedies after meals, but I have recently adopted the method of giving them on an empty stomach before meals. I believe they are as well, and even better, borne than when given after food, and they pass into the blood much more quickly. It is desirable to impregnate the blood and impart to the urine a balsam odor. This is scarcely possible with less than eight capsules a day—two before each meal and two at bedtime. I think I may say that I have found the so-called Santal Midy capsules, which are, I believe, nothing but a very pure sandal-wood oil, better borne than the other specimens of the oil. I have given as many as twelve of these a day for considerable periods of time without deranging the stomach.

Both boric acid and benzoic acid are useful adjuvants to the treatment of chronic cystitis through their antiseptic effect on the urine, each in 5-grain doses rapidly increased to 10. I have used resorcin in 5 to 10-grain doses, and naphthalin in 2-grain doses for the same purpose.

The application of remedies to the bladder by injections can be conveniently considered in connection with the third indication—the getting rid of the products of inflammation, the pus and mucus, and the compounds resulting from their decomposition. The latter are, of course, not always present, but all who have had much experience with cystitis are familiar with the tenacious, glairy, mucoid matter, which will not drop or rise up in a pipette, glistening with large crystals of triple phosphate, and exhaling a stinking ammoniacal odor which quickly contaminates an entire apartment. There is only one way to get rid of this, and that is to wash out the bladder, and too often this is too long deferred. Tepid water should be first used, and the injection made through the soft catheter now so invariably adopted. Sir Henry Thompson is very emphatic in his directions that no more than two ounces should be thrown in at a time, and that this should be allowed to run out, a like quantity again injected and allowed to run out, and this repeated until the water comes out as clear as it enters. In a very large experience in washing out bladders I have never met an instance in which the amount named by Sir Henry may not be doubled with advantage, so that I begin with four ounces. When this quantity is used a much shorter time is necessary to cleanse the bladder thoroughly; and after the capacity of the bladder has been determined I often throw in more, be-

cause it is sometimes useful to distend the viscus a little, for in this manner the depressions and inequalities between the muscular trabeculæ, always present in advanced bladder inflammations, are thoroughly reached. These simple injections, practised once a day, or in severe cases twice a day, often result most happily. I have seen the pus reduced from large bulk to a mere trace, and micturition reduced from five or six times to once a night. Commonly, after a few injections with plain water, I add some medication. My favorite is the salicylate of sodium in the proportion of a drachm to the pint. Its disinfecting qualities are undoubted, and I have some reason to believe that the soothing effect claimed for it is not without foundation. I have used a good deal of Sir Henry Thompson's soothing solution—of biborate of sodium an ounce, glycerin two ounces, water two ounces, and of this mixture half an ounce to four ounces of tepid water —with about the same result. Boric acid, in the proportion of a drachm to the pint, is also very satisfactory.

Alum is an astringent which has been too much overlooked of late in supporting processes in mucous membranes, and may be substituted for the salicylate with advantage where the pus does not diminish as rapidly as is desired. It should be more cautiously used than the salicylate of sodium. Sufficient of the powdered alum should be first added to a pint to give it a distinctly astringent taste, when the bladder should be washed out as described, while a small quantity may be allowed to remain after the last injection.

Where there is a foul odor present I use the bichloride of mercury in solution, but exceedingly dilute. It is almost incredible how small a proportion of this salt is irritating to the bladder, and having learned by experience, I never begin with a solution stronger than 125,000, but gradually increase the strength if it is well borne. Carbolic acid may be substituted for the bichloride of mercury, but it has not been so satisfactory in my hands.

Other drugs are recommended to be similarly used, but I have had little or no experience with them. One from which much may, with reason, be expected is the peroxide of hydrogen, one part to five of water. In the single instance in which I have used this, the patient, who had previously been using the bichloride solution, returned of his own accord to the latter, because he thought it more satisfactory. Among other remedies recommended to be used in the same way are acetate of lead, 1 gr. to 4 ounces; dilute nitric acid, 1 or 2 minims to the ounce; and nitrate of silver, 1 gr. to 4 ounces; but I have had no experience with them.

Anodynes are indispensable in many cases of cystitis, to relieve the patient of extreme pain and the frequent desire to pass water, which are the result of the same cause. Opium and its alkaloids are the most efficient, and they are best introduced by the rectum. There appears to be no absorbing power in the bladder for opium at least, and there is no use in attempting to use any anodynes by that channel.

Cocaine, from which so much might reasonably be expected, has failed of its purpose in my hands. I have injected as much as two ounces of a 2 per cent. solution into the bladder without effect, except to produce some of the symptoms of cocaine poisoning. Most disappointing, too, has been the use of cocaine to remove the exquisite tenderness of the urethra which sometimes attends this condition, and is a serious drawback to the use of the catheter.

Where there is greatly enlarged prostate, catheterization is indispensable, and is attended often with the most happy results. It is often too long deferred because of the natural repugnance to the use of the instrument. Of course the patient or his friends should be taught to use the catheter and to wash out the bladder. In these days of refined antisepticism it is scarcely necessary to say that the extremest precautions should be taken to cleanse the catheter after its use in order to avoid sepsis. There is nothing better for this purpose than the bichloride solution of 1 : 1,000, in which the catheter should be allowed to lie for a short time after being cleansed with boiling hot water.

How much can be accomplished by such treatment as the above-described? That an absolute and total cure is ever obtained in chronic cystitis is exceedingly doubtful. Hence the statement at the beginning of my paper, that the medical treatment of cystitis does not furnish a very satisfactory chapter in therapeutics. On the other hand, that a life of suffering may be converted into one of comparative comfort is certainly true, and I have many times seen it. Nay more—I have more than once seen a life prolonged half a dozen years in much comfort by careful attention to the bladder of the kind described.

It occasionally happens, of course, that all treatment of this kind fails, and yet the patient lives to be tortured by the discomfort of the situation. Three times I have had perineal section done by the surgeons for the relief of such cases, in each case with some relief, although with less than was hoped for.—James Tyson, M.D., Philadelphia, in *London Practitioner*.

A doctor in Bootle, England, has the following printed on his prescription blanks: Gratefulness of the patient is part of his disease, is most prominent when the fever is highest, lessens during convalescence, and disappears as health is re-established. Hence, prescriptions only for cash.—*Memphis Medical Monthly*.

PERITONITIS.

While peritonitis, as a disease, was well-known to physicians of all ages, a full knowledge of its pathology and an intelligent method of treatment are clearly the work of modern investigators. Its ætiology particularly was very little understood until the phenomenal advances in abdominal surgery cleared the darkness and threw light into the mysteries hidden in the abdominal cavity. Hand in hand with the surgeon worked the pathologist, and their combined efforts brought about a revolution of our views of the disease and its treatment. In no branch of medicine has such wonderful progress been made as in that pertaining to the peritoneum and the organs it invests. It is true this progress has benefited surgery much more than medicine; so it appears that peritonitis, at least many of its forms, is rapidly becoming a surgical disease. The diagnosis of peritonitis does not satisfy the progressive mind of the modern physician; he has learned the importance of striving to arrive at its cause and seat which, though *contained* in that large cavity invested by peritoneal membrane, may *belong to* any of the many organs located there. Peritonitis is, therefore, a general name for many diseases, differing not only in their symptoms, pathology, and ætiology, but frequently also in their treatment. They are only alike inasmuch as they are all accompanied by inflammation of the *lining* membrane of the diseased organs, the investing peritoneum.

To enter into detailed description of all these forms of peritonitis would be a task impossible to me without transgressing the limits of my time. I, therefore, decided to confine my remarks to two large groups of this disease which are by far the most frequent and important, the one affecting with particular predilection the male sex, especially the younger portion of it; the other is, exclusively, a female disease. I refer to peri-typhlitis or, more correctly, appendicitis and pelvic peritonitis.

Formerly most inflammatory conditions in the right iliac fossa were regarded as a typhlitis or peri-typhlitis, the former being a catarrhal inflammation of the mucous membrane of the cæcum, the latter an extension of this inflammation to its surrounding peritoneal covering and especially of the retro-peritoneal connective tissue of the cæcum, which was frequently accompanied by abscess formation in this retro-peritoneal tissue, caused generally by perforation of the cæcum through its posterior wall. These collections of pus were, therefore, thought to be outside of the peritoneal cavity. Disease of the appendix was much less connected with inflammation in the right iliac fossa. Within the last few years our views have experienced a decided change, principally influenced through the experience gained by the numerous abdominal sections made for this disease. Inflammation of the cæcum or peri-typhlitis is now regarded as very rare, at least on the primary lesion, while appendicitis is extremely common. McBurney says that, in a hundred cases of inflammation in the ilio-cæcal region, ninety-nine are cases of appendicitis.

An appendicitis may be a simple catarrhal inflammation of the mucous membrane of the appendix vermiformis, causing few or no symptoms, excepting, perhaps, some slight tenderness over the region, which may be easily overlooked, accompanied by more or less disturbance of the digestive organs and often some febrile symptoms. The appendix in such cases generally contains small fæcal concretions, which act as irritants to the mucous surface and are accused of bringing on the inflammatory trouble, though in eight cases operated by Lewis A. Stimson, in only one were there concretions of sufficient size to be justly blamed for the existing condition. Foreign bodies, such as cherry pits, grape seeds, etc, are much more rarely the cause than was usually supposed, and, according to Jacobi, it is probable that "few, if any, foreign bodies enter the process unless the latter has previously lost its elasticity and contractility by an inflammatory change." This catarrhal inflammation may be followed by a complete resolution and permanent cure, but in many cases frequent relapses occur. The appendix may not be able to rid itself of these irritating fæcal concretions, or the previous inflammation may have left a stricture at its cæcal orifice, followed by retention of its own secretion which may give rise to renewed attacks of inflammation, especially if excited by some traumatic influence. This may not confine itself to the mucous membrane, but extend to the submucous tissues and serous coat. Lymph is thrown out over its neighboring structure and adhesions are formed, encapsulating the original seat of disease, the appendix, and surrounding it by a barrier intended by nature to protect the general peritoneal cavity, should ulceration and perforation result in the appendix. An abscess now forming would, contrary to olden teaching, be intra-peritoneal, though not communicating with the general peritoneal cavity; loops of intestines, glued together, may form the abcess wall, and prevent general septic peritonitis and death. The mass often felt in the right iliac fossa is nothing else than this exudation surrounding the diseased appendix, which may have become organized into a distinct abscess wall. When inflammation and perforation come on suddenly and before nature has time to protect the general peritoneal cavity by such a provisional lymph-barrier, a violent septic peritonitis is the result, with death in two or three days. The autopsy of such a case I witnessed three or four months ago. The

subject was a young, vigorous man, who was taken severely sick with peritonitis and died at the end of the third day. The whole abdominal cavity was in the condition of septic inflammation; the appendix was perforated and sloughing, containing a cherry pit, and the cæcum almost gangrenous and also perforated. In such cases there generally have been previous attacks of appendicitis, though in this instance no history of such could be obtained.

If an abscess has formed, the pus may find its way under the abdominal walls or into the retro-peritoneal tissues, or it may rupture into the general peritoneal cavity, or into an intestine. Within three months I have seen two cases with rupture into the bowel. In one, a boy of 16 years, the only thing he complained of when he consulted me was inability to walk on account of stiffness and contraction of the flexor muscles of the thigh. An examination revealed a deeply-seated mass in the right iliac fossa, tender on pressure. As this mass, in spite of rest and appropriate treatment, increased in size, it was decided to operate. On the morning of the day set for the operation he had a number of stools containing evidences of pus, and the mass had almost disappeared. The other case had two attacks of appendicitis within three months, during the second of which the abscess ruptured into the bowel. In both this accident was followed by rapid recovery.

The disease may produce no symptoms outside of those of an ordinary indigestion, so long as it is confined to the mucous surface of the appendix. Severe symptoms point to a more violent inflammation not confined to the appendix alone. Such cases may be ushered in by vomiting, and sometimes purging, accompanied with severe pains, particularly in the ilio-cæcal region; the pulse is accelerated, temperature often high, face anxious. On pressure, we find tenderness over the seat of the disease; the abdominal muscles over the region are tense and rigid. Tympanites may supervene. These symptoms may continue three or four days and then gradually subside. In many cases a tumor can be felt in the region of the appendix. If these symptoms continue unabated beyond the third or fourth day, especially if tympanites increase, the pains remain severe, the pulse becomes accelerated, the temperature rises to 102° or 103° perforation and formation of abscess may be looked for. Cases beginning with violent symptoms, intense pain, severe vomiting, marked tympanites, great tenderness in the ilio-cæcal region, which rapidly spreads over the whole abdomen, rapid pulse, are of the gravest nature and denote perforation into the general peritoneal cavity. A pulse of over 120, with rapid breathing, slight cyanosis, are extremely bad prognostic symptoms, as they are the expression of toxic effect on the action of the heart.

Frequently appendicitis does not have a typical course, and its diagnosis may be very difficult. The pain may be referred to other parts of the abdomen, the cæcum being such a movable organ that displacement and change of position are not infrequent. Then, again, it may be disguised by other symptoms or complications, such as strangulation or obstruction of the bowels. Ransohoff reports twelve cases in which appendicitis ran its course without any other symptoms than those of internal sirangulation of the bowel. Hartly also reports two cases in which an operation was performed for internal strangulation, which proved to be intestinal obstruction, from adhesions to the wall of an abscess formed by a gangrenous appendix. It would therefore be well in all obscure acute cases of abdominal troubles to keep in mind how frequently appendicitis bears a causative relaction to many of these acute affections of the peritoneum. In obscure cases "McBurney's point" may be of some diagnostic value. In McBurney's experience in every case "the seat of greatest pain, determined by the *pressure of one finger*, has been exactely between an inch and a half and two inches from the anterior superior spinous process of the ilium on a straight line drawn from the process to the umbilicus. This point indicates the base of the appendix where it arises from the cæcum, but does not demonstrate that its chief point of disease is there."

The large majority of cases of appendicits recover. Statistics in regard to the mortality of the disease differ greatly, however. It is a remarkable fact that German statistics show a much more favorable prognosis than those of America. Dr. Fred Lange, of New York, thinks that either appendicitis in America is more fatal than in Germany, or else the very severe cases in that country do not go to the hospitals, from which such statistics are derived. He says "Americans eat much, particularly concentrated food, masticate very little, and suffer from constipation," and are, therefore, particularily liable to this disease. Renvers treated at the university clinic in Berlin, within four years, fifty-four cases of which three died. It is also stated that out of 2,000 cases of inflammatory conditions in the right iliac fossa in the German army, 96 per cent. recovered without operation. Nothangel treated at his clinic in Vienna from 1882 to 1890, 65 cases, 55 men and 10 women, two-thirds of them between the ages of 11 and 30 years, with a mortality of three. Matterstock, however, gives out of 177 cases 30 per cent. mortality; of 70 children under 15 years, 70 per cent. Fitz, in the *Transactions of the Association of American Physicians*, states that he observed 72 cases, of which 74 per cent. recovered and 26 per cent. died.

Simple cases of catarrhal appendicitis usually make a speedy recovery under treatment by absolute

rest in bed, restricted diet, laxatives, particularly calomel or the salines, morphine hypodermatically, if absolutely required for pain, hot fomentations, and possibly leeches. It is the severe forms that give the physician greatest anxiety and tax his skill to the utmost. The greatest difficulty is to decide when to interfere surgically. Unfortunately the symptoms are only too often unreliable guides; often when the symptoms indicate the necessity for operation the patient has already passed beyond the hope of relief.

Lewis A. Stimson says: "We have no means of distinguishing those cases which will go on to the formation of an abscess without accident from those in which evolution will be gravely interrupted." He therefore recommends early laparotomy (within the first three days), as it enables us to avert the process by the removal of the cause, and regards it as less dangerous than the expectant treatment.

McBurney states: "The pathological condition of the appendix as compared with the symptoms, in my own cases, most positively shows that one cannot with accuracy determine from the symptoms the extent and severity of the disease."

Mynter says: We are utterly enable to judge correctly from the symptoms alone the extent and severity of the appendix lesions, and for this reason alone abdominal section must be the safest method of treatment."

I believe that the advice of Thos. S. R. Morton, who in connection with his father Thos. G. Morton, has devoted considerable attention to this disease, and whose experience in the surgical treatment of this disease has been quite extensive, is not only good, but sufficiently conservative to meet the approval of the non-operative physician. It is, "to operate not later than the third day of the disease, if the patient up to that time has failed to markedly improve under rest, restricted diet, purgation, and topical applications. Especially should this rule be adhered to in cases where we have failed to move the bowels—they are apt to be of the fatal cases. Further than this, we should invariably operate as soon as the presence of pus is assured; when peritonitis is developing and spreading; when signs of sudden rupture of an abcess into the peritoneal cavity appear; and when septicæmia from septic absorption is taking place. In children operation must often be done earlier than in adults, as in them the the malady is more speedy in development, more fatal in tendency, and shows greater proclivity to involve the general peritoneal cavity." (Thos. S. R. Morton, Philadelphia County Society, September 28th, '91.)

Pelvic peritonitis is the most common form of peritoneal inflammation in the female. It is most frequently localized with a tendency to remain so, and follows an essentially chronic course, with occasional acute exacerbations. More so even than appendicitis is it characterized by frequent relapses. One-third of all gynæcological cases are victims of this disease. Bande found residue of circumscribed peritonitis in more than half of all female cadavers, Winkel in more than 33 per cent., A. Martin in 122 out 287 cases of tubal disease.

The cause of pelvic peritonitis or perimetritis, as it is also called, in a large majority of cases, is diseased tubes. This is a fact that has only been learned quite recently. Most inflammatory conditions in the pelvis were thought to originate in the cellular tissue, and from there sometimes to invade the peritoneum; cellulitis was, therefore, the primary and most important disease. Not later than six years ago, Emmet, in the last edition of his work on Diseases of Women, says: "I shall employ the term 'cellulitis' in expressing the most common condition of pelvic inflammation in connection with non-puerperal diseases of women. Pelvic peritonitis will not be treated of as a distinct lesion, but as an accident, rendering the case of cellulitis more grave in character from this complication." The first description of the true pathology of pelvic inflammation was given us by Bernutz and Goupil over thirty years ago, who, by a careful examination of ninety-nine cases, both during life and in the post-mortem room, pointed out very clearly that it was not the cellular tissue which was involved in this inflammation, but the peritoneum, and that the cause of it originated in the fallopian tubes. Their teaching, however, was entirely ignored until operative surgery has opened up the peritoneal cavity to detail explorations and found the conditions exactly as described by these investigators. The masses and indurations generally found in the pelvis by bi-manual examinations and spoken of as exudations in the pelvic cellular tissue can be removed by the surgeon from the peritoneal cavity; they do not involve the cellular tissue to any extent, but consist of ovaries and tubes folded upon themselves, matted together by exudation and adherent to the posterior surface of the broad ligament of the uterus. Frequently we find also intestines, and omentum of an appendix as part of the tumor. Polk, in 1886, in a paper on the "Study of Sixteen Cases of so-called Pelvic Inflammation Known as 'Pelvic Cellulitis,'" states that abdominal section was made in all these cases and the lesions found were salpingitis, peri-ovaritis, and pelvic peritonitis. In two of ten cases there was slight œdematous swelling of the cellular tissue in the broad ligaments, just beneath the spot at which an inflammed tube had rested; in the remainder, the most careful examination failed to detect the slightest induration or swelling in any part of the cellular tissue that lay about the uterus or between the layers of the broad ligaments."

Dr. N. C. Coe (Exaggerated Importance of

Minor Pelvic Inflammations) says: "Of half a dozen fatal cases of hystero-trachelorrhaphy and incision of the cervix in which I enjoyed the rare opportunity of studying carefully the sequence, in every instance the cause of death was acute diffuse peritonitis." In regard to the more chronic cases to which circumscribed areas of inflammatory exudations were found, he states that "peritonitis is certainly the most prominent element in most of these cases, so far as the post-mortem appearances afford any light;" and again: "By far the greatest number of these indurations are situated high up in the broad ligaments and consist of cicatricial masses, mostly confined to the peritoneum of tubes and ovaries surrounded by old adhesions or occasionally an imprisoned knuckle of intestine. I confess that I have rarely (perhaps half a dozen times) found such thickening in the cadaver which could be referred to a pure and straightforward cellulitis, and this, too, when I have recognized by the vaginal touch (before and after death) what seemed to be an induration, a distinct band extending outward from a deep laceration of the cervix, or a condition of tension in or above one lateral *cul de sac*, which did not exist on the opposite side."

Joseph Price, who has been in the abdominal cavity oftener than any other American surgeon, says: "The operative gynæcologist does not find any pelvic cellulitis." Lawson Tait is equally emphatic on this subject.

Having established that cellulitis is a rare disease, at least outside of the puerperium, and that what we used to regard as such is in reality in the large majority of cases a pelvic peritonitis from the outset, we will now briefly inquire into the ætiology of the latter. A diseased tube is usually the focus from which the peritoneal infection starts. Disease of the appendages may have preceded the attack of peritonitis for weeks or months, when a leaky tube may precipitate a peritonitis; that is, the secretion pent up in the tube may discharge through the abdominal orifice of the tube into the peritoneal cavity as the result of hyperdistension, trauma, violent exertion, etc. Or the tubal disease may arise acutely, and extend at once to the peritoneum, the most common causes in producing inflammation of the uterine adnexa, being puerperal infection, gonorrhœa, extension of an endometritis to the tubal mucous membrane, a catching cold, especially during mensturation, etc. Unskillful intra-uterine treatment, minor operations about the cervix, such as Emmet's operation, dilatation, etc., especially if not done with the strictest antiseptic precautions, are frequently followed by salpingitis, and, subsequently by peritonitis; the introduction of an unclean sound, especially if it produce a lesion to the mucous or muscular surface of the uterus, frequently results in pelvic inflammation. The symptoms of pelvic peritonitis vary considerably in intensity; while often so mild as to escape our attention, its onset may, especially if due to a leaky pus-tube, be so sudden, severe, and violent as to resemble a peritonitis following perforation. The disease is usually ushered in by a chill, fever, more or less severe pains in the lower part of the abdomen, back, and and thighs, irritability of the bladder, sometimes rectal tenesmus. The hypogastric region is tender on pressure and vaginal examination very painful. Within forty-eight hours a swelling may be noticed on bimanual examination, which in a few days may reach to the umbilicus. It is, at first, soft, baggy, almost fluctuating, but gradually becomes firmer until it often appears as hard as a board.

Under rest, opiates to relieve suffering, hot fomentations and after the febrile symptoms have subsided, the iodides internally and tonics, and the local application of iodine over the abdomen and to the vaginal vault, hot douches, glycerin tampons, iodoform, ichthyol, etc., the exudation gradually decreases until after a few weeks or months it has become imperceptible. The patient's appetite has improved, her pains have lessened or disappeared entirely, she is gaining flesh, and regards herself as cured. The inflammation, however, does not always run such a smooth course. Instead of ending in resolution it may go on to suppuration. Abscesses form and may discharge through vagina, rectum, bladder, abdominal walls, or intestines. They may then heal spontaneously, very rapidly, or they may continue to discharge indefinitely, until the patient dies from exhaustion or sepsis, unless surgical measures are adopted. Even if the disease ends in resolution, this does not always mean cure; on the contrary, it is often followed by a life of misery and suffering. When the patient returns to her ordinary duties she finds that she is unable to fulfil them. She has aching in her back, abdominal pains, increased on slight exertion, disturbance of her gastric functions, and other reflex symptoms. Her menses are more profuse than formerly, and more painful, marital relations are accompanied with suffering, or may become utterly unbearable; in that she presents the picture only too familiar to every physician practising in gynæcology. Examination reveals extreme tenderness over one or both uterine adnexa; perhaps some thickening in the region of tube and ovary; or you may find large masses in the region of tube and ovary and filling up Douglas' pouch. In other words, while all active peritoneal inflammation may have subsided, the focus of the disease, the diseased appendages, have remained, and wait only a favorable opportunity to light up another acute pelvic peritonitis. I have seen three and four such attacks within one year. Such cases will probably go on from bad to worse until these diseased appendages are

removed. For the sake of convenience the results of pelvic inflammation may be tabulated in five groups :

1. Complete resolution and recovery. Such cases are restored to perfect health and are able to bear children.

2. Adhesions about ovaries and tubes which, however, do not affect the general health of the patient, but are frequently associated with sterility.

3. Recovery, with a catarrhal salpingitis and possibly oöphoritis, which, under proper but often prolonged treatment, improve and often get perfectly well.

4. Includes cases of old and obstinate forms of salpingitis, hydrosalpinx, and oöphoritis, who pass from one physician to another, or from one quack to another, and are doomed to permanent invalidism unless relieved by the removal of the diseased organs.

5. The last are principally the victims of grave puerperal infection or gonorrhœa, suffering from pyosalpinx and ovarian abscess, which are certainly threatening their lives, and are only curable by laparotomy.

In concluding this rather lengthy paper I make no claims to originality or thoroughness in treating this important subject. I am well aware that it is merely a fragmentary exposition of the subject presented. Many points that seemed of particular importance to me have been dwelt upon rather in detail, while others, undoubtedly appearing equally or more important to some of you, I have only touched upon. Any omissions in this paper will, without doubt, be supplied in the discussion, which, I hope, will be full and exhaustive.—O. Werder, M.D., in *Am. Lancet.*

NOTE OF A CASE OF TUMOR OF THE BRAIN, THE RESULT OF AN APOPLEXY.

W. M——, aged thirty-three, was admitted into the Carlisle Asylum on Nov. 17th, 1870. He had not been considered well in mind for six years ; when a child he had had fits. Though none of his near relatives had been in an asylum, some of them had been very peculiar. Previous to his admission he had been dull and morose, wishing himself dead, and threatening to injure his father.

On admission he was found to have a good memory, to speak coherently, to reply to questions correctly ; but he was in a state of very considerable depression, as shown by his appearance, attitude, manner, conduct, and remarks. A careful note was made of his bodily condition, but I need merely quote that he was a dark-complexioned man of 5 ft. 11 in. in height, and 167 lbs. in weight. His temperature and pulse were both slightly above normal, but no disease was detected in his various organs. For some time he was returned as being dull and taciturn, seldom conversing with others and always very peculiar in his conduct and habits, never wishing to leave the place, and on the whole industrious and in good health. For nine years he continued in this state, but in October, 1879, he complained of rheumatic pains for a short time. Only once or twice during this period did he show real signs of being dangerous to others, on one occasion attacking a fellow-patient with a spade. Both attendants and fellow-patients thoroughly recognized that he was not a man to be trifled with, so that for the most part he got his own way, and therefore behaved quietly. In October, 1886, after sixteen years' residence, physical examination showed no indications of disease, except that the respiratory murmur over the right apex was harsher than over the left. His heart was carefully examined, and nothing abnormal was detected about it. In January, 1891, he did not look quite so well as usual, and was therefore allowed one pint of porter daily, but at this time he was 17 lbs. heavier than when he came in. On July 3rd he had a paralytic seizure, with slight loss of power on his right side. He complained of a feeling of giddiness, but there was no change in his mental condition, and he spoke as usual. On July 12th he had a fit, after which the paralysis increased. His right arm remained powerless but his leg shortly regained power. During August the patient improved, regained a certain amount of power in his right arm, and more in his leg. In the first half of September he deteriorated, his arm and leg dwindling considerably, and he was reported to have had several slight fits at night. On Sept. 15th a pustular eruption like a half oval in shape appeared over the lower part of the abdomen. He became suddenly comatose on Sept. 30th, and continued so till his death on Oct. 3rd, 1891—three months exactly after the date of his first attack. I thought his first seizure due to an apoplexy in the left hemisphere, in the region of the centres controlling the arm and leg. I considered that the slight fits which were from time to time reported as affecting him at night (though I never was fortunate enough to see him in one) were caused merely by the cerebral irritation consequent on altering blood-clot ; and I thought the final attack with complete coma was due to a further and more extensive hæmorrhage, probably in the same locality as the first. In considering the patient's case the question of brain tumor was discussed ; but I decidedly favored the diagnosis of apoplexy from the suddenness of the initial seizure, the partial recoveries of power which took place in the implicated members, the absence of the train of mental phenomena usually witnessed with growing tumors, and the character of the final and fatal seizure.

A post-mortem examination was made forty-one hours after death. The body was rather emaciated. The organs were carefully examined, their condition noted, and their weights recorded; and, with the exception of the brain, they were so far normal as not to call for comment. I shall therefore merely quote from my register the account of the appearances of the contents of the skull. Head: scalp thin, calvaria thickened; dura mater was not adherent to the bone, nor was it thickened. The state of the other membranes does not call for notice. On separating the hemispheres there was found to be a tumor the size of an orange in the right hemisphere; it was placed immediately above the lateral ventricle of that side. In consistence it was firm; it appeared encapsuled, and required no dissection to remove it from the brain. The tumor included the gyrus fornicatus and corpus callosum, or had displaced these and caused their atrophy; it lay rather more posteriorly than anteriorly. It did not cause any change in the appearance of the surface of the brain, and its presence could not be detected till the hemispheres were separated. The tumor weighed five ounces. Section of the brain shewed no naked-eye changes, other than atrophy of the grey matter. The arteries at the base were atheromatous. I examined a minute portion of this tumor, and found large, round, and spindle cells; but I was so much astonished at finding such a large tumor with such a short known period of illness, with such an onset and train of symptoms, that I asked my friend, Dr. Coats of Glasgow, to examine the tumor and give me a report upon it. I told him I had diagnosed sanguineous apoplexy, and that I was exceedingly surprised at the post-mortem revelations. The following is the report with which Dr. Coats kindly furnished me:—

"The specimen sent is a pyriform mass, measuring, after preservation in alcohol, $2\frac{3}{4}$ in. $\times$ $2\frac{3}{8}$ in. $\times$ $1\frac{3}{4}$ in. It is very firm to the touch and generally smooth on the surface. A section having been made through the mass from apex to base, the cut surface is seen to present a somewhat varied appearance. The greater part shows a brown color, and this presents frequently an appearance of partial disintegration, but without any absolute formation of cavity or cyst. Besides this brown substance there is a whitish structure which looks like fibrous tissue; this is especially seen at the surface, where there is an approach to a capsule formed by this fibrous-looking tissue; but it also extends at one place for some distance into the substance of the mass. Microscopic examination shows the layer on the surface to be composed essentially of spindle-shaped cells. This layer is not absolutely continuous, but covers most of the surface, and it is thin, attaining generally to about the thickness of the twenty-fifth of an inch, although sometimes extending considerably more. In connection with this layer, but even more in the parts immediately beneath, there are frequently groups of large vessels, thin-walled and distended with blood. Beneath the spindle-celled layer the mass of the tumor is composed of a rather indefinite structure. There are many round cells, which to a considerable extent lie in masses separated by fibrous matter. This fibrous matter has, when the section is treated by ordinary methods, a vague structureless appearance. It runs among the cells forming a kind of basis, and often assuming greater proportions, so as to form strands dividing the masses. It has not, however, the aspect of wavy connective tissue, and on staining it shows no nuclei apart from those of the contained round cells. The appearance of this fibrous matter, suggested fibrine, and this view is completely confirmed by staining with Weigert's fibrine stain. This brings out frequently the finely fibrillated appearance of fibrine and shows that it extends intimately amongst the cells."

Dr. Coats is of opinion that this has been a large blood-clot, which was undergoing the process of organization. The stages of this process are similar to those in the organization of a thrombus, as described and illustrated in Coats' Manual of Pathology, second edition, p. 70. After the blood has coagulated there is first a penetration and replacement of it by round cells and blood-vessels, this being the stage represented in the greater part of the present specimen. After this the round cells elongate and spindle cells are produced. The process extends from without inwards, and here the surface has alone got the length of spindle-cell tissue. It is very unusual for a coagulum to undergo this process in the brain, but it is also very unusual for a patient to survive after such a large hæmorrhage as this must have been.—J. A. Campbell, M.D., in *Lancet*.

HYPNOTISM AND HUMBUG.

At the base of the brain is a complete circle of arteries, from which spring great numbers of small arterial vessels carrying a profuse blood supply throughout the whole mass, and capable of contraction in small tracts, so that small areas of the brain may, at any given moment, become bloodless, while other parts of the brain may at the same time become highly congested. Now, if the brain, or any part of it, be deprived or partially deprived of the circulation of blood through it, or if it be excessively congested and overloaded with blood, or if it be subjected to local pressure, the part of the brain so acted upon ceases to perform its functions. The brain's regularity, and the sanity and completeness of the thought which is

one of the functions of its activity, depend upon the normal quantity of blood passing through all its parts, and the healthy quality of the blood so circulating. If we press upon the carotid arteries which pass up through the neck to form the arterial circle of Willis at the base of the brain within the skull, we quickly produce insensibility. Thought is abolished, consciousness is lost; and if the pressure be continued all automatic actions of the body—such as the beating of the heart, breathing motions of the lungs, which maintain life, and which are controlled by the lower brain centres or ganglia—are quickly stopped and death follows.

We have observed (where portions of the skull have been removed) that during sleep, the convoluted surface of the upper part of the brain, which in health and in the waking state is faintly pink, like a blushing cheek, becomes white and bloodless. It is in these upper convolutions that the will and directing power resides; so in sleep the will is abolished and consciousness fades gradually away as the blood is pressed out by the contraction of the arteries. The same effect is attainable by altering the quality of the blood passing through the brain, by chloroform or other toxic substances. Though not conscious of the mechanism producing arterial contraction and bloodlessness, we are not altogether without control of it. Some possess marked control over it. I can generally put myself to sleep at any hour of the day, either in the library chair or in the brougham.

Now, a word regarding what is meant by reflex action. The nerves leading from the various organs to the brain convey swift messages to its various parts, which are answered by reflected waves of impulse. Tickle the soles of the feet, and you excite contraction of the toes, involuntary laughter, or perhaps only a shuddering and skin-contraction known as goose-skin. The irritation of the nerve end in the skin has carried a message to the involuntary or the voluntary ganglia of the brain, which has reflected back nerve-impulses contracting the muscles of the feet or the skin-muscles, or giving rise to associated ideas and laughter.

This ideo-motor or sensory motor system of nerves can thus produce automatically and without the consciousness of the individual, a series of muscular contractions. And the coats of arteries are muscular and contractile under the influence of external stimuli, acting without the help of consciousness, or when consciousness is in abeyance. Let me give one more example of this, which completes the chain of phenomena in the natural brain and body which I adduce in explanation of the true, as distinguished from the false, or falsely interpreted, phenomena of hypnotism, mesmerism, or electro-biology. When a hungry boy looks into a cook-shop, he becomes aware of a watering of the mouth and a "gnawing" at the stomach. The brain has sent a message which has dilated the vessels around the salivary and gastric glands, increased the flow of blood through them and quickened their secretion. Here we have a purely subjective mental activity acting through a mechanism of which the boy is quite ignorant, and which he is unable to control, and producing that action on the vessels of dilatation and contraction which, as we have seen, is the essential condition of brain activity and the evolution of thought, which is related to the quickening or the abolition of consciousness, and to the activity or abeyance of functions in the will centers and upper convolutions of the brain, as in its other centers of localization.

Here, then, we have something like a clue to the phenomena of hypnotism. The will may be easily abolished under the influence of imagination or sudden impression, even in animals the least imaginative and physically most restless and active. I take a cock from the barnyard, and notwithstanding his struggles and screams, place him quietly and firmly on a level board and draw a chalk line from his beak, which I have depressed until it touches the board, and he remains there motionless and firmly hypnotized. Rabbits, guinea-pigs and other animals may be readily hypnotized. Position, tactile impression, and possibly also mental impression, are the means used.

I come now to consider the subsequent conditions of the person who has submitted to any of the processes of hypnotization or mesmerism. The individual is reduced, more or less perfectly, to the state of a living automaton. The upper brain is more or less completely and regularly bloodless, and its functions in abeyance. The will is abolished, suspended, or enfeebled. Sleep has been induced while the thought has been on the operator, and the suggestion which he makes or the directions which he gives are carried out without the intervention of the will of the subject, and more or less completely without his knowledge.

He is an instrument on the keys of which the operator may play his own tune.

It may be asked, what are the added powers of clairvoyance, prediction of future events, insight into hidden things, etc., often attributed to somnambulists and hypnotics, and so frequently employed as means of extorting money. The answer is given in the one word—*Imposture!*

It is well known that a hypnotic can be led to perform, under influence of suggestion, acts which are dangerous to himself and others, and which are in themselves criminal—to thieve, to commit arson, or to attempt violence—and there is reason to believe that certain subjects can be made to receive a suggestion having in it a time element. Such a subject can be told, "On this day week, at a given time, you will return to the hypnotic state, go to a given place, steal such and such property,

attack such and such a person, and you will not remember who gave you the direction."

There is a time element in all nerve actions, and the operations of the brain. A person going to sleep at night says: "I will wake at six o'clock to-morrow morning, for I have to catch a train;" and he does it. This is a familiar example of a deferred suggestion, operating at a moment indicated several hours before. Ague chills are known to return at a certain hour every third or fourth day. The sensation of hunger is periodic according to habit of the hour of eating. The periodic chronometric and involuntary operation of the nervous system is imported into hypnotism.—Ernest Hart, in *Nineteenth Century*.

NERVOUS DYSPEPSIA.

GENTLEMEN:—Here is a young woman, twenty years of age, whose family history is entirely negative, and whose previous history, up to the time she was thirteen years of age, was also practically negative. When thirteen years old she began to menstruate, and from the time she began to menstruate she complained of exceeding great pain for a couple of days prior to the menstrual discharge. She has also had pain and nausea subsequent to the disappearance of every menstrual discharge. She has had, in short, dysmenorrhœa. Now, after this had gone on for a couple of years, she became a little more and more nervous, as she expresses it. She developed a neurotic constitution—became a neurasthenic. For the last four or five years she has been troubled with symptoms referable to the stomach.

You may recall the case I showed you last Monday of chronic gastric catarrh with well-marked dyspepsia. You will remember the local symptoms and the general symptoms of that case. Now, strange to say, in nervous constitutions we have appearing every symptom of dyspepsia that you will find in cases of chronic gastric catarrh—local tenderness, eructations of gas and acid, vomiting, pain after eating, headache, hypochondriasis, and so on—almost a complete picture. But there is one great difference to be remembered, and that is in respect to the etiology and history obtained from the patients. Where you get such a history as we have here, in women—namely, a derangement of the menstrual function, with subsequent nervousness with dyspeptic symptoms, and without any anatomical basis for the condition, so far as the stomach trouble is concerned—you have the factors entering into a case of so-called nervous dyspepsia.

There is a difference, however, in the manifestation of the symptoms that will guide you in making a correct diagnosis. For instance, she tells us that four or five years ago she began with attacks of dyspepsia, but that during the intervals between the attacks she would be perfectly well—could eat anything and everything, and found them to agree with her. But when the attack was on, she would have distress, choking sensations after meals, more or less pain, and eructations of gas. She would have, just prior to the expression of the symptoms just mentioned, extreme nervousness from some cause or other, such as mental worriment, great excitement, etc., which seemed to attack her digestion, causing the symptoms I have mentioned. Frequently vomiting occurred. She tells us she would vomit whether her stomach was full or empty; would vomit mucous and watery matter; provided she was extremely nervous, or under excitement, or worried very much at the time. So you see we have here the influence of the mind upon digestion distinctly manifested. The history here, with reference to the vomiting, is different from what you get in chronic gastric catarrh, in which case the vomiting occurs with some degree of regularity, more especially when indigestible substances have been taken, Not so here, for at one time she could eat anything; at another time the simplest article of diet would bring on dyspepsia. This girl had also local tenderness; but that, too, in these cases, is somewhat different from what is found in chronic gastric catarrh. In this girl's case it is only present at times; in chronic gastric catarrh the tenderness is apt to be present at all times. So in these cases of nervous dyspepsia, all the symptoms are subject to complete remission or great variations; in the other, their permanence is a reliable guide. In this case, it should be stated, the disease has been coming on for the last four or five years, attacks occurring every three or four months, under excitement or mental influence.

Now we come to consider the prognosis of this case as compared with that of the cases I showed you one week ago, of chronic gastric catarrh. The latter cases are long ones, are slow in recovering; but these now under consideration are even more so, unless you can change the patient's surroundings, unless you can remove the exciting cause of the attacks, and unless you can improve the general nutrition and nervous condition of the individual. The mental and moral conditions influence and determine the prognosis in cases such as this.

I am very desirous of calling attention to one other rather unusual feature in this girl's case. She gives a history of muscular pain, more particularly in the left arm and left leg. In cases of nervous dyspepsia you sometimes have muscular pains, and along with these pains, as in this case, you have coolness of the extremities. This is not rheumatism, but is due to a neurasthenic condition under these circumstances.

As to treatment, you want to remember in the

first place what I told you about removing the cause. If you can get these patients away from their old surroundings, if you can prevent sudden excitement, lively expectation, great emotion, and at the same time place them in a pleasant environment, that will go a great way toward working a cure. Then, in the next place, do not show any anxiety yourself when treating cases of this kind, especially as to the prognosis. When asked, tell your patients, who are suffering from conditions of mind such as this girl is in, that their stomachs can digest sufficient food of the proper kind, that a little treatment will make them better, and so, if you can get their mental states under control, you can help them. Having done this, tell them to eat whoiesome food and plenty of it. Do not begin by restricting them too much. As soon as they find they can digest a moderate amount of food, they will be willing to go further and allow themselves a liberal diet, as they should do. There should be but little medicine given, and this should be for the purpose of building up the nervous system. Cold sponging of the whole body, and other hygienic measures are very important.

We shall order the attendant to take a sponge, wring it out in cold water, and rub it several times up and down the spine, followed by friction with the aid of a coarse towel. That slight shock, repeated daily, will be very good in her neurasthenic condition.

She should take to exercise in the open air, and, if it were possible, travel, making a complete change of air. In addition, I will give nerve tonics. The best in these cases, more especially when associated with what we frequently find, a hysterical temperament, are the valerianates of iron and zinc. This girl, however, is not inclined to be hysterical. Phosphorus is a good remedy, as is also sulphate of strychnine.

MEDICAL NOTES.

Prof. Keen said that in *Septicæmia* alcohol is *the* treatment. It must be given fearlessly, and even pushed to the verge of intoxication.

Prof. Cohen recommended the following very highly for use in the treatment of *Nasal Catarrh*:

℞.—Sodii bicarbonat., ... ℥j.
Glycerini, ... f℥iv.
Infus. picis liquid., ... ad f℥iv. M.

Can be used as a spray or wash, or douche. Should be used warm.

Prof. Parvin does not believe that properly applied *pessaries* ever produce cancer. If cancer does follow the use of them, *they* are not the cause of the disease, but the condition must have already existed in the patient.

For a case of *Cardiac Dilated Hypertrophy*, with double valvular lesions (aortic and mitral regurgitation) in a boy 15 years of age, with a history of acute rheumatism, Prof. Da Costa prescribed tinct. strophanthi, gtt. v, three times a day; and also syr. ferri. iodidi, for the anæmia and as a tonic; and a strengthening diet, of meat principally.

For a young man who had general *Convulsions*, with almost complete loss of memory, probably due to an injury to his head, of which very little history could be obtained, Prof. Da Costa prescribed: Sodii iodidum, gr. x, three times a day; also, sodii biboras, gr. x, three times a day. His diet to be of a non-stimulating character.

For a case of *Supra-orbital Neuralgia* in a middle-aged woman who was very anæmic, Prof. Da Costa prescribed:—

℞.—Ferri sulphat.,
Pottassii carbonat, āā gr. iss. M.

In pill three times a day, and increased to four or five times a day. She had been treated for the neuralgia by the use of aconitia, which had given temporary relief, but the neuralgia having returned, Pro. Da Costa said that he thought it was due chiefly to the anæmia.

For *Incontinence of Urine* in children, due to exposure to cold, Prof. Hare recommended the following treatment:—

Where the urine is high colored and concentrated, and the child has fever, give—

℞.—Tinct. aconit., . . . gtt xij. to xxiv.
Spirit. ætheris nitrosi, f ℥ ij. to iv.
Liq. potassii citratis, ad f ℥ vj. M.
Sig.—A dessertspoonful every three hours.

After the urine has become more dilute, belladonna can be given with advantage, to allay the irritation and spasm of the bladder.

Or when the incontinence is due to paralysis of the bladder, give—

℞.—Extract. nucis vomicæ, . . gr. ij.
Acid. aseniosi, ... gr. ⅓. M.
Fiant pil. xx.
Sig.—One pill three times a day.—*Col. and Clin. Rec.*

ARE AMMONIA AND ALUM TO BE TOLERATED IN BREAD?

The medical profession say no. If they will continue to say it with one voice, and a loud one, they can suppress these injurious adulterants. For nobody wants them. The only cause for the daily drugging of millions on millions of our people, with these compounds in their bread, is the fradulent practice of certain great baking-powder concerns, who undersell or out-advertise honest dealers by smuggling in the "cheap and nasty" ingredients under the false label of "absolutely

pure baking powder." That it is not the choice of the people to be so drugged, even for cheapness' sake, is proved by the continental lying in which millions of dollars are spent to assure consumers that these cheap-made baking powders —from the 45-cent "Royal" down to the 25-cent fraud under a hundred aliases—are what they are not. If the true composition of the "Royal" ammoniated baking powder, or of the ammoniacal-alum powders vended under hundreds of fancy trade marks and grocers' firm names, were printed on each label, or confessed in their advertisements, they would disappear at once from the market, for nobody would buy them. The people, in short are cruelly deceived and wickedly swindled, in the sale of every can of these poisoned preparations.

Now, however, to counteract the effect of recent exposures of this infamous deception, the great ammonia concern resorts, anonymously—still concealing its own identification with the adulterant—to a world-wide circulation of quasi-medical recommendations of ammonia as a harmless and even beneficial element of diet! These insidious fabrications come to us, to everybody, from over land and sea, in the scientific news departments of leading public journals, as well as following ones; and that they are paid for at enormous rates, to appear in this guise, by the Royal Baking Powder Company, we have direct evidence from the advertisement desks of such papers as the *New York Tribune* and its compeers. Indignant at this outrage on sanitary truth and public creduality, we sent out a circular to our medical subscribers and the members of the larger medical societies of New York and Brooklyn, with a few minor cities, asking public answers to the following question:

"Do you consider advisable the habitual use of food in any degree qualified by ammonia?"

The answers—of course practically unanimous in the negative—at once began to pour in, and they are pouring in still. We undertook, by implication, to print them; but they are rising into the thousands, and full of varied and important testimonies from medical experience, so that we can print in this number but a moiety of the mass of information, with the decisions in brief of the host of professional correspondents who have so generously favored us; contained as far as possible in eight supplemental pages of this number, and to be continued in subsequent issues, as they continue to arrive.

"The more the merrier;" and we hope that those who receive this number and have not already answered, will add their testimony to the great volume of the same contributed by others, so that the potent voice of the profession may be uttered, as we began by suggesting, loud enough to be heard from shore to shore of our great country. —*Sanitary Era.*

On Taking a Fluid with Meals.—A great deal of misapprehension is often found to exist in the popular mind in regard to matters of eating and drinking; the cause of this, to some extent, is to be traced to old-time sayings which have come down to us in the form of a concentrated infusion of somebody's opinion upon a subject of which he or she was woefully ignorant. One of these misapprehensions to which we may refer is as to the injuriousness of taking fluid with meals. One frequently hears it laid down as a maxim that "it is bad to drink with your meals, it dilutes the gastric juice." By way of explanation we may remark that "it implies that the fluid taken is harmful." Whence this sagacious postulate originally came we cannot tell; it has quite the ring about it of an inconsequent deduction formed by a person whose presumption of knowledge was only exceeded by a lamentable ignorance of the subject. Medical men often find much difficulty in dealing with these museum specimens of antiquated science, for even educated persons are disposed to cling to the absurdities of their youth. Upon this matter Mr .Hutchinson remarks in the last number of his "Archives:" "I observe with pleasure that the verdict of general experience and common sense has been confirmed by scientific experiment in the matter of taking fluid with meals." Dr. Tev. O. Stratievsky, of St. Petersburg, after elaborate trials, has found that fluids materially assist the assimilation of proteids, and announces the following conclusion, which it is to be hoped no future experiments will controvert: "On the whole, the widely-spread custom of taking fluids during or just before one's meals, proves to be rational and fully justified on strict scientific grounds. To take fluids with the meals is almost as important an adjunct to digestion as is the mastication of solid food preparatory to swallowing it." It is obvious, however, that there is a limit to the amount of fluid one can swallow with impunity—not to speak of comfort—just as much with meals as at other times. It would be dangerous to create a general impression that fluid is good with food irrespective of quantity. It is, moreover, a well-ascertained clinical fact that an excess of cumprandial fluid does retard digestion in certain people, and gives rise to discomfort in most. A little attention to one's sensation in such matters will far better fix the desirable limit than all the "data" in the world. —*Medical Press and Circular.*

Treatment of Gangrenous Intestine in Strangulated Hernia.—Heydenreich states that at present it is impossible by study of the published statistics to arrive at any definite conclusion as to the mortality after the establishment of an artificial anus in cases of gangrenous hernia. With regard to the results of resection of intestine in like

cases, it might be fairly stated that the successes and the failures are about equal in number. Should it be assumed that the two methods have the same gravity, resection of the intestine would yet possess a decided superiority over the practice of forming an artificial anus. The former treatment would result in cure with much less loss of time, and would save the patient from a very unpleasant infirmity. In order, however, that resection of the intestine may be undertaken with real chances of success, it is indispensable that certain conditions be found united. As the operation will be a long and difficult one, the patient's strength should be such as to enable him to support the shock, and, on the other hand, the surgeon should have confidence in himself, be well assisted, and have at his disposal all the resources of the antisepetic method. The great danger of interorrhaphy consists in the effusion of fæcal matter into the abdominal cavity, in consequence either of failure of the means of union or of extension of the gangrene. Thus it is necessary that at the time of the operation the intestine be not too much distended by fæcal contents, the passage of which might cause the sutures to give way. The sutures also ought to be applied to absolutely healthy intestine. If such conditions cannot be realized, it would be better, the author holds, to reject the idea of enterorrhaphy, and to rest content with forming an artificial anus. The latter procedure takes less time for its performance; it can be carried out by any surgeon even without experienced assistants, and under ordinary material conditions. Finally it does not cause such serious shock as interorrhaphy. The immediate danger is certainly less. The formation of an artificial anus, therefore, it is held, is indicated whenever the general condition of the patient is unfavorable, or when the conditions in which the operation has to be performed are defective. It is always open to the surgeon, after the primary danger has ceased, to intervene sooner or later, in order to relieve his patient of the artificial anus, by means of resection and suturing, or some other method.—*Brit. Med. Jour.*

TYPHUS FEVER IN NEW YORK.—The most serious outbreak of typhus fever that has occurred in the country for many years, became known to the health authorities of New York late on the night of February 11th, and on the following day no less than fifty-eight cases of the disease were discovered. On January 30th the French steamer "Massilia," of the Fabre line, arrived with 717 steerage passengers. Two hundred and fifty of these were Russian Hebrew immigrants who were aided by funds provided by Baron Hirsch, and they were first transported from Odessa to Constantinople, whence they hoped to be able to go to Palestine and settle. Being disappointed in this, through the action of the Turkish authorities, they came to Marseilles, where they embarked on the "Massilia," together with a considerable number of other immigrants of various nationalities. The steamer, on January 1st, took on board more than 200 Italians, and on January 12th she sailed from Gibraltar. On the ship's arrival eleven passengers were ill, three of them with what was believed to be typhoid fever, but which, as the sequel shows, was undoubtedly typhus.

On the day following, February 12th, eleven additional cases were discovered among the Russians. Every effort was made to trace the Italian and other immigrants who came on the "Massilia," but it was found that many of them had left the city. On February 13th, five additional cases of typhus were found among the Russians from the "Massilia;" February 15th, seven more cases; February 16th, six cases at Oakdale, Mass.; and each day is adding to the list. There are, at time of writing, eighty-nine cases at North Brothers Island.

The whole country is more or less alarmed and disturbed, and really in a certain measure endangered by the living freight which this steamer has been allowed to land upon our shores after it had been refused the hospitality of the intelligent Turk.

We have thought it worth while to put together the main facts in the case as an illustration of the daily folly which we, as a nation, are permitting to be committed in the beautiful name of freedom, to the relief of other countries, the profit of a lot of steamship companies, the gradual degradation of our population, and the positive diminution in the safeguards for life, liberty and the pursuit of happiness which those already living here would like to be assured of. We open our doors to squalor and filth and misery—which mean typhus fever—and we admit leprosy, almost as if these things were blessings in disguise.

The reports of the Treasury Department show that for the last six months of 1891 the number of immigrants coming from Russia (Poland excepted) in those months was 46,710, as against 20,934 in the corresponding months of 1890. The whole number of immigrants was greater in 1891 than in 1890 by about 100,000, and nearly half of this increase is ascribed in the reports to Russia and Poland.

As sanitarians, with this text before our eyes, we desire to add our indignant protest to that expressed by the eminent statistician, Gen. Francis A. Walker, in a recent lecture against the results of our immigration laws. There are times when charity should begin at home.—*Boston Med. and Surg. Jour.*

ANTIPYRIN IN WHOOPING-COUGH.—The writer sums up his hospital experience as follows: About eighty cases of whooping cough have been recently

treated here with antipyrin, as many decigrammes as the child was years of age (or xv. grs. for a patient of ten years) being given morning and evening. The remedy was gratuitously given to the parents in powder form and ordered to be administered in sweetened water. Fifty-seven of the cases were seen at least twice again, so that a definite opinion could be formed of the action of the remedy. In 41, improvement was evident at the second visit (after three to seven days), and in some cases the improvement could be characterized as striking. In five cases, alleviation of the symptoms was not distinctly affected till the third or fourth visit. The improvement was only temporary with five of the patients; three of these had brothers and sisters simultaneously suffering from whooping-cough. Generally it was found that where several children of the same family were affected at the same time, the disease was more obstinate and ran a more tedious course. This is consistent with the opinion of Prof. Hagenbach that the children mutually reinfect one another under such conditions. No improvement could be traced in seven cases (three of these, however, were only seen twice), and four patients got worse at first; these were, however, such as had only recently (from three to ten days) developed the characteristic symptoms of the disease, and three improved subsequently.

Of the numerous cases that only returned once to the hospital a considerable proportion would doubtless be such children as were so much benefited by the remedy that the parents did not think it necessary to bring them again. In several instances an unmistakable relapse was evident when the administration of antipyrin was omitted by the neglect of the parents. The beneficial effect of the remedy was therefore established in four-fifths of the total number of cases, in a few it was astonishingly marked, but in none was it at all uncertain. The attacks diminished in violence and also in frequency, particularly at night. The remedy was always well borne, vomiting was arrested, the appetite increased, the children became generally more cheerful and slept better. The course of the disease was decidedly shortened, although necessarily the nature of out-patient treatment does not admit of the reckoning of an average duration. Complications (broncho-pneumonia) were rare, but did appear a few times (particularly with rachitic patients) during the antipyrin treatment.—*Medical Press and Circular.*

ON THE SPONTANEOUS HEALING OF TUBERCULOSIS; ITS FREQUENCY AND THE MODE OF ITS OCCURENCE.—There is a tendency when considering the processes which follow tubercular infection to ascribe too much to the bacillus and too little to the predisposition of the individual; the bodies of children are exceedingly susceptible to tuberculosis, and when they are exposed to infection they are very liable to contract the disease, yet in adults there are the most diverse degrees of resistability. In some persons the invading bacilli are overcome by the living cells, in some the contest is doubtful, in others the tissues prove the weaker, while in a fourth class, more especially the subject of attention, after the disease has become established and has done much damage, there is so far a recovery that the infection is destroyed and removed, and nature repairs the damage as far as possible. In the process of repair, the inflammatory products (including the true tubercles), induced by the tubercular irritants, undergo caseous necrosis. The necrotic mass, in which are still contained living bacilli, may long remain unaltered, but usually either suppuration occurs around it, the caseous material softens and is discharged with the pus but not as a rule completely, the tuberculosis lingering on until the infective matter is entirely removed, when cicatrization occurs; or else, the necrosed material simply remains as a foreign substance and, receiving in course of time deposits of lime salts, changes to a putty-like matter, or later into a hard stony mass. It is quite common to meet with such hard masses, sometimes of considerable size, in the mesentery—evidences of the previous existence of a tuberculosis, probably in early life, but now extinct. The other method of healing (by suppuration and discharge), commonly occurs in tubercular glands in the neck. In the lungs both forms of recovery occur; we find old cavities with smooth, clean walls, and cicatrices containing chalky deposits. In tuberculosis of bones there is always more or less of abscess-formation, and when recovery follows it is by means of granulation and formation of bony cicatrices. The soft tissue of the kidney forming a favorable structure for the advance of tuberculosis, it is doubtful if healing of tuberculosis in these organs ever occurs. Recovery from tuberculosis of the testis occurs in either of the ways described. In the peritoneum, if recovery occur, the caseous material is absorbed or calcified and the adhersions remain. Recovery from tuberculosis of the brain and meninges must be very rare. Evidences of healed tuberculosis are frequently found. As the result of careful scrutiny of his *post mortem* records for ten months, the author concludes that about 23 per cent. of the persons who die of disease unconnected with tuberculosis have been at a former period of life affected with some form of internal tuberculosis. As to the forms of tuberculosis, twenty out of the twenty-four were cases of healed tuberculosis of the lungs, two were cases of healed tuberculosis of the peritoneum, one of the mesenteric glands, and one of the bronchial glands. There is a numerous class of cases in which the tubercular process becomes extinct in one place, but extends and

becomes active elsewhere. An old, but perhaps healed tuberculosis of the lung, is frequently associated with a recent active tuberculosis without any intermediate stage. Generally the explanation is to be found in a tubercular laryngitis which following the old pulmonary lesion, has continued for years, and reinfected with its secretions the lungs. The practical deduction is not to regard the tubercular laryngitis as of trivial importance. —*Br. Med. Jour.*

ON THE LYING-IN DECUBITIS.—The dorsal position so constantly observed for several days after labour I hold to be a mistake, for the following reasons :—

First, the soft and enlarged uterus (more especially when compressed by a tight binder drawn by all the force available of either nurse or doctor) must gravitate backwards and so favor the retension of the secretions instead of getting rid of them.

Secondly, in cases where any breach of surface exists (and which must have taken place unobserved during the process of labor) the dorsal position, by retaining the discharges longer in contact with the most likely surfaces to be torn, viz., cervix uteri or perineum, may lead to septic absorption, and it is as well to bear this in mind before waiting for such symptoms to develop. And by changing the decubitus on the back (so often assumed by the patient herself, or advised by the nurse) to the lateral or preferably the semiprone position, the secretions will be much more likely to leave the body more quickly, and thus not be liable to be absorbed by any torn surface, perineum, etc., which may chance to exist. It is often a matter for surprise to observe the quantity of fluid held by the vagina (after syringing, for instance, when lying down). And when such fluid is of an abnormal character how important it is for the attendant to favor its exit by every means in his power. Another disadvantage of the dorsal position is that a quantity of lochial discharge collects in utero, and is liable to find its way into the patulous openings of the Fallopian tubes. The semi-recumbent position on the hip I have found useful, or the sitting posture for a few moments when the first twenty-four hours have passed, and I have remarked when this is done the process of involution proceeds more rapidly, the peristaltic action of the bowels becomes sooner re-established, and the lochial discharge ceases at an earlier date. I consider that if every lying-in patient were to adopt the prone position *directly after the birth of the child*, the expulsion of the placenta would be hastened, and very probably its expression by hand seldom required. This would be in itself, in my opinion, a great advantage if we consider the squeezing and violent pressure backwards the uterus has to sustain during the process of "expression," frequently followed by the application of a tight binder. Is it any wonder then that retroversion of the uterus has been traced (in some cases at least) to the aforesaid practice, combined with the mischievous habit of enforcing the dorsal position in addition on the lying-in patient for weeks after delivery, with the plausible idea of assisting the process of involution and preserving the patient's figure, when it was far more likely to produce an opposite effect. By changing the position each day as I suggest more perfect drainage of the parturient canal will be effected, and the uterus return to its normal size and position more rapidly. I trust therefore, that a trial will be made of my suggestions by obstetricians if only for the reasons given.—*Med. Press.*

ZADIG'S METHOD.— An admirable example of the application to medicine of this method of tracking used to be told with great gusto by my late friend, Dr. Milner Fothergill, and I regret greatly that I cannot tell it with the same power and vividness that he did. In the town of Leeds there once lived a quack who had received no professional instruction whatever, but was known far and wide for his wonderful cures, and especially for his power of diagnosing the diseases of patients whom he had never seen, by simply examining their urine. A celebrated surgeon, Mr. X——, wishing to see his method of working, desired to be presented one day, and the quack readily acceded to his request, feeling much flattered that so great a man should patronize him. Shortly after Mr. X—— had taken his seat a woman came in with a bottle of urine, which she handed to the quack. He looked at her, then at the bottle, held it up between him and the light, shook it, and said :

"Your husband's ?"

"Yes, sir."

"He is a good deal older than you ?"

"Yes, sir."

"He is a tailor ?"

"Yes, sir."

"He lives at Scarcroft ?"

"Yes, sir."

"His bowels are obstinate ?"

"Yes, sir."

"Here," he said, handing her a box of pills, "tell him to take one of these pills every night for a week, and a big drink of cold water every morning, and he will soon be all right."

No sooner had the woman gone out than Mr. X—— turned to the quack, curious to know how he had made out all this.

"Well, you see," said the quack, "she was a young woman, and looked well and strong, and I guessed the water was not hers. As I saw she had a wedding ring on her finger, I knew she was married, and I thought the chances were it was

her husband's water. If he had been about the same age as she it was hardly likely that he was going to be ill either, so I guessed he was older. I knew he was a tailor, because the bottle was not stopped with a cork, but with a bit of paper rolled up and tied around with a thread in a way that no one but a tailor could have done it. Tailors get no exercise, and consequently they are all very apt to be constipated. I was quite sure that he would be no exception to the rule, and so I gave him opening pills."

"But how did you know she came from Scarcroft?"

"Oh, Mr. X——, have you lived so long in Leeds and you don't know the color of Scarcroft clay? It was the first thing I saw on her boots the moment she came in."

Now, of late years we have got so many new methods of investigation that we are sometimes apt to forget the old habits of close observation by which this quack made out so much, and proved himself, although without any diploma, a worthy descendant of the water doctor, whose picture by Gerard Dow occupies such a distinguished place in the gallery of the Louvre.—Lauder Brunton, in *The Lancet.*

SHOULD SYPHILITIC MEDICAL MEN CONTINUE IN PRACTICE.—Dr. Neisser, of Breslau, has considered the question of the expediency of the continuance in practice of physicians who have become syphilitic (*Centralblatt fur Chirurgie*). His communication takes the form of a reply to a direct inquiry addressed to him by a professional colleague who had advised both ways—to continue and to retire. Neisser's conclusions are that the necessity for a physician to retire from practice must be the exception to the rule; provided, that he shall have been under an efficient specific treatment. He offers his views chiefly on the following conditions: First, concerning the stage of the disease; second, the thoroughness of the specific treatment down to the time when practice is resumed; third, the state of the eruption, especially on the hands of the person whose line of practice is that of surgeon or accoucheur; fourth, whether any other affections of the skin, possibly not syphilitic in origin, may exist. The probabilities that a well-treated medical man will convey his disease to others are, of course, lessened in proportion to the remoteness of the date of his infection, and the lengthened interval since activity of efflorescence on skin or *mucosa* has been noticed; but even in recent cases, with popular eruptions and small ulcers, the writer holds that no serious danger need exist when the physician protects, as he should, the surfaces involved in the disease by means of rubber cots or impermeable dressings. In regard to non-syphilitic eruptions there is little probability of danger, where any ordinary degree of care is exercised; the eruptions themselves, Neisser thinks, cannot be a source of infection, with the almost sole exception that blood might be conveyed from some abraded eruption to the raw surfaces on the patient. And with regard to this danger even, he does not consider that it has been settled. As to active engagement in obstetrical and surgical practice by a syphilized person, Neisser claims that no hard-and-fast rule can be framed, and that very much must be left to the good judgment of the practitioner and to the merits of the case at the time the question of attendance shall be raised.—*The Jour. of Am. Med. Assoc.*

GELSEMIUM AS A REMEDY FOR COLD.—Dr. John Aulde writes in the *New York Medical Record:* For the benefit of those members of the profession who are on the outlook for improvements upon the methods of by-gone days, I venture to offer a single remedy for the treatment of a "bad cold," that is far superior to all the baker's dozen just enumerated. Gelsemium is not only useful in those cases which would recover without medication, but is also efficient when formidable symptoms are present, and judiciously employed may be the means of averting an attack of pneumonia, pleuro-pneumonia, pleurisy, or other serious disease beginning in the form of a bad cold. Gelsemium arrests profuse nasal secretions, quiets headache and neuralgia, subdues cough and pain, favors a re-establishment of the secretions, through its influence upon the skin, kidneys, and gastro-intestinal tract. It reduces temperature and pulserate, promotes sleep, and creates a feeling of comfort and well-being without in any way approaching narcosis or destroying the oxygen-carrying capacity of the blood-corpuscles. By the use of this single remedy, much discomfort to the patient is avoided, digestion remains undisturbed, nauseating draughts are banished, the necessity for purgatives precluded, and all dangers of subsequent relapse practically eliminated; while recovery is prompt, perfect and satisfactory in every particular. Ten drops of a reliable fluid extract (assayed) are dissolved in three ounces of water, and of this mixture the patient takes a teaspoonful every ten or fifteen minutes for an hour, then at less frequent intervals according to the effects produced. The plan is simple, the medicine harmless in the dosage recommended, and not at all unpalatable, and the claims for it can be verified almost any day of the week at this season of the year, by submitting the remedy to the crucial test of clinical experience.—*Med. Age.*

THE RESTORATION OF DEFECTS IN TENDONS.—Kümmel (*Weiner medizin. Prèsse*, No. 43, 1891) has reported the case of a coachman who, while managing a pair of balky horses, perceived a sense

of pressure, followed by severe transitory pain involving the whole of the left arm. Shortly thereafter a swelling appeared in the region of the left wrist-joint, the functional activity of the hand, however, remaining unimpaired. Several hours later severe pain in the left arm appeared. The thumb hung limp, and could be neither adducted nor extended; it felt numb and cold. The injury was considered a luxation, and treated by means of applications of lead-water. At the end of three weeks there remained no doubt that the extensor pollicis longus had been ruptured. Upon opening the sheath of the tendon it was found that the central extremity had retracted to the middle of the forearm. The distal extremity lay rolled up on the metacarpal bone of the thumb. Attempt- to approximate the two segments proving unsuccessful, the diastasis of almost four inches was supplied by moderately strong, twisted silk thread. The wound in the skin was closed, and the extremity was dressed in hyperextension. The first change of dressings was made at the end of two weeks, the position of hyperextension being from time to time gradually relaxed. At the end of six weeks the splint was permanently removed, and movement was carefully instituted. In the course of four weeks more the patient was able to use the thumb with considerable force. The case demonstrates the possibility of replacing defects of tendons by non-vital structure, with restoration of function. It is possible that the silk threads furnish a guide and support for the connective tissue that is to replace the defect.—*Med. and Surg. Rep.*

THE ETIOLOGY OF CHANCROID.—The author reports cases to illustrate that chancroid may begin where there is any solution of continuity of surface, provided it is infected by bacteria with or without sexual intercourse. He continues: In this clinical summary I have endeavored to present a general outline of the mode and peculiarities of development of chancroids appearing after sexual contact, and, as we say *de novo*, without sexual contact, or by accidental pus-contamination. The subject has occupied my mind for many years, and I believe that it is here presented in an accurate manner. I think that I have adduced evidence that proves beyond controversy that the assertions that a chancroid is always of necessity the result of chancroidal pus, and that if all the patients in the world suffering with chancroid would avoid contact with others until their malady got well, the disease would cease from off the face of the earth, are utterly false, and not at all in keeping with the present condition of our knowledge. To sum up: What we call chancroid is the product of many varieties of pus derived from non-syphilitic and syphilitic subjects. It is therefore a hybrid, heterogeneous lesion, in all cases a septic ulcer, and in many instances simply an active form of wound infection. This septic ulcer in some cases originates *de novo* from the contact of pyogenic microbes with a raw surface, herpetic or eczematous excoriation, a chafe, etc., sexual contact then having nothing to do with its development. As a general rule, this local infective process is more active in syphilitic than in non-syphilitic subjects. It follows, therefore, that so long as pyogenic microbes and tissue-predisposition exist, chancroids will be found upon the mucous membranes and integument of the human race.—*Medical News.*

TREPHINING FOR JACKSONIAN EPILEPSY.—Mills and Keen (*Amer. Journ. of the Med. Sci.*, December, 1891) put on record a case in which trephining was practised on a woman, aged 27, for the relief of severe Jacksonian epilepsy of non-traumatic origin. On the removal of a disc of thick and hard bone over the fissure of Rolando, at a distance of 1.75 inch from the median line, a small growth was exposed which projected about a quarter of an inch above the surface of the dura. After removal of a triangular piece of dura, including this growth, a portion of the cerebral cortex, three-quarters of an inch in diameter, and comprising all the cortical grey matter under the tumor, was excised. This was done in order to make a subcortical exploration for any further lesion, and also to prevent the recurrence of the spasms by removing what seemed to be their primary seat. The patient recovered from the effects of the operation, and on the thirty-third day had regained all movements of both limbs, and was able to walk. The results of the surgical treatment were, however, with regard to the epilepsy, unsatisfactory. For a period of nearly eight weeks after the operation the patient had on an average four or five epileptic attacks daily. When seen about six months later she was still suffering daily from spasmodic seizures, which, however, never attained the severity or frequency of those observed for a short time prior to the operation. The removed growth, which had apparently originated in the pia and perforated the dura, presented under the microscope the characters of sarcoma. It is suggested by Dr. Mills that the persistence of the epileptic attacks in this case might be due to the presence of sarcomaous growths or infiltrations elsewhere in the brain.—*Brit. Med. Jour.*

INTERSTITIAL INJECTIONS OF CREOSOTE IN CERVICAL METRITIS.—An ordinary Pravaz syringe is used with a sufficiently long needle to reach the neck of the uterus. The membrane is cleansed of its secretions by means of carbolized cotton. Then the injections are made (at two or three different points to the depth of from two to five millimetres) of a quarter of a syringeful for each spot of a mixture containing equal parts of pure creosote,

alcohol, and glycerine. Only one of the everted cervical lips is injected at one treatment. Generally the patient soon experiences the taste of the creosote, with a subjective warmth and gentle perspiration; but these effects are never marked. At the site of the injection superficial eschars are formed. Rarely do the latter penetrate deeply. The sloughs are at first gray in color, then black, and they promptly separate, leaving a discharging mucous surface. Following the injection an application is made of a powder composed of tannin, iodoform, and salol.

Under the influence of the creosote there is a rapid disappearance of all functional disturbance. The pains gradually disappear. The discharge gradually lessens and finally ceases. After the cauterization scarifications are made to evacuate the contents of the free glands or cysts and to lessen the congestion of the parts. For this purpose a bistoury is used followed by an antiseptic douche and the application of antiseptic cotton tampons. The aseptic condition of the parts is effected by insufflating every two days the foregoing powder and then applying tampons. These are removed when a renewal of the powder is necessary. In this way a cicatrization is obtained much more rapidly than with injections, and absolute repose of the organs is ensured. The treatment is suspended only during the menstrual epoch.—*Gazette Médicale de Liége.*

HARE (H. A.) ON THE TREATMENT OF ANÆMIA BY COPPER AND ARSENIC.—After the digestive tube has been treated by the remedies ordinarily used to regulate its action, the arsenite of copper has an opportunity to perform a double duty. Acting as does arsenic as a stimulant to mucous membranes all over the body, in addition to its stimulant influence on nutrition, it tends to prevent disorders of the digestive mucous membrane, and so renders perfect secretion and absorption possible, preventing the auto-intoxication of the patient from the fermentation and decomposition changes in the contents of the stomach and bowel. Happily joined to this, the copper adds tone to the system, and promotes assimilation and the production of muscular tissue.

Acting in the belief that arsenite of copper would form a useful combination in the treatment of anæmia and debility, the writer has tried it in a number of cases with very encouraging results. Under these circumstances the digestion improves, the color becomes more like the normal, and, either by a direct effect on nutrition or on digestion or on both, the patients progressed rapidly towards health, provided, of course, that the anæmia was functional and not organic in origin. In the dose of $\frac{1}{50}$ or $\frac{1}{25}$ of a grain, arsenite of copper will, I think, often prove of service, if given three times a day after meals, and from its combination may prove to be superior to Fowler's solution not only in anæmia but also in chorea and similar nervous ailments.—*Therap. Gazette.*

THE RESULTS OF TREATMENT OF SIMPLE FRACTURE OF THE SHAFT OF THE FEMUR.—At a meeting of the American Surgical Association held in May, a committee consisting of several representative surgeons of the United States was formed with instructions to report on what, in their opinion, might be considered satisfactory results of ordinary treatment of fracture of the shaft of the femur. The report, which is published in the Philadelphia *Medical News* of September 26th, deals with the points of bony union, of the relation of the long axes of the fragments, of correspondence of the anterior surfaces of the fragments, of the length of the injured limb, and of lameness, and concludes with the following summary: A satisfactory result has been obtained in the treatment of fracture of the shaft of the femur when (1) firm bony union exists; (2) the long axis of the lower fragment is either directly continuous with that of the upper fragment, or the axes are on nearly parallel lines, thus preventing angular deformity; (3) the anterior surface of the lower fragment maintains nearly its normal relation to the plane of the upper fragment, thus preventing undue deviation of the foot from its normal position; (4) the length of the limb is either exactly equal to that of its fellow, or the degree of shortening falls within the limits found to exist in 90 per cent. of healthy limbs—namely, from one-eight of an inch to one inch; (5) lameness, if present, is not due to more than one inch of shortening; (6) the conditions attending the treatment prevent other results than those obtained.—*Brit. Med. Jour.*

EARLY HIGH AMPUTATION IN SENILE GANGRENE.—Dr. C. A. Powers, of New York, reported a case in which he had amputated through the middle of the femur, at the New York Cancer Hospital, for arterio-sclerotic gangrene in a man of sixty-seven years, whose gangrene had extended to the foot and lower leg. His patient died on the fourth day from hypostatic pneumenia, yet a post-mortem examination of the stump revealed firm primary union, no pus, and no areas of malnutrition. The paper was in support of Mr. Jonathan Hutchinson's recommendation that when the gangrene had extended from the toes to the sole or dorsum of the foot immediate recourse (barring contra-indications) should be had to amputation above the knee, inasmuch as it was more than probable that a lower amputation would be followed by gangrene of the flaps and increased danger to life. Dr. Powers cited some twenty-five cases of Kuster's, recently reported by Heidenhain, an analysis of which gave strong confirmation of

the proposition that in order to obtain sound tissues one must amputate through the thigh. In the discussion, Dr. Willy Meyer, of New York, and Dr. Herman Mynter, of Buffalo, cited personal cases showing the value of the procedure.

SHALL CLERGYMEN PAY THE PHYSICIAN FOR SERVICES?—This question has come up for discussion, based upon the bill of a Brooklyn physician made against the estate of a Catholic priest for services rendered. The heirs protested on the ground that it was usual for physicians to make no charges under the circumstances. There is no reason why this should be so, however, as was very properly stated by a priest in voluntarily answering the question in a letter to one of the newspapers. We entirely agree with the latter assertion and that, save in a very few exceptional cases, charges should be made. The physician pays the priest for the marriage ceremony, for christening, and his heirs are expected to be ready with an honorarium when mass is said at the funeral of the doctor, when his many deeds of charity are over. Nor does the physician enjoy a free pew in the church of his choice on the score of helping the deserving poor of the congregation. As a mere matter of advertisement for practice it seldom if ever pays, as the clergyman in many cases chooses a physician for himself, but for policy sake does not care to recommend one doctor more than another for members of his flock. But more than all, the services to the priest or minister are valued in proportion to the amount actually paid for them.—*Medical Record.*

THE TREATMENT OF DYSENTERY.—At a meeting of the Medical Society of London, held October 19, 1891 (*Medical Press*), Professor Bahadurji, of Bombay, read a paper on the treatment of dysentery, which he said was not a contagious or infectious disease, nor in any sense specific. He claimed to have reduced the mortality to almost nothing. Instead of endeavoring to keep up the strength of the patients by meat juices and extracts, which he said acted only as irritants, he gave arrow-root milk. In the way of medication he gave bismuth, Dover's powder, and soda, with the object of neutralizing the acidity of the blood, of calming the abnormal action of the glands of the large intestines, and of rendering the canal sweet and free from decomposition. He pointed out that the action of the ipecac and the alkali was to render the thick, sticky mucus more liquid, and thus enable it to be got rid of.—*Med. Record.*

A NOVEL USE OF A BENZOINOL SOLUTION OF MENTHOL.—Dr. Elizabeth N. Bradley has sent us a brief note on the case of a patient, 64 years old, of a rheumatic diathesis, who had been suffering for several days from the pneumonic and cardiac complications of la grippe, when an attack of acute prolapsed hæmorrhoids ensued one night. The usual remedies having proved unavailing, either in alleviating the pain or in overcoming the spasm of the sphincter, it occurred to the doctor that spraying the hæmorrhoids with a benzoinol solution of menthol, which had proved very efficacious in controlling a paretic tendency of the laryngeal muscles in the same case, might so stimulate the muscular structure of the hæmorrhoidal veins as to accomplish a sufficient diminution in the volume of the piles to render them reducible. The spraying of the hæmorrhoids was followed almost immediately by a cessation of pain, and by such a decrease in the volume of the tumors that their spontaneous reduction speedily ensued.—*N. Y. Medical Journal.*

THE ACTION OF STRYCHNINE UPON THE CEREBRUM.—It has heretofore almost been regarded as an accepted fact that strychnine has no influence upon the cerebrum, but only upon the gray substance of the spinal cord and medulla oblongata. According to late investigations by Biernacki, this is not correct. After the subcutaneous injection of small doses of nitrate of strychnine on rabbits, the electric excitability of the cerebrum was found to be distinctly lowered. The effect was the same when strychnine was brought directly into contact with the cerebrum. The results of these experiments seem to throw some light upon the curative action of strychnine in cortical epilepsy and other irritative conditions of the cortex cerebri; and they also serve to explain the beneficial effects of this remedy in sleeplessness as recommended by Lauder Brunton. The influence of strychnine upon the nervous system has also been investigated by Paulsen, who finds that large doses cause a general paralysis of the central nervous system.—*Journal of Nervous and Mental Disease.*

Anent the recent birth of a Chinese baby of a white mother in Philadelphia, as a result of maternal impressions induced by a Sunday school class of Chinese, which the lady was teaching, a good joke is related:

The wife of a physician in this city read the account of the Chinese impression to her husband and asked him his opinion of it. "Humph!" he growled, "possible." "And," his wife resumed, "I read a short time ago, of a lady who had been chased by a negro and was afterward delivered of a negro child. Do you think such a thing could happen?" "Yes," replied our cynical doctor, "if the nigger caught her."

BETTER WAIT AWHILE.—Patient: "What would you think of a warmer climate for me, doctor?" "Good Lord, man, that's just what I'm trying to save you from!"

THE CANADA LANCET.

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TORONTO, APRIL, 1892.

The LANCET has the Largest Circulation of any Medical Journal in Canada.

THE MEDICAL COUNCIL OF ONTARIO.

A bill is at present before the Ontario Legislature which must be a matter of deep interest to the entire medical profession of Ontario. In this bill radical changes in the *personnel* and character of the Medical Council of Ontario are proposed.

Clause 1 of this bill proposes that section 27 of the Ontario Medical Act be repealed. Section 27 of the Ontario Medical Act reads as follows: "Each member of the College shall pay to the Registrar, or any person deputed by the Registrar to receive it, such annual fee as may be determined by by-law of the Council, not less than one nor more than two dollars, towards the general expenises of the College, which last mentioned fee shall be payable on the first day of January in the year in which the same is imposed, and such fee shall be deemed to be a debt due by the member to the College, and be recoverable with costs of suit in the name of the College of Physicians and Surgeons of Ontario in the Division Court where the member resides." 37 V., c. 30, s. 22.

Clause 3 of the same bill proposes that clauses numbered 2 and 3 of the sub-section, commencing, "Firstly," in section 6 of the Ontario Medical Act, be repealed, which means, in short, that the representation of the various medical colleges and universities in the Medical Council be done away with.

These are the important clauses of the proposed bill, and it must be plain to every practitioner, that the result of such legislation would be to speedily effect the destruction of the Ontario Medical Council. For our own part we do not think the sum of two dollars per annum too large a fee to be paid for the protection which the Ontario Medical Council furnishes to the medical profession of the Province; the Council's difficulty has been the collection of the fee, it being more trouble to collect it than it is worth; and this has been the cause of the system of yearly license which the Medical Council has adopted, and which system has given offence to the medical men of some divisions.

Regarding the removal from the Medical Council of those representing the various universities and medical schools of the Province, the result of such legislation would be most prejudicial to the Council; not only would it antagonize the combined influences of all such universities and schools, but would do much to draw public confidence from the Council.

The reason for such proposed amendments to the Ontario Medical Act being brought forward, is certainly not wholly outside of the Medical Council itself, when we find in the official announcement of the College of Physicians and Surgeons of Ontario such a statement made by a past President of the College, as the following: "I feel that we have too many medical schools, and I feel that all the opposition that we have, to attempts to advance the interests of the medical profession of this country, comes from the schools, and if they desire it and continue in this course the result will be that the profession will as one man rise up and demand that the school-men be excluded from the Council because of their opposition to every advance in medical and preliminary education."

We are glad to say on credible information, that this unjust statement is not supported by any prevalent feeling in the Council. The educational and electoral representatives are disposed to work together in harmony; nevertheless the appearance in the annual announcement, of a charge so unfair in its nature, would necessarily have its weight with a portion of the outside profession, who are not thoroughly conversant with the spirit of the Council, and accordingly the battle cry "Exclude the school-men," has been apparently adopted by the opponents from outside who are the promoters of the present bill.

As a natural consequence appears the bill of

amendments introduced by Dr. Meacham, in part for the very purpose of giving legislative effect to the unfortunate words uttered at first in the heat of debate.

We hope in the interests of truth and right, that the gentleman referred to, will take an early opportunity to soften the asperity of his sentences.

We ask where would the Ontario Medical Council be if it received no fees, and had not the endorsation of the medical colleges? The Medical Council must remember it has a duty to perform to both the medical profession and the public; and it cannot afford to assume an autocratic spirit even so far as one individual member is concerned, without endangering itself, and materially injuring the interests of the profession.

We have, in the past, given the Ontario Medical Council our undivided support, and we are sincerely desirious of doing so in the future, but we must urge upon the members of the medical profession care in the selection of their representatives to that body. The legislation of matters medical is practically in the hands of the medical men themselves, and they would do well to use every effort to keep them there, and not allow their interests to pass out of their own hands by any such legislation as is at present proposed.

MEDICAL EDUCATION IN ONTARIO.

We desire to call the attention of our readers to the supplement which is published with this issue. It is Dr. Geikie's reply to a letter by Sir Daniel Wilson to the Hon. the Minister of Education. We publish it, with same addenda, not because the question at issue has not been pretty well aired, both in the public press and by other methods, but as a means of letting our readers have a view of the whole ground at a glance, and that they may judge of the fairness, or rather unfairness, of the fierce attack lately made upon Dean Geikie in the editorial columns of our esteemed contemporary, the *Canadian Practitioner.*

This editorial is quite a marvel of bitternesss, rancor, and, we cannot help thinking, of *spleen*, for if one read between the lines, indications are not wanting that the writer feels that his party is, to say the least, not getting the best of it in this discussion.

It is indeed a sign of weakness when a journal, representing the interests of the medical faculty of Toronto University, has to *descend*, and we say it deliberately, to mere personalities.

The *Practitioner* has no doubt the warmest thanks of the Faculty of Trinity Medical College, for calling it "*respectable*," but why the Dean's position is "anomalous," we fail to see. Certainly he has done more to create and keep up the interest in the said college than all the other members of the faculty together, and there is but little doubt in the minds of those who *know*, that but for Dr. Geikie's untiring zeal in looking after the welfare of Trinity she would not to-day be in as strong and commanding a position as she is.

The only thing in the whole article that is worthy of notice, apart from the personal abuse of Dr. Geikie, is that the editor seeks to fasten on that gentleman the charge of having spoken of the University authorities as being guilty of "dishonest misappropriation of public moneys."

This charge is contained, not in Dr. Geikie's, but in Sir Daniels' letter, and is entirely without foundation, and is fully answered in the Dean's reply. He never used the words "fraudulent" or on "false pretences," either in speaking or writing, and in his letter he says he never even thought of such actions on the part of the "authorities of the University." So that all the borrowed thunder, not lightning, which the editor used, coupled with the long list of names, some justly honored, and others of men of high standing, is as naught; for the Dean is guiltless of imputing to any of these gentlemen either "fraud," or "false pretence.' Where does the "reckless" come in? with Dr. Geikie or the man who deliberately prints and circulates such matter? The *English* is no doubt "chaste and classic," but plain, blunt, old Anglo-Saxon *facts* will win the day against any amount of classicism in the world.

But the grand acme of editoral gall is reached when the editor sympathizes with the Dean's colleagues who "have allowed themselves to be dragged *through the mire* by their energetic but erratic chief." (The italics are ours.) We are not *all* the colleagues, but we think we may say that they, the colleagues, are as a unit with the Dean in this matter, and we know that if they are not, they ought to be. So that sympathetic regrets are not at all in order from our esteemed contemporary,

who goes on to speak of the "all-powerful" influence of the Chancellor, Vice-Chancellor and President. If they would use a little of the "power" to explain some of Dr. Geikie's damaging statements they would do more in the interests of the University of Toronto than will any amount of buncombe in the columns of a partisan medical journal.

MYOPIA IN SCHOOL-CHILDREN.

The proper hygiene of the eye is of particular interest to everyone, especially to parents and guardians. However imperfect adults may be physically, there are few of them that will not rejoice in the perfections of childhood, and whatever will secure for it immunity from future dangers.

Some highly interesting facts regarding the modern eye and its care, were discussed at a recent meeting of the French Ophthalmological Society. Abstracts of the discussion are to be found in the *Mercredi Médical*, Dec. 9th, 1891. According to the statistics of the well-known Dr. Motais, who has examined upwards of 5000 school-children of different grades, and the families of three hundred young myopic patients, myopia is not a disease from the point of view of onset and origin.

It is a normal development, an adaptation of the eye to new functions—in other words, to near vision. It is the result of city life and civilization. The human eye is hyperopic to the extent of about ½ to 1 deopter. Emmetropia, which is given as the rule, is the first result of the eye adapting itself to the modern requirements. The emmetropic eye is a candidate for myopia, which usually appears between the ages of 11 and 13 years, and is usually gradually progressive.

Myopia is hereditary in 65% of all cases. In 80 out of every 100 myopic persons, the condition of the eye is transmitted from the father to the daughter, and from the mother to the son, or from grandparents to grandchildren. Hereditary myopia is more sharply defined than the acquired form. It reaches a higher degree more rapidly, and complications more frequently accompany it. Acquired myopia has a tendency to become hereditary. As education is becoming more and more general, even among girls, Dr. Motais fears for the future, evidently forgetting the tendency of human nature to revert to an original or primitive types. As prophylactic measures, good light, and hours that are not too long, are important, together with the overcoming of the tendency to spasm, that often precedes the development of myopia. As near-sightedness progresses there is sometimes depression of the posterior pole of the eye, and sometimes destruction of the anterior segment.

Extraction of the transparent crystalline lens is justly considered dangerous, though surgical interference is advocated by Dr. Palerowski when there is exaggerated curve of the cornea. In twelve instances he has removed a semi-elliptical portion of the cornea near the centre, following the method adopted by him for staphyloma. In every case the operation has been followed without accident, by diminution of the myopia from 2 to 5 deopters.

The racial influence on near-sight shows some points of interest. The children of German emigrants present a slighter degree of myopia than those of other races in America, far less than the children of the same age born in Germany. Where the weather is constantly foggy, myopia is more prevalent than where the atmosphere is clear and bright, being very rare in the Western States.

According to Prof. Nimier, the hygiene of the eye is indispensable, but too great results need not be anticipated from preventive measures.

The etiology of myopia is complex. Near work, heredity, and growth, are all factors to be taken into consideration. Yet this condition is sometimes due to congenital malformation of the eye. At the hospital of Val-de-grâce there is a record of 49 cases of amso-metropic myopia, sufficient to establish the existence of this abnormality.

This question of the grave increase of myopia is one to which the profession should give their earnest attention, in order that cases may be attended to at their inception, and the tendency to progressive changes, such as posterior staphyloma, prevented, as far as possible, by the various methods at the disposal of science.

College of Physicians and Surgeons.—Intending candidates for the examination in the above College, are referred to advertisement in another column, regarding the Spring Examinations in April, 1892.

DR. HUGH ROBERTSON.

It is our sad duty to note the death of Dr. Hugh Robertson, of this city. The cause of death was diphtheria, contracted by attendance on his daughter. Dr. Robertson was well known as Professor of Anatomy at Trinity Medical College, to which institution he also acted as treasurer and curator of the museum. Trinity Medical College loses a most useful member of its corporation by his death, he having been connected with that body for about 20 years. The Dr. was 50 years of age at the time of his death. We wish to extend our warmest sympathy to Mrs. Robertson and her family in their bereavement, and trust that time, the healer of all wounds, may deal gently with them, left without the wise guidance of a husband and father.

GOLDEN RULES OF SURGICAL PRACTICE.—*Continued.*—(*Times & Reg*):—Never try fluctuation *across* a limb, always *along* it.

Never forget that:

1. Abscesses near a large joint often communicate with the joint.
2. Abscesses near a large artery sometimes communicate with the artery.
3. Abdominal wall abscesses sometimes communicate with the gut.

Never forget that *early* openings are imperative in abscesses situated:

1. In the neighborhood of joints.
2. In the abdominal wall.
3. In the neck, under the deep fascia.
4. In the palm of the hand.
5. Beneath periosteum.
6. About the rectum, prostate, and urethra.

Remember the frequency with which hæmatoma and traumatic aneurism have been mistaken for abscess, and incised; and remember, also, that in extravasation below the gluteal fascia there is rarely any sign of bruise or injury to the skin. Never incise such without auscultation or exploratory puncture.

Never plunge; never squeeze in opening abscesses. Do not forget that your incision should radiate:

1. In abscesses pointing near the nipple.
2. In abscesses near the anus.
3. In scarifying the chemosis of the cornea.

And that your incision should be longitudinal:

1. In the hand.
2. In the urethra.
3. In the scalp.

Do not forget that incisions in the neck and face should run parallel with the wrinkles and folds.

Do not be afraid of hurting the lacteal tubes in mammary abscess. More harm is done to the gland by the enlargement of the walls of the abscess than by a free incision.

Never make a palmar incision, except in the middle of the lower third and in the axial line of the fingers, or at the sides of the palm.

Do not open an abscess anywhere near a large artery without first using a stethoscope, and then only by Hilton's method (*i. e.*, director and dressing forceps).

Never, under any circumstances, use for exploratory puncture that surgical abomination, a grooved needle, for it will allow contamination of all the tissues through which it brings the fluids (Thornton).

In opening a deep abscess in the lumbar region without the projection of an abscess, do not forget to cut down opposite a transverse process, and not between them, for fear of wounding a lumbar artery.

Aneurism.—Never attempt to cure an aneurism by the formation of a thrombus if the patient has any septic condition (such as an abscess, sore, suppurating otitis), for such may induce yellow softening of the clot.

Artery-bleeidng—Always tie both ends of a divided artery in a wound.

Bladder and Urethra.—Never neglect to pass your hand over the patient's belly in typhoid, or any fever, injury, or fracture of the spine, compression, etc.; for the bladder may be atonic and injuriously distended without distress.

Never use force in passing a catheter in fractured spine, because of the *insensitiveness* of the urethra.

Never pass a urethral instrument upon a man without having first passed one on yourself.

Never pass an instrument if your patient is suffering from an acute inflammation of the testicle unless you are relieving retention, or unless testitis occurs in a patient habitually using a catheter.

Do not permit yourself to talk glibly of "impassable" stricture. Such cases are rare. Patience and a little sweet-oil often carry an instrument through.

Never do an internal urethrotomy until you ascertain that your patient is free from undue erections, because of hæmorrhage. If the organ is irritable, exhibit bromide of potassium for a few days prior to the operation.

Never put on cantharides blister in nephritis because of absorption (use liq. ammon. fort.).

Do not forget that irritability of the bladder is often due to *renal irritation* and reflex actions.

Never inject more than four ounces at a time into the bladder, and that only with care.

Dr. C. S. Robinson, Richford, Tiaga Co., N.Y., says: I have tried Papine (Battle & Co.) and I find it possesses the medicinal virtues of opium, unalloyed with the drawbacks following the use of other forms of the drug. I tested Papine in my own case, having used many forms of opium, during forty years, but only in acute attacks. It is not harmful like crude opium, morphine and other preparations, in delicate or irritable stomachs; on the contrary it is acceptable as cordial. Also, the head is not made ill as it is by the other forms of opium that have come under my observation during most half a century. Papine is more prompt than morphine, except when the latter is used hypodermically. My wife has acute rheumatic attacks, and so-called "sick-headaches," and long ago decided she was unable to bear morphine or opium treatment. On hearing me extol Papine, she tried it unbeknown to me, and afterwards reported, saying: "I believe it is indeed a good remedy, I can take it, for it does not make me sicker when I am sick."

Patent Medicines and the Lay "Press."—At the Annual Meeting of the Canadian Press Association, held in Ottawa, March 3rd and 4th, Dr. Playter brought before the meeting the subject of patent medicines and cure-all advertisements. Why, the doctor said, should the general press insert such advertisements any more than the medical press? Patent medicines did an incalculable amount of harm,—promoted intemperance and disease, misleading the people until it was too late, in many instances, disease having progressed too far, for medical skill to apply successful remedies. The most excruciating of all pains, especially to most readers of papers, was "Paine's Celery Compound." The press was a wonderful educator, a great power for good, or for ill. The time would surely come when this practice of the press would be abandoned. Dr. Playter asked for a committee to be appointed by the President to report on the subject at the next meeting of the Asscciation. The President referred the question to the Executive Committee, and said the Association would be glad to have a paper on the subject from the Doctor at the next meeting. Dr. Playter intends to give a paper on it and to press for more discrimination in regard to the advertising of such nostrums.

Jaborandi for Urticaria.—Dr. Heaton in a letter to the *Cincinnati Lancet-Clinic*, says: I have noticed in some of my medical journals of recent date various remedies recommended for the cure of urticaria. I have not, for the past years, used any other remedy than jarborandi for this affection. I gave one-half teaspoonful of the fluid extract every half hour until four doses are taken, or until free perspiration or salivation is induced. I usually direct it to be given in the evening, and instruct the patient to avoid exposure to cold while taking it and for thirty-six hours afterward. If necessary, repeat in same way in twenty-four hours. I have in no case had to repeat doses more than once to effect a cure. I have also found jaborandi given in the same way a most excellent remedy in gonorrhœal rheumatism, when given in the beginning.

Mercury in Glanders.—Koudortky, in the *Vratch*, reports a case he has cured by means of this drug. The diagnosis was confirmed by the presence of the microbe and inoculation. He opened the abscesses freely, and washed with from 1 in 500 solution of sublimate; the ulcers were irrigated with the same lotion and then brushed over with nitric acid, while mercurial inunction was diligently carried out daily. The patient was a labourer, aged twenty-nine years, admitted to hospital on the fifteenth day of the disease, and was dismissed after seventy-two days quite well, and temperature normal. The toxic symptoms of the drug appeared on the sixty-second day in the form of stomatitis.

THE TREATMENT OF ECLAMPSIA.—In the *Brit. Med. Jour.* Robert Barnes states his belief as to the causation of eclampsia, and outlines the principles of treatment as follows: he would interrupt pregnancy whenever marked albuminuria, with or without convulsions, is present. He values venesection highly; he is also careful to avoid contact with the patient before albuminuria is present; salines, calomel, podophyllin, are eminently serviceable. In the eclamptic stage chloroform is best, and occasional inhalation of nitrite of amyl.

TREATMENT OF CONDYLOMATA.— Dr. G. Finco, *Gaz. Med. Lombarda* recommends the following in the treatment of condylomata:

℞—Collodion ..... 2.00 grams.
Mercur. corrosiv ..... 0.02 grams.

The collodion should be poured into a small cup, the corrosive sublimate added, and the whole well shaken, as the sublimate does not dissolve in collodion. The largest condylomata may be touched with a small brush dipped into the mixture, following this with the local application of cold water. On the following days the others may be treated until all are removed.

WHITE OF AN EGG IN FISSURES OF THE NIPPLE IN NURSING WOMEN.—Dr. Allen (*La Semaine Médicale*), regards sponging the nipple with the white of an egg as the best treatment of fissures of the nipple appearing during the nursing period. The nipple should be sponged several times a day, and immediately after each nursing. The fissure should first be carefully wiped dry. Before the child takes the nipple the film of albumen should be first moistened with water. According to the writer, if this treatment be instituted at the beginning, the pain ceases almost instantly, and cicatrization takes place in the course of a few hours.

INTESTINAL ANTISEPSIS.—Dr. Dujardin Beaumetz recommends in *Les Nouveaux Remèdes* (*Theuap. Gaz.*) the following formula as a satisfactory intestinal antiseptic:

Salol,
Salicylate of bismuth,
Bicarbonate of sodium, āā 150 grains.

To be divided into thirty powders in capsules. One capsule to be take before breakfast and before dinner.

GARGLE FOR ACUTE TONSILLITIS.—The *Med. News* gives the following:

℞—Ammoniated tincture of guaiac, . . .
Compound tinc. of cinchona, āā dr. vi.
Chlorate of potassium. . . . dr. ii.
Honey, ... dr. vi.
Powdered gum arabic, ... q.s.
Distilled water, q. s. ad, . . oz. iv.

From one-half to one teaspoonful of this should be used as a gargle in a little water every two hours.

ENDORSING DEAN GEIKIE:—At a Faculty meeting of Trinity Medical College, held on Saturday, March 26th, a resolution was unanimously carried, endorsing the late action of Dean Geikie re medical education.

PROGNOSING THE SEX OF A CHILD.—Dr. Ross, of Belfast, says (*Med. Rec.*), that he can foretell the sex of the child from the place where the mother feels the fœtal movements most distinctly. If she feels them chiefly on the right side the child will be a girl; if on the left side, a boy.

INGLUVIN.—W. R. Warner & Co. desire to send to any physician a sample of this remedy whereever they have a patient resisting all other treatment for sickness in gestation, marasmus, cholera infantum, for which it has been found to be almost a specific.

A NEW VENTILATING APPLIANCE.

BY A. M. ROSEBRUGH, M.D.,
Late Surgeon to the Toronto Eye and Ear Infirmary.

No one, I presume, will challenge the correctness of the following propositions, viz.:—

1. Only a small percentage of private houses are well ventilated.

2. Foul air causes phthisis, and renders healthy persons more liable to succumb to other diseases.

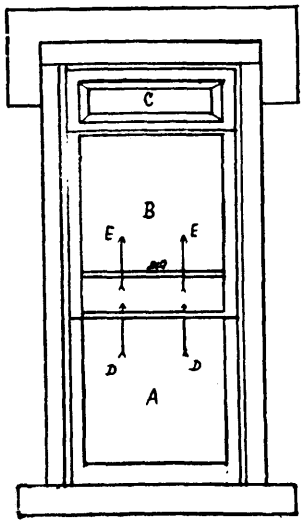
3. The mortality from phthisis, which now amounts to over 10 per cent. of the total mortality, would be very materially reduced, and the average duration of life would be very considerably increased were private houses, factories, etc., well ventilated.

4. Any means to this end is deserving of every encouragement on the part of every lover of his fellow-man.

As a contribution towards the accomplishment of this desired end, I have devised a ventilating appliance, simple, cheap, and, for ordinary house ventilation, quite efficient.

The object is two-fold, firstly, to afford diffusion of fresh air without perceptible draughts, and, secondly, to make the ventilating appliances in a form that will add to, rather than detract from the appearance of the windows and the building, and, thus, to make them self-recommendatory.

The ventilating appliance consists of a short supplemental sash, preferably ornamental, placed at the upper part of, and outside of the window, and close against the top part of the upper sash.



This supplemental sash placed in this position affords simple means for changing a direct draught into an indirect draught when the top sash is lowered for ventilating purposes. The extra sash forms a block to the passage of a direct draught over the top of the upper window-sash, while a syphon-like space is afforded for the passage of an indirect draught by the overlapping of the upper and lower sashes. It is not new to ventilate buildings by utilizing the space caused by the overlapping of two window sashes, but heretofore this was done by the cumbrous method of placing a piece of planking below the lower sash. The cumbersomeness of this method has prevented its general adoption.

By placing the ventilating appliances at the top instead of at the bottom of the windows; by making them a fixture requiring no attention, and by substituting ornamental sashes for unsightly loose pieces of planking, the new ventilating appliances become self-recommendatory. They render window ventilation simple and easy, and I see no reason why they should not make it popular as well.

By admitting the fresh air between the overlapping sashes three important points are gained, viz.: Firstly, by treating several or all the windows in this manner the number of inlets and outlets prevent the concentration of the draught at any one point in the room, the fresh air is diffused and perceptible draughts are avoided. Secondly, the inlets are at the right height to prevent unpleasant draughts on the person. Thirdly, by admitting the fresh air through the syphon-like space between the overlapping sashes the fresh air is directed upward towards the ceiling. This can be very easily verified by a simple experiment, as, for instance, by using lycopodium seeds or the phosphorous acid given off at the first striking of a match before heat is evolved from the burning of the sulphur, as also by using the air meter.

Where windows on opposite sides of a room or building are equipped with these ventilating appliances both an inlet for fresh air and an outlet for foul air is afforded—"cross ventilation"—the direction of the current varying with the direction of the wind; and this method of admitting fresh air may be combined with any of the usual systems of removing foul air, such as by the use of fans, by cowls, or by artificially heated flues.

This system of ventilation, it seems to me, is particularly well adapted to bedrooms and sick chambers where it is desirable to have a constant supply of fresh air with freedom from unpleasant or dangerous draughts. It may also be made to supplement any other system of ventilation.

I have suggested to some parties the propriety of taking up the manufacture and putting in of these ventilating appliances as a business. Would it be too much to bespeak the co-operation of the profession in the enterprise? It is only by such co-operation that the venture can be made a success.

It is true that many families can not afford to decorate their houses with ornamental ventilating sashes. In such cases narrow opaque transom bars, painted to harmonize with the window frame may be substituted at a comparatively small cost.

Books and Pamphlets.

THE PRINCIPLES AND PRACTICE OF MEDICINE. By William Osler, M.D., F.R.C.P., London; Professor of Medicine in Johns Hopkins University, and Physician-in-Chief to the Johns Hopkins Hospital, Baltimore, etc., etc. New York: D. Appleton & Co. Toronto Agency, 170 Yonge St., Toronto.

The medical profession of Canada especially, have been for some time awaiting the advent of this work of Dr. Osler, not only on account of the warm personal friendship which exists between the profession of Canada and the author, but particularly on account of his known ability and thoroughness in the handling of every subject to which he applies himself, and in the careful study of the work to hand, the most critical cannot fail to be in the fullest sense satisfied. It would be impossible for us, in the short space allowed for a note of the work, to do it even scant justice, but we venture to mention some of the chapters which have especially commended themselves. The author begins in Section I. with "Specific Infectious Diseases," and first deals with the common yet complex malady, Typhoid Fever. We consider his handling of the etiology—modes of conveyance and morbid anatomy of this disease the most concise and clear of any treatise extant. In many works these particular portions of the subject are left after discussion, so unsettled and unsatisfactory that the reader can scarcely be said to have received any decided benefit from the perusal, but is, if anything, left more befogged. Anyone who will carefully read the pages referred to in Dr. Osler's work will receive a very clear and positive impression of the most recent and accepted views regarding the etiology of this disease, and in the pages devoted to the morbid anatomy will have received such information as will give him a very intelligent idea of the disease which is afterwards so fully dealt with in the matter of diagnosis and treatment. If we may venture to specially mention any particulars in Section I. we would commend chapters 1 on Typhoid Fever, 21 on Malarial Fever, and particularly chapter 26 on Tuberculosis. The latter is undoubtedly one of the most instructive and valuable portions of the whole treatise; seventy-two pages are devoted to the subject, and therein are set forth in a remarkably clear and masterly manner, the features of this interesting affection. Beginning with the zoological distribution (which though a short paragraph is an exceedingly interesting one) he passes to the discussion of the features and properties of the bacillus itself, taking up its morphology—modes of growth, products, distribution, etc. In paragraphs 5 and 6 under this head he has elucidated the subject with observations on 427 cases at the Johns Hopkins Hospital. The morbid anatomy, as well as the acute and chronic tuberculous processes are ably handled. Section III. of the work is devoted to the diseases of the digestive system, and of the chapters in this section, chapter 6 on Diseases of the Stomach, we think among the best. The subject of Gastritis is especially well handled under the head of Acute, Phlegmonous, Toxic, Diphtheritic, Mycotic, and Chronic Gastritis. In Section V., which treats of diseases of the circulatory system, we notice the influence which has been borne by the author from his long contact with medical students, who have painfully and studiously wrestled with the modifications undergone by the central circulatory organ in its multiple affections, and many medical students hereafter will bless Dr. Osler for his clear classification and lucid exposition of the etiology and mechanism of cardiac murmurs, whilst the most scientific and skilled "heart specialist" will find a grounding for close study and further observation in the author's chapters on Arrhythmia, Tachycardia and Brachycardia. Section VII. on "Diseases of the Nervous System," to which 220 pages of the work are devoted is perhaps the most classical part of the book; paragraph 2 of this section devoted to affections of the blood-vessels, is in our opinion perfect. In the chapter on "Affections of the Substance," disturbance of muscular action is made the basis for localization of lesion. Spinal localization is contended for, and the table prepared by Starr on "Localization of the Functions of the Segments of the Spinal Cord," is given. The subject of cerebral localization is, whilst somewhat condensed, very clearly put. The last section of the work is devoted to diseases due to animal parasites, and those of us who have known Dr. Osler in earlier days can recognize therein his still existing love for zoological and biological study, and in this short chapter of 27 pages is embodied a very practical history of the animal parasites. We may again assert that in this brief review we do not profess to do more than allude to those parts which have specially commended themselves to us in a superficial examination of the work. Anything from the pen of Professor Osler cannot fail to be interesting, but in his treatise on the "Principles and Practice of Medicine" Dr. Osler has produced a work which will, by the scientific and thorough handling of the whole subject, impress favorably every reading member of the medical profession, and add still more to his popularity. The lucidity and incisiveness with which the whole of medicine is dealt with, his comprehension of the difficulties of the student, and the requirements of the practitioner, has produced a practical treatise on the practice of medicine, which not only bears evidence of the true character and real mind of this able scientific teacher and investigator, but a work which will commend itself to all students of medicine.

MEDICAL EDUCATION IN CANADA.

A Letter to the Hon. Oliver Mowat, LL.D., M.P.P., Attorney-General of Ontario, in reply to a Letter by Sir Daniel Wilson, LL.D., F.R.S.E., Etc., to the Hon. the Minister of Education.

To the Hon. Oliver Mowat, LL.D., M.P.P.,

Attorney-General of Ontario, etc., etc.

Dear Sir,—A printed copy of a letter dated Feb. 22nd, 1892, by Sir Daniel Wilson, President of University College, addressed to the Hon. the Minister of Education, in reply to a communication sent by me to you, dated Nov. 3rd, 1891, on the subject of Medical Education in Ontario, has just been sent to me. The learned writer not only challenges, but entirely misconstrues and sometimes totally misrepresents, perhaps not altogether wilfully, some of the statements in the letter to which he replies. It is, therefore, necessary for me to trouble you once more, in order to prove the substantial correctness of the position taken by me throughout this entire discussion, and to correct the misconstructions and misrepresentations referred to, so that the Government may the sooner be able to reach such a solution of existing difficulties, as will be considered satisfactory and fair to all concerned.

I shall not follow the learned President's example in using strong language of denunciation or depreciation—nor shall I seek to slur the character of anyone, whether long since dead, or still living. The position taken by those for whom I speak, is far too strong to require the adoption of tactics so questionable.

I am greatly surprised that Sir Daniel Wilson, a gentleman occupying a position so distinguished, and who, if spared, as I trust he may be, will soon reach the four score-limit of human life, should have seen fit to adopt the very opposite course.

I.—The Abolition of the Former University Medical Faculty in 1853.

The abolition of the former Medical Faculty of the University in 1853 is the matter first alluded to by Sir Daniel. Up to 1853, this Faculty, maintained at the public expense, and the only Medical Faculty in the Province so maintained, was abolished by the old Parliament of Canada, only *two* of the members voting for its retention.

It would be very difficult to find a case of any legislature coming to a more unanimous decision on an educational question. It is easy, however, to explain this, all but unanimity of action, in view of the sound principle which was then very generally held, and which commends itself *now*, to most people of ordinary common sense, "That it is not the duty of the State to use public funds of any kind, in educating students for a special profession, such as medicine or law, any more than for any other calling by which people earn their living." The government organ at the time in Toronto, "The Leader" of Nov. 22nd, 1852, in an editorial on "Medical Education," clearly explains the view which then prevailed. "When we take our stand on an impregnable principle of political economy, and assert that the State is not justified in employing public moneys to produce an article which experience has shown that private enterprise is abundantly able to supply, no one is bold enough to controvert this principle." Also from the same paper of Oct. 26th, 1852, "There are three medical schools in Toronto. Why continue to sustain one by public money, when the facts show that the article you want is supplied by private enterprise?" The learned President, however, with characteristic simplicity and self-confidence, says that he has "No doubt that the abolition of the Medical Faculty was largely due to the antagonism between the late Dr. Rolph and certain professional rivals; the Hon. Dr. Rolph being at the time of its abolition, a member of the

Government." That a Canadian legislature, sitting in Quebec, and composed of members coming from every part of both the old Provinces of Canada, could be influenced in any appreciable degree by "antagonism" between Dr. Rolph and certain rival doctors in Toronto, of which alleged "antagonism," the members, with hardly an exception, must have been entirely ignorant, is a suggestion in the last degree absurd. If all Sir Daniel's views on questions pertaining to medical education, rest on foundations as flimsy as this, they can hardly be deemed worthy of much attention. Having been in 1852 engaged in medical practice not far from Toronto, and quite familiar with all the circumstances, I can testify that the decision reached by the Legislature was the result of the sound common sense policy laid down and acted upon in regard to educating men for lucrative professions, with the cost of which, the members held, *the country should have nothing whatever to do*, and to-day, public opinion is on the side of this principle as in 1853.

II.—A Slur cast by Sir Daniel on the Late Hon. Dr. Rolph, who died in 1870.

Sir Daniel Wilson, somewhat obscurely, however, makes a further allusion to the late Hon. Dr. Rolph, which as a matter of good taste would have been much better omitted. *De mortuis nil nisi bonum* is a familiar adage, which is happily very seldom forgotten.

The allusion is in connection with hints alleged to have been thrown out by him, regarding the re-establishment of the Medical Department of Toronto University not long after its abolition.

Dr. Rolph was a man eminent in many ways, and with reference to this allusion, I have pleasure in doing an act of simple justice to his memory. As one of Dr. Rolph's intimate friends, and his colleague in the Medical Department of Victoria College from 1855 to 1870, when he retired from active work, I never heard him say a word on the subject Sir Daniel refers to. During all those years, probably no one knew him better, or saw more of him than the writer, and he took the greatest interest, and talked freely with his friends on every matter connected with medical education. Had this subject been on his mind, he certainly would have mentioned it. As Dean of the *entirely self-sustaining* Medical Department of Victoria College, which he so ably conducted for many years, Dr. Rolph was satisfied and happy, and greatly beloved by all the students. The medical men he educated, are scattered all over Canada, and not a few of them have been, and others are now, worthy members of our several Canadian legislatures, and, with hardly an exception, they cherish and revere his memory.

III.—The Advance of General Scientific Knowledge, good ground for satisfaction.

Everybody unites with the learned President in rejoicing at the advances made in all branches of science. It is most desirable to have every department of science necessary to a thorough *general* education, not only taught, but well taught, in the Provincial University which exists for the very purpose of affording the highest *general* culture to our youth who fill her halls, so that they may be ornaments to any profession or calling they may subsequently follow. We are proud, too, of our Agricultural Colleges, as indispensable to a farming province like Ontario. For the more scientific the farming, the better for every man in the Province. No one grudges the support given to our normal and other schools—to the schools of pedagogy, and of practical science and engineering, so as to provide us with well educated teachers, surveyors, civil engineers, analysts, and with people skilled in any other departments of science which the country may require, for the development of its natural resources, and which unaided private enterprise could not adequately, or perhaps at all supply, as we have not now, and hitherto we never have had, any such schools or colleges established in Ontario by private enterprise. For such necessary purposes which the country's actual needs call for, by all means let public aid be given always wisely, yet in no stinted way. Up to this point but not beyond it, the writer agrees with the learned President.

IV.—No Medical Education at the Public Expense.

The people of Ontario are in their own opinion quite sufficiently taxed now. In not a few cases hard working farmers and others find it just hard enough to make a fair living for themselves and their families. The province with praise-worthy liberality places a thoroughly good *general* education within the reach of every young person who cares to have it. This can be carried even to graduation in Arts or Science in our Provincial University, and in addition private munificence has stepped in, for recently the Hon. Chancellor Blake gave the princely gift of $20,000 to aid Arts students, who are beginning their studies, by providing scholarships at matriculation. But to give learned and lucrative professions, wholly or even partially at the public cost, is quite another thing. There is no such special lack of doctors as to call for or justify our increasing their numbers at the public expense. The profession of medicine indeed is now so well filled that many of those educated in all

our medical colleges go to the United States and to other countries for a living. Are our farmers and all other people in Ontario willing—or is it right that they *should* be taxed to educate doctors to supply other countries than their own? It is hoped that enough has been adduced on this point to show the unreasonableness, and manifest injustice as far as the public is concerned, of continuing to subsidize medical education in the Provincial University. It clearly appears from his letter, however, that the learned President is prepared to go *any* length in endeavoring as far as possible not only to continue, but to extend the evil we complain of. Under all the circumstances of the case, it will, we think, be admitted that sufficient reasons have been given in this letter to justify us in the most strenuous and increasing opposition to an unfair use of public funds, which should never have been allowed to have a beginning, for we again assert, that this subsidizing of one Medical Faculty, is a three-fold injustice—*unjust to the public, to the Arts Department of the University* and last, but by no means least, to *the self-supporting Medical Colleges*, for which, as having chartered them, Government is bound, werepectfully submit, to secure absolute fair play, which is all they ask for. Can there be a more reasonable request? Ontario has shown by forty years of experience that medical colleges can be most efficiently conducted on the entirely self-sustaining principle—providing buildings and everything else they require, out of the fees of the students they teach. Should any colleges happen to secure private endowments, this is a mattter with which no one has any concern. But as a rule, those which are entirely unendowed, are said to do better work than others, for as their success depends entirely on the ability, zeal and assiduity of their professors and lecturers, these feel necessitated to put forth all the energy they possess, and therefore are believed to do better teaching. It was forty years ago proved, and it is no less decisively proved to-day, that the *quality* of the professional men educated by a Medical Faculty maintained in part at the public expense, is not a whit better, nor do they take any higher standing than others do, towards whose education not one fraction of *public* money has been contributed. To-day, and for many years past, the standing of the candidates from the various medical colleges, at the examinations of the several examining boards in Great Britian, and at the examinations of our own Medical Council, which all who intend residing in Ontario have to take, proclaims this with trumpet tongue over the whole land. There can be no better evidence than this of the extreme unwisdom, as well as the gross injustice of subsidizing as is now done, *one* out of the *six* Medical Teaching Faculties, which, including the colleges for women, exist in Ontario. Our people are sensible and shrewd and quite able to form their own judgment in regard to such matters, and if the future is to be judged of, by the past, the injustice complained of will not be allowed to continue long.

V.—The President's Garbling.

Sir Daniel refers with much warmth, and in strong language to my reference to the Legislative grant of $160,000 given to the University after the fire. He speaks of my "making to the Attorney-General, a charge against the authorities of the University (page 4 and page 6), of my letter having been forwarded to him by the Hon. the Minister of Education," with the request for a reply to its grave charges, including that of fradulent misappropriation of public funds obtained on false pretences." I never made any such charge, and never used, or wrote any such words as are here attributed to me. Had Sir Daniel been a younger man, I would with the utmost indignation have thrown back these words upon him. I content myself with entirely repudiating the idea he disingenuously seeks to convey to those who only see the few extracts he has garbled from my letter, with which even he appears to have deceived himself. Such a thought as the "fradulent misappropriation of public funds obtained on false pretences" on the part of the "authorities of the University" never once entered my mind, nor has any one of the many who have spoken to me on the subject ever hinted at such an inference as that which Sir Daniel has drawn from my letter. I greatly respect the Senate and the Professors of Toronto University, and would as soon think of charging the Premier of Great Britain with till-tapping, as of doing what Sir Daniel Wilson's letter indicates What I meant was this—and a careful reading of Sir Daniel's many admissions in his letter, and a knowledge of much to which he either does not refer at all, or passes over very lightly, has only intensified my conviction of its truth—that the legislature of Ontario which voted the $160,000 referred to, had not the remotest idea, any more than the members of the *Government themselves*, that a very large sum, equivalent to a considerable and possibly the greater proportion of the amount granted, would be spent in erecting buildings largely for medical teaching purposes, and it appears to me incredible, that it should be so spent in this way which, it is admitted, neither the legislature nor the Government for one moment either intended or anticipated. I refer, of course, to the large expenditure for dissecting-rooms, vat-rooms, etc., for the study of human anatomy, and for other class-rooms used for medical education in *this one college*, while all other medical colleges in the Province provide everything of this kind wholly at their own expense. And I have reason to know, that an influential

section of the University Senate takes the same view of this matter. I know also, that however large the amount which has been spent in what I regard as the unjust, and unwise way objected to, and which was all public money quite as much as the grant—even if it had exceeded the amount of the grant, it would have been raised somehow or other, and the entire $160,000, that is the whole grant, as a matter of course, applied to the special purpose for which it was voted. Everybody at all acquainted with the financial affairs of Toronto University at the present time is aware that the money already spent on these buildings, has seriously crippled the University, and prevents the possibility of some departments, however urgent their needs, having their due share of money spent upon them. From Sir Daniel Wilson's letter it might be gathered, that the Medical and Biological Departments constitute almost the entire University. This is, however, by no means the case. Yet from the lavish way in which money has been spent on these, and the warm justification of this expenditure by the learned President, and his proved willingness to increase it, one cannot help thinking that he considers it the right thing to do, although the inevitable result of this policy is to leave some important departments largely unaided to struggle along as best they can. Is this policy not likely in the near future to prove injurious to the best interests and usefulness of the University?

VI.—Sir Daniel Wilson on the Biological Buildings and the Uses to which they are Applied.

The President seeks to throw doubts on my statements as to the Biological Buildings being used to any great extent, or having been intended largely for medical teaching purposes. He seeks to befog his readers by quoting the number of square feet contained in the buildings, etc. This the President parades as "facts," but they have very little bearing indeed on *facts* of another kind taken from the official calendar of the University of Toronto Medical Faculty, for 1890-91, in which there is a full-page-sized cut, of the main part of the Biological Building (facing page 28), while on page 27 is the following: "The teaching in this "department will follow closely the requirements "of the College of Physicians and Surgeons, and "will, in addition, comply with the regulations of "the University of Toronto" (that is, in medicine).

"University of Toronto Medical Faculty.

"The fourth session since the re-establishment "of the Medical Faculty of the University will com- "mence on Wednesday, Oct. 1st, 1890, when the "opening lecture will be delivered in the *Biological laboratory* (page 19)." On this occasion, Oct. 1st, 1890, Sir Daniel Wilson, LL.D., etc., is reported in the Toronto *World* of Oct. 2nd, 1890, to have said that "Toronto University had spent some $130,000 on these magnificent buildings to give medical students the best equipped school in Europe or America." Why did the President not refer to this speech in his letter? He should have quoted it.

The official calendar of the University Medical Faculty for 1891-2, has the following paragraph:

"UNIVERSITY OF TORONTO MEDICAL FACULTY.— "The fifth session since the re-establishment of the "Medical Faculty of the University of Toronto "will commence on Thursday, Oct. 1st, 1891, when "the opening lecture will be delivered in the *Bio- "logical laboratory.*"

"The lectures and demonstrations in the subjects of the first and second years will be given in the *Biological laboratory* and in the *lecture rooms of the University.*"

This last paragraph means that *two* sessions of medical teaching work, out of the *four* required—that is exactly one-half of *the medical course*—is done in buildings erected at the public cost. After trying, notwithstanding his full knowledge of this being the case, to show how little the new buildings are used for medical teaching, and saying, although they contain dissecting-rooms, bone-rooms, vat-rooms, etc., that they would have been built all the same had no Medical Faculty existed, he virtually admits that his contention is incorrect, because compelled to do so, for on page 6 he says, "And in so far as certain portions of the building are set apart for the Medical Faculty, a report was obtained from the architect, specifying their estimated cost, and on the basis thus furnished an annual rent of $1,200 is charged to the Medical Faculty, in accordance with the report of a joint committee of the Board of Trustees and the Senate, as what, in their estimation, 'would be a just and adequate allowance' as interest at four per cent. on the cost of erection." (See recent Finance Report of University Committee.) It is said that this decision to charge rent was only recently reached, and was not contemplated by the promoters of the medical part of the building. This $1,200 looks well and fair on paper, but in reality it is not in any sense an adequate return for the great cost, as well as the deterioration in the value of the property. To understand this last point clearly, it has to be borne in mind that dissecting-rooms, vat-rooms and others, where human anatomy is studied and taught for at least six months of each year, now form part of this fine pile of buildings. The parts of the building actually used for this work, must necessarily have a very strong and—even to many medical men and students—a most unpleasant smell. This is so all-pervading that it creates a dissecting-room atmosphere far

and near, so as to make even a large building more or less unpleasant from the basement to the roof. This smell it is impossible entirely to get rid of. With care, it may be lessened in some degree, yet, do what you will, the air in adjoining apartments will often be found so unpleasantly tainted as to be positively sickening to a great many persons. I have already heard of a good many complaints by University Arts students on this very ground, some saying to me that "the smell was simply abominable." Indeed, so long as dissecting is carried on at all, or bodies kept in vat-rooms in any building, this hateful odor will inevitably continue. It is said that the plans for the dissecting and vat-rooms, and the rest of the "Medical Faculty" portion of the building, was never submitted to the Senate. Is this the fact or not? Sir Daniel Wilson tries to show how little room the medical students occupy in the Biological department, but everyone says there are a great many more of them (said to be fully two to one—see University Class List for 1891) than there are of Arts students, who are taking the science course. I can venture the opinion quite safely that, let dissecting go on, and the regular courses on anatomy continue to be given in the building as at the present time, and before long no one will be found willing to occupy, either as a teacher or student, any of the lecture or other rooms near enough the anatomical region to be more or less smell-stricken, unless those who are either teaching or studying human anatomy. It will soon all be left for the medicals. How far will the $1,200, to be charged for rent, go, in meeting the interest on the cost of those extensive portions of the building thus rendered comparatively useless? Twice $1,200 would not do it. Besides this, is it fair to have any Arts professors, or Arts students, male or female, subjected to this unbearable unpleasantness? Under existing circumstances, non-medical students—even ladies—have, against their wish, seen what they would gladly have avoided seeing, and some have suffered more or less from contaminated air, who did not expect this sort of thing when they entered on their studies. Having been a medical teacher nearly all my life, I speak from experience. In Trinity Medical College we suffered much some years ago from the air of our entire building being more or less tainted in this way, no matter what might be done to prevent it. For the sake of professors and students alike, the Faculty, as soon as possible, but *entirely at their own cost*, erected the admirable building now in use for anatomical work, which is completely isolated, and ever since we have had no discomfort. But there is another pertinent question: With the regular increase in her own Arts classes, and the advent of the Victoria Arts students in the coming fall, will every nook of space in the entire building, available for teaching, not be required for purely Arts and General Science purposes?

VII.—Sir Daniel Wilson Approves of all the Outlay so far, of Public Funds on Medical Education, and is anxious to go even further.

Sir Daniel Wilson thinks it quite right that the State should pay a large share of the cost of medical education, including building dissecting-rooms, etc. Not long since he was a member of a committee of the Senate, indeed, he seconded the motion defining its duties, viz., "To urge upon the Government the propriety of constituting Anatomy, Pathology, and Sanitary Science a part of the work of the University, and to assist the University in providing the requisite means." This resolution appeared in the *Globe* of May 11th, 1891. It simply meant, in addition to all the already great outlay on buildings, the establishing of three State-paid professorships in medicine. The project was vigorously protested against at once, and, fortunately, came to nothing, and the committee was discharged. The Hon. the Chancellor, and other influential members of the Senate were known entirely to disapprove of it; yet, as an illustration of the pertinacity with which the idea of getting all that can be got from the public purse is clung to, certain speakers of the same way of thinking as Sir Daniel, at a University public gathering not very long since, referred to further action in this matter as being "merely postponed" on account of the losses caused by the late fire, thus foreshadowing their intention in due time of pressing this preposterous claim on the Government.

VIII.—Fees Earned by University paid Arts Teachers, should be used entirely for Arts support.

In my letter, certain fees paid by the medical students in the first and second years, were spoken of. Sir Daniel thus refers to this point: "Under a University Statute confirmed by the Lieutenant-Governor-in-Council, all fees paid by medical students are apportioned to the Medical Faculty." In the interpretation of this statute, fees paid by students for Physiology, Chemistry and Biology, have been so apportioned. Here I would very specially ask—Under whose "interpretation" of the statute was this done—that of the Attorney-General, or the Minister of Education, or the Chancellor of the University? The aggregate amount of the fees thus earned entirely by professors and teachers, paid by the University, or from other public funds (a small portion of it being earned in the School of Practical Science), is no

trifling sum, being $34 from every first year's student, and $37 for every student in the second year. Allowing sixty students in each of these years, the total amount would be $4,260.

According to ordinary business principles, this money should go, without any deduction, towards the payment of the salaries of the teachers who give the instruction.

This would make just so much more public money available, for the many purposes where it is so much needed, especially in the Arts Department of the University. Sir Daniel Wilson himself, however, after making certain deductions from these fees, for one purpose or another, admits that those for Chemistry (general), and Physiology, do go into the medical fund—this amounts to $24 per student in the first and second years respectively—sixty students in each year will give 120x24, = $2,880. This sum is earned wholly by University-paid Arts Professors, and clearly, therefore, belongs to the Arts Department. It would go a long way towards paying the small salaries given to assistant teachers in many of the Arts Departments where extra teaching is much needed, but cannot be had, to the extent required by the students, from want of funds. In the self-sustaining colleges, all the teaching is done in every subject by the Professors, who are paid out of the fees they earn—and all expenses are also paid out of these fees. Sir Daniel himself admits that some "re-adjustment of some of the arrangements heretofore adopted in reference to the special medical fund, may commend itself to your judgment under present circumstances, is possible."

IX.—Important Points Left Unnoticed—Irrelevant Matters Dragged in.

Sir Daniel passes over without the slightest notice, the self-evident injustice of subsidizing one medical college at the public expense, and tacking it on to the Provincial University as its Medical Faculty, thus bringing it into unfair competition with the other FIVE which are altogether self-sustaining. Nor does Sir Daniel allude to the fact stated in my letter, that the work done in the latter institutions has been proved year after year for many years, before competent medical boards at home and abroad, to be as good as any done in Canada. This is absolutely undeniable. The restoration of a Medical Faculty to the Provincial University has been proved once more to be a very great, and quite an unnecessary, expense to the University and the country. One disastrous result has been to de-provincialize the University in Medicine, making her, not a friendly co-worker with all our medical colleges, as from her provincial character she should be, but bringing her down to the undignified and unprovincial position of being a keen and a most unfair, because a subsidized, competitor, with every one of them, for each student—and this notwithstanding the fact, that some of these colleges, our own for example, have been for many years affiliated with her, under their respective charters. The President sees fit to drag Medical Council matters, too, into his letter. What have these to do with the question of the unfair public subsidizing of medical education in one college out of six? The gentlemen to whom the speaker in the Medical Council refers, quoted by Sir Daniel, are amongst the best friends of that body, and are excellent judges as to what is its wisest and best policy. All they desired was, to have time given for the careful consideration of every step, when great changes are being made, so as to avoid the taking of even one false step, which might create trouble and possibly have to be retraced. The President also refers to Trinity Medical College having been asked five years ago to join in the formation of the restored Medical Faculty. There is no use bringing this question up now, as at present, it has no bearing whatever on the matter in hand. One objection to her doing so, which is unanswerable, is stated in my letter, that "Medical colleges large enough to require the services of a complete staff of professors and other teachers, can no more be rolled together than can large congregations, or public schools." Besides this, Sir Daniel knows very well, that the scheme submitted in 1887 to Trinity Medical College, and the agreement made subsequently by the University, with the Toronto School of Medicine, were very materially different. The learned President, too, thinks it a good plan as in Edinburgh, to have many hundreds of students attend the same classes. This necessitates the employment of a perfect army of grinders, causing a large additional expenditure to every student. Besides, professors who can keep up the attention and profitably teach classes of several hundreds are few and far between, either in Canada or elsewhere. As a practical medical teacher, I much prefer the London plan, of having self-supporting medical schools with large, yet not too large, classes, as better both for professors and students. Once more, I am surprised that the President should have stooped to refer to a matter long since fully answered, but to which he calls even special attention. This is the closing paragraph of an old letter of mine, dated March, 1887. The President should have said, but he did not do so, that this entire letter was written for the very purpose of showing how "unwise" and "undesirable" it would be, to restore a Medical Faculty to Toronto University, that to do so would reduce the University so far as Medicine was concerned, from her Provincial position as a centre, round which all the medical colleges might cluster, each sending up a quota of its students to graduate every year, to that of a mere local college competing keenly for students.

In the light of to-day, does this not seem somewhat prophetic? The only part of this letter Sir Daniel quotes, is the very end, "I think it will be ample time to give the subject full consideration, when we learn that the Government of Ontario, with the cordial support of our Provincial Legislature, has fully decided to create, equip and endow liberally, a new medical teaching body; and to provide for it a staff of the best teachers the country can furnish; each of whom shall have a salary secured to him of not less than $2,000 a year, for each of the principal chairs; and suitable retiring allowance, when, from age or ill-health, he is no longer able to discharge his duties. Till this is done the project is a mere "castle in the air"

This letter ended as it did, only because on indubitable authority I was informed, and then believed, that the "conditions" pre-supposed by me, of "endowing and equipping," the giving of salaries and retiring allowance, etc., were just as likely to occur, as would be the appointment of Sir Daniel Wilson, as Admiral in Chief of Her Majesty's Navy, or the extension of the Toronto Street Railway to the moon, and no more so. The old letter is filled with all sorts of reasons showing that matters had much better be left as they were, and that the proposed scheme would be very unlikely to work well, and that the carrying of it out, bristled with many real and most practical difficulties. Has this not proved to be the case?

In answering my letter, Sir Daniel has left entirely out of sight its principal feature, viz., the huge injustice and impolicy of subsidizing with public funds, *one* and *only one* of our six medical colleges. Yet this is one of the main points of the whole discussion—not only so—but he defends all the outlay of public funds connected with this injustice, and has shown himself ready, and even anxious, to increase it, and he never so much as mentions the crippling effect of the recent unprecedented expenditure on the other departments of the University.

In the absence of sound, and often of any, arguments against my contention, he has resorted to all sorts of detraction, and has, as I have already said, put into my letter as used by me, against the authorities of the University, words I never wrote or spoke, and thoughts that never once entered into my mind; whether the words I allude to are Sir Daniel's own, or merely quoted from an official letter addressed to him, and endorsed by him, or not, I do not know, but in either case they are, to use the mildest word possiblo, entirely and most mischieviously incorrect, and misrepresenting. He has dragged all sorts of subjects into this discussion, which have nothing more to do with it than the fixed stars.

In this reply, much longer than I could have wished, I have striven to confine myself closely to the subject under consideration. I close by sincerely hoping that very soon a settlement of this question *just* to all concerned, may be reached by the Government.

I have the honor to be,

Yours with the greatest respect,

WALTER B. GEIKIE,

Dean Trinity Medical College.

HOLYROOD VILLA, MAITLAND ST.,
TORONTO, March 10th, 1892.

ADDENDA.

I.—The Present Position of the University Law Faculty.

Also authorized by the Act of 1887, has perhaps, however, given the best clue of all, to a wise and just solution of the whole matter. Entirely unlike the University of Toronto Medical Faculty, the Faculty of Law is most properly constituted as not to be in direct, or in any kind of competition either with the present law school in Toronto, or with any branch of it, which may be hereafter established elsewhere. On this ground alone, were there no other, the Law Faculty is quite unobjectionable.

The Law Faculty of the University of Toronto, in striking contrast to the Medical Faculty, has not cost the University or the public one farthing, for buildings, equipment, or for anything else. So far as is known neither any lawyer, nor the law school can justly make any objection to the present constitution of this faculty, of which the legal profession may well be proud. The law professors in the University, as well as the lecturers are unsalaried and honorary only—and the occasional lectures they give are of so general a character as to be a proper study for any one claiming to be well educated in the proper sense of the term. The members of the Law Faculty have evidently been selected for their acknowledged eminence, a feature worthy of all commendation. If the University of Toronto *must* have a State Medical Faculty of some kind, there could be no objection fairly brought against it were it constituted exactly on the model of the Law Faculty as this at present exists. With the professors and lecturers made honorary only—selected from the very best names in the various teaching medical colleges of the province. The occupying of this position need not and should not at all affect the relations af the professors so appointed to the medical colleges to which they respectively belong. Such a faculty could well act as University examiners in medicine, and being provincial in its character would be not only in keeping with the character of the University, but would be sure to attract students for

examination from all quarters, any lectures the faculty might give would be optional and special — and on such subjects of general interest as would be calculated to do good to the general profession, and to the public. The extensive buildings recently erected at the public cost, and now used chiefly for medical teaching purposes could be well utilized by the University — for example, for a mineralogical lecture room and laboratory, which are much needed. Some other departments of this work could readily use the newly built dissecting rooms which, being lighted from the roof, would be admirably adapted for many useful purposes.

II.—Mineralogy and Geology in the University of Toronto.

To the Editor of the World:

SIR,—In your notice of the last meeting of the University Senate it is stated, with regard to a report from a special committee appointed to inquire in the department of mineralogy and geology, that certain temporary accommodations in the biological department have been arranged to the satisfaction of Prof. Chapman, leaving the question of more permanent accommodation for future consideration." May I beg to assert most emphatically that the proposed arrangements are in no way satisfactory to me, except as the merest temporary expedients? By an abuse of power I have been thrust, against my strenuous protest, into the medical portion of the biological building, where I have to share with the medical faculty an anatomical theatre as a lecture room, into which dead bodies are constantly brought, and in which it is not possible to make proper arrangements for the efficient teaching of my subject. Of course, if I can have nothing better, I must do the work as I best can; but were I to say that an arrangement of this kind was "satisfactory" I should be wanting in duty to my students and the public, as well as to the University itself.

I have asked that some disinterested person, some expert accustomed to teach natural science, be invited to report upon the requirements and the present state of the department, but this does not seem to meet with approbation. I have reason to believe that the Government of Ontario would willingly see this department—so important in a country like ours—put upon a proper footing, but some occult influence seems to stand in the way. One would suppose that my experience of more than forty years as a professor in this country and in England, and the fact that my name has obtained honorable mention in a score or more of British, American, French and German works, would entitle my opinion to some consideration; but as medical students do not attend the department it seems impossible to obtain due recognition of its value. Whilst large sums have been spent and are being spent on other departments, any accommodation would appear, in the estimation of the university authorities, to be good enough for the Department of Mineralogy and Geology, but the public must not suppose that I am willing to endorse this view or to accept the situation without protest and complaint.

E. J. CHAPMAN,

Professor of Mineralogy and Geology in the University of Toronto.

TORONTO, March 15th, 1892.