Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- ☐ Coloured covers / Couverture de couleur
- ☐ Covers damaged / Couverture endommagée
- ☐ Covers restored and/or laminated / Couverture restaurée et/ou pelliculée
- ☐ Cover title missing / Le titre de couverture manque
- ☐ Coloured maps / Cartes géographiques en couleur
- ☐ Coloured ink (i.e. other than blue or black) / Encre de couleur (i.e. autre que bleue ou noire)
- ☐ Coloured plates and/or illustrations / Planches et/ou illustrations en couleur
- ☐ Bound with other material / Relié avec d'autres documents
- ☐ Only edition available / Seule édition disponible
- ☐ Tight binding may cause shadows or distortion along interior margin / La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure.

- ☐ Coloured pages / Pages de couleur
- ☐ Pages damaged / Pages endommagées
- ☐ Pages restored and/or laminated / Pages restaurées et/ou pelliculées
- ☑ Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
- ☐ Pages detached / Pages détachées
- ☑ Showthrough / Transparence
- ☑ Quality of print varies / Qualité inégale de l'impression
- ☐ Includes supplementary materials / Comprend du matériel supplémentaire
- ☐ Blank leaves added during restorations may appear within the text. Whenever possible, these have been omitted from scanning / Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été numérisées.

☑ Additional comments / Commentaires supplémentaires: Continuous pagination.

THE

CANADIAN PRACTITIONER

EDITOR:
ADAM H. WRIGHT, B.A., M.D. Tor.

ASSOCIATE EDITORS:
JAMES F. W. ROSS, M.D. Tor. JOHN CAVEN, B.A., M.D. Tor.
EDMUND E. KING, M.D. Tor.

PUBLISHERS:
THE BRYANT PRESS, 20 BAY STREET.

VOL. XX.] FEBRUARY, 1895. [No. 2

Original Communications.

PATHOGENESIS OF SIMPLE GASTRIC AND DUODENAL ULCERS.*

BY DR. W. J. GREIG, B.A., L.R.C.P. LOND.,
TORONTO.

THIS specimen of a perforating duodenal ulcer was removed from the body of a man aged 57 years, a laborer by occupation. He was seized with a severe cramp (as he called it) in the bowels at 10 p.m., and in twenty-four hours was dead. Up to the time of his seizure he had enjoyed the best of health. He had suffered from no symptoms of indigestion, and had worked full time on the day preceding his death. There was absolutely nothing in the previous history to give a clue to the condition found post-mortem. The disease was essentially latent in character.

This paper is undertaken with the view of discussing briefly some of the theories which have been advanced to account for these ulcers, and

* Read at open meeting of the Toronto Pathological Society, Jan. 25th, 1895.

also in the hope that a discussion will be started which will elicit much valuable information. With tubercular, cancerous, and diphtheritic ulcers this paper has nothing to do. We propose to discuss simple ulceration alone.

In the production of duodenal ulceration, the same causes operate as in gastric. They are peptic in origin; that is to say, they are produced by the action of the gastric juice on the mucous membrane. The truth of this statement is, to my mind, demonstrated by the fact that these ulcers are not found lower in the duodenum than the biliary papilla, where the alkaline bile flowing into the bowel neutralizes the acid secretion of the stomach. Samuel Fenwick has suggested that the different nature of the ulcers found below the orifice of the bile duct is due to the greater development there of the lymphatic system. It is implied in this that the gastric juice has no particular influence in the production of gastric ulceration, that these ulcers are all inflammatory, and that they would be more frequent in the lower bowel if the irritants producing inflammation were not more effectually carried off by the lymphatics.

That the gastric juice is capable, however, of producing ulceration is shown in the fact of the post-mortem digestion of the stomach. It may be objected to this that the post-mortem stomach is dead tissue, but the condition of that particular part of the stomach wall subsequently ulcerated is in a condition of lowered vitality from some cause. The difference between it and dead tissue is of one degree only.

Granted, then, that these ulcers are peptic in origin, it may be very justly asked, Why is not the healthy stomach digested? It might with equal right be asked, Why does not the pancreatic secretion digest its own cells, duct, or the duodenum into which it empties? Why does it limit its action to the contents of that canal? Going to the invertebrata for an example, Ewald has pointed out that there is a mollusc, the dolium galea, which secretes harmlessly to itself pure sulphuric acid, while the dead animal is at once destroyed by that acid. Can we tell why this is so? The only answer that can be given at present is that the stomach is protected by the healthy action of the living cell. Cell life and action of each viscus varies with the nature of the work it has to perform, and so long as this healthy vital action exists we need fear nothing.

Pavy, in 1868, asserted that the stomach was protected by the alkalinity of the blood. Cohnheim accepted this and elaborated it, pointing out that malignant tumors of the stomach were protected and enabled to grow by their profuse alkaline blood supply. That this cannot be accepted as a reason is seen in the following facts:

(1) The superficial layers of the mucous membrane are not alkaline, but acid in reaction.

(2) Samuelson has shown that the blood may be made acid, yet ulceration does not occur.

(3) There is an inconsistency in the doctrine, because an acid juice impinging on an alkaline mucous membrane would either become alkaline itself, and thus lose its digestive powers, or render the mucous membrane acid, in which case the theory would not hold.

It is evident, then, that other factors are necessary in the production of gastric ulceration. What are they?

Let us look briefly at the effect of traumatism of various kinds. Ewald relates the case of an American sailor who, in the course of ten years, had swallowed the whole or part of thirty knives. After death there was found in the stomach thirty pieces of knife blades, together with parts of handles, but no sign of recent or old ulceration. This case shows how much a healthy stomach will stand. Ulceration has, however, been produced by rough sounding, by the ingestion of hot food and drink, by corrosive poisons, by violent vomiting. Ulceration has also followed external violence, a blow or fall. Habershon points out that tailors, weavers, and shoemakers often suffer from this disease, probably due, in part, to pressure on the stomach in the course of their work. Rassmussen, in 1887, found furrows or grooves in the mucous surface of the stomach, produced by the pressure of the costal edges in tight lacing. It is, however, a well-recognized fact that the majority of ulcers produced in this way heal readily, thereby differing from the chronic, in which healing is so slow and relapse so apt to occur.

In view of this, the question becomes not so much what produces these ulcers as what prevents them from healing. In this connection certain experiments on animals are of interest. Schiff produced ulceration by an injury to the anterior corpora quadrigemina. Koch and Ewald did the same by a partial section of the spinal cord. Panum, and afterwards Cohnheim, and many others, by introducing multiple emboli into the gastric arteries. Daettwyler made the observation that ulcers produced in these various ways healed readily, but in cases where the animal was rendered anæmic previously by repeated venesections, or where hæmoglobinuria had been produced by artificial means, the ulcers healed very slowly. This latter observation is one of special interest to us, agreeing, as it does, with our clinical observation of these cases in practice. Gastric ulceration occurs most frequently in young adults suffering from anæmia, or some of its kindred states, and it is very slow to heal.

The course of these ulcers occurring in anæmic individuals may be briefly described as follows: An injury is received by the mucous membrane of the stomach, either by internal or external means. This is generally followed by a follicular hæmorrhage into the stomach wall, which prevents proper nutrition of that spot. The gastric juice acting on this

produces an ulcer, which is retarded in healing, owing to the defective nourishment supplied by the blood, assisted by the hyperacidity of the gastric juice, of which we will speak later.

At this point an interesting question is presented: Whether it is necessary or not to assume the occurrence of an injury to the mucous membrane previous to the formation of an ulcer? Retinal hæmorrhages occur not infrequently in anæmia. It has been asserted that these hæmorrhages occur in the stomach as well without an injury.

With a view of clearing up this question, Soltau Fenwick undertook certain experiments on animals in the way of producing an artificial anæmia by the introduction of chemicals into the blood. He found that ulcers were produced, that these ulcers gave evidence of antecedent hæmorrhage, but were invariably multiple, and were more frequent at the fundus. Thus they differed from the ordinary clinical ulcer, which is, in the majority of cases, single, and generally at the pyloric end of the stomach.

Virchow's explanation of the cause of these ulcers has gained general acceptance in the past. Briefly stated, it is as follows: "A hæmorrhagic infiltration into the walls of the stomach occurs as the result of a local disturbance to the circulation, followed by solution by the gastric juice. The diseases of the blood vessels of importance in this connection are embolism and thrombosis, atheromatous, fatty, and amyloid degenerations, obliterating endarteritis, aneurismal and varicose dilatations, compression of the veins in vomiting, and in gastralgia, congestion following portal congestion." The chief argument against the embolic theory, on which Virchow laid the greatest stress, is the fact that where gastric ulcers occur there is no known source of embolism, and where there is a source of embolism, as in vegetative endocarditis, gastric ulcers are seldom found. The walls of the stomach are particularly free from embolism. In 112 autopsies performed by Dr. Johns at the London Hospital on cases of ulcerative endocarditis, 62 per cent. of the cases had embolism in other organs, but none in the stomach. Welch states that a convincing case of embolism as a cause of gastric ulcer has never been published. Janeway's case, published in 1871, was the nearest approach to it. He found an embolism of the gastro-epiploic artery, which was continued into the nutrient artery of an ulcerated piece of stomach. That embolism is, however, capable of ulceration has been shown by numerous experiments, but these same experiments have also shown that these artificial emboli attack the fundus of the stomach, whereas the round, simple ulcer generally attacks the pylorus. Embolism as a cause, except in very rare cases, may be practically excluded. It has been found in one case of duodenal ulceration.

Thrombosis as a causative agent has more to support it. It is generally associated with some disease of the blood vessels, some

atheromatous or other degeneration. The effect of such a change is a chronic malnutrition of the mucous membrane. Thrombosis may occur if the blood current is slow or the intima of the blood vessel is diseased. Sooner or later, hæmorrhage occurs in the stomach walls, followed by digestion by the gastric juice. This is a very common cause in elderly people with degenerative changes in the vascular system. These ulcers are very slow to heal on account of the malnutrition. Norman Moore, of St. Bartholomew's, has reported a number of cases associated with atheromatous and fatty changes in the arteries. Welch found an extensive obliterating endarteritis in one case. Powell and Hauser found small aneurisms in the floor of gastric ulcers. All the other changes mentioned have been found associated with the condition under discussion.

Another theory which has been discussed is that gastric ulceration is produced by the excessive secretion or excessive acidity of the gastric juice. Wilson Fox, in "Reynold's System of Medicine," first made this observation, the occasion of it being the production of a gastric ulcer by a dose of hydrochloric acid. Reigel is the modern apostle of this doctrine. He claims that in forty-two cases treated by him hyperacidity was present in all. On the other hand, Gerhardt, Rosenheim, and Ewald have all reported cases in which hyperacidity was not present. In view of the opposing testimony, we can only conclude that hyperacidity is a frequent but not an invariable accompaniment of gastric ulceration, and is just as likely to be the result as the cause of that condition. Its presence, however, would have a great effect in retarding the healing process.

I wish to say a few words on the relationship of burns of the skin to duodenal ulceration. The attention of the profession was drawn to this relationship years ago by Mr. Curling. Afterwards Mr. Holmes collected a series of cases at St. George's Hospital, in which, out of 125 deaths from burns, there were 16 cases of duodenal ulceration. A recent collection has been made (of the cases) at Guy's, covering the last fifty years. One hundred and forty-nine cases of burns were examined, and in only five was there any duodenal ulceration, *i.e.*, a proportion of one in thirty.

The association of septic conditions with duodenal ulceration was long ago suspected by Billroth. Two recent writers, Drs. Perry and Shaw, have lately collected 18 cases in which this association was present. In 10 there were sloughing of the skin or cellular tissue. The origin of the sepsis in the other cases was otitis media, perineal abscess, empyema, perinephritic abscess, hip-joint disease, etc. The explanation of the relationship is as follows: It has been long known that congestion of the mucous membrane of the alimentary canal, with petechiæ under the mucous and serous surfaces, takes place in septic processes. These petechiæ, occurring between the pylorus and the biliary papilla, are acted on by the

gastric juice, and typical duodenal ulceration is produced. A distinction must be pointed out between the redness and congestion of the alimentary tract produced by the backward pressure of heart disease and cirrhosis of the liver and that produced by septicæmia. The former process is very rarely accompanied by ulceration, the latter very frequently. The reason lies in the virulence of the septic process causing a greater impairment of the vitality of the tissues, which thus more readily break down under the influence of the gastric juice.

It was known by Mr. Curling that burns also were often associated with congestion and ecchymosis of the alimentary tract. He observed, however, that the ulcers were limited to the duodenum, and, not being cognizant of the influence of the gastric juice, he concluded that the congestion and ecchymosis had nothing to do with the formation of the ulcers. A Dr. Hunter has shown that by subcutaneous injection of certain poisons under the skin of dogs, an ecchymotic and occasionally an ulcerated condition of the duodenum has been produced. In view of these circumstances, and of the fact that the proportion of duodenal ulcers in burns is about the same as in septicæmia, and in view of the fact that absorption of septic matter does occur sometimes in burns, the writers before referred to conclude that the duodenal ulceration associated with burns is septic in origin, and is produced by the action of the gastric juice on the devitalized tissues.

131 Sherbourne Street.

NOTES ON CERTAIN FORMS OF PERIPHERAL LESION IN INFANTILE PARALYSIS.*

By A. Primrose, M.B., C.M. Edin.,
Associate Professor of Anatomy, University of Toronto; Surgeon Outdoor Department, Toronto General Hospital; Surgeon, Victoria Hospital for Sick Children.

THE following remarks are confined wholly to certain gross manifestations in infantile paralysis; the microscopic appearances are not described. A dissection was made of a leg amputated at the knee-joint. The indications for the operation were that the limb was absolutely useless—a "dangle-leg": the child had completely lost muscular power over it, and was unable to walk on crutches, because, although the limb of the opposite side was healthy, the dangle-leg would swing forward with the body at each step, and would knock the crutches from under him. The child was a boy thirteen years old who had suffered at an early age from infantile paralysis, which left him in the condition specified. The dissection of the amputated limb revealed a condition of extreme atrophy. The muscle (fig. 1) was very much wasted, and was almost wholly represented by fibrous tissue with a few muscle elements interspersed among the fibrous bundles. Thus, in the figure, the gastrocnemius is represented, cut and turned aside with the plantaris; the soleus muscle is exposed with its connections unsevered, the tendo-Achillis and the structures at the inner ankle are exposed. Several features are worthy of special note. There appears to be little or no fat in the substance of the muscles themselves, and a remarkably small quantity between the muscles; on the other hand, the subcutaneous fat is very abundant. By actual measurement it was found that the layer of skin, plus subcutaneous fat in the middle of the calf, was one-half inch in thickness, the total thickness of the limb two and a half inches; or, in other words, the total thickness of the limb was made up of, muscle and bone, 1½ inches, with skin and subcutaneous fat, 1 inch. The circumferential measurements in the middle of the calf were as follows—total circumference of limb, 7½ inches; after denuding the limb of fat and subcutaneous tissue the circumference was 4¼ inches, the latter including merely the muscles and bones.

*Communicated to the Pathological Society of Toronto.

There seemed to be, therefore, proportionately undue development, or, rather, a remarkable absence of atrophy in the subcutaneous fatty tissue.

The dissection further showed a very definite atrophy in the nerves distributed to the parts; thus the posterior tibial nerve was represented by a mere thread of tissue. The vessels, too, were much diminished in size. The conditions described in this limb are those usually described as occurring in infantile paralysis, with the exception of the extraordinary development of the subcutaneous fat. The condition here found may be unusual, and may not be typical, but it proves that certain statements made

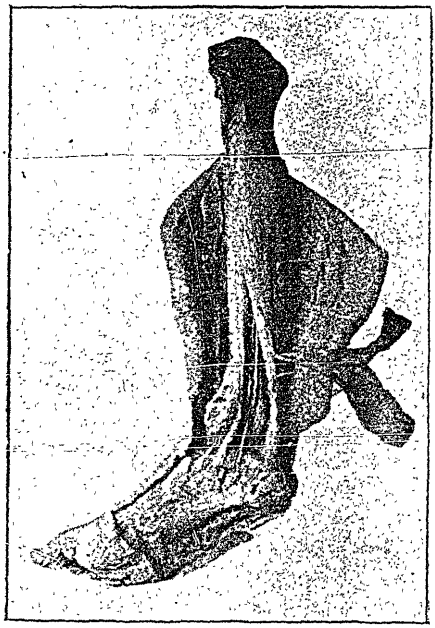


Fig. 1.

concerning these lesions are not of universal application. Thus the writer in Keating's Encyclopædia, on Diseases of Children, makes the following statement in regard to the nutrition of the parts: "The skin becomes adherent to the connective tissue underlying it, and when one attempts to pinch up the skin it cannot be separated from the tissue as in the healthy skin, but the whole mass is brought up together." One is apt to believe that the writer referred to based his conclusions on the clinical phenomena, and has not had due regard to the pathological evidence as arrived at by dissection. Considering it from an anatomical standpoint, one would be inclined to

think that the undue development of the subcutaneous fat produces the condition which prevents one from pinching up the skin and separating it from subjacent structures. The fat is developed in the meshes of the subcutaneous connective tissue, atrophy of this fatty tissue flattens out this meshwork, permits of the demonstration of the subcutaneous tissue in a membranous layer, and allows of free mobility of the skin. On the other hand, undue development of the subcutaneous fat opens out the meshwork, so that the subcutaneous fascia is no longer membranous, but is enormously thickened and its fibrous character masked. Under such circumstances the skin moves with the fat, and is not lax and mobile, but would give one the impression of being attached to the deeper parts. One cannot see why the skin should become attached in the manner suggested by the writer referred to. In fact, the clinical phenomenon referred to by this writer of the immobility of the skin, and the evidence afforded by the dissection described in this paper, would point to a condition of affairs in infantile paralysis in which the subcutaneous fat is either unduly developed, or, at all events, does not take part in the general atrophy of the tissues of the limb.

This condition of the subcutaneous fat in infantile paralysis opens up an interesting question as to the primary lesion in the anterior horns of grey matter in the spinal cord, and the effect of their involvement on the trophic nerves distributed to the subcutaneous fat. Gowers, in speaking of vaso-motor and trophic disturbance in the spinal cord, and more particularly of the changes in the nutrition consequent upon such conditions, remarks that "the changes in the nutrition of the skin, if slight and chronic, resemble those produced by disease of the nerves, and suggest disease of the *posterior* roots." In thus relegating the trophic nerves for the skin to the *posterior* roots, it would seem reasonable to suppose that in *anterior* poliomyelitis the skin and probably the subcutaneous tissue would escape, and would not take part in the atrophy affecting the muscles. The growth of bone is retarded in infantile paralysis, a fact demonstrated in the case under discussion, as the limb of the affected side was much shorter than its fellow. Concerning this "retardation of growth," Gowers states that "there is scarcely sufficient ground for calling it an atrophy comparable to that of the muscles."

The considerations thus submitted concerning the condition of the subcutaneous fat in infantile paralysis would lead one to suggest that the usually accepted statements regarding it are incorrect. The case presented proves that these statements are, at all events, not universally true, and we believe that further investigation will show that the subcutaneous fat does not undergo atrophy in such cases.

HEMIATROPHY OF THE TONGUE.—The figure (No 2.) represents a reproduction from a photograph of this interesting condition, occurring in a boy nine years of age. There is no paralysis of sensation. The tongue is shrivelled, and presents a number of furrows and rugæ which are observed in the figure. The interest in the case is the fact that the condition is wholly restricted to the hypoglossal of the left side ; there is no other pathological lesion indicated, and it is apparently of central origin. The disease is rare at this early age. We are inclined to look upon the condition as one of infantile paralysis. Eighteen months ago the boy suffered from an attack of this disease, which ran a typical course, as the

Fig. 2.

following history indicates. In August, 1893, he was confined to bed on account of severe pain, which began in the epigastrium and spread until the back, neck, arms, and legs were involved, he was feverish and lost the strength of his limbs, so that he was unable to walk. The weakness continued until the following October, when he began to recover the use of his limbs, and early in that month he was able to walk a little, but the right leg was "drawn up" and he was lame. He regained strength completely on the left side, but the right side continued weak, and it was noticed that the right thigh and leg were smaller than those of the left side. At

present the only indication of the affection of the limbs is found in the circumferential measurements, the thigh and calf of the right limb being three-quarters of an inch less in circumference than those of the left side. The tongue first attracted attention in May, 1894, when the mother observed two notches about its centre, and this gradually extended until one-half of the tongue became shrivelled. The hypoglossal nucleus is the direct continuation upwards of the cells of the anterior horn of grey matter in the cord, and this case seems to illustrate a condition similar to that commonly associated with anterior poliomyelitis. Hemiatrophia of the tongue of *central* origin is not an extremely rare condition in the adult; it is, however, rare at any age as the result of a *peripheral* lesion. A very interesting case of the latter variety was presented by Dr. Birkett, of Montreal, before the Ontario Medical Association at Toronto in 1890.*

* *Montreal Medical Journal*, March, 1894.

SYMPHYSIOTOMY.

By G. P. Sylvester, M.D.,
Toronto.

THE literature of symphysiotomy is so limited that I think it behooves every physician having cases to report them, believing as I do that there have been many infantile lives sacrificed by embryotomy which might have been saved had symphysiotomy been an established operation. The operation is not by any means new, as we are told that it was performed over a hundred years ago, and, while it fell into disrepute at that time, its practise is now an evidence of the advancement that has been made in surgery during the past few years. This has largely been brought about by the use of antiseptics, and the increased facilities for operating. The boldness in operating, which grew out of the success made possible by this principle, induced surgeons to throw off the shackles and fears of the past, and apply the light of the present to this as to other operations. In symphysiotomy we have, in my judgment, an operation that will largely supersede the more formidable operations of Cæsarean section and embryotomy. At the same time it must be admitted that there are cases where Cæsarean section is the only measure left to relieve the patient, and there are other cases where embryotomy is preferable to either. The Cæsarean operation is demanded in cases where the conjugate diameter is less than two and a half inches, or where there is a laterally distorted pelvis, or where an exostosis may exist that will exclude all possibility of delivering fœtus *per vias naturales*. Embryotomy is preferable to either in cases where the fœtus is not living, also in hydrocephalus, or in cases where the consent of the patient or her husband to symphysiotomy cannot be obtained. I might here add that such consent is absolutely necessary in all cases of the operation of symphysiotomy, in order to protect yourself from further trouble by legal proceedings for malpractice. However bright the prospects for the operation are in the future, it still remains true for the present that there are cases in which we do not get perfect union. In private practice, therefore, it is essential that we should carefully protect ourselves. Symphysiotomy, as far as I can find out, dates

back to 1777, when the first operation was performed by Jean Rene Sigault. It fell into disfavor until 1886, when it was revived in Naples, but outside of Italy it received but little attention, and it was not until Harris, of Philadelphia, collated the operations that had been performed from 1886 to 1892 that surgeons became favorably impressed, and after that numerous cases were reported in different countries with such good results that it is now no longer an experiment, but an established fact.

The aim of the operation is by a section of the pubic joint to allow separation of the pubic bones, thus increasing the diameter of the pelvis sufficiently to allow the normal delivery of the fœtus, which would otherwise have to be sacrificed, so that it is done entirely in the interests of the child, while at the same time, as compared with the Cæsarean section, you are exposing the mother to the least possible danger in order to get relief from her existing condition. By operating on the cadaver, which I have always done on every available opportunity, and which I would advise every physician to practise and become familiar with, as he cannot tell when a case may arise demanding symphysiotomy, I find that the symphysis can be separated from one to two and a half inches without inflicting any injury to the sacro-iliac joints. As a result of this separation, which should in all cases be limited as far as possible, all the diameters of the pelvis are increased, the lateral more than the antero-posterior in actual measurement of the bony parts; but during delivery the space between the pubic bones becomes pressed out by the prominent parts of the fœtal head, which gives us a further gain in the conjugate diameter.

The indications. The indications for the operation are a living fœtus, a mother and fœtus not too much exhausted, and a pelvis contracted to such an extent that it is impossible to deliver the child by either version or forceps. This information can only be obtained by careful measures with pelvimeter, by means of which you are able to estimate very accurately the capacity of the pelvis. If, however, you have not a pelvimeter at hand, you can safely rely upon the index finger as a good guide. If, in making a digital examination, you can with ease reach the promontory of the sacrum, you can rest assured the conjugate diameter is far below what it should be. Thus, by inserting the index and middle fingers into the vagina, if the promontory of the sacrum can be reached, the wrist is then carried forward until the edge of the index finger rests against the lower edge of the pubic symphysis. The index finger of the left hand notes this subpubic point. The fingers are then withdrawn, and measured from the end of the middle finger to the noted point on the edge of the right index finger. This will give you the sacro-subpubic diameter, and, by deducting from one-quarter to one-half an inch to allow for the obliquity of the

symphysis, we get the sacro-pubic or true conjugate diameter. If we find this below two and a half inches, it is not a suitable case for symphysiotomy, and Cæsarean section would have to be preferred. The operation is purely extraperitoneal, and the bladder and urethra lying immediately under or behind the symphysis are the only parts that require careful protection during the operation, and in bringing together the parts after the operation so as not to include a fold of the bladder or a portion of the urethra between the pubic bones. The hæmorrhage, as a rule, is slight, and easily controlled by artery forceps or tampoons.

The principal factors that control the success of the operation are careful selection, not attempting it either in a lateral distorted pelvis, or in one with measurements below those I have already mentioned, and the most careful and perfect regard for antiseptics, and above all, if you have decided to operate at all, do it early, and do not allow patient or fœtus to become exhausted by prolonged labor.

Technique of the operation. The method that is received with the greatest favor is the one from behind forward, making it as largely as possible subcutaneous. In this form, the external wound is much smaller, and there is less hæmorrhage and less danger of infection during convalescence, and, I think, less danger of wounding the bladder or urethra. The woman having been anæsthetized, the abdomen is prepared as for an abdominal section. Have the pubes shaved, the abdomen and thighs thoroughly washed and disinfected, and wrapped in aseptic towels, the bladder and rectum emptied, and then apply a strong bandage six inches wide around hips to prevent too much separation of pubic bones. The patient is placed on a table, lying square on the back, knees drawn well up and separated, assisted by nurse on either side. Having all instruments thoroughly antiseptic, an incision with the scalpel is begun in the median line, the knife being passed right down to the pubic bone. A sound or catheter has previously been given to an assistant to press the bladder and urethra down and backwards. You now extend the incision back in the median line to the extent of two and a half inches, taking care not to wound the urethra; all bleeding to be controlled, and the wounded arteries to be ligated. You now pass the index finger of the left hand behind the pubes, and you will be surprised how readily the tissues are separated from the back of the symphysis. If, however, you are not able to separate with the finger, use the handle of the scalpel. This being done, the left index finger is passed up behind the pubic joint, and along it a strong blunt-pointed bistoury; by upward and forward pressure and a slight sawing movement, it passes readily through the cartilage, and immediately the pubic bones separate with a distinct cracking noise. The Galbiati knife has been recommended by some, but, to

my mind, it is too large and takes up too much room, while with a blunt-pointed bistoury I have never yet failed to incise the cartilage with the greatest ease. In cases where anchylosis existed, neither would answer the purpose. In that case I would prefer a chisel or a chain saw. [It would be very interesting and instructive to have some report on the frequency of anchylosis at the pubic joint. Up to date I am unable to get any idea as to how frequently it occurs. In all my operations on the cadaver or living subject, I have never yet come across a case.] The separation that takes place varies from one to two inches, and this will depend upon the amount of force required to deliver the fœtus. As I said before, any hæmorrhage occurring during this stage should be controlled—arterial, by ligatures, and venous-oozing by tamponing with iodoform gauze. Some authors recommend leaving nature to finish the delivery, but it appears to me that, the os being dilated, it is absurd to wait. I immediately apply forceps, and, with care, deliver. At this stage care is necessary not to use too much force, and also to apply traction in the proper direction. The bandage, which has been put on before the operation, supports and protects the sacro-iliac ligaments very much, and I consider it a very necessary precaution in the operation, as injury or laceration of these ligaments is one of the great dangers during delivery. The third stage being completed, we now turn our attention to repairing the wound made necessary by the operation. An antiseptic sound is introduced in the bladder, and given to an assistant to press that organ and the urethra backwards carefully, while the bones are being brought into apposition. This is a most important precaution. Now wash all external parts thoroughly, and suture the wounds with deep sutures of either silkworm gut, or catgut, and cover with iodoform and collodion. This being completed, take a strong strip of adhesive plaster, six inches wide, and long enough to pass half way round the pelvis; and while assistants press the pubic bones tightly together apply this firmly round the pelvis, and over this a strong cotton bandage bound very tightly. A plan which I think better, and which I will use in all future cases, is to take a piece of strong canvas, six inches wide and from ten to twelve inches long, depending on the size of the patient, tack firmly on to two pieces of board, six inches wide and eight inches long, well padded on the inside so that they will rest on either side of the pelvis, extending from the great trochanter to the crest, so that by means of straps across the top of these pieces you can exert as much pressure as you require, and bring and keep together the pelvic bones, and it does not interfere in any way with the dressings. The legs should now be extended and tied together, and patient placed in bed. The after-treatment is precisely what you would recommend in an ordinary puerperal case, and from my observations, if every direction is strictly

carried out, I cannot see (barring complications over which we have no control) why there should not be a great and a glorious future for the operation of symphysiotomy, and hundreds of lives saved yearly that have in the past been sacrificed by embryotomy. In my own limited practice, extending over a period of twenty years, I can look back on half a dozen cases where life has been sacrificed that might have been saved had symphysiotomy been an established operation. There are very few physicians that cared to undertake the Cæsarean operation in private practice, where there are not the facilities we find in hospitals, and consequently they had to resort to embryotomy, being content with sacrificing one life instead of, in all probability, two lives. I am fully convinced that, in the future, when the results of symphysiotomy have been more fully demonstrated, the need of sacrificing even the one life will be a thing of the past. The following case is an evidence in this line:

CASE. Mrs. R., English, æt. 27. Third confinement. I saw the patient for the first time about October 1st, 1894, in Grace Hospital, when I got her history, which was fully substantiated by one of the nurses who had been present at her first and second deliveries, and knew with what difficulty she had been relieved by embryotomy. I made a careful examination, and was at once struck with what ease I reached the promontory of the sacrum, which, upon measurement with pelvimeter, indicated an antero-posterior diameter of 2⅝ inches, and with a finger, as I before described, 2¾ inches; otherwise the capacity of the pelvis appeared normal, but with pelvimeter showed an oblique measurement of 4½ inches, which is below the normal. From these measurements and the history of previous deliveries, I fully made up my mind it was either another case for embryotomy or a proper case for symphysiotomy, to be more fully determined after an examination of the presenting parts when labor began. Labor began on October 9th in the morning, and continued slowly through the day. I had the patient placed in a ward that had been thoroughly fumigated and aseptic. On further examination I found the os dilating slowly, and membranes protruding. The house surgeon called me up about 11 o'clock p.m., stating that pains were very severe, and wished my presence. On arrival, I found the os well dilated, and fœtal head high up in the pelvis and not at all engaged; presentation, as far as I was able to judge, was normal, but the head being so far up it was very difficult to say. I saw there was no use waiting longer, as I had already determined from the previous history and from measurements obtained that symphysiotomy was demanded. Accordingly, I proceeded at once. The patient was prepared as already described, placed on a table, and an anæsthetic given by Dr. Gray, the house surgeon; knees well drawn up, and supported by a nurse on either side. I now made an incision in the

median line, beginning about the middle of the pubic joint, and extended backwards about 2½ inches, passing knife directly down to the pubic joint and cutting backwards, taking care not to injure urethra, which was protected by being drawn down with a catheter in an assistant's hands. The hæmorrhage was slight, only one ligature being required, and that was near the base of the clitoris. The index finger was now passed along the posterior aspect of symphysis, when the fœtal head could be plainly felt above the brim, and pressing firmly against the pubic bones. It would have been impossible to have used a Galbiati knife in this case, the head was so firmly down on the bone. I now passed a long, blunt-pointed bistoury along my finger, using it as a director and guide. By means of gentle pressure and sawing motion, the cartilage was cut through with ease, also the subpubic ligament. The pelvis opened up at once with a distinct cracking noise, to the extent of about an inch, or as far as the bandage would allow. I now plugged the external wound with iodoform gauze, ruptured the membranes, applied forceps, and slowly and carefully delivered her in about half an hour, child living and healthy; placenta removed, a vaginal douche given of sterilized water and bichloride, about 1 in 5,000; external parts bathed; external wound thoroughly washed with a solution of bichloride, and three deep sutures of catgut; this covered with iodoform and collodion; sound was again introduced into the bladder to press bladder and urethra backwards, so as not to b: included between the pubic bones, which were now firmly pressed together, and retained by a long strip of adhesive plaster about six inches wide, extending almost completely round the pelvis; over this a strong cotton bandage bound very tightly; knees were tied together, and patient was now removed to her bed. The recovery was uneventful. There was no rise of temperature or pain, and the treatment recommended was such as in ordinary lying-in cases, with special care only in keeping bandage firm over the hips. If any future case should arise, I would use the side pieces well padded, as I have described before, as being more sure than a bandage. External wound healed by first intention. At the end of the third week, union of cartilage was perfect, but, as a safeguard, Dr. Bremner very kindly applied a plaster of Paris bandage about the pelvis extending from the great trochanter to an inch or so above the brim of the pelvis. I took this precaution in order to support the pelvis more thoroughly until such time as the cartilage would become firmer and stronger, which I think is a very necessary step in order to prevent any fear of motion.

The measurements of the fœtal head were: Occipito frontal, 4½ inches; Bi-parietal, 3⅜ inches; weight of child, 8 pounds.

By comparing the diameter of pelvis with the measurement of the fœtal head, we find the shortest diameter of head 3⅜ inches, and conju-

gate diameter of pelvis 2¾ inches, a clear ⅜ inch in favor of the head; add to this the thickness of the blades of the forceps, I think would preclude all possibility of delivering child *per vias naturales* alive. In this case the catheter was not required to be used after delivery. The following day, after plaster jacket was applied, the patient was allowed to get up and walk about slowly, which she did with the greatest ease and comfort. I have not seen any reference to the use of plaster jacket in these cases, but to me it seems a very necessary precaution. Two days later the patient left, feeling well and strong, accompanied by a healthy boy.

I have delayed reporting this case until such time as I was satisfied with the results, which I am glad to say are most gratifying; and, from my experience, I can fully recommend symphysiotomy to the faculty's serious consideration, believing, as I do, that by its adoption Cæsarean section and embryotomy will be less frequent, and many lives will be saved that are now sacrificed.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.*

By L. F. Barker, M.D. Tor.,
Johns Hopkins Hospital, Baltimore.

THE antitoxin treatment is a final step in a long series of investigations. The principles underlying it are not new; the methods of immunization now in use are not unlike those used by Pasteur in his earlier work, to which he was, undoubtedly, stimulated by the success of Jenner's vaccination. After it was found out that the symptoms and lesions in the infectious diseases were dependent, in the main, on the toxic products of bacteria, it was soon discovered that the chemical toxines formed by the bacteria were capable, when introduced in gradually-increasing doses into animals, of giving rise to an artificial immunity almost as certainly as the inoculation of the virus itself. Those who were attacking the problems of immunity—that is to say, were endeavoring to discover what changes took place in the body of an individual during and after an infection, such as smallpox, which rendered him, after thorough recovery, practically insusceptible to a second attack—studied the fluids and tissues of the body before, during, and after an infection. These investigations led to the formation of two schools: First, that which believes that the normal resistance offered against infection, and the immunity acquired by one attack, or by artificial means, depend upon certain properties of the blood serum; and, second, that which holds that the activity of the cells of the body accounts for the phenomena of both natural and acquired immunity. Dr. Nuttall showed that the blood serum of an animal that had been immunized against anthrax, when injected into another animal, would kill more anthrax bacilli than the blood serum of a susceptible animal. Other investigators proved that the use of the blood serum from an immunized animal would, when introduced into another animal, protect it from infection with the same microorganisms. Then Behring and his assistants demonstrated that the injection of the blood serum of animals rendered artificially immune against diphtheria and tetanus would heal these infections, even after they were well started in other animals. It was easier to understand how it would be possible to set up an artificial immunity against smallpox or typhoid fever than against diseases like diphtheria or pneumonia, for the latter are

*Abstract of paper presented to Maryland Clinical Society.

diseases from which an individual may suffer more than once. Immunity has to be looked upon as a relative term, and we may speak of a temporary and of a permanent immunity. An animal into which the bacterial toxines are injected has to suffer a reaction before it becomes immuned; a certain space of time must elapse before the antitoxines are formed. In the most successful method of producing artificial immunity, one begins by injecting small quantities of the well-diluted poisons. One of the most difficult problems in applying the serum therapy to human beings lay in obtaining a serum which contained the antitoxin substance in sufficient concentration, so that not too large quantities would have to be used for injection. Larger animals than those usually experimented upon had to be employed, and the horse has been, for various reasons, selected as most suitable. A small dose of diluted diphtheria toxines is at first injected into the region of the shoulder. The animal is somewhat disturbed, and does not take its food as usual. After several days a second dose is administered, increasing doses producing less effect, until, after a period of from four to six months, the horse is rendered immune, and the antitoxic strength of its serum may have attained a high degree. The serum is tested, from time to time, as to its antitoxic power, and when sufficient concentration has been reached the blood is drawn, the serum separated, standardized, and enclosed in flasks. Behring's so-called normal serum is of such a strength that one-tenth of one cubic centimetre of it will counteract, when injected with it into an animal, ten times the minimum amount of diphtheria poison which is fatal for a guinea-pig weighing three hundred grammes. One cubic centimetre of this normal serum is called an antitoxin unit. Serum No. 1, of Behring, is sixty times as strong as this normal serum, serum No. 2 one hundred times as strong, and serum No. 3 one hundred and forty times as strong. In treating the disease, the earlier the antitoxin is given the better will be the result. Of the cases treated during the first two days, practically one hundred per cent. get well. At first, too small doses were given; now, not less than six hundred units (one flask of No. 1) are given as a beginning dose, and, if the case be very severe, or be seen late, as much as sixteen hundred units may be given immediately. Within twenty-four hours after the injection the pulse, as a rule, is slower, the temperature lowered, and the patient feels better in every way. If the cases are not seen until the third or fifth day, when the organs may already be seriously affected, it cannot be expected that the antitoxin will have such a beneficial effect; it can only counteract the poisons then present; it cannot repair the damage already done. A few relapses have occurred after its use, and some deaths, but these were not, it is claimed, the cases treated from the beginning. Very gratifying statistics come from Germany and France; the mortality rate has been markedly lowered. The disease, Behring states, is now absolutely within the con-

trol of the physician. It was thought, at first, that one-tenth of the ordinary healing dose would suffice to protect those who had been exposed to the disease from contracting it. But it is now recommended that one hundred and fifty units be injected as a prophylactic or immunizing dose. Some curious after-effects have followed its use, such as urticaria and erythematous eruptions, pains in the joints, sometimes accompanied by swelling, but in no instance were these symptoms of serious import. Laryngeal complications, it is stated, do not develop if the antitoxin has been used before they appear. It is claimed that tracheotomy is rarely necessary, and that intubation will answer in those cases where the larynx is indicated. The antitoxin is not to be looked upon as a direct chemical antidote, for it does not act against poison in the same manner that an acid neutralizes an alkali; for example, there is evidence in support of the view that the antitoxin acts indirectly by rendering the cells of the body capable of resisting the action of the toxines. The antitoxin for one disease may act, to some extent, in increasing the resistance of the body cells against the toxines of different origin. For instance, while the blood serum of an animal rendered immune against snake poison has no antitoxic effect against the toxine of tetanus, yet an animal which is immunized against tetanus yields a serum which combats the toxic effect of snake poison, and there are other facts adduced which shake our confidence in the specificity of antitoxines. There may be, to a certain extent, an overlapping of the immunities. Diphtheria offers, as Buchner has pointed out, a better opportunity for the study of the effects of a new remedy than does tuberculosis; for, while the former approaches more nearly to a typical infection, the latter is almost a typical intoxication. Again, while tuberculosis runs a protracted course as a rule, and is subject to spontaneous exacerbations and ameliorations, diphtheria is an acute process terminating soon either in recovery or in death, and thus is a disease in which conclusions concerning the efficacy or futility of a given method of treatment may speedily be arrived at. Koch's tuberculin treatment differed from the antitoxin treatment of diphtheria in that in the former a glycerine extract of cultures of the tubercle bacillus were directly injected into the patient, there to set up a reaction which, after a time, was to lead to the formation of healing substances, while in the latter the toxines of the diphtheria bacilli are injected into an animal, the animal suffers the reaction and builds the healing substances, and these are transferred ready-made to the human being. Should the new treatment of diphtheria prove to be as satisfactory as it promises, the outlook for the cure of infectious diseases in general is bright. We shall, however, be compelled to wait patiently until the bacteriologists, to whom all the credit of this new treatment is due, have perfected the arrangements for the application of the serum therapy to the other infectious diseases.

Selected Articles.

LORD NELSON'S PHYSICIAN TO THE FLEET.

By H. Nelson Hardy, F.R.C.S. Edin.

NINETY years ago my great-uncle, Dr. Leonard Gillespie, R.N., while serving on board Nelson's flagship, the *Victory*, wrote home a letter commenced in January and finished in March, 1805, giving such a capital description of his life on board, and such charming glimpses of his relations to his great commander, that it was carefully preserved in my mother's family, and in due time handed over to me, with other interesting memorials of our great naval hero and his quondam physician. Dr. Leonard Gillespie was, as his name indicates, of Scotch extraction. In the sixth volume of "Nelson's Despatches and Letters," he is mentioned as being directed, in his capacity as physician to the fleet, to examine, with the captains and surgeons of the various ships, any officer desiring leave of absence on the score of ill-health. I have also found his name mentioned in one of the early editions of Cooper's "First Lines of Surgery." After the peace he lived for many years at Paris, and died among those whom he had long ceased to regard as foes, on 15th January, 1840, aged 84 years. Of the children for whose welfare he expresses his desire in the latter part of the letter. two survived him, one, the son Leonard, dying also in Paris some years after his father, the other, a daughter, then five years old, who still lives at the advanced age of ninety-five, and who, until quite recent years, was one of the best correspondents and neatest letter-writers in the whole family connection.

Dr. Gillespie's letter, which will, I should think, be read with especial interest by naval medical men, runs as follows:

"On Board His Majesty's Ship 'Victory,'
"At Sea Off the Coast of Sardinia,

"Dear Sister, "*7th Jan., 1805.*

"I did myself the pleasure of writing to you in great haste on the 29th ult., being at that time on board His Majesty's ship *The Swiftsure*, off the coast of Catalonia, on my way to join this ship, which I

effected on the 2nd inst., and I am at present fully established in my office as physician to this fleet, which is, thank God, in the best possible order as to health, discipline, spirits, and disposition towards our gallant and revered commander, Lord Nelson. As a proof of the state of health enjoyed by the seamen, I may instance the company of this ship, which, consisting of 840 men, contains only one man confined to his bed from sickness, and the other ships (twelve of the line), of from eighty-four to seventy-four guns, are in a similar situation as to health, although the most of them have been stationed off Toulon for upwards of twenty months, during which time very few of the men or officers (in which number is Lord Nelson) have had a foot on shore.

"You will perceive from this account, my dear sister, that the duties of my office are not likely at present to prove very laborious, and my duty as Inspector of the Naval Hospitals will occasion me to visit, as may be found necessary, Malta, Sicily, Gibraltar, and, perhaps, Naples, so that from all appearances, and my experience hitherto, I have no reason to be displeased with the comforts, duties, or emoluments of the office I at present fill, my salary being £465 per annum, and, being situated so as to live in a princely style, free from any expense. This exemption from expense arises from my having the honor of forming one of the suite and family of Lord Nelson, whose noble frankness of manners, freedom from vain formality and pomp (so necessary to the decoration of empty little great men), can only be equalled by the unexampled glory of his naval career, and the watchful and persevering diligence with which he commands his fleet.

"On my coming on board I found that the recommendation which my former services in the Navy had procured me from several friends had conciliated towards me the good opinion of his lordship and his officers, and I immediately became one of the family. It may amuse you, my dear sister, to read the brief journal of a day, such as we here pass it at sea, in this fine climate, and in these smooth seas, on board one of the largest ships in the Navy, as she mounts 110 guns, one of which, carrying a twenty-four pound shot, occupies a very distinguished station in my apartment.

"*12th Jan.*—Off the Straits of Bonifacio, a narrow arm of the sea between Corsica and Sardinia. We have been baffled in our progress towards the rendezvous of the squadron at the Madeline Islands for some days past by variable and contrary winds, but we expect to arrive at our destination to-night or to-morrow morning. To resume, my dear sister, the journal of a day. At six o'clock my servant brings a light, and informs me of the hour, wind, weather, and course of the ship, when I immediately dress, and generally repair to the deck, the dawn of day at this season

and latitude being apparent at about half or three-quarters of an hour after six. Breakfast is announced in the admiral's cabin, where Lord Nelson, Rear-Admiral Murray, the captain of the fleet, Captain Hardy, commander of the *Victory*, the chaplain, secretary, one or two officers of the ship, and your humble servant, assemble, and breakfast on tea, hot rolls, toast, cold tongue, etc., which, when finished, we repair upon deck to enjoy the majestic sight of the rising sun (scarcely ever obscured by clouds in this fine climate), surmounting the smooth and placid waves of the Mediterranean, which supports the lofty and tremendous bulwarks of Britain, following in regular train their admiral in the *Victory*. Between the hours of seven and two there is plenty of time for business, study, writing, and exercise, which different occupations, together with that of occasionally visiting the hospital of the ship when required by the surgeon, I endeavor to vary in such a manner as to afford me sufficient employment. At two o'clock a band of music plays till within a quarter to three, when the drum beats the tune called "The Roast Beef of Old England," to announce the admiral's dinner, which is served up exactly at three o'clock, and which generally consists of three courses, and a dessert of the choicest fruit, together with three or four of the best wines, champagne and claret not excepted; and what exceeds the relish of the best viands and most exquisite wines, if a person does not feel himself perfectly at his ease, it must be his own fault, such is the urbanity and hospitality which reign here, notwithstanding the numerous titles, the four orders of knighthood worn by Lord Nelson, and the well-earned laurels which he has acquired. Coffee and liqueurs close the dinner about half-past four or five o'clock, after which the company generally walks the deck, where the band of music plays for nearly an hour. At six o'clock tea is announced, when the company again assembles in the admiral's cabin, where tea is served up before seven o'clock, and, as we are inclined, the party continue to converse with his lordship, who at this time generally unbends himself, though he is at all times as free from stiffness and pomp as a regard to proper dignity will admit, and is very communicative. At eight o'clock a rummer of punch, with cake or biscuit, is served up, soon after which we wish the admiral (who is generally in bed before nine o'clock) good-night. For my own part, not having been accustomed to go to bed quite so early, I generally read an hour, or spend one with the officers of the ship, many of whom are old acquaintances, or to whom I have been known by character. Such, my dear sister, is the journal of a day at sea in fine or at least moderate weather, in which this floating castle goes through the water with the greatest imaginable steadiness, and I have not yet been long enough on board to experience bad weather.

"*18th Jan.*—Madeline Islands, off Sardinia. We have been at anchor in this harbor, excellent of the kind, for five days, where we are supplied

with wood, water, wine, provisions, and other necessaries, and where I have commenced the duties of my office, without any difficulties to encounter, the business being very familiar to me. It consists in receiving returns of the state of the sick on board from their respective surgeons, visiting the ships as occasion may require, recommending to the surgeons the modes of treatment which to me seem most judicious, causing the surgeons, and the sick under their care, to be supplied with the medicines, refreshments, and necessaries which they may require, all which offices are very agreeable to me.

"Before we sail from this place it is likely that a ship may be despatched to England. We are at present at war with the Spaniards. Several very valuable captures have been made from them off Cadiz, but we have not yet experienced any hostilities with them of any consequence inside the Mediterranean. We have not had any arrival from England in this fleet since that of the convoy in which I came, but we expect daily the arrival of a ship of war, which I trust will bring a letter from you, as I requested you in my last letter to write to me under cover to Mr. Stewart, of the office for sick and wounded seamen. I hope the children are all in good health, and that they all make advances at their schooling.

"*22nd Jan.*—At sea, off the southeast end of Sardinia. The sudden arrival of a frigate, which had been stationed off Toulon to watch the motions of the enemy's squadron, on the evening of the 19th, immediately changed the whole system of our operations. This frigate informed us that the enemy's squadron, consisting of eleven sail of the line, had put to sea on the night of the 17th, and had chased the frigate, apparently steering towards Cagliari, the capital of Sardinia. Although in the midst of the operations of wooding, watering, and victualling the fleet, every ship was under weigh in two hours' time, and put to sea through a narrow, rocky channel, never yet well explored by any navigator. Since the night of the 19th we have been contending with adverse winds in heavy gales towards the east side of Sardinia, in hourly expectation of descrying the enemy, and having everything prepared to attack him, with the well-known promptitude and decision of our gallant admiral, the more of whose conduct in dangers and critical situations I am witness to, the more I am forced to admire and revere him. For my own part, I behold with great coolness the enthusiasm of all around me in anticipating the laurels to be gained in the expected battle. I regard such things as necessary evils, in which every man is bound to do his duty to the utmost of his power, and not as matter for any great degree of exultation. The humane and reflecting mind cannot but be struck with the carnage of warfare, and, if to remedy the disasters towards our fellow-creatures encountered in it be the duty of a Christian, I may with reason be satisfied with the part which it is my lot to act in this drama.

"*29th Jan.*—Off Palermo, the capital of Sicily. After scouring the coasts of Sardinia and this celebrated island, the capitals of both which we have passed before in search of the enemy's squadron without finding it, I now write to you, my dear sister, from the foot of Mount Etna, on our way to the famous channel of Messina, which divides Italy from Sicily, which we are to pass in order to continue our pursuit of the enemy, whom our admiral supposes to have sailed, either for the Morea, in ancient (*sic*) Greece, or for Alexandria, in Egypt.

"*30th Jan.*—For two days past we have been cruising off the Pharo, or lighthouse of Messina, between which and the Lipari Islands we have been detained by contrary winds. This range of islands is situated from seven to fourteen miles from the coast of Sicily, and has undoubted marks of having been thrown up by the powerful influence of volcanoes, several of them yet smoking, and the famed mountain of Stromboli (said by poets to be the entrance to the infernal regions) yet continues to flame, explode with noise, and eject from its lofty summit showers of red-hot ashes, stones, and cinders. We were last night within a few miles of this eternal chimney of the inflamed entrails of the earth. The night was dark, and the sea was agitated by a pretty strong gale of wind. The mountain is said to be about three-quarters of a mile in height, and a constant smoke rises from the mouth of the volcano. At intervals, sometimes of ten, sometimes of fifteen, and frequently of only three minutes, we perceived columns of flame, accompanied with masses of red-hot lava, stones, and ashes, to issue from the mountain, ascending to a considerable height, and falling back into the crater, or into the sea, which washes the foot of the mountain. This has been the invariable operation of the volcano from the earliest records of history. The eruptions, though influenced by the state of inaction or eruption of the neighboring volcanoes of Etna and Vesuvius, and by the remarkable change in the atmosphere, yet constantly exhibit the formidable phenomena which I have attempted to describe, differing, however, with regard to frequency and violence. You would scarcely believe, after this, that the island is inhabited, yet so it is. Almost to the top of the mountain people are said to live, neither deterred by the horrid grumblings of the profound abyss of liquid fire, nor by the columns of flame, fire, and smoke which it sends forth, and which are so intense as to enlighten for navigators the distant coasts of Sicily and Italy.

"*31st Jan.*—We this day passed the famous Straits of Messina, with the whole of our fleet, and although the wind was against us we beat through with the greatest ease and safety, notwithstanding the dreadful rocks and shoals, Scylla and Charybdis, celebrated by Homer and Virgil for their terrors to seamen. Our passing through these straits, with ships larger than ever passed them before, must have been a splendid sight to the

inhabitants of the city of Messina, in Sicily, and those of Reggio and Scylla, in Italy, before whom we passed closely.

"*7th Feb.*—Off Alexandria, in Egypt. After a rapid voyage of 360 leagues (1880 miles) we arrived opposite this celebrated city to-day, where we were disappointed in not being able to procure any intelligence of the enemy's fleet, which had not been seen on this coast. We have been all this day reconnoitering this famous city, Alexandria. The pillar of Pompey, the column or obelisk of granite called Cleopatra's Needle, the walls, public buildings, fortifications, and harbors of the place we have been able to view with a good deal of accuracy. They form a strong contrast with the bare and desert sands, which extend from the city along the African coast. We are now, at sunset of a day which for warmth resembles a May day with you, directing our course, under a lofty press of sail, to the island of Malta, on our way back to the French coast.

"*12th March.*—Off Toulon. I resume my pen to inform you that we have arrived at our rendezvous off this port. Having passed the island of Candia, or ancient Crete, on the 12th ult., we saw Mount Ida covered with snow. On the 15th we were off the Morea, in Greece, where we were joined by a frigate, with the intelligence that the French squadron, apparently bound up the Mediterranean, had been disabled in a gale of wind, and put back to Toulon, without effecting any purpose but that of disabling their own ships—a gale which we only regarded as a common occurrence, and one which did not prevent us from sitting down to dinner as usual—and of rendering their unfortunate, half-drowned, fresh-water sailors and soldiers sick to death of the sea. On the 12th of February we were off the capital of Malta, where we only remained a few hours, continuing our course down the Mediterranean, coasting along the island of Sicily, and after a stormy and tedious passage we arrived on the 27th at Cagliari, where we watered the ships, and got a supply of cattle, about seventy or eighty head of oxen being embarked on board the fleet, which was then found, and continues to be, in the best state, there not being more than five or six men confined to bed by sickness; indeed, the weather is so fine and temperate in this climate that it is much more salubrious than a more northern climate. I have not been seated an hour at the fireside since the second week in December, and have not felt the want of it, nor have I been afflicted with a cold since I entered the Mediterranean. I cannot recollect that we have had one day pass in which the sun has not made its appearance, and we have had very little rain, or dark or humid weather. At present we are in hourly expectation of falling in with the *Renown*, a ship which is to go to England, so that I shall be obliged speedily to close this very long epistle, which I sincerely hope may come to your hands in half the time that has elapsed since I commenced to write it.

"The very unexpected news of the commencement of a negotiation for peace, which we received a few days since, gives me great pleasure, and as both parties seem to be convinced that it is their mutual interest to make peace, and allow their subjects to enjoy the fruits of their industry in tranquillity, we may fondly hope that the termination of the war may arrive with as much promptitude as its commencement was unexpected.

"*16th March, 1805.*—Off Barcelona. His Majesty's ship *Renown* is just upon the eve of departure for England, by which I send this, enclosed to my friend Mr. Stewart, Secretary to the Commissioners for Sick and Wounded Seamen. Affectionately remember me to all the children. Let me beg of you not to indulge Leonard too much, but keep him to his book. Do not forget to give them the allowance I mentioned in a former letter for pocket money. Let me hear from you every opportunity. Remember me affectionately to all our friends and relatives, and believe me to be your ever affectionate brother,

"LEONARD GILLESPIE."

—*The Medical Magazine*, London, England.

SOME NOTEWORTHY TOXIC EFFECTS OF THE ANTITOXIN TREATMENT IN DIPHTHERIA.

By A. Seibert, M.D.,
New York.

INASMUCH as Behring's treatment of diphtheria by the hypodermic injection of antitoxic blood serum will, no doubt, be given an extended trial in the near future, it will be of value to carefully report any disturbances in the so-treated patients that are caused by the antitoxin.

The following case, while somewhat resembling those reported by Lublinski, of Berlin, and Scholz, of Hirschberg, in the *Deutsche Medicinische Wochenschrift*, November 8 and 15, 1894, presents additional features which, to my knowledge, have so far not been published:

Lizzie J———, six and a half years of age, complained of illness on November 30th. On December 1st a fresh diphtheric exudate was found to cover the visible pharynx and the nostrils. Lymph nodes swollen; temperature, 103.5° F.; considerable prostration. In the evening of the same day 10 c.c. of antitoxin (from the Pasteur Institute of this city) were injected, and the same quantity on the following morning. Irrigation (by a 1 to 20 watery solution of the liquor sodæ chlorinatæ) of the naso-pharnyx made with a fountain syringe every two hours, by night and day, and frequent gargling with a solution of iodine and carbolic acid, together with the antitoxin, practically cured the child in three days. An infant brother of the patient, aged eleven months, who had to remain in constant contact with his sister, was immunized by the injection of 2 c.c. of Aronson's serum.

The bacteriological report of the Health Department announced the presence of Loeffler bacilli.

To prevent any dangerous exercise, the patient was kept on her back in bed even after the disappearance of the exudate.

December 10th. Nine days after injecting the antitoxin, and five days after apparent complete recovery, a rash appeared in the face and upon the extremities of the child, that in some places (face and neck) resembled

measles and in others scarlatina. The skin was but slightly infiltrated, nowhere resembling urticaria. The color of the afflicted surfaces was dark red, showing a glossy, shiny appearance. The temperature had risen to 99.5° F., considerable itching, no pains. Appetite, normal. Normal urine. No treatment.

December 11th. Erythema is disappearing.

December 12th. Eruption has disappeared in the morning. Later in the day nausea, chill, headache, general malaise. Pains back of the head. On arrival I find patient with head drawn back, in high fever (104.9° F.); pulse, 140. Not somnolent. Posteriorly to the sterno-cleido-mastoid muscles large numbers of hard, swollen lymph nodules are felt between the deeper cervical muscles. No succulent infiltration of the tissue surrounding the lymph-nodes. Each one can be distinctly felt. The posterior half of the neck appears swollen. Great tenderness, explaining opisthotonos position of head. Throat is positively clean. Tonsils small. No redness. Trace of albumin in urine. No casts. Treatment: Antipyrin, four grains in watery solution, given six times in twenty-four hours per rectum. Much relief at night. Erythema barely visible in faintly bluish spots on extremities.

December 13th. Infiltration of cervical lymph nodes subsiding. No swelling of lymph nodes in groin, axilla, or other parts. Temperature, 101° F. No appetite. Trace of albumin. Tenderness of neck almost gone by evening.

December 14th. During the night, 3 a.m., violent nausea and vomiting, chill, pains all over body, but especially in joints. At 9.15 a.m., I find temperature 104.88 F., pulse 140, a new eruption over the face, injection of both conjunctivæ, marked œdema and redness of upper eyelids. Face, neck, and extremities covered with large and small blotches. Trunk shows but few smaller spots. Joints of wrists, knees, elbows, and ankles are tender and slightly swollen, but not reddened as in acute rheumatism. The left hip-joint is very tender. The infiltration of cervical lymph nodes has entirely disappeared, and the head can be moved in all directions. Trace of albumin. Some few casts. Anorexia. No headache. Treatment: Six grains of salicylic soda in watery solution, given every two hours per rectum. Temperature, 103° F., 5 p.m.

December 15th. Pains in joints much better. Temperature, 102° F.; pulse, 116. Erythema less marked. Has disappeared from conjunctivæ. Upper eyelids still swollen and red. A few isolated lymph nodes can be felt at back of neck. No tenderness. Pains now back of the knee-joints, and more marked along the muscles leading from the affected joints. Trace of albumin. Few casts. 9 p.m., temperature, 104.2° F.; pulse, 120.

December 16th. Joints entirely free. Muscles tender. Erythema disappearing. Still marked in face. Anorexia. Temperature 101° F., a.m. Heart normal. Very thirsty. Had a restless night. 9 p.m.: Erythema has completely disappeared. Pain only in tendons, back of both knee-joints. Temperature, 100.5° F.; pulse, 96. Some appetite. Trace of albumin.

Remarks. That the symptoms recorded here were due to the antitoxin alone is evident for the following reasons: (1) No local disturbance appeared at the points of injection, thereby excluding the possibility of an unclean syringe. (2) The erythema appeared exactly ten days after the injection of the antitoxin, exactly the time given in two cases of Scholz (*l. c.*), and the case of Lublinski (*l. c.*). (3) Swelling and pains in joints, and tenderness of muscles and tendons (the latter back of the knee-joints), were well marked in all four cases. (4) The affection persisted in all cases for four to seven days.

Our case differs from those of Scholz and Lublinski in so far that the patients of Scholz (his own children) presented no rise of temperature; the one of Lublinski showing temperature of 101° to 103.4° F., and but one rise to 104.5° F.; while the fever in our case was but slight during the first eruption (99.5° F.), but showed marked tendency to go above 104° F. during four successive days.

In our case we saw two distinct eruptions. On the disappearance of the first a sudden infiltration of the posterior cervical lymph nodes appeared, together with a marked chill and high fever. This phenomenon passing away, a new chill and rise of temperature initiated another eruption of the characteristic erythema, together with articular affection and muscular pains.

The difference between the four cases appears to allow an explanation, best seen by tabulation.

(1) Scholz: Boy, aged ten. 600 antitoxin units. Behring. Erythema, articular and muscular pain. No fever.

(2) Scholz: Girl, 600 antitoxin units. Behring. Erythema, articular and muscular pain. No fever.

(3) Lublinski: Girl, aged eight. 1,200 antitoxin units. 10 c.c. Erythema, articular pain. 101° to 104.5° F.

(4) Seibert: Girl, aged six and a half years. 20 c.c. Pasteur Institute. Two eruptions of erythema; lymph-node infiltration; two chills; temperature, 104.9° F.; joint and muscular affection.*

*Since the above was written I have found two more cases, by Mondal and Asch (*Berl. klin. Wochensch.*, November 26 and December 17, 1894), two others by Cuyrine (*Deutsch. Med. Woch.*, November 29, 1894); and a fifth by Porteaux (*New York Medical Journal*, January 12, 1895); in all, nine cases.

In the first two cases but 10 c.c. of Behring's weakest serum was injected; hence erythema, articular and muscular affection, appeared without a rise of temperature.

In the third case the double quantity was used within twenty-four hours; hence these symptoms came on with fever, ranging from 101° to 104.5° F.

In our case 20 c.c. (from Pasteur Institute) were injected within twelve hours; hence the two eruptions, the lymph-node infiltration, the joint and muscular affection, and the high temperature. The first two cases recovered in four, the third in five, and the last in seven days.

Although we are not informed as to the relative strength of the antitoxin from the Pasteur Institute, it appears as though the 20 c.c. injected were much more powerful in their after-effects than the weakest serum of Behring (No. 1).

The albuminuria seen in our case I am inclined to attribute to renal stasis.

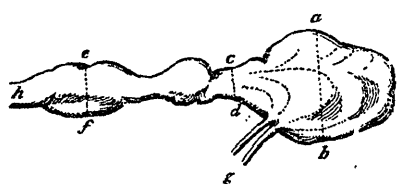
In the small number (fourteen) of other cases of diphtheria I have treated with antitoxin, no after-effects appeared. The wonderful similarity as to the time of their appearance, as well as to their location, shows that these after-effects are due to the antitoxin itself, and not to any difference in its production.—*Medical Record.*

Clinical Notes.

REPORT ON AMPUTATION OF NEUROMA, REMOVED BY DR. PETERS.*

By A. J. Hunter, B.A.,
Toronto.

TWO small tumors were removed. The largest was in connection with a large nerve cord, as shown in the following diagram :



Before entering the tumor the cord expanded into two bulbous enlargements. In the tumor itself the fibres distributed themselves as indicated by the dotted lines, as was seen by a partial dissection of the portion included between *c d* and *a b* on the figure, and also by sections parallel to the line *a b* beyond it. Some of the funiculi passed beyond the limits of the tumor, and appeared as small nerve cords at *g*. On cutting into the bulbous enlargements in the fresh state much of their bulk seemed to be made up of a gelatinous-looking tissue, through which bundles of nerve fibres were seen running in the general direction of the cord.

Microscopical examination. Longitudinal sections at *h* treated with osmic acid showed the nerve fibres for the most part fairly normal. Beyond this part, in addition to normal fibres, numerous fibres showing regenerative processes were seen, viz., inside of old nerve fibres numerous smaller fibres were found, causing the swelling out of the old sheaths of Schwann much beyond their normal extent, in some cases breaking through the sheath and thus allowing the nerve fibres to become free.

*Read before the Toronto Pathological Society.

Cross-sections showed the funiculi in some parts normal, in other cases their structure altered by increased development of a loose connective tissue between the fibres, separating them more or less widely from each other. In this, perhaps, lies the explanation of the much smaller volume of the nerve cords issuing from the tumor, as compared with the cord entering it. The fibres of the funiculus first separate, and then lose themselves in the mass of connective tissue. In the bulbous enlargements this process could be very nicely traced, the breaking up of the funiculi and the number of fibres showing regenerative processes increasing as the large tumor mass was approached.

The large mass contains a certain quantity of muscular tissue, probably derived from the neighboring muscles, but is chiefly made up of fibrous tissue and nerve fibres running in various directions. Blood vessels were also present, and the nerve cords showed a large increase in the number of their nuclei, suggesting the appearance of smooth muscle fibre in some parts. The issuing nerve branches showed numerous fibres exhibiting regeneration changes. The small tumor had a similar structure to that of the large mass shown in the diagram.

CASE OF PRIMARY LARYNGEAL DIPHTHERIA TREATED BY ANTITOXIN, WITH POST-MORTEM REPORT.

By W. B. Thistle, M.D.,

Assistant Demonstrator of Anatomy, University of Toronto; Physician to Victoria Hospital for Sick Children; Clinical Lecturer on Diseases of Children in the Woman's Medical College.

G. F., æt. 5 years, admitted to Victoria Hospital on December 3rd, under the care of Dr. H. T. Machell, who kindly allowed me to use the antitoxin, and since then to make this report. The boy had been ill for two days previous to admission, and showing signs of some obstruction in the larynx. No membrane was discovered in throat or nose. Dyspnœa was extreme at the time of admission, and became shortly so urgent as to threaten life, and Dr. G. R. MacDonagh was called to intubate. Temperature on admission, 101½°; pulse, 125; respiration just before intubation, 65. Marked relief was given at once, but breathing still continued rapid. Râles were heard throughout the entire chest. Evening of 3rd, temperature, 102⅘°; pulse, 138; respiration, 48; knee jerk obtained. Urine was, unfortunately, not examined. Patient takes food well, and is fairly comfortable. A small area of dullness at right posterior base discovered, and fine crepitation heard over same area. Dec. 4th, temperature, 102°; pulse, 126; respiration, 40; intellect clear. Transferred to infectious ward, although no sign of membrane had been discovered. 4 p.m., temperature, 104⅗; pulse, 140; respiration, 42. Is quite rational. Injected 7 c.c. or 105 minims of antitoxin, obtained from Mr. J. J. Mackenzie, of the Provincial Board of Health. One hour after injection temperature had fallen to 103°, but shortly rose again, and at 12 p.m. was 105⅗. Died at 4 a.m., Dec. 5th.

Autopsy. Thick membrane covering lower surface of vocal cords, and extending down to finer bronchioles, forming a thick cast of entire bronchial tree. A small area of consolidated lung at right posterior base. Microscopic examination discovered rod bacilli of the Klebs-Leoffler form, and also immense numbers of micrococci and streptococci.

This is the third consecutive case of fatal croup occurring in this hospital in which post-mortem examination showed a similar condition in

larynx and bronchi, although no membrane could be seen above the larynx either during life or post-mortem. In none of them was the knee jerk absent. Unfortunately, owing to some mistake, the urine was not examined in this instance.

With reference to the antitoxin, it, of course, failed, and the case was undoubtedly diphtheria. It might have been given earlier, but it was thought that perhaps the consolidated patch might account for the continued elevation of temperature, and persistence of rapid respiration after intubation. When one comes to consider the condition present, it would be nothing short of miraculous if antitoxin had been successful in this instance. Even if injection of the fluid could instantly destroy every diphtheritic germ in the entire tract, there must still remain the necrotic mass which formed the membranous lining of the tubes. Antitoxin could have no effect upon this already dead tissue, or upon the organisms, other than the Klebs-Leoffler bacilli, with which, as the microscope showed, it teemed. In other terms, even though the antitoxin were the most perfect antidote to diphtheritic infection, there would still remain in a case like this a septi-bronchitis so extreme as to almost preclude the possibility of recovery. No matter how short the distance the membrane extends from the larynx, its presence as *dead tissue* abounding in organisms, septi in the ordinary sense, forms an element in the prognosis which must be considered.

LESIONS IN A CASE OF ACUTE MILIARY TUBERCULOSIS—SPECIMEN OF TUBERCULOSIS OF LUNG AND LARYNX—A CASE OF UNIVERSAL ATHEROMA OF AORTA, WITH ANEURISM.*

By J. T. Fotheringham, M.D.,
Toronto.

Lesions in a Case of Acute Miliary Tuberculosis.

Mrs. P——'s baby, æt. fourteen months, died in Victoria Hospital on Sunday morning, May 21st, 1893. Mother had been sent to Toronto General Hospital about four weeks before with pleurisy, perhaps tubercular in origin, and some signs of right apical consolidation. Mother's family history bad, as her mother and one sister had died of tuberculosis at about her age—thirty-five—and two brothers of a lingering illness, probably the same. Mother very much debilitated, but had been nursing child steadily up to time of going to Toronto General Hospital. Child had learned to walk, but had given up trying to walk, and was evidently feeble, though still well nourished. Constipation had been the chief trouble with it. When mother went to Toronto General Hospital, infant was sent to the Home, St. Mary street, for about four weeks, during which time it failed constantly, never cried, but was unable to digest any food. On Friday, May 19th, it was sent to Victoria Hospital, where it showed signs of meningeal trouble, chiefly basic, some slight spastic movement of arm and leg in *right* side, slow, irregular breathing (not Cheyne Stokes), marked by an occasional full sigh, a breathing *luxus*. Pupils about alike, but eyelids unequally opened, and eyeballs squinting. Temperature 101° F., running very high at the last. No crying. Food (wine whey, etc.) well taken. Sunday morning it suddenly grew worse, and died in an hour or so.

Post-mortem. Done six hours after by Dr. Clingan. Dr. J. M. MacCallum and myself also present. Small, emaciated body, large abdomen, wasting most marked in thorax and limbs. Anterior fontanelle very large. Abnormal appearances noted were :

(1) *Thorax.* No pleural thickening. Lungs dotted all through with miliary tubercles in first stage. No softening anywhere. Bronchial glands

*Read before the Toronto Pathological Society.

enlarged, and similarly studded with tubercles, but no caseation. Heart normal.

(2) *Abdomen.* Liver and spleen full of miliary tubercles ; no softening.

(3) *Cranial cavity.* Base of brain. Middle lobe dotted on under surface with a few tubercles. Beneath pia, behind optic commissure and out towards fissure of Sylvius, a thin film of whitish gelatinous deposit obscuring the deeper structures, the anterior perforated spaces, tuber cinereum, and corpora albicantia. There seemed to be minute tubercles in the line of the middle cerebral arteries.

Vertex of cranium. An interesting lesion was found at upper and inner angle of the right frontal bone, to right of and below anterior fontanelle. A very well-marked patch of caseous material, size of twenty-five-cent piece, but oval, had formed between dura and bone, the latter being eroded to the diploe, from the cancellous tissue of which the nutrient medium for the culture was evidently obtained. The culture was adherent to the dura mater, thickening it as much as $\frac{1}{16}$ inch or a line.

Query: How did the spastic movements come to be on the right side? Were they basal in origin, not cortical? The cortical lesion was too far forward for the motor area, besides being on the same side as the spasm.

Specimen of Tuberculosis of Lung and Larynx.

I have the honor to present, for the consideration of the society, two specimens obtained at a post-mortem done by Dr. N. A. Powell on the body of a man who died in the General Hospital about a week ago of hæmorrhage of the lungs. I regret that there are no points of any special interest in them. His family history was negative as regards tuberculosis. He had lived a "hard" life, both as regards habits and occupation, having worked as laborer, again on a dredge, again as railway brakeman, and again as stoker on different lake steamers, each occupation being followed for some time. Had been a heavy drinker for years, and especially during the last two months.

His trouble dated from two and a half months ago, when he caught a severe cold from sitting between decks on the *Carmona* in the intervals of his work in the stoke-hole. From that time he dated his hoarseness.

The laryngeal trouble may be assumed to have been secondary to the apical lesion, and the specimen illustrates beautifully the spreading of the disease by continuity of tissue from the foci in the ventricles of the larynx. There are some small deposits, not yet caseated, in the mucosa of the pharynx, low down towards the œsophagus. Dysphagia was not experienced by the patient.

As to the lungs, the left had a small and well-cicatrized cavity, the size of a pea, in the apex. The right lung, here shown, has a large, smooth-

walled cavity at the apex. Here the hæmorrhage occurred which killed him. He had had some considerable bleeding from it for two nights preceding, but was trying to conceal it. About two months ago he had slight oozing for two nights, which streaked the sputum with blood. There was very little disease in the lung, except at the apex.

Query: Are the anatomical appearances those of a recent and acute vomica, or of an old and slowly enlarging one?

A CASE OF UNIVERSAL ATHEROMA OF AORTA, WITH ANEURISM.

N., æt. 64; admitted to the Toronto General Hospital, August 10th, 1891; of good family and bad habits, going on occasional outbursts of high eating and hard drinking. Had been much given to athletics when young, while living in Montreal. Claimed to have been first white man to beat Indians in two-mile snowshoe race.

Main clinical symptoms seen during stay in hospital: Much emaciation; marked orthopnœa; serious aortic regurgitation, causing vertigo and bad vision; serious mitral regurgitation. Marked irregularity of pulse, with rapidity, rate over 100; reduced by digitalis to 70 per minute; would drop at times to 50, always showing great irregularity. Marked hypertrophy of left ventricle; pulsation plainly seen over large area of chest wall on both sides of sternum. Very marked "water-hammer" pulse, with monilicated radial arteries.

Digestive system. Gastric catarrh, much nausea in mornings, vomiting and retching, accompanied by coughing.

Respiratory system. Well-marked chronic bronchitis, with bronchorrhœa. Orthopnœa already mentioned.

Compensation was for a time fairly re-established by digitalis, alcohol, and rest, till one morning at ten o'clock, on going to the bathroom, he fell, and died instantly from cardiac failure.

Post-mortem examination made six hours later: The most marked pathological conditions were found in the thorax. The others may be mentioned first.

Kidneys. Both enlarged, left weighing 10½ ozs. instead of 4½ to 6 ozs. Capsule rather adherent, substance very dense from fibrosis.

Spleen. Full of minute calcareous nodules, felt both externally and on cut surface as if it had been sprinkled with sand. In the absence of a microscopical examination of it, I may hazard the suggestion that these were calcareous degenerations of the arterioles, judging by the extent of this form of degeneration elsewhere in the body.

Arteries. Largely degenerated. Aorta especially, from heart to within four inches of bifurcation, a sort of fiddle-box, ringing when tapped as it

lay in the mediastinum, which it distended, capable of containing most of the blood ordinarily found in the body. Really a fusiform aneurism with rigid walls (they are now much softened by being kept in alcohol), except for one spot on anterior surface of third part of aorta, where a bulging aneurism had begun to form, about two inches or two and a half inches in size.

Thorax—Lungs. Extremely adherent and almost universally, especially to the whole diaphragm; much the same condition before, behind, and at apex. Left lung could not be removed, and right lung left a large portion of its base adhering to the diaphragm. Pericardium surrounded by unusually large amount of loose areolar tissue, particularly in anterior mediastinum. Cavity almost entirely obliterated by dense fibrous adhesions to epicardium; no fluid in cavity. Heart motion had evidently mainly through looseness of the extra-pericardial areolar tissue referred to.

Heart. Right ventricle greatly dilated and thinned. Left enormously hypertrophied. Valves much diseased.

492 Yonge Street.

Progress of Medicine.

MEDICINE

IN CHARGE OF

J. E. GRAHAM, M.D., M.R.C.P. Lond.,

Professor of Medicine and Clinical Medicine, University of Toronto; Physician to the Toronto General Hospital, and St. Michael's Hospital;

AND

W. P. CAVEN, M.B., Tor.

Lecturer in Clinical Medicine in the University of Toronto; Physician to Home for Incurables.

Thyroid Feeding in Diseases of the Skin.

From the few cases thus far published it would be foolish to draw conclusions. Personally, I am not inclined to experiment further with this line of treatment. To cure ten cases of psoriasis out of twenty-six is no great thing to boast over, specially in hospital practice, as were most of the cases cured. When you take into consideration that the drug, in whatever way that you exhibit it, is liable to produce sudden distressing and grave symptoms, *that* at once bars it from the use in out-patient, ambulant practice. We surely have many other safer methods of treatment in hospitals that yield more brilliant results than this method, so efficacious in myxœdema and cretinism. In these diseases it is worth while to run a risk as to life in the hope of removing symptoms that make life hardly worth living. In dermatoses, on the contrary, life is, generally speaking, little endangered, and we are not justified in resorting to too heroic measures.—Dr. George T. Jackson, in the *Journal of Cutaneous and Genito-Urinary Diseases.*

A Case of Warts.

The patient was a woman with an extraordinary development of warts covering the palmar and dorsal aspects of both hands. These had existed for five years. They were gradually becoming flatter. The patient also had a few warts on the face.

Dr. Klotz inquired what results had been obtained by the members present from treatment, as he had found the remedies usually recommended quite ineffective, particularly salicylic acid.

Dr. Jackson thought the case served to illustrate the infectious nature of warts. Dr. Lustgarten said that the large number of the warts and the manner of spreading suggested auto-inoculation. He recommended a 30 per cent. alcoholic solution of salicylic acid; so did Dr. Sherwell, Dr. Jackson salicylic acid plaster.

Drs. Piffard, Keyes, and Cutler reported favorable results from the external and internal use of the tincture of thuja. Dr. Piffard employs a strong tincture, beginning with five drops and running up to a dram, three times a day. In some cases the drug proved very efficacious, while in others it had failed absolutely; it had been known to give rise to dermatitis and phlebitis. Dr. Keyes had given the tincture of thuja in tablespoonful doses; in some cases of papillomata it had undoubtedly effected a cure. Dr. Cutler reported a case in which probably over one thousand warts had been present on different parts of the body. Under the use of thuja both externally and internally, they had almost entirely disappeared.

Dr. Allen called attention to the fact that this patient, as she informed him, had taken a great deal of arsenic, apparently without much effect.—Presented by Dr. Piffard for Dr. A. R. Robinson, at a recent meeting of the New York Dermatological Society.

Acarophobes.

Dr. Thibierge, in a recent clinical lecture, has called attention again to a series of patients—much more numerous than is usually believed—who imagine themselves to be infected with such parasites as the acarus, pediculi, etc., when no such trouble exists. These are almost always neuropaths, neurosthenics, or hysterics. Some have already had the itch, and believe that they have not been cured or that the affection has recurred, while others believe themselves the victims, when they have never had the disease. Those affected are usually subjects of rebellious pruriginous dermatoses, and at times of well-defined dermatoses, such as eczema, chronic urticaria, and occasionally purely nervous affections of the type of pruritis senilis. It is often very difficult to convince these patients that they are not suffering from itch, and they will not listen to the physician. One is occasionally obliged, in order to demonstrate their error, to put them through a complete course of scabies, which fails to give relief. Those having the cocaine habit are frequently acarophobes; they feel, indeed, peculiar sensations in the skin which lead them to bore into

their skin with a needle or point of a knife in order to extract the animalcules.

[These hallucinations concerning the skin are relatively frequent in neuropaths, and, for my part, I have observed several cases. One of the most complete examples I have encountered was furnished me by a woman of sixty, who followed me up for over six months, at my polyclinic of La Rochefoucauld, entreating me to rid her of the little beasts she had in the skin, and which she said were gnawing at her. The hallucinations went so far that she claimed she could see them at times come out upon the surface. It is useless to add that she was never able to show one of these animalcules. The skin was entirely free, and did not even show any signs of scratching. I was unable to convince this patient of her error, and was never able to free her from the sensations, either by hydrotherapy, sedative lotions, or by antipruritic ointments. These patients are evidently candidates for the lunatic asylum, if not already demented.]—L. Brocq, in *Journal of Cutaneous and Genito-Urinary Diseases.*

Acute Yellow Atrophy of the Liver in a Child.

Merkel (*Münchener medicinische Wochenschrift*, January, 1894) records an unusual case of this disease occurring in a child of six years. The first symptoms noticed were malaise and loss of appetite, followed by jaundice, the temperature then being normal, but the pulse slightly increased in frequency. The tongue was furred, and the urine contained bile, but no albumin. The lower border of the liver could be felt two fingers' breadth below the costal margin. Eight days later the liver had considerably decreased in size, and could not be felt by palpation. The spleen, however, was enlarged. The jaundice had become intensified, and convulsions now appeared. The temperature still remained normal, but the pulse had increased to 116. Death ensued seventeen days after onset. At the post-mortem the lungs were found œdematous, while subserous hæmorrhages were numerous; the gall-bladder contained very little bile. The liver was very small, yellowish-brown in color, showing a number of red islets; there was gray degeneration of the hepatic cells, with round-cell infiltration in places. The kidneys showed swelling and gray degeneration of the renal epithelium, together with small hæmorrhages into the substance. Commencing degeneration of the cardiac muscle fibres was also noted. The cause of the disease, as is usual in such cases, could not be determined.—*American Journal of the Medical Sciences.*

THERAPEUTICS

IN CHARGE OF

GRAHAM CHAMBERS, B.A., M.B. Tor.,

Professor of Analytical Chemistry and Toxicology, Ontario College of Pharmacy; Lecturer in Organic Chemistry and Toxicology, Woman's Medical College;

AND

WILLIAM LEHMANN, M.B. Tor.,

Physician to the Home for Incurables and House of Providence.

Nocturnal Enuresis.

MacAlister (*Practitioner*, vol. lii., No. 5, p. 331) recommends the administration of atropine to the point of tolerance, in conjunction with medicinal doses of strychnine. Thus, he begins with gr. $\frac{1}{100}$ of atropine at night, and gradually increases the dose every third night to gr. $\frac{1}{10}$ and more. When conditions requiring surgical interference are present, these receive attention. It is further directed that no drink be taken after 6 p.m. that the medicine be taken at 9 p.m., and that, after emptying the bladder, the child should go to bed at 10, and that it should be awakened to urinate at 12, and again at 6 a.m.—*Medical News.*

Enlarged Glands.

℞.—Iodoformi }
Balsam Peruvianæ } ..... aa ℥j.
Collodii..... f℥j.—M.

S.—To be painted over the swellings every night.—*Medical Press and Circular.*

Treatment of Chlorosis.

Professor Jaccoud maintains that patients suffering from chlorosis do not want so much a larger number of red blood corpuscles as an increased amount of hæmoglobin—that is, iron and oxygen. From the very first he gives inhalations of oxygen gas, at least thirty litres (6 to 7 galions) daily, and amongst the iron preparations those made with an organic acid, such as the tartarate, citrate, and the new protoxalate. These preparations are given in six-grain doses daily. The protoxalate is administered in powder in the same dose divided into two parts, one given in the middle of each important meal of the day.—*Medical Chronicle.*

Turpentine in Incontinence of Urine.

The unpleasant smell emitted by persons suffering from incontinence of urine can be conveniently covered, according to Dr. Emminghaus, by means of ten-drop doses of turpentine, administered in milk or water, three times a day. This converts the smell of stale urine into an odor resembling that of violets, as is well known to persons who have taken turpentine. The remedy is perfectly harmless in most cases, and has been given by Professor Emminghaus for many weeks at a time without any inconvenience. It is, however, contraindicated in ulcer of the stomach, gastric catarrh, and nephritis, and also in some persons in whom turpentine tends to upset the digestive functions.—*The Lancet*, October 27, 1894.

Iodoform in Pulmonary Tuberculosis.

A. Toxwell (Birmingham *Medical Review*), after an experience of eight years in the use of iodoform in phthisis, considers it the most satisfactory of all the antiseptic drugs which have been used in pulmonary tuberculosis. The medicine should be given in pill form, two grains three times a day, or one grain six times a day. After a few days the daily dose should be gradually increased until it amounts to thirty grains.

Hydrogen Peroxide as a Hæmostatic.

A strong solution of hydrogen peroxide acts as an excellent hæmostatic when the vessels cut are not large. It probably acts both as an astringent and by oxidizing the blood, which increases its coagulability.

Continuous Inhalations of Oil of Peppermint in the Treatment of Pulmonary Tuberculosis.

Carasso (*Medical Magazine*) contributes a lengthy paper on this subject, and gives the following directions as to its method of use: A pad, made by folding a linen handkerchief, is placed below the nares, and is kept in position by a tape passing around the head. The pad is charged with five or six drops of the oil four or five times a day. Every ten or fifteen minutes the patient is instructed to take a deep inspiration, breathing through the nose with closed mouth, and then hold the breath as long as possible, so as to bring the medicine in the inhaled air into the alveoli, bronchioles, and vomicæ. The pad is left in position during the night, but, in addition, it is well to pour fifteen or twenty drops of the oil on the pillow, as the pad may be displaced. The patient, at the same time, takes creasote, and is directed to eat and drink freely of nutritious food. Milk should form an important article of diet.

OBSTETRICS

IN CHARGE OF

ADAM H. WRIGHT, B.A., M.D. Tor.,

Professor of Obstetrics in the University of Toronto; Obstetrician to the Toronto General Hospital.

ASSISTED BY

H. CRAWFORD SCADDING, M.D.,

Physician to Victoria Hospital for Sick Children.

Rupture of Uterus and Vagina.

Dohrn (*Centralbl. f. Gynak.*, No. 11, 1894) relates how a woman, aged 41, in her eleventh labor, was driven in a sledge over eighteen miles to Konigsberg last December. The presentation was transverse, and the uterus had been ruptured during an attempt at turning. The child was extracted, but not the placenta. She arrived in an exhausted condition, anæmic, and with distended abdomen. The funis hung out of the vulva, whence blood trickled rather freely. The vulva was at once cleansed by washing with a 5 per cent. solution of carbolic acid. A 1 in 1,000 solution of sublimate was used to swab the vagina, which was afterwards irrigated with boracic acid lotion. Then, on exploration, a large rent was found in the cervix, extending into the left vaginal fornix. In the rent were coils of intestine and the placenta, which was extracted. After reduction of the bowel, over six yards of iodoform gauze, three inches wide, were passed into the virgina. A binder was firmly fastened round the abdomen. The patient at once began to recover. On the sixth day the tampon was removed. A little lochial secretion had trickled through it, but it was free from smell. On the fourth week the patient had an attack of pneumonia, from which she recovered. The uterus became fixed and dextroverted. According to Merz, seven out of fifteen cases of ruptured uterus treated by the tampon recovered.—*British Medical Journal.*

Intraperitoneal Hæmatocele.

Mr. John W. Taylor read a paper entitled "Intraperitoneal Hæmatocele, forming a Definite Tumor: The Relation of this to Unruptured Tubal Pregnancy," ("Tubal Abortion,") before the British Gynæcological

Society. He had been struck by the frequency with which, as his experience of ectopic gestation increased, he had met with cases of unruptured tubal gestation; even when much hæmorrhage had occurred, it was often found that the pregnancy itself was still within the tube, the blood having "dripped" out from the open fimbriated end. Some surgeons had doubted even the possibility of an intraperitoneal hæmatocele forming a definite tumor, and had supposed that all such local hæmorrhages must be extraperitoneal, and between the layers of the broad ligament. Such teaching was not altogether true, in proof of which he related a case where, after operation on a parovarian cyst, there was secondary hæmorrhage from the stump. Some peritonitis followed, and the blood became localized, its upper limit being defined by an abrupt line stretching across the abdomen. The hæmatocele was tapped *per vaginam*; later the remainder of the clot decomposed, and he evacuated it by free incision from below. The finger was passed into the abdomen through Douglas' pouch, and he satisfied himself that the hæmatocele was strictly intraperitoneal. Analogous cases sometimes resulted from the rupture of a tubal pregnancy, with a moderate degree of hæmorrhage; but this was exceptional. The most common cause of a defined hæmatocele was the slower hæmorrhage or blood drip, which took place from an open Fallopian tube when the pregnancy or mole lay within it. Such hæmatoceles were found at operation under various conditions: (*a*) A mass of coagulum without definite form or consistence, easily scooped or washed out. (*b*) A definite and consistent clot adherent to the peritoneum, the surface of which it leaves rough on removal. (*c*) By adhesions to neighboring parts a tubo-ovarian blood cyst was formed, distinguished anatomically from the true tubo-ovarian cyst due to pyosalpinx by the fact that in the former a new formation of tissue helped to make the cyst and enclose the blood, whereas in the latter the walls were formed entirely by distended tube and adhesions. (*d*) Lastly, there was a condition hitherto, so far as he knew, unrecognized, in which a complete cyst wall was formed by organization of the blood clot. Within the neck of this globose pitcher lay the fimbriated end of the Fallopian tube, which could be lightly drawn out from its enclosing sheath, showing its fimbriated end uninjured. Illustrative cases of these conditions were related. Referring to Mr. Lawson Tait's view, that tubal gestation before gestation was never diagnosed, except by mere accident, because it produced no symptoms, Mr. Taylor said that he and others could point to specimens of unruptured gestation correctly diagnosed before operation. But as regarded the diagnosis between ruptured tubal gestation and so-called tubal abortion, the only distinguishing feature that he could find was that in the latter the period of amenorrhœa preceding the irregular hæmorrhage was commonly wanting. On the subject on

nomenclature, he thought that the term "tubal abortion" had, in the hands of Mr. Bland Sutton, done much to spread knowledge and to increase interest. But he could not find in his own or any other cases any evidence of extrusion of the mole; and so thought that the term was neither happy nor exact. He had drawn up a table, showing what he believed to be the various possible consequences of tubal pregnancy.

Tubal pregnancy may cause

- (1) Hæmorrhage from the abdominal ostrum with formation of defined intraperitoneal hæmatocele.....
  - (1) By simple clotting.
  - (2) Clotting with septal adhesions.
  - (3) Clotting with peripheral adhesions.
  - (4) Encapsulation.
- (2) Rupture of tube into
  - (1) Abdomen
    - (1) With diffuse hæmorrhage into the abdomen.
    - (2) With formation of defined intraperitoneal hæmatocele (rarely).
    - (3) With escape of fœtus, forming so-called abdominal pregnancy.
  - (2) Broad ligament
    - (1) With formation of extraperitoneal or broad ligament hæmatocele.
    - (2) With development of so-called broad ligament pregnancy.
- (3) Closure of tube and formation of tumor of indefinite duration (possible development in tube?).

Dr. Cullingworth thought that as the term tubal abortion had acquired a definite meaning, it would be unwise hurriedly to discard it. He agreed with the author that hæmatocele and tubal abortion were diagnosable; the proof was that they were continually being diagnosed and verified by operation. He had looked up his notes of ectopic gestation and hæmatoceles. He found that of ten cases of the latter on which he had operated eight were due to pouring out of blood from an unruptured tube; one only was due to rupture of a tubal gestation, and one was due to a ruptured hæmorrhagic broad ligament cyst of the opposite side. Of cases of ruptured early tubal gestation he had had six. In four the blood was diffused, in one the rupture was into the broad ligament, with formation of hæmatoma (extraperitoneal hæmatocele), and one resulted in the intraperitoneal hæmatocele above mentioned. So that his experience of the relative frequency of the different causes of intraperitoneal hæmatocele entirely coincided with Mr. Taylor's. He had had one case illustrating Mr. Taylor's fourth group of encapsulation; and the explanation in the paper had put the matter in a clearer light. In the last volume of the St. Thomas' Hospital Reports there was a colored drawing of such a case.—*British Medical Journal.*

SURGERY

IN CHARGE OF

L. M. SWEETNAM, M.D. Tor.,

Lecturer on Therapeutics in the Woman's Medical College; Surgeon to the Outdoor Clinic, Toronto General Hospital; Surgeon to St. Michael's Hospital;

AND

A. PRIMROSE, M.B., C.M. Edin.,

Surgeon to the Hospital for Sick Children. etc.

CEREBRAL TUMORS.

Messrs. Beevor and Balance report a case of subcortical cerebral tumor treated by operation in the *British Medical Journal* of Jan. 5th. The salient points of the case were summed up as follows:

(1) The gradual onset of the paralysis, involving successively the right ankle, the knee, and hip, and then extending, after the lapse of seven months, to the joints of the right hand, and then to the whole of the upper extremity. Finally speech became affected.

(2) The classical symptoms of intracranial pressure were present—headache, vomiting, and optic neuritis.

(3) The mental condition greatly deteriorated.

(4) There was some loss of sensation, affecting the rightly limbs chiefly, while the face entirely escaped.

(5) There was no family history of tubercle, and no personal history of tubercle or syphilis.

(6) Under anti-syphilitic remedies, taken for over six weeks, the patient's condition not only did not improve, but grew worse.

The presence of a tumor in the left cerebral hemisphere was determined, and by a consideration of the type signs of involvement of (*a*) the cortex, (*b*) the internal capsule, and (*c*) the centrum ovale, the authors came to the conclusion that the tumor was subcortical.

The patient was a married woman, æt. 39.

The following points may be mentioned with regard to the technique of the operation in this case: The *flap* adopted was the large U-shaped flap of Horsley, and included the periosteum. This flap was planned to expose a large area of the skull, *e.g.*, the coronal and sagittal sutures were exposed, about one inch of the posterior part of the left frontal bone, and

practically the whole of the parietal bone, with the exception of the anterior inferior angle, and the part immediately adjacent to the lambdoid suture. The portion of bone to be removed was then mapped out with a large saw. It was in shape a parallelogram, whose anterior and posterior borders, running parallel with each other, were planned also to run parallel with the sutures of Rolando. The anterior border encroached a little on the frontal bone at its lower end. The upper border of the parallelogram corresponded with the sagittal suture, and extended along it from the pregma for fully 3½ inches. The lower border was parallel with the upper, and 2½ inches below it. The portion of bone thus removed would include the parietal eminence, and would allow of the free exposure of the upper part of the motor cortex, especially of the toe and ankle centres, at the upper extremity of the ascending parietal convolution, which it was desired to thoroughly examine.

The removal of the bone thus mapped out was accomplished by the aid of the same large saw, by means of which it was divided up into small quadrangular pieces by vertical and horizontal cuts. Those pieces were then easily raised from the dura by an elevator. The use of cutting forceps facilitated their removal. Along the upper boundary, part of the bone was disarticulated at the sagittal suture. In this way the bone was removed, and the middle meningeal artery lay upon the dura without being wounded. The dura bulged considerably.

The authors considered it a clearly desirable to perform *the operation in two stages*, the edges of the scalp wound were brought together, and antiseptic dressing applied.

Six days after the first operation the second operation was performed. The scalp wound was easily separated with the handle of the knife, and thrown down without bleeding. A little clot, which was lying on the dura, was taken away. As large a square dural flap as possible was cut, and folded down over the scalp flap. On exploring the ascending parietal convolution with the finger, the cortex here, being greatly thinned, was broken through, and the tumor, of a whitish-gray color, was seen. An attempt was made with the finger and the handle of a sterilized silver spoon to shell it out, but it was found to be continuous with and infiltrating the surrounding cortex, and also the substance of the hemisphere, about an inch below the surface, and towards the front and middle line. The consistence of the tumor was semi-gelatinous, softer than the normal brain substance, and it was found easier to remove it with a silver spoon than in any other way. A considerable hæmorrhage occurred at the time, and as it was not well controlled by filling the cavity in the brain by cotton wool a series of fine silk threads were passed through the cortex for a depth of three-quarters of an inch all round the affected area, except for

about an inch at the median line, and tied so that all vessels within the operation area were controlled. The area was about two and a quarter inches in diameter. A free incision was then made through the cortex all round, just within the line of suture, and all the included part, brain and tumor, was taken away by means of the spoon. The tumor extended to median surface of the hemisphere, and so a part of the marginal convolution and quadrate lobe was removed, the falx being clearly exposed. In this way as much as the tumor as was visible was removed; but as the line of junction of healthy and diseased tissue was so indeterminate, it is not possible to say that the whole tumor was excised; it is, indeed, probable that it was not.

When all bleeding had ceased, the dural flap was stitched carefully in position with fine silk. The scalp flap was brought into position by horsehair sutures.

The antiseptic employed during the operation was mercuric perchloride (1-2000). The brain wound was constantly irrigated with this solution, so as to keep it clear of blood, by syringing a wet cotton-wool mop over it. No marine sponges were used, and the operation area was kept free from blood, not by mopping or touching the brain, but by the stream of fluid.

Dr. Colman made a microscopical examination of the tumor, and reported the growth to be a sarcoma, with round and spindle cells.

The patient recovered from the operation. On August 29th (forty-three days after operation) the condition of the patient was recorded as follows: Her mental condition was very much improved, and, from being morose and dull, she became lively, and amused the other patients. She had no paralysis of the face, and could now carry the right hand to the chin, but could not move the fingers or thumb; she could walk with a little assistance; she had good movement at the hip and knee, and some movement at the ankle, but no movement at the toes. With regard to sensation, she could appreciate light touches everywhere but over the right upper limb, and localization was still faulty. Speech was perfectly restored.

On November 20th the condition of the patient was carefully recorded and narrated in detail by the authors. The patient was restored to her normal mental condition; speech was perfect; there was no headache; movements of the face normal. With regard to sensation, there was pain in the right shoulder, especially when moved. No anæsthesia anywhere, and she localized correctly. No loss of muscular sense. The movements of the arm and leg were restored to a remarkable extent; in fact, the various movements were carried out in normal direction at all the joints save the thumb and the toes. There was no movement possible of the toes, and the thumb could not be extended, and the movements at the shoul-

der were limited. Action of the movements thus accomplished were weak, *e.g.*, flexion of the knee.

The case thus reported by Messrs. Beevor and Balance, of which the above is a brief abstract of their article as published, illustrates many points in the present position of brain surgery. The possibility of making an accurate diagnosis as to the localization of a tumor is strikingly indicated. (Unfortunately, lack of space prevents us giving the details of their argument in arriving at their diagnosis.) The authors are to be congratulated on their skill in this regard, also on the success of the operation, the details of which are worthy of careful study. The authors point out a remarkable feature in this case, namely, that, though so large an area of cortex had been removed, the patient had recovered sensation completely, and, with the exception of the toes, ankle, and shoulder, she had recovered almost completely as regards motion, but with diminished strength as com pared with the other side.

The method of checking hæmorrhage from the brain substance after removal of the tumor is worthy of notice. A.P.

Finding the Upper End of a Divided Tendon.

Félizet (*Bulletin et Mémoires de la Société de Chirurgie*, 1893, p. 610), in cases in which the tendons are divided, whether at the wrist or hand, advises that the two adjoining fingers be fully extended. This will bring the upper end of the divided tendon into view, and thus enable it to be seized. The affected finger is then flexed, and thus the lower end of the divided tendon is brought up and the two ends are sutured with catgut. In order to prevent too much strain on the catgut sutures, the upper end of the divided tendon, a full centimetre above the point of division, is sewed fast with catgut to the adjoining healthy tendon. In treating the case afterwards the unaffected fingers are kept in a state of extension, while the affected finger is kept in a state of flexion. This position is to be maintained by means of a plaster dressing.—*Atlanta Medical and Surgical Journal.*

PÆDIATRICS AND ORTHOPÆDICS

IN CHARGE OF

W. B. THISTLE, M.D., L.R.C.P. Lond.,

AND

B. E. McKENZIE, B.A., M.D.,

Lecturer on Orthopædics and on Surgical Anatomy in the Woman's Medical College, and Surgeon to the Victoria Hospital for Sick Children, Toronto.

Acute Infantile Arthritis in the Hip.

Under this title Dr. Augustus Thorndike reports a case and discusses an affection which manifests itself in the joints of infants, and is believed to be due to an acute infection of pyogenic micro-organisms. The infecting matter may enter through any damaged surface of skin or mucous membrane, or any subcutaneous phlegmon. Predisposing causes are traumatism, the infectious diseases. The rôle of these is but imperfectly understood, though they probably act by making easy the entrance of the pyogenic germs, or by reducing the patient's capacity for eliminating or destroying them. It is possible that in some cases the specific germ may be the acting pyogenic factor.

The treatment is summed up under two heads: (1) That directed against the general septicæmia; (2) local treatment, consisting of free incisions, drainage, etc. After operation a splint is to be employed which will secure complete rest for the part. At the hip-joint it is not uncommon to have a dislocation resulting from the destructive course of the disease; but it is not necessary to have this remain. In the case here reported, five months' after the primary operation made to secure drainage, the head of femur was found on the dorsum ilii, and, an opening being made into the joint in the line of the former incision, an osteitic outgrowth at the lower part of the neck was found, preventing attempt at replacement; on the removal of which, and after scraping out the acetabulum to receive the femoral head, adjustment was effected. Six months after operation the child limped but little, no actual shortening, flexion through an arc of 25°, and other emotions only slightly limited.

The affection is regarded as an uncommon one, and to-day is looked upon as representing a very acute infectious inflammation of the end of

one of the long bones, with rapid suppuration of the joint. It occurs generally in infants, and may be mono- or poly-articular.

Townsend, in 1890, collected all the cases which he could find recorded, and the number reached only seventy-one.—*British Medical and Surgical Journal*, Nov. 1st and 8th, 1894.

FORMULA FOR BROMOFORM.

℞.—Bromoform ..... gr. xvi.
Alcohol ..... gr. vii.
Glycerine .... ʒss.
Tinct. Cardamon ..... gr. vij.

M.

—W. Lyon, in *Journ. d. Med.*, Paris, 1894, vi., 418.

THE ANTITOXIN TREATMENT: SHARP CRITICISM OF PROFESSOR BEHRING.

The announcement that Dr. Hansemann, an assistant of Virchow, would speak on the antitoxin serum brought more members than usual to last week's meeting of the Berliner Medizinische Gesellchaft. The speech was a sharp attack on Behring and the treatment associated with his name. It was followed with the greatest interest, and greeted with loud applause. Owing to the lateness of the hour, the discussion had to be postponed until the next meeting.

Hansemann began by showing that Bretonneau's diphtheria is not caused by the Loeffler bacillus; that the bacillus does not even always accompany it; and that there are cases of Bretonneau's diphtheria with, and cases without, the Loeffler bacillus. That, on the other hand, Loeffler's bacillus is found constantly in rhinitis fibrinosa without producing diphtheria; that it is even sometimes found in normal mucous membrane; that under favorable circumstances the Loeffler bacilli multiply, without, however, exercising a decisive influence on the course of the disease. He said that in the case of animals an injection of a Loeffler bacillus culture causes, not diphtheria, but a disease *sui generis*, the Loeffler bacillus disease; that epidemic diphtheria had never been observed in animals; that guinea-pigs, in contact with diphtheria patients, had never taken diphtheria; but that a case is known where a cat, with which a child suffering from diphtheria had played, had developed all diphtheria symptoms, without, however, any Loeffler bacilli being discoverable.

He proceeded to the three qualities claimed for the antitoxin—namely, its therapeutic action, its harmlessness, and its immunizing power. He said that the present statistics give an erroneous impression (as already shown

by Gottstein in his recently published pamphlet), as many children suffering from lighter forms of throat complaints are now sent to the hospitals to be treated with serum, thus swelling the proportion of cured cases, which would, he said, otherwise not be higher than the usual average. He said that the serum injections could by no means be considered harmless, as affections of the kidneys had frequently followed—in one case more severe in type than had ever yet been observed after diphtheria. He said that it was clear, from Behring's new directions to increase the immunizing dose from 60 to 150 unities, that no results have yet been achieved, as far as immunizing goes.

Congenital Rickets.

Townsend, of Boston (*Archives of Pediatrics*, October, 1894), reports a case of rickets in which the rickety changes occurred *in utero*. The child's parents were young, well formed, and healthy, as were the other children in the family. There was no history of syphilis. During the time the mother was pregnant the family suffered much from poverty, the father being out of employment. The mother during her pregnancy had, on this account, much mental distress, besides being insufficiently nourished. The birth occurred one month before the time. The child weighed seven pounds, and was fourteen inches in length. The head was large, measuring 13¼ inches in circumference, square in front, and much flattened behind. Ossification in the skull bones was very deficient. There was much flattening in of the chest laterally. Circumference, 11¼ inches. Marked heading of the ribs giving rise to the characteristic "rosary." The abdomen was very large. On palpation, the liver could be felt beneath margins of ribs, apparently not at all enlarged.

The extremities showed marked signs of rickets by (1) enlargement of appendages, (2) curvature of the long bones, and (3) numerous fractures. Complete fractures existed at birth of both tibiæ of the left humerus, and of both bones of the forearm on the right side. Both epiphyseal enlargements and curvatures were marked in degree. The child was fed artificially, but died on the ninth day. No autopsy could be obtained.

PATHOLOGY

IN CHARGE OF

JOHN CAVEN, B.A., M.D., L.R.C.P. Lond.,

Professor of Pathology, University of Toronto and Ontario Veterinary College; Pathologist to Toronto General Hospital and Home for Incurables.

ASSISTED BY

JOHN A. AMYOT, M.B. Tor.,

Demonstrator of Pathology, University of Toronto; Assistant Surgeon to St. Michael's Hospital; Physician to House of Providence.

CHOLERA: A FATAL CASE FROM LABORATORY INFECTION.

It will be remembered that the experiments of Von Pettenkofer relative to the etiology of cholera, in the course of which he swallowed a considerable quantity of a bouillon culture of the specific bacilli, with the effect of inducing only a moderate degree of gastro-enteritis, led him to the conclusion that the germs alone were incapable of producing true Asiatic cholera (cf. *American Journal of the Medical Sciences*, March, 1893, p. 355). This conclusion was at the time disputed by the Berlin school of bacteriologists, by whom it was suggested that Von Pettenkofer had in reality suffered from a mild attack of cholera, and that, in any event, one case of positive infection would outweigh many negative experiments. The positive, unquestionable proof has at last come to us in the case of Dr. Oergel, assistant at the Hygienic Institute in Hamburg, who died recently from cholera acquired by direct infection while experimenting with pure cultures of the cholera bacilli. Details of the case are reported by Reincke in the *Deutsche medicinische Wochenschrift*, 1894, No. 41, p. 795.

The exact manner in which the infection occurred is not definitely known. Oergel was known to have on several occasions met with accidents in handling the cholera cultures with which he was working, and on one occasion he inadvertently sucked up through a pipette some of the peritoneal contents of a guinea-pig which had previously been inoculated with a virulent culture. Immediately after this he began to have diarrhœa, which proved intractable, and was followed in two or three days by a typical asphyctic stage of medium intensity, but with severe and prolonged muscular cramps. Vomiting and diarrhœa continued despite all efforts to stop them, and infusion soon became necessary. His strength gradually failed, a comatose condition supervened, with signs of a lung complication

on the seventh day, and on the eighth day he died. Throughout the entire course of the disease cholera bacilli were abundant in the stools, their presence and numbers being apparently uninfluenced by treatment. The diagnosis of cholera was substantiated by the result of the autopsy.

This case should serve to forcibly impress upon all those making use of cultures of the cholera bacillus the necessity of the greatest caution. It is indisputable proof of the etiological relationship of that germ to Asiatic cholera.—*American Journal of the Medical Sciences.*

Dr. E. Klein concludes from observations on the bacilli of anthrax, diphtheria, and tubercle, that these species are not such typical bacilli as they are usually represented to be. For though under many conditions their morphological characters are those of typical bacilli, yet under others they revert to, or assume, forms indicating their relationship to Saccharomyces or a still higher mycelial fungus. In the case of anthrax, the typical bacilli may be represented by oval and spherical bodies, some of which may contain vacuoles, and under other conditions (early stages of growth on plates composed of beef bouillon gelatin 10 per cent., pepton 1 per cent., salt 1 per cent.) the colonies are composed of large spindle-shaped, spherical, or oval elements, in which vacuolation is frequent. Similar appearances are to be observed in colonies of the thrush fungus. From this it is inferred that while *B. anthracis* is a typical bacillus as a pathogenic microbe, yet in its early stages of growth on gelatin it may assume characters having much resemblance to *Saccharomyces mycoderma* or *Oidium*, and thus return temporarily to an ativistic stage in its evolutionary history. With regard to *B. diphtheriæ*, the author points out that the club-shaped expansions of one or both ends are not to be regarded as due to involution, for both under natural and artificial conditions where there is active growth these expansions will be found, and have, moreover, a striking resemblance to the ends of growing hyphæ. Their existence, therefore, is only to be explained by their representing a relationship to a mycelial fungus. In the case of the tubercle bacilli, preparations not infrequently show threads or filaments composed of unequal elements, some of them being conspicuous for knob-shaped expansions, similar to those of diphtheria. Such appearances occur not only in sputum, but in artificial cultivations, *e.g.*, glycerin agar, after some weeks incubation at 37°. All these preparations behave in the same way as *B. tuberculosis* when treated with appropriate staining reagents; and that they are not involution forms is evident, as the unbranched nature of the filaments and the existence of lateral bulgings prove that they are in an active condition of growth.—From *Microscopal Bulletin*, October, 1894.

HYGIENE AND PUBLIC HEALTH

IN CHARGE OF

WILLIAM OLDRIGHT, M.A., M.D. Tor.,

Professor of Hygiene in the University of Toronto; Surgeon to St. Michael's Hospital;

AND

E. HERBERT ADAMS, M.D., D.D.S.

New York was the first city to establish a place for the microscopic examination of suspected diphtheria cases at public expense. Chicago has recently followed the good example.

PUBLIC HEALTH.

The health of the city of Toronto for the year 1894 has shown a more remarkable decline in the number of cases of and the number of deaths from contagious disease than has ever been known in the city's history. The number of deaths occurring from diphtheria in the city of Toronto in 1892 was 410; from the same disease in the year 1893, 263; in the year 1894, 84. The number of deaths occurring from typhoid in the year 1892 was 111; in the year 1893, 80; in the year 1894, 24. At present Toronto's death rate from typhoid fever is the lowest of all the great cities upon this continent, and averages but 17 per hundred thousand. In diphtheria Toronto's low death rate is third among the great cities of the continent.

A DEMONSTRATION.

Some idea of the specific value of vaccination in lessening the mortality of smallpox may be gathered from the following statistics: During the year 1893, 140 cases of smallpox were treated at the City Quarantine Hospital; of these 117 recovered, and 23 died. Of the 117 who recovered, 42 showed some evidences of vaccination, and in these cases the disease was uniformly of a mild type; while in the 75 showing no evidence of the operation, there were many cases of great severity; indeed, all of these showed a tendency to a severe form. Among the 23 cases which died not a single one had ever been vaccinated successfully. These facts are certainly most valuable proofs of the value of vaccination in inducing immunity against smallpox and lessening its mortality.—E. Garrott, M.D., Chief Medical Examiner, Chicago, Ill.

The Absorption of Odors by Milk.

Parville (*Deutsche med. Zeitung*) relates some interesting facts upon this subject. If a can of milk is placed near an open vessel containing turpentine, the smell of turpentine is soon communicated to the milk. The same result occurs as regards tobacco, paraffin, asafœtida, camphor, and many other strong-smelling substances. Milk should also be kept at a distance from every volatile substance, and milk which has stood in sick chambers should never be drunk. The power of milk to disguise the taste of drugs —as potassium iodide, opium, salicylate, etc.—is well known.—*Medical Bulletin.*

Tuberculosis in Insane Asylums.

Dr. C. E. Riggs, Professor of Nervous and Mental Diseases in the University of Minnesota, in a recent article on "Some Irish Asylums," states that in the Killarney Asylum for the Insane "seventy per cent. of deaths are due to phthisis, caused by the damp climate." Such high percentage of deaths from consumption is too common in insane asylums, but it is not the damp climate, but the element of contagion, which is the cause; and until the tubercular insane are separated from the non-tubercular insane, the death rate will always be high. Is there an asylum in Canada where the insane consumptives in the expectorating stage of the disease are separated from the rest of the insane?

Expediting the Current in Mexican Sewers.

A new project for the sanitation of the sewers in the city of Mexico, at a cost of about $25,000, calls for the building of some twenty-five windmills in different parts of the city to rotate paddle-wheels in the sewers and quicken the current to 1 metre per second.—*El Universal.*

The Cremation of Garbage.

The *Inventive Age* notes that there are now fifty-five towns and cities in England which destroy their garbage and solid refuse by burning, using an average of about ten furnaces each for that purpose. The combustion of the material is used for the generation of steam, by which the streets are electrically illuminated, and other cities are reported to be considering the propriety of reducing their municipal expenses by this means. The Livet, the latest introduced method, is stated to burn on an average 331 pounds of rubbish per hour for each square foot of grate surface, with an evaporation of 4.08 pounds of water for each pound of rubbish consumed. In this way science is showing what profit there is in what has been regarded as waste and filth, to be used in contaminating public drinking water or getting rid of it in some other way.—*Sanitarian.*

Editorials.

A NEW DEPARTURE.

THERE are times when we can, without prejudice, congratulate our contemporaries. In the January number of the *Dominion Medical Monthly* we have noted a small advertisement—hid amongst the *pot-pourri* of others—which signals a material change in that journal's career. The advertisement states that the subscription rate is one dollar per annum. The manner in which this statement is made is altogether too modest. There is nothing to be ashamed of in such a move, and any journal developing from a free-gift advertising journal to a regular subscription journal deserves congratulation.

The *motif* we would not for a moment discuss, but that little advertisement will, undoubtedly, be used to arrange matters with the Government. The mailing privilege is free mail to purely legitimate journals—that is, journals with a *bona fide* subscribed circulation, but not to journals which exist as advertising mediums solely. As we said before, we will in no way impute a *motif*. Then, another point of congratulation and journalistic advancement. The same journal issues an *edition de luxe* and an *edition ordinaire*. One of the former we found in the hands of an advertiser, and the latter is the one which is gratuitously distributed to the profession. Really, it ought to be the other way about. Undoubtedly, the advertiser would rather have the subscriber get his *edition de luxe*, and he could put up with the one on poorer and lighter paper; but, of course, these things cannot be accounted for. We refrain from any further congratulation, and omit any mention about a foreign issue that an advertising firm assured the writer was published. It might be unkind to refer to the law about the receiving of a journal from the mail, constituting the recipient a subscriber and making him liable for the subscription rate; so we will also omit that. Yet it does one good to see a new leaf turned over and a purely advertising medium become a subscription journal, even if the circulation must tumble.

HISTORY OF MEDICINE.

THE calendar of the Medical Faculty of the University for the session of 1894 95 contained the announcement that a course of ten public lectures would be given by members of the Faculty on the History of Medicine. It was expected that the series of lectures would give a connected account of the subject down to the sixteenth century, and that another set of lectures, to be delivered in the session of 1895-96, would deal similarly with it for the then remaining centuries.

Professor Ramsay Wright delivered the first lecture of the course, January 8th, on "Mythical Medicine and the Worship of Æsculapius." Three additional lectures were delivered during the month of January on the following subjects: "Hippokrates," "Alexandrian Medicine," and "Roman Medicine," by Professors A. B. Macallum, A. H. Wright, and J. E. Graham. The lectures were very interesting, but it was found that the examinations were so close at hand that students felt that they had scarcely sufficient time to attend.

The Medical Faculty, at its last regular meeting, considered the matter from the students' point of view, and decided to postpone the delivery of the remainder of the course until next session. The following are the subjects which remain: "The Eclectics—Galen," by Prof. John Caven; "Græco-Arabian Medicine," by Prof. G. A. Peters; "Monastic Medicine," by Prof. J. M. MacCallum; "Scholastic Medicine," by Prof. William Oldright; "The Revival of the Study of Human Anatomy," by Prof. A. Primrose; "The Commencement of Modern Medicine—Paracelsus," by Prof. A. McPhedran.

THE OYSTER AS A TYPHOID CARRIER.

THERE has been a certain amount of excitement recently respecting the oyster as a possible cause of typhoid fever. Dr. H. W. Conn, Professor of Biology in the Wesleyan University, Middletown, Connecticut, published in the New York *Medical Record* a report respecting an epidemic of typhoid among the students which occurred in October and November, 1894. He produced a chain of evidence which proved pretty conclusively that the disease was caused by eating oysters. The offending oysters had been grown in the deep water of Long Island Sound, but had been placed in a fresh water stream for a day or two, to freshen, or "fatten." It was afterwards discovered that a sewer coming from a house containing two typhoid fever patients emptied into the stream close to the place where the oysters had been freshened.

In the *British Medical Journal*, January 12th, 1895, we find a letter from Sir William Broadbent, M.D., giving reports of several cases of typhoid fever among the wealthier classes in London, in which there was almost absolute certainty that the infection had been transmitted by oysters. The *Journal*, in an editorial on the subject, after referring to the letter, says: "The cumulative weight of the facts will, we apprehend, be generally accepted as considerable. The exclusion of all the ordinary sources of typhoid fever, and the peculiar incidence of the disease in certain families, on those members only who had partaken of uncooked oysters, and the further fact that this consumption of oysters appears to be the only circumstance common to the case, afford a very strong presumption for the view that these succulent bivalves were in some way the means of conveying infection."

The *Journal* goes on to state that this is not the first time that the oyster has been under suspicion in this respect. Sir Charles Cameron, in 1880, reported some cases at the Cambridge meeting of the British Medical Association, in which serious intestinal disease had been produced by the consumption of oysters. In 1890, there was a strong suspicion that certain typhoid fevers were caused in a similar way. The idea that raw oysters can cause typhoid fever has been ridiculed in certain quarters, but we are inclined to agree with the *British Medical Journal* in thinking that sufficient evidence has been produced as to the probability of the occasional conveyance of the infection to warrant us in accepting it as a fact.

REPEATING BY DRUGGISTS.

WE are quite in sympathy with much that has been said about the practice of repeating prescriptions without permission, which has become so common in Toronto. We consider that no arguments are required to prove that such acts on the part of druggists are not just to the physicians, while, at the same time, they are frequently dangerous for the patients. The subject has been discussed on two occasions by the members of the Medical Society of the West Toronto Territorial Division, and at the last meeting was relegated to a committee, with instructions to consider and report. In connection with the subject there are at least two questions of considerable importance.

(1) Who owns the prescription?

There seems to be an impression that the courts have decided that the physician owns the prescription, and that neither the patient nor the druggist has any legal right to use it a second time. We know of no such decision, and feel almost certain that none such has been given on this

continent. We quote as follows from Hamilton's "System of Legal Medicine" (an admirable work, by the way): "Who owns the prescription? is a a question frequently asked by physicians, but not as yet answered by the courts. In his treatise on medical jurisprudence, Ordronaux has devoted some pages to its discussion; but the matter is one of academic rather than of practical interest. The patient pays for advice. He receives a prescription orally or in writing. It is his. He can take it as often as he wishes at his own risk, or give it to his friends. No one has ever pretended that a lawyer can forbid a client repeating the legal advice given to him. Perhaps a contract might be made with the patient not to 'repeat the prescription'; but then, if he breaks the agreement, what is the physician's measure of damages? If, indeed, the patient put up the prescription as a patent medicine, and advertise under the physician's name, this might be a libel; but the gist of the offence would be not selling the prescription, but imputing unprofessional conduct. There is no practical method of preventing a patient from repeatedly swallowing a prescription intended for a single occasion, except to give him the actual remedy, after the old fashion, now again coming into vogue, or else to make the dose so disagreeable that to take it will be a pain rather than a pleasure."

(2) Shall we seek remedial legislation from the Ontario Parliament?

No, decidedly no, for the simple reason that we can't get anything of the sort. If we asked for it the cry of "class legislation" would speedily swell into a roar which would effectually drown our plaintive cries.

We have nothing original to suggest in the premises, and can only recommend one of two courses: (1) Either make some amicable arrangement with the druggists, a portion of whom are disposed to treat the profession fairly; or (2) dispense our own medicines.

Meetings of Medical Societies.

TORONTO CLINICAL SOCIETY.

(Continued from page 72.)

TUMOR OF THE CEREBELLUM.

Dr. D. C. Meyers: The case I have to show to-night is one that I will read you the history of as taken from my case book.

This young man's age is twenty-six; he is unmarried, dentist by profession. In regard to family history, all the family are highly strung. The father is sixty-eight years of age, and nervous. He has eight brothers and sisters, who are all more or less so. The mother, however, is quite well. His grandfather died of hæmorrhage of the lungs, and there was consumption in his grandmother's family. The father tells me one child died of hydrocephalus. In regard to his previous health, he has always been fairly strong, is nervous, and troubled much with headaches. About eight years ago he had some kidney trouble and rheumatism. He has been much confined to his office since he was sixteen. His present illness began about five years ago, after excessive work from taking a diploma. At this time he had an attack during which he was entirely paralyzed, and was unconscious, or partially so, for ten days. This attack came on suddenly. The temperature rose to 103°, and he was confined to bed about six weeks. Both sides of body attacked, left more than right. The arms recovered first. He went to Picton, where, after ten days, he had another attack with paralysis lasting three months. He gradually improved and began to work again until the following summer, when he overworked himself, but after a rest in Muskoka he worked during the winter. Stiffness in his legs, however, always continued. The next summer he had dysentery about three weeks, then he was better during the winter. In the spring two years ago he felt bad and underwent the Salisbury treatment, and his eyes have been bad ever since. He went to Nebraska last winter, and since his general condition has been good, except for his legs, which are very troublesome. He has not worked for a year and a half, and walking is growing steadily worse. Sleep and appetite very good; bowels very constipated; in five years he scarcely had

a natural motion. At one time he had trouble to pass his urine; his physicians used a sound, he said, to enlarge urethra. He very often has to wait for urine to pass, and propulsion is not good. He now passes a fair quantity, and he says it smelt ammoniacal. He has been very dizzy at times, so that things would swim, and it was very difficult for him to maintain his equilibrium. He would often have a feeling of intense nausea when getting up in the morning, after dizziness, but he did not vomit, nor has he vomited at any time. Headaches uncommon at present, although they are said to have been severe. His sight is bad; speech was affected at one time, due to inability to pronounce. He was unable at one time to use his knife or fork from weakness. For light touch he now uses his right hand. Dy. L. 67 R. 85. Knee-jerks markedly increased on both sides, and equal. Slight ankle clonus on both sides. He says there was marked loss of sensation in left hand at one time, but that it is now better, though occasionally numb. Sensibility to pain slightly dull over whole body, but perhaps more marked on left side. Complains of sense of pressure over occiput at times when nausea in stomach. Strength of legs unimpaired, understanding unimpaired. While standing patient has feet wide apart to maintain his equilibrium, which he can do unaided only with difficulty. He fell off the sofa when dressing from a sitting posture in my office, and no muscular atrophy. Heart and lungs normal; respiration is very slow, seven or eight per minute; pulse 76. He says knee-jerks were lost at one time. Eye discs, both atrophied and gray, balance not markedly affected, with eyes closed. He says he has never had lightning pains. He walks with feet wide apart, and like a drunken man. He has some inco-ordination in legs and hands; does not stamp feet; says he can put them where he wants them. He is slightly more unsteady when walking with eyes closed, but he puts his feet down without excursion, and can place them quite well near together when held by the hand. Has plantar reflex gone. Tendons of foot twitch markedly when standing. Dr. Ryerson kindly informs me that five and a half years ago there was distinct papillitis in both discs. At that time patient was unsteady in walking, and required assistance. I drew off urine—about eight ounces. He had not micturated for five hours. Patient has some lateral nystagmus, no mental symptoms, patient being perfectly bright and intelligent.

The first question which naturally arises is, Where is the seat of the trouble? The increased reflexes, the inco-ordination, the nystagmus, the optic atrophy, would point strongly to an affection of the cord, ataxic paraplegia. On the other hand, the marked giddiness, the respiratory trouble, and especially the fact that papillitis (or choked disc) preceded the present optic atrophy and the difficulty in maintaining his equilibrium, indicate an affection of the brain, which a consideration of

the symptoms compels one to think a tumor. Under these circumstances (unless we suppose the presence of more than one tumor) the growth must be in such a position as to compress both pyramidal tracts, cause inco-ordination and disturbance of the equilibrium. The most probable situation for such a growth is the cerebellum, particularly the middle lobe. As you are all aware, an affection of the semi-circular canals of the ear or of that portion of the auditory nerve connected with the ampulla will cause a loss of equilibrium, and in this case I believe the vestibular portion of the auditory nerve, in its course to the cerebellum, is affected, having a disturbance of equilibrium as a consequence. The cause of the increased reflexes lies in the fact that the pyramidal tracts of the cord are pressed upon, and, probably, degenerated as a result. The loss of co-ordination may be explained by a derangement of those sensory impulses which, passing through the posterior columns of the cord, go thence to the cerebellum. In fact, we have here, in regard to the reflexes and the inco-ordination, precisely the same result that we would have from a primary affection of the cord implicating the motor part of the lateral columns and the mesial portion of the posterior columns, the only difference being that these same results are due to an affection in another part, and are, consequently, secondary. In regard to the nature of the growth, a gumma need scarcely be considered, owing to its position and the history of the patient. The two most likely forms of tumor are tubercle and glioma. And, of these, the presence of tubercle in the family and the fact that tubercle is a most common tumor of the cerebellum leads me to believe this to be the nature of the growth. I, therefore, consider the case to be a tumor of the middle lobe of the cerebellum, probably tubercular in its nature.

Dr. Graham: I have listened with a great deal of pleasure to Dr. Meyers' report of this case, and I would not pretend to offer any opinion in opposition to his, even if I were strongly of the opposite opinion, because he has had every opportunity of studying the case, which I have not had. But it occurred to me that there were some objections to the theory of tumor in the case. For instance, he has never vomited; he has not had dizziness.

Dr. Meyers: Yes, very marked.

Dr. Graham: I did not understand that. But he has not fallen down.

Dr. Meyers: He rolled on to the floor from the sofa the other night, but that is the first time he said he had noticed it.

Dr. Graham: If, for instance, he had papillitis five years ago, and if that was due to tumor, one would think it would show some evidence of falling, for that is one of the commonest things that I have seen—that they often fall backwards. Those are generally put down as the cardinal

symptoms—and headache. There is headache, dizziness, want of retaining equilibrium, and, finally, the vomiting; of these four there is only the dizziness as the cardinal symptoms of tumor. I am rather of the opinion that Dr. Meyers first came to, that it is ataxic paraplegia, with the exception of those previous conditions; that is, papillitis. Might that papillitis not have been due to meningitis? That would account for his headache. I think all the other symptoms would account for ataxic paraplegia. He has only the one sign of the tumor.

Dr. Ryerson: My recollection of the beginning of this case is that he was brought to me by Dr. Burns, and he had, at that time, studied excessively for passing an examination for doctor of dental surgery, and it was thought to be due to over-exertion; but there was nothing to show that would cause neuritis. I only saw him once, and I heard, a few days afterwards, that he had been attacked with paralysis. That is about all I know of him.

Dr. Cassidy: Is it reasonable to think a man would have tubercle of the brain all that time without showing some signs in the other parts of his body—his lungs; and what tubercles exist in the brain for five years without having appearance of tubercle in other organs? I think most of the authorities that speak about brain tumor state that. You would naturally expect to get a tubercle in a young person. I think it is put down generally, as far as my recollection goes, which certainly would count in favor of cancer. In cases of tuberculosis I suppose that age would be an important feature, and, this man being twenty-six years of age, that would be rather in favor of tumor; and, assuming that tumor is proved, that it would be tubercular. But I understand there was no evidence of tuberculosis in any other part of the body, which would certainly be negatively against that.

Dr. Atherton: I would like to ask Dr. Meyers how he explains the sudden access of paralysis five years ago, and then the improvement afterwards.

Dr. Ross: My experience in these cases is, simply, that I had one case that was shown to the society two years ago. This man's movements remind me very much of it. It was a young girl, and she had tubercular tumor in the middle lobe of the cerebellum, low down behind, and, I think, affecting both sides, if I remember correctly. In that case the first evidence of any trouble was an hysterical attack, so much so that when I saw her I thought it was a mere attack of hysteria, and was very nearly advising the mother to give the child a good spanking. But I went home and read up something, and thought I was wrong. The post-mortem examination showed a large mass of tubercles. However, she had no paralytic symptoms whatever. She went down to Dr. Reeve, and

her eyes were examined, and the day she died she drove with me in my carriage to the Sick Children's Hospital, and I met her down at the corner of the street, and she had this peculiar walk, the same as this young man's. She walked home and had a convulsion; they sent down for me and I was in the house inside of ten minutes, and before I was there she was dead. Her mother had six or seven sisters; all died of it. In her case it ran a very rapid course. She was a young girl, about fourteen or fifteen. She was sick from the time it first commenced, not more than about ten months. To my mind, there is one point that is rather against the theory of either tubercle or tumor, and rather in favor of some previous condition, whatever it may have been, and, consequently, something such as Dr. Graham speaks of as attacks of ataxic paraplegia.

Dr. Meyers: In regard to what Dr. Graham has said of the papillitis five years ago, there is one point about tubercle in the brain, and that is that it belongs to the fastest as well as to the slowest growths, and the tubercle sometimes may have a rapid progression, and at other times it will go on for years without producing but a very slight increase of symptom.

In regard to ataxic paraplegia that was the point that raised the greatest difficulties in my mind, and without assistance on one or two points, particularly, as I say, the occurrence of choked disc, which would be unknown in attacks of paraplegia. Atrophy in itself is rare in ataxic paraplegia, and that was a point very much in favor of my deciding against it; and then there was the respiratory trouble as well, which would certainly seem to show that there was a lesion higher up in the brain.

There is another point about it. In attacks of ataxic paraplegia the ataxia is very much more marked than in this case. The ataxia here is slight, but the ataxia of ataxic paraplegia is very much greater. There is more excursion of motion, and the patient, when lying in bed and asked to describe a cross with his foot or touch his knee with the opposite heel, cannot do it without very great trouble, whereas this boy would do both very well, showing the ataxia was not marked.

There is one point in ataxic paraplegia, and that is the weakness of the legs, which is absent in this case. None of the muscles of the boy's legs were weak. He would do all motions well. He had a good amount of strength in both legs and pretty equal.

In regard to what Dr. Cassidy speaks of, in adults it is common, I may say, to find tubercle in other parts of the body, but at the same time I think tumor can exist in the brain and not exist in other parts of the body.

In regard to the sudden access of the trouble, it is an exceedingly difficult matter without any more history than I have got to form any conclusion as to what that trouble may have been. It may have been peripheral

neuritis, which comes on suddenly and paralyzed his whole body, as he said, and from which he recovered partially. He has good strength in both sides.

There is one point in what Dr. Ross has said, that was the connection of hysteria with organic troubles. I may say it is a very difficult point sometimes to diagnose and tell just when a case is hysteria and when there is organic disease simulating it. The only thing is to look for unequivocal signs of organic disease, and when those are present to discard the other.

Dr. Ross presented a specimen of ovarian tumor removed from the abdomen of a negress.

He said: She had it for five years, and it had given her no inconvenience, when all of a sudden she had an attack, temperature rising up to 105°, and complained of pain over the abdomen. I saw the patient and thought very likely it was a case of fibro-myoma, large size, and I advised its removal. It looked perfectly healthy when removed, and after cutting it open I found evidence of sarcomatous degeneration of the fibroid.

The meeting adjourned.

THE PATHOLOGICAL SOCIETY OF TORONTO.

AN open meeting of the society was held on Friday, Jan. 25th, 1895, at 8 p.m., in the Biological Building, the president, Dr. W. J. Greig, in the chair. An interesting programme was presented, as follows:

After a few introductory remarks of welcome to the visitors of the evening, Dr. Greig read a paper on the "Pathogenesis of Simple Gastric and Duodenal Ulcer" (see page 81).

Dr. McPhedran pointed to the fact that gastric ulcers occur commonly in young, anæmic females; duodenal ulcers in older and healthy males, as showing that the pathogenesis of the two conditions probably differed widely. He thought that the various causes enumerated by the previous speaker no doubt came into action in different cases, yet that no one of them was constant. He differed to the hyperacidity of the gastric contents in chlorosis as one reason why gastric ulcers were frequent in that disease, and suggested that duodenal ulcers in healthy males might often be due to traumatism, produced by the excessive ingestion of partially masticated food, which passed on to the duodenum without proper digestion in the stomach.

Dr. Caven referred to the very varying degrees of resistance to adverse circumstances exhibited by different cells in the same organism, and by corresponding cells in different organisms, and offered the suggestion that

the vital resistance of the duodenal mucosa in healthy males might be no greater than that of the gastric mucosa in chlorotic females.

Dr. Greig, in closing the discussion, believed that in his case the ulceration was due to local malnutrition, the result of arterial degeneration, which could be readily detected in at least some of the patient's vessels.

Anatomy of the Appendix.

Dr. Caven then read a paper on the above subject.*

Dr. Peters thought that inflammation of the appendix occurred more commonly in appendices which occupied an abnormal position than in those lying in the position generally considered normal. Also, that inflammation occurring in a normally placed appendix was more dangerous than in one abnormally placed, since in the former case localization of the resulting abscess by adhesions did not take place as readily as in the latter, so that the general peritoneum was more often affected. He quoted a number of cases in his own experience supporting this view. He thought that the operation of opening an appendical abscess extraperitoneally could but rarely be done.

Dr. Barnhart agreed with Dr. Peters as to the relatively greater frequency of the occurrence of inflammation in misplaced appendices. He had examined from fifty to seventy subjects with regard to the position of the appendix, and had found many variations, few of which were mentioned in anatomical text-books. The length in his cases varied from 1¼ to 6½ inches, the maximum being found between the tenth and thirtieth years. After the thirtieth year both length and diameter began to diminish, leading sometimes to complete obliteration. He had found typhoid ulceration in one appendix, carcinoma of the meso-appendix in another case, two tubercular appendices, and one cystic. He referred to a case which presented no symptoms of appendicitis ante-mortem, in which post-mortem an appendical abscess was found in the true pelvis.

Dr. Caven agreed with the statements of the previous speakers, both with regard to the greater frequency of inflammation in abnormally placed appendices, and also to the greater seriousness of inflammation in an appendix normally placed.

Drs. McPhedran and Caven then presented the clinical and post-mortem notes of a case of "adenoma of the duodenum," which will be published later.

Dr. Hill presented gross and microscopic specimens from a case of carcinoma in the splenic flexure of the colon producing obstruction, terminating fatally.

The meeting then adjourned.

*Will appear in March issue.

TORONTO MEDICAL SOCIETY.

THE regular meeting of the above society was held on January 17, 1895, the President, Dr. Peters, in the chair.

SCLERODERMA.

Dr. McPhedran presented a patient suffering from scleroderma. It commenced about nine months ago, a white spot being first noticed in the forehead, which presented something of the appearance of a chalk mark. It extended upward upon the head about two inches within the margin of the hair line. Its width was about half an inch. The patch became completely bald. Thickening of the skin and the tissue beneath has taken place. It is slightly anæsthetic. The doctor gave a description of the pathological condition and outlined the treatment.

URETHRAL CALCULUS.

Dr. Peters showed a unrethral calculus which he had removed from a boy seven years of age. The history of its presence lasted from the patient's birth. At the age of four he received a blow in the perinæum. Since then he has had frequent passages of bloody urine, accompanied with great pain. The urine kept continually running away. On passing a sound the stone could be distinctly felt at the membranous portion of the urethra. Median incision was made, but on applying the forceps it slipped into the bladder. The opening was enlarged and the stone extracted. The doctor outlined the methods employed in the analysis of the various urinary calculi.

Dr. Atherton also presented a large urethral calculus which he had discovered accidentally upon operating on a patient for extravasation of urine resulting from an injury in the perinæum, the history of which he had given at a previous meeting of the society.

DISSECTING AORTIC ANEURISM.

Dr. R. J. Wilson presented a specimen of dissecting aortic aneurism. The patient was forty-two years of age, of good habits, and a good family history. The doctor was called early one morning, when he found the patient suffering great pain in the left groin, and in the back, radiating from the region of the left kidney, extending into the left testicle and to the end of the penis. The testicle was retracted. He was treated for renal colic, morphia being given. The patient got up at about six o'clock to urinate, but died before he got back to bed. The specimen showed that rupture had taken place at the commencement of the descending aorta. The coats were separated down to the point at which the vessel had been severed upon removal. There was no evidence of kidney disease. Some calcareous deposit was detected on the aorta. No evidence

of any cause for renal colic was made out. Was the pain complained of the result of the aneurism? the doctor asked. Dr. Peters said that the pain might have been produced by pressure on the lumbar plexus.

SPINA BIFIDA.

Dr. Oldright presented a child five weeks old suffering from spina bifida. The tumor involves a portion of the sacral, all the lumbar, and the lower two dorsal vertebræ. The members examined it by transmitted light, an electric lamp being used for that purpose. Although no portion of the cord could be seen, yet the doctor considered that a portion of the cord was involved because of its large size and its position, and the complete paralysis of the lower extremities. On tapping the lower part of the tumor distinct twitchings of the legs occurred. As to treatment, he had been using pressure. He asked the opinion of the society as to the wisdom of further interference. The only other child had died, and the parents were much wrapped up in this one, and he felt somewhat loath in resorting to operation. Dr. Peters reported having operated upon a case unsuccessfully. He did not think the involvement of the cord was a contraindication to operation. He thought he would favor operation on the case.

Dr. Atherton said that he would try the injection of Morton's fluid. If this were insufficient to effect a cure, he would state to the parents the possibilities and the probabilities in case of operation, and in case operation were not performed; and then he would advise operation.

Dr. McMahon said that from his observations on three cases of spina bifida he had concluded the conservative treatment was best.

Dr. Wilson, of Richmond Hill, said that looking from a scientific standpoint at the case he would operate, but from the standpoint of the mother he would leave it alone.

Dr. Oldright stated that statistics show only about three or four per cent. of recoveries. He seemed rather inclined to the non-operative treatment.

APPENDICITIS.

Dr. Bryans gave the history of a case of appendicitis with the ordinary symptoms. The patient had a somewhat similar attack some months before.

Dr. Atherton said that a twin brother had suffered from peritonitis. When called to assist Dr. Bryans with the case he decided that operation was called for because of the previous attacks of colicky pains, which were growing worse and worse, because the patient's symptoms were increasing in spite of opiates, and because of the successful results which accompan y early operation.

On opening, a coil of small intestine was found running beside the cæcum and attached to it. Following this down with the finger to the brim of the true pelvis the appendix was reached, which extended into the pelvis, where it was adherent pretty firmly. Drawing it out its mesentery was torn, and the appendix itself was found to be rotten. It was distended to the size of his ring finger, and the contents were greenish-looking and stinking. A ligature was made around it close to the cæcum, and the stump touched with pure carbolic acid. An iodoform gauze drain was left in for forty hours, after which the provisional sutures were tightened. The patient is doing well. The members examined the specimen.

Dr. Peters presented an appendix which had been removed from a patient who had had recurrent attacks. A tumor was noticed in the pelvis by palpation per rectum. A median incision was made. The appendix was hanging over the brim of the pelvis reaching to the aforesaid mass. It was firmly adherent, very thick, and a foreign body could be felt very distinctly. The muscular and serous coats were dissected back, a ligature thrown around the mucous coat. The stump was touched with carbolic and pocketed by an infolding of the muscular and serous coats, the latter of which were approximated by a row of sutures.

The society then adjourned.

HURON MEDICAL ASSOCIATION.

The Huron Medical Association met in Seaforth on the 15th ult., with Dr. Turnbull, president, in the chair. Papers were presented by Drs. Campbell and Burrows, Seaforth.

Dr. Graham, Brussels, introduced the question of the manner of collecting the Medical Council fee, and this elicited considerable discussion.

The subject of medical ethics was taken up by Dr. Wood, of Mitchell; Dr. Bethune, of Seaforth; and Dr. Shaw, of Clinton.

The annual election of officers resulted in the appointment of Dr. A. Dalton Smith, of Mitchell, as president; Dr. A. Bethune, of Seaforth, as vice-president; and Dr. Mackay, of Seaforth, as secretary-treasurer.

WEST TORONTO TERRITORIAL MEDICAL DIVISION ASSOCIATION.

The annual meeting of the West Toronto Medical Division Association was held in Broadway Hall on January 12th, at which a large representation of the members of the division was present.

The subjects of lodge practice, account collecting (including a black list of bad-pay patients), and repetition of prescriptions by druggists were discussed, and committees appointed to consider each of these and report at the April meeting.

The election of officers resulted as follows: President, H. T. Machell; first vice-president, A. A. Macdonald; second vice-president, A. Hamilton; secretary-treasurer, George H. Carveth. Council: A. McPhedran, J. Spence, J. Ferguson.

The next regular meeting of the association will be held in Broadway Hall on Wednesday, April 10th, at 4 o'clock.

MARYLAND CLINICAL SOCIETY.

STATED meeting, held January 18th, 1894.

Dr. Simon Flexner read a paper on the pathology and bacteriology of diphtheria.

Dr. L. F. Barker then addressed the society upon "The Antitoxin Treatment of Diphtheria."*

Dr. N. C. Kierle explained the differences between the diphtheria in the human being and that of the pigeon and fowls. He exhibited several birds, some having true diphtheria, others the mixed infection.

Dr. J. H. Branham reported upon two cases of diphtheria in which he had used the antitoxin treatment:

CASE 1. Little girl, seven years of age; had been ailing for about two weeks with a slight sore throat and injection of the mucous membrane over the tonsil. The diphtheritic membrane appeared first upon the uvula. At that time the child was not very sick, having a pulse of 90, and temperature 100°. He made a small injection of antitoxin on the 6th, about eighteen hours after the membrane appeared. On the same day a second dose was given, much larger, at about 4 p.m. The pulse was then 120, temperature 101.6°. The next morning both pulse and temperature had gone higher, when he changed and gave an injection of a new solution. On the 8th the temperature in the morning was 102°, pulse 130. Patient not very much improved. At 9 p.m. a full dose of Behring's solution (12 cubic centimetres) was given. The next morning the temperature, after twelve hours, was nearly normal, and the patient proceeded to recovery very rapidly. The first solution used was obtained from Pasteur's New York laboratory, but within twelve hours after giving a full dose of the Behring solution the patient was very much better, and practically has not been sick since.

CASE 2. Patient first seen on the fourth day of disease; had been treated by another physician with the ordinary remedies. Bacteriological

*See page 99.

examination was made, and a dose of the Pasteur material given on the fifth day. On the next day there was a decided manifestation of laryngeal involvement. A full dose of the Behring solution No. 2 was then given. Sixteen hours later, in a fit of coughing, a cast of the larynx was brought up which showed the bacteria. After that time the pulse and temperature came down to normal, and did not again rise. The patient recovered rapidly. A full dose in both cases seemed to act beautifully.

Dr. J. F. Martenet: I desire to report an interesting case, in which I had the opportunity to use this remedy. The case was that of a child two years old who had been sick ten days. It was primarily a laryngeal case. Another physician had been treating it, and gave the case up as hopeless. When I saw it the larynx and trachea were full of the membrane, and breathing was very difficult. I gave the first injection of antitoxin that evening, and the second dose the following morning, the respiration having by that time somewhat improved. In the evening, however, it was worse. The larynx was almost occluded, and the child could scarcely breathe. The temperature was 103°, respiration very rapid, the pulse rapid and weak. I could not get more of the antitoxin at that time, so I had to try tracheotomy, and left the tube in all night. Next morning the child was apparently dying. We removed the tube, and the child, getting more air, improved somewhat. By the next day I had succeeded in obtaining more of the antitoxin, and gave a third injection. Improvement went on rapidly, and by the following day the child was practically well. Bacteriological examination showed it to have been a case of mixed infection. Tracheotomy undoubtedly helped to save the child's life, but it may have been by giving the antitoxin an opportunity to produce its effect.

Book Reviews.

THE F. A. Davis Co. will issue shortly a treatise on "Suggestive Therapeutics in Psychopathia Sexualis," by Dr. R. Von Krafft-Ebing, translated by Dr. A. Schrenk-Notzing.

THE work on obstetric surgery by Drs. Egbert H. Grandin and George W. Jarman, recently published by the F. A. Davis Co., of Philadelphia, has been well received.

PRACTICAL URANALYSIS AND URINARY DIAGNOSIS: A Manual for the Use of Physicians, Surgeons, and Students. By Charles W. Purdy, M.D., Queen's University; Fellow of the Royal College of Physicians and Surgeons, Kingston; Professor of Urology and Urinary Diagnosis at the Chicago Post-graduate Medical School. Author of "Bright's Disease and Allied Affections of the Kidneys"; also of "Diabetes: Its Causes, Symptoms, and Treatment." With numerous illustrations, including photo-engravings and colored plates. In one crown octavo volume, 360 pages, in extra cloth, $2.50 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street.

The work before us is one of which we can speak in the highest terms. An accurate uranalysis is important in so many diseases that no physician can be excused for not being up to date in the subject. Dr. Purdy, a Canadian, has presented in the above an admirable work on the subject, and put the matter before us in such a readable shape that the interest is much increased. The analysis of the normal urine is thoroughly explained, and the latest and most accurate methods of estimating any increase above normal of its salts and solids carefully set forth. The abnormal urine, of course, receives the greater attention, and the work is replete with methods of detecting correctly the changes evolved during the course of disease. In the chapter on anatomical sediments we find that cylindroids are referred to as possibly being mistaken for casts. Thomas first drew attention to these cast-like substances, and to the differences between them and true casts.

The second part of the work Dr. Purdy devotes to urinary diagnosis, and we can congratulate him on the able manner in which it is handled. It will undoubtedly aid many of us in unravelling some of the cases that are perplexing in arriving at a diagnosis. An appendix is added on the subject of urinary examination for life insurance. Possibly this will act favorably both to the company and the applicant. There is no doubt that many good risks

are refused from a faulty or too hasty examination of the urine, and possibly some are passed who should be refused. The book should be in the hands of every physician, and its contents thoroughly mastered. All require the information that it contains. The book is printed in clear, bold type, and reflects credit on the publishers.

Pamphlets and reprints received :

INTESTINAL ANASTOMOSIS. With the Report of a Case. By Frederick Holme Wiggin, M.D., New York. Reprinted from the *New York Medical Journal.*

ON THE TREATMENT OF SOME FORMS OF PURULENT AND OFFENSIVE URINE. By Reginald Harrison, F.R.C.S., Surgeon to St. Peter's Hospital. London : John Bale & Sons, Oxford street, W.

SYPHILIS BY CONCEPTION. By George Duffield, M.D., Professor of Clinical Medicine in the Detroit College of Medicine, Attending Physician to Harper Hospital, etc. Reprinted from the *Medical News*, September 15, 1894.

THE OPERATION OF SUPRAPUBIC CYSTOTOMY AND THE INDICATIONS FOR ITS USE. By R. W. Stewart, M.D., M.R.C.S., Surgeon to Mercy Hospital, Pittsburgh, Pa. Reprinted from the Pittsburgh *Medical Review*, November, 1894.

CHROMICIZED CATGUT AS A MEANS OF DIRECT FIXATION IN THE TREATMENT OF FRACTURES AND OSTEOTOMIES, WITH A REPORT OF A CASE. By F. W. Jay, M.D., Chicago. Reprinted from the *Journal of the American Medical Association*, May 19, 1894.

Medical Items.

LADY PAGET, wife of Sir James Paget, died January 7th, at the age of 80.

DR. W. B. KENNEDY, of Guelph, left his home, February 11th, intending to go to Florida, where he will remain until spring.

PROF. J. BURDEN SANDERSON has been appointed Regius Professor of Medicine in the University of Oxford, in the place of Sir Henry Acland.

DR. JAMES REA, of Toronto, left his home, February 8th, for an extended trip. He will probably visit Florida, Mexico, California, and British Columbia.

DR. V. P. GIBNEY, surgeon-in-chief to the Hospital for the Ruptured and Crippled, New York, has been appointed Professor of Clinical Surgery in the College of Physicians and Surgeons.

DR. F. J. QUINLAN.—At a recent meeting of the Faculty of the New York Polyclinic, Dr. Francis J. Quinlan was elected Adjunct Professor of Laryngology and Rhinology.—*Medical Record.*

DR. L. M. SWEETNAM, of Toronto, is still in Baltimore, where he is actively engaged in medical work at Johns Hopkins Hospital. We are glad to be able to announce that he has quite recovered from his recent illness.

A GOOD EXAMPLE.—The city of Sydney, Australia, has imposed a fine of one pound sterling upon any person convicted of spitting upon the floor of public buildings or upon the street.—*Boston Medical and Surgical Journal.*

THE DOCTOR.—Lady (quizzingly, to physician)—"So you also are a conductor on the road to eternity?"

Physician—"I beg your pardon, madam; I am merely a brakeman."—*Paris Illustration.*

SEWER AIR AND DIPHTHERIA.—A correspondent of *The Lancet* writes that a year or two ago a new system of main sewerage with the ordinary road-level ventilators was inaugurated in one of the suburbs of London, and upon its being brought into use serious cases of diphtheria almost immediately began to break out. The medical officer of health at once had the drains flushed with a strong solution of perchloride of mercury, and the cases then stopped almost as quickly as they commenced.

TWO EXCELLENT HINTS FOR PRACTITIONERS.—Dr. Cocksedge, of Wales, places the following "tips" at the disposal of his brethren: If you have a

fatiguingly deaf patient to talk to, place the ear-pieces of your binaural stethoscope in the patient's ears, and talk into the chest-piece, and you have an excellent ear-trumpet. If you leave your spectacles at home, being old and apresbyopic, make a hole with a pin in the corner of your visiting card, and you can read your clinical thermometer or anything else.—*Medical Press.*

AN Anti-Kissing Club has been started at Detroit. The members go about and do not kiss people. A similar club was started some time ago, I believe, somewhere in Asia Minor. But the waves of enthusiasm have not yet met. The movement is sporadic, and the blacklegs are too many. The members of the Detroit Club have been frightened by the doctors, who say that if you kiss a person who has diphtheria you catch diphtheria. Similarly, if you sleep in a damp bed you get rheumatic fever, which only seems to prove that you should be careful where you sleep, and not that you should never go to bed at all. Likewise—but it is hardly necessary to complete the argument.—*Pall Mall Budget.*

PRIZE OF THE AMERICAN NEUROLOGICAL ASSOCIATION.—The American Neurological Association offers a prize of $200 for the best essay on any subject connected with neurological science. This competition is open to physicians who are legal residents of states in North and South America. Essays must be sent to the secretary of the association on or before May 10, 1895. Each essay shall be accompanied by a sealed envelope containing the name and address of the author, and bearing on the outside a motto, which shall also be inscribed upon the essay. Essays shall be typewritten, in either the English or French languages, and with the pages securely fastened. The council of the association reserves the right to reject any or all essays judged unworthy of the award. Each essay must exhibit original research, and none will be accepted that has previously been published. Græme M. Hammond, M.D., Secretary, 58 West Forty-fifth Street, New York City.

A SLIGHT MISTAKE.—This is an instance where a bad cold caused a startling conversation. A modest young newspaper man was invited to a party at a residence where the home had recently been blessed with an addition to the family. Accompanied by his best girl he met his hostess at the door, and after customary salutations asked after the baby. The lady was suffering from a severe cold, which made her slightly deaf, and she mistakenly supposed that the young man was inquiring about her cold. She replied that though she usually had one every winter this was the worst she had ever had; it kept her awake at night a good deal at first and confined her to her bed. Then noticing that the scribe was becoming pale and nervous, she said that she could see by his looks that he was going to have one just like hers and asked him if he wished to lie down. The paper came out as usual the next week, but the editor has given up inquiring about babies.—*Medical Record.*

AGAIN we hear that McGill Medical Faculty wants Professor Osler, and would gladly make him President. We have heard indirectly that this distinguished Canadian is not likely to leave Johns Hopkins for some time. We

think the following sentences, which appeared in THE CANADIAN PRACTITIONER, January, 1894, will now, as then, explain the position fairly well: "What Dr. Osler's views or intentions are, we know not; but we cannot fail to recognize the fact that he occupies now probably the most desirable and most honorable position open to physicians in the world. While he has done much in the past, he is likely to do more in the future; he has magnificent opportunities for the sort of medical scientific work he likes, and grand possibilities before him. The friends of Johns Hopkins expect much from him in the further development of their great hospital, their laboratories, and their medical school; and, in equity, have certainly a very strong claim on him. Considering all the circumstances, it seems unlikely that Dr. Osler will come back to dwell in Canada, at least for some time to come."

OBITUARY.

DR. CHARLES CONLIFFE JOB, a homœopathic physician of Toronto, who graduated in 1867, died February 11th, 1895.

DR. WALTER HENDERSON.—Dr. Henderson, of Arthur, county of Wellington, died suddenly, January 30th, 1895. He was a licentiate of the Royal College of Surgeons, Edinburgh, 1855; also a licentiate in midwifery of the same college.

THE saddest event of the present session of Trinity Medical College was the death of one of its students, Mr. J. F. Pierce, February 14th, after a short illness from typhoid fever. He was twenty-three years of age, and in the third year of his medical course. The body was sent to Norwood, where his parents reside, February 15th. The Faculty and students, in a body, followed the remains to the station.

DR. ALFRED LEBBEUS LOOMIS.—Dr. A. L. Loomis, of New York, died January 23rd, after a short illness from pneumonia, at the age of sixty-four. He graduated in medicine in 1853, and at once commenced practice in New York. He paid special attention to medicine, and gained a high reputation for his knowledge of diseases of the chest early in his professional career. He was professor of medicine in the University of New York for more than thirty years. He was well known in Canada as well as in the United States, especially as a teacher and author. The works best known to Canadians were his "Lessons in Physical Diagnosis," and his "Text-book of Practical Medicine."

DR. JOHN EDWARD WHITE.—Dr. J. E. White, of Toronto, died suddenly at his late residence, 185 Carlton street, January 21, 1895. About four years ago he had a very severe attack of la grippe, from the effects of which he never fully recovered. He was able, however, as a rule, to do his ordinary work, and his entirely unexpected death was a great shock to his friends. He received his medical education in the Toronto School of Medicine, and graduated in the University of Toronto in 1870. After practising a few years in the country, he came to Toronto in 1877. He was well known to the physicians of Ontario, and was secretary of the Ontario Medical Association from 1881 to 1888. His well-known ability and energy contributed much towards the marked success of this society. He left a widow and three sons.