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CANADA

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ABSTRACT OF A CLINICAL LECTURE ON POTT'S DISEASE OF THE SPINE, WITH PSOAS ABSCESS.

By T. G. RODDICK, M.D.,
Professor of Clinical Surgery, McGill University; Surgeon to Montreal General Hospital.

(Delivered during the present session.)

GENTLEMEN,—The case I present to you to-day is one of more than ordinary interest. Our little patient is about seven years old, and, as you will readily notice, is thin and anæmic. The parents are fairly healthy people, and have had a large family of strong children, this being the youngest. They state, however, that this child has always been delicate, and has been complaining of odd symptoms for the past five or six months, although it was not thought necessary to seek professional advice until the present time. For the past two or three weeks the child has been walking about in a stooped position, and seeming to favor the left leg, but not till a day or two ago was any notice taken of this lump which you see in the groin. Nothing unusual about the back has ever been seen by the friends, although we find a distinct prominence of the tenth or eleventh dorsal vertebra. There is no pain elicited by pressure over this, as the child stands, but when I place him across my knees, and extend the spine, you will notice then that he winces when I reach that part with my finger and thumb pressing on the vertebræ. I might mention that a hot sponge or piece of ice drawn slowly down the back will sometimes detect disease when pressure fails, and espe-

cially is this the case when no deformity has yet occurred. You will often notice, also, that if you extend the spine by separating your knees in this fashion, the child lying across them, you give great relief, as the diseased surfaces are kept apart for the moment. I pointed out to you, on a former occasion, that the grunting respiration, which is often so remarkable in cases where the disease is higher up, at once ceases when this method of extension is practised. I would caution you, however, against too forcible extension, as dislocation of the bones and irreparable injury to the cord might readily occur.

The case, then, is one of angular or antero-posterior curvature, or Pott's disease of the spine. But has the swelling in the groin anything to do with the back trouble? The gentlemen, whose turn it is to diagnose, are of the opinion that this is a psoas abscess, and hence that the two conditions are directly connected. Let us get at the truth by that admirable process of exclusion. We think it is not hernia, because we find the femoral vessels to the inner side of it; besides, it fluctuates, and when the child is put in the recumbent position it gradually subsides, to return as gradually when he is made to stand again. It is well to examine the condition of the hip, because we know that in a small percentage of cases the bursa of the conjoined tendon of the psoas and iliacus muscles has a direct communication with the capsule of the hip joint, and in abscess of the latter, the pus will, perhaps, appear first in this very situation. There seems to be nothing wrong with the hip joint. I think we can readily exclude other conditions, such as glandular or fatty tumors, soft cancer, pelvic abscess, &c. The pus of an empyema has been known to find its way behind the diaphragm, and into the psoas sheath, making its presence known for the first time below Poupart's ligament. I think, then, there can be no two opinions about the nature of this swelling; but in order that there may be no mistake, we will use this valuable little detective, the hypodermic syringe, which at once demonstrates the presence of pus.

Now comes the important question, how can we best treat this case? Many of you would naturally recommend that the abscess

should be opened immediately, and that the curvature could be attended to subsequently. I prefer, however, to reverse that order of procedure, and to support the back before touching the abscess, and for this reason: The pus here present in the sheath of the psoas muscle is acting as a sort of splint to the diseased vertebræ, and if we remove this before providing some equivalent support, the weight of the body above, coming suddenly to bear on the carious bones, may do incalculable mischief. We will, therefore, first apply Sayre's plaster of paris jacket, and then open the abscess.

You will notice that we suspend the patient while applying the bandages. Many surgeons, and among them I find my friend Mr. Edmund Owen of St. Mary's Hospital, London, have entirely discarded this part of Sayre's apparatus, and adapt the bandages with the patient simply standing before them. Sayre teaches that when a person with this disease is suspended, the angle of curvature is considerably reduced, and that this is the case, to a slight extent, I have no doubt; indeed I have seen him demonstrate the fact. But is this improvement in the condition of curvature lasting? Mr. Owen thinks not, and hence he has discarded the tripod. I am also of his opinion, after having had some considerable experience with the method, but I still employ suspension in a way, because I find that if the straps be properly and evenly adapted, and if the patient be supported rather than suspended, he can often bear the application of the bandages with less fatigue than if required to stand unsupported. I fail to see what advantage the "hammock method" of applying the jacket has over this, excepting in the case of a very weak or nervous person.

The jacket having been now applied, we will turn our attention to the abscess. In some of the text-books you are advised to be in no hurry about opening a psoas abscess, and it is often a difficult question to decide exactly when to interfere. If, however, the abscess is rapidly increasing in size, and has reached the dimensions of a goose's egg below Poupart's ligament, as in this case, then there can be no doubt of the advisability of opening it. Now, how can we best give exit to this pus? Of course the

simplest plan of all is to plunge a bistoury into some part of the swelling, and allow the pus to flow out, taking no heed to the entrance of air. But I think we can do better than this for our patient. If we allow air to enter, we will almost certainly have putrefaction, and, perhaps, subsequent blood contamination; and I think you will agree with me that no surgeon is justified in subjecting his patient to such terrible risks. If we can succeed in excluding the air for a few days even, then the dangers from this source will rapidly diminish. We can open the abscess under water, containing at least one per cent. of carbolic acid, and in that way exclude the air. This may be done either by sitting the patient in a bath or other vessel containing sufficient of the solution to cover the part thoroughly, and then open in the ordinary way, taking the precaution to guard the wound with a carbolized pad, backed with another large pad of oakum, and held in position by a firm spica bandage. A drainage tube should be introduced while the incision is still under water. Another plan is to attach a rubber tube to a large-sized aspirating needle, fill the whole with carbolic solution, puncture the abscess, and drain away the pus under the surface of the water. Or, should you possess the ordinary Dienlafoy's aspirator, use it, and in private practice it looks less horrifying than the knife. As I see one on the table here, we will attempt to empty this abscess with it. You will notice that I do not plunge the needle into the thin part of the sac, but prefer introducing it, as you saw me do in the case of meningocele the other day, at about three-quarters of an inch from the margin of the sac, my reason for this being to prevent subsequent leaking of the abscess contents and the inevitable ingress of air. I think this is a wise precaution to take in the case of all abscesses or cystic growths treated with the aspirator. I find, however, that the pus, probably of the curdy kind, refuses to flow through the needle, which, by the way, is no exception to the generality of aspirating needles—namely, in being too small. Having failed with the aspirator, then (and I am not sorry in one sense, because the relief could have been only temporary), we will proceed to treat the abscess, as we prefer to do with all such cases in this hospital, namely, with

strict antiseptic precautions, as laid down by Lister. Now that the spray of 1 to 40 is playing fairly on the part, and our hands and instruments are carbolized, we will make an incision with the ordinary scalpel at the most dependent point, which, here, is the lower and outer margin of the fluctuating spot. With the director we tear through the fascia, and you notice the enormous quantity (over an imperial pint) of fairly healthy, but somewhat curdy, pus which is flowing out. In order to drain the cavity thoroughly, we will introduce about four inches of this medium-sized tubing, with the safety-pin attached to its mouth to prevent it from slipping through the incision and being lost within. We need no protective in this case, but will apply an unusually large amount of gauze, in order to absorb the pus, as we hope not to be obliged to disturb our little patient again for three or four days.

AN INVESTIGATION INTO THE PARASITES IN THE PORK SUPPLY OF MONTREAL.*

By WM. OSLER, M.D., & A. W. CLEMENT, Veterinary Student

In the interests of public health, it is a matter of great importance that the food supply of cities should undergo strict supervision, with a view of excluding possible sources of disease. In this country, the department of the civic governments relating thereto cannot be said to be conducted on model principles. Speaking of Montreal, meat inspection consists in the examination of the carcasses of all animals exposed for sale or killed at the abattoir, and its superficial character is clearly shown by the results of this investigation.

It is to be remarked that, in the matter of meat inspection, there are some affections in which an ante-mortem examination will be of most service, and an animal may be condemned as unfit for food, the meat of which, when dressed, might pass even a careful inspector. There are other affections which, interfering but slightly with the general healthfulness of an animal, render its flesh in the highest degree unfit for food, even though it may, on superficial inspection, look healthy enough.

(Read before the Medico-Chirurgical Society of Montreal and the Board of Health.)

The flesh of swine forms one of the great staple articles of food in the community, and, fresh or salted, constitutes a very considerable proportion of all meat eaten. The hog is omnivorous, a dirty feeder, refusing nothing, and, regarded from this standpoint, we do not wonder that in the sanitary enactments of Moses it was excluded, though cloven-footed, in the list of animals permitted to be eaten. Vile feeder though it be, the hog has the power of converting, in the laboratory of its tissues, even refuse and garbage into a flesh most wholesome as well as toothsome. Who does not remember Lamb's charming "Dissertation on Roast Pig," and though he speaks of the suckling, most of us can agree with him when he says, "Pig—let me speak his praise—is no less provocative of the appetite than he is satisfactory to the criticalness of the censorious palate. The strong man may batten on him, and the weakling refuseth not his mild juices."

The hog is not subject to many diseases which interfere with the market value of the flesh. Pig-typhoid or hog cholera is the only extensive epizootic disease among them in this country, and by interfering with nutrition and producing emaciation renders the flesh unsuitable for food. The injurious effects which follow the eating of the flesh of diseased animals are really not much known. The juices of the stomach are so powerfully antiseptic and corrective, that the meat, after cooking, is usually digested without difficulty. The Highland shepherds are stated to eat, without ill effects, the flesh of animals which have died of anthrax. In the case of pork, it is not so much the fresh or salted meat which has been known to produce sickness as when it is made into sausages and brawn (head cheese). Many cases of serious illness have been excited by eating these articles. This is not surprising to anyone who has watched their manufacture, particularly sausages. In many establishments the odds and ends go for the mince meat, and, too often, bits of old meat which is just beginning to turn. The experience is only too common of tasting in a mouthful of sausage the disagreeable flavor of a morsel which is high, *i.e.*, is in the initial stages of putrefaction. The septic matter, if abundant, or, perhaps, if produced by bacteria of a special variety, may excite severe intestinal symptoms, and even

cause death. In Whitechurch, England, there has recently been a local epidemic produced by eating brawn.

In relation to public health, the diseases of the hog are of small matter in comparison with the parasites which infest its flesh, and which, eaten by man, may produce serious or even fatal affections. It is as a protection against these that an effective meat inspector may do good service in the community, and annually prevent many cases of illness. To obtain evidence of the prevalence of parasites in the pork supply of this city, one thousand animals have been examined, with the results here stated. Of the parasites which infest the hog, only three are of importance in this connection—the *Trichina spiralis*, the *Cysticercus cellulosæ*, and the *Echinococcus*. We shall consider these in order.

TRICHINA SPIRALIS.

"An extremely minute nematoid helminth, the male in its fully developed and sexually matured condition measuring only one-eighteenth of an inch, while the perfectly developed female reaches a length of about one-eighth of an inch; body rounded and filiform, usually slightly bent on itself, rather thicker behind than in front, especially in the males; head narrow, finely pointed, unarmed, with a simple, central, minute oval aperture; posterior extremity of the male furnished with a bilobed caudal appendage, . . . female shorter than the male, bluntly rounded posteriorly, eggs measuring $\frac{1}{12}\frac{1}{70}$ of an inch from pole to pole; mode of reproduction viviparous." —Corbold.

Since Zenker, in 1860, discovered that this worm produces a severe malady in man, a degree of interest has been attached to it, not exceeded by any known human entozoon. The record of epidemics of it sends a thrill of horror through a community out of all proportion to the gravity of the disease; and naturally enough, for the very thought of myriads of these little worms boring and eating the flesh is particularly repulsive, recalling the tragic fate of Herod, on whom the worms are stated to have held an ante-mortem feast. The hog is the natural bearer of the trichinæ, which exist in the flesh, coiled up between the muscle fibres, and are so minute that they cannot be seen on ordinary inspection, but require the use of the microscope. In this state they are undeveloped or immature sexually, and may remain for years in the muscles of the animal without undergoing de-

generative changes. Pork containing them and eaten raw, in any form, or partially cooked, produces disease in the following way: the little worms escape in digestion, pass into the small intestines, grow rapidly, become sexually mature, and assume the form of intestinal trichinæ. The females are impregnated, and the ova develop into minute embryos, which are born alive and free. This process occupies two or three days, and is usually accompanied with some intestinal irritation. The number of embryos will vary with the number of worms ingested and which reach maturity. They immediately burrow through the walls of the intestine, reach the connective tissues of the abdomen, and penetrate the muscles in all direction, and when numerous reach even those most distant. In this migration they produce irritation, fever, and constitutional disturbance proportionate to their number, and the severity of the symptoms may be such that death may follow, though the percentage of fatal cases is small, only about 1.5.

Record of Investigation.—One thousand hogs were examined, chiefly at the Dominion Abattoir, during the past six or eight months. There was no selection made, but the carcasses were taken indiscriminately, as they were found at the time of the visit.

Method.—It has been satisfactorily shown by many observers that the pillars of the diaphragm are the most suitable muscles for examination, not alone because portions can be removed without disfigurement or loss, but chiefly from the fact that here, if anywhere in the body, the parasites will be found, as these muscles lie in the direct route from the intestines. The examination was made with No. 2 Obj. (Verick) and No. 1 Ocular, magnifying about 60 diameters. Small clippings of the muscle were made lengthwise, then placed on the slide, and pressed out with the top cover until thin enough for the purpose. In only four out of the one thousand animals were the parasites present in the diaphragm, and we may take this as representing the actual ratio, though possibly they may, in one or two instances, have existed in other muscles and not in the portions examined. As to the number in the infested bits, in one case there were twelve on one

slide; in the others, not so numerous. The worms were not regularly encysted but coiled up between the fibres. When placed on the warm stage, they displayed movements.

All the animals examined were from Western Canada.

Comparison of local with foreign records.—As the following figures show, the record here, 1 in 250, is by no means high. Thus, in Boston, Mr. Billings examined over 6,000 animals, and in the different groups the ratio ranged from 1 in 17 to 1 in 44. All of these animals were from the Western States. In Chicago, one series gave 1 in 49.8. In Prussia, where a very thorough and systematic pork inspection is carried out, in the year 1876 only 1 in 2,000 was found affected, and in 1877 about 1 in 2,800.

Trichinosis in Canada.—Remarkably few cases of trichina infection are known to have occurred in this country. In 1869 nine persons were attacked in Montreal after eating of fried ham, which was ascertained to be trichinous. They presented severe gastro-intestinal symptoms, and the constitutional disturbance in moderate grade. None of them died. The diagnosis was corroborated by the microscopic examination of a portion of muscle harpooned from one of the patients.* In 1868, three members of a family in Hamilton were attacked after eating portions of an infected ham. Two of these, the mother and daughter, died; the father recovered. At post-mortems and in the dissecting-room, it is not uncommon to find the muscles full of calcified cysts containing the worms or their remnants. These little bodies had been recognized for years before Zenker's discovery connected them with an antecedent disease. Probably many isolated cases occur which are mistaken for acute rheumatism or typhoid fever. In between 800 and 900 autopsies made by Dr. Osler, four bodies have been found trichinous, the cysts in each instance calcified, and in one the worms were nearly all dead. In the other cases the parasites were still living, and with muscle from one of them the disease was artificially produced in a rabbit. So that in all only sixteen cases of the disease have been recognized in this country.

* *Canada Medical Journal*, 1870.

Summary.—So far as it is legitimate to draw deductions from the somewhat limited number of observations, we may say that trichinosis is a tolerably common affection in Canadian swine, though not nearly so frequent as in the neighboring States, still, it is much more so than is desirable in the interests of public health. Should microscopic examination of the flesh be included in the inspection? is a question which at once arises. In answering this, several circumstances must be taken into consideration. In the first place, although, per 1,000, a larger number of swine are infested here than in Germany, trichinosis in man is with us a very rare disease, while in Germany epidemics are of yearly occurrence. If we estimate that 100,000 hogs are killed annually for the local markets, that would give at least three or four hundred trichinous animals, whose flesh is consumed by the pork-eating members of the community. Then, about 3½ million pounds of American pork, representing about 15,000 hogs, have been imported into this city during the past year, and as in them the percentage of trichinæ is considerably higher than in Canadian animals, the probable number of infested carcasses consumed does not, at the lowest estimate, fall short of five hundred. Now, were the habits of the people of this city similar to those of the Germans, there can be no doubt that trichinosis, instead of being a rare affection, would be extremely common. Fortunately, raw or only partially cooked pork is not often eaten here, nor are the various kinds of sausages, so dear to the Teuton, much in vogue. *Knackwürste* and *Bratwürste*, forms of sausages which are very common, and which are eaten either raw or only warmed, have been the sources of a large proportion of the known cases of trichinosis in Germany, 970 out of 1,267. People here almost invariably fry sausages, and smoked meats are not common, nor are they eaten without preliminary cooking. In short, the prophylaxis of the pot and oven in this country and in the neighboring States does more for the public than the most stringent inspection, even as carried out in Prussia, where a microscopic examination is compulsory. If thoroughly cooked, the trichinæ are killed, and may be eaten with impunity; and, fortunately, there is a very widespread idea in the community that pork, in

all forms, should be well cooked, and to this good custom may be attributed the immunity from infection which the public has enjoyed. Still, it is by no means pleasant to think of the quantity of trichinous flesh which is placed on our markets, and which probably exceeds the entire amount of pork confiscated for other causes. The difficulties in the way of systematic inspection are now, under the Abattoir By-law, greatly lessened, but to subject the flesh of every hog killed to microscopic examination would require a staff of trained inspectors and an increased expenditure such as our civic authorities would not likely incur. Moreover, considering the rarity of cases of infection, it may be just as well to leave the matter to the cooks of the community, who have so long and so faithfully protected us, with this injunction, "See that all pork is thoroughly roasted, fried, or boiled."

CYSTICERCUS CELLULOSÆ.

This parasite of pork is not so formidable as the trichina, but is more common and a more frequent excitor of disease. It is the larval or immature form of one of the tapeworms of man, and is popularly known as the "measle" or cystic worm, and an infested animal or its flesh is said to be "measley." In this country man is infested with two chief forms of tapeworm, the *Tænia solium* and the *Tænia saginata*—the former derived from measley pork, the latter from measley veal or beef; hence the one is often called the *pork* and the other the *beef* tapeworm. The life history of the *Tænia solium* is as follows:—the adult worm occupies the small intestine of man, and attains a length of from 12 to 15 feet, or even longer. The segments of which the body is made up progressively increase in width from the head, and about the 400th become mature—*i.e.*, the male and female generative system which each possesses becomes active, and eggs are formed. In a fully grown worm it is estimated that there may be about 200 ripe segments full of ova, the number in each one reaching probably as high as fifty thousand. The hinder segments of a tapeworm are constantly shed, or, indeed, may detach themselves, at the rate of 3 or 4 per diem, and pass away in the fæces. The eggs are small, round, $\frac{1}{700}$ of

an inch in diameter, and each one contains in its interior a little body known as the six-hooked embryo. For their further growth it is necessary that they reach the interior of some animal in which they can develop. The hog is the most suitable, and usually furnishes the means for the subsequent growth of the ova, though the eggs may be accidentally ingested by man and develop within him, but this rarely happens. It is not difficult to understand how hogs become infested; they are such dirty feeders that nothing is refused, and even human excrement is greedily eaten. In country places, a single case of tapeworm may serve to infest many hogs, as the ripe segments constantly pass with the fæces, and one or two will suffice to produce the mischief. The eggs in the stomach of the pig are digested, and the little six-hooked embryos, in this way set free, immediately begin to bore through the walls, and, entering the vessels, are carried to all parts of the system, lodging particularly in the liver and muscles; others pass through the coats of the bowels into the peritoneum and omentum, and may reach the muscles in this way. In these various parts the little embryos gradually develop into cysticerci or "measles," and an animal so affected is said to be measled. It takes about three months for this process, and when completed, the cysticerci present the appearance in the flesh of greyish-white rounded bodies from one-tenth to one-sixth of an inch in diameter, situated between the fasciculi of muscles, and can be picked out, leaving little holes or depressions. When abundant, they give a very characteristic aspect to the flesh. which is quite unmistakeable. In the liver they may attain a larger size, and in the loose tissues of the omentum and peritoneum they are often found the size of a walnut. The cysticercus or measle is enclosed in an external sheath, which, when open, gives exit to a cystic or bladder-like body, which requires careful dissection to make out the structure. It presents a head similar in all respects to that of the adult tapeworm from which the egg was derived, presenting four sucking disks and a circlet of hooklets. A narrow neck succeeds the head, and beyond this there is a bladder-like body called the caudal vesicle.

If flesh containing these "measles" is eaten raw or only partially cooked, tapeworm is liable to result. The cyst wall enclosing the cysticerci is digested away, the bladder worm set free, and passes into the intestine, where the head fixes itself firmly by means of the sucking disks and hooklets. The caudal vesicle is digested away, and by a process of budding the segments are gradually formed. In about two months the worm has attained maturity, and segments are discharged containing thousands of eggs, ready for development in the body of the first pig that accidentally ingests the segments.

Local Record.—Of 1037 hogs examined, 76 were infested—*i.e.*, 1 in 13.6. Only the livers were inspected, as it was impossible to examine the flesh thoroughly. The numbers varied from one or two to many dozen, and in most instances they were fully developed. The liver is more likely to be affected than the other parts, but the occurrence in this organ is a proof that the animal has been exposed, and should lead to a thorough examination of the flesh.

In order to obtain evidence of the extent to which "measled" meat produces disease—*i.e.*, tapeworm—in the community, we issued a circular to the city physicians asking the number of cases under treatment. Replies were returned by thirty-four doctors who reported sixty-two cases. At the Smith Worm Company's office, Bleury Street, about two new cases a week are treated; some of these, doubtless, come from the country, but we shall probably be within the mark if we estimate the number in the city as not far short of 200. How many of these are due to eating measley veal or beef, and how many to measley pork, we cannot say, but from the specimens examined it would seem that the beef tapeworm (*T. saginata*) is the more prevalent. Not that the pork measle is uncommon; the record above given shows just the contrary. To explain the greater frequency of *T. saginata*, we must suppose either that the beef measle occurs in greater proportion, or else the pork is more thoroughly cooked than the beef or veal. Then, too, much less pork is eaten fresh, and the salting and pickling processes are usually sufficient to destroy the measles. A point of in-

terest is the temperature necessary to kill them. The observations of Professor Perronicito prove that they are invariably killed by a heat of 50°C. or 122°F. Indeed they were swallowed with impunity by his students after exposure to a temperature of 113°F.

Fortunately, the presence of a tapeworm does not give rise to such a formidable affection as the trichina, but the amount of suffering and annoyance caused is considerable, and not infrequently an individual has to entertain the troublesome host for months or years, so difficult is it in some cases to dislodge the worm.

A thoroughly efficient inspection would diminish greatly the number of persons annually infected. Of course a hog might contain only a few "measles" deep-seated in the muscles, and these could readily be overlooked—indeed would be even on the most careful examination.

ECHINOCOCCUS.

The presence of this parasite in the flesh of pork has not the direct and close relationship to our individual welfare as the trichina or cysticercus, inasmuch as it represents a larval form of a tapeworm which infests the dog and wolf—never man. The adult worm is very small, not more than a quarter of an inch in length, with only four segments, the anterior of which forms the head, while the hinder one is mature and contains the ova, which are passed in the fæces of the dog, and if swallowed by an animal may develop in its organs or tissues into the structures variously known as echinococci, hydatids, or acephalocysts. A single egg of an ordinary tapeworm, when placed in suitable circumstances, develops into a single larva or measle (*cysticercus*), but a remarkable peculiarity in the life history of the *T. echinococcus* is that a single egg develops into a large compound and complicated cyst, which contains many thousands of larvæ—hydatids or hydatid heads, as they are called—each of which, if transferred to the intestine of a dog, might grow into a tapeworm. Man also harbors the echinococci, which may produce very serious or fatal disease. In some countries, as Iceland and Australia, this affection is very prevalent, and many deaths are annually caused by

the growth of the hydatids in the internal organs, in which they may form large tumors. Man gets infected in the same way as the hog by the accidental ingestion of the ova, and the point of special interest, in relation to public health, is that the occurrence of echinococci in the hog—and in other animals—ensures a constant perpetuation of the species among the dogs of a community and a consequent risk to the individuals thereof, which will be great in direct proportion to general insanitary condition and the liability of the eggs to get into the drinking water.

Result of Examination.—In the 1,037 hogs examined, echinococci were found in the livers of 31, or 1 in 33.4. The cysts ranged in size from a marble to a walnut, and presented an external fibrous investment, formed from the tissues of the part, within which was the cyst proper, which could be readily turned out. The ectocyst and endocyst were usually well developed, the fluid clear, but in none of those examined microscopically were the hydatid heads fully developed.

Echinococcus disease in man is in this country a very rare affection; not more than eight or ten cases have been known to occur. In the United States it is also uncommon,* and a considerable number of the reported cases have been in foreigners, who probably brought the parasite with them. The immunity from the disease which human beings here happily enjoy may be explained by the existence on the whole of such sanitary regulations as reduce to a minimum the risk of infection. Dogs are not numerous, nor are they so intimately associated with the every-day work of the people, as in countries like Iceland, where, according to Krabbe, the ratio of canine to human population is very large, and an extraordinary number of the inhabitants suffer from the affection. The adult worm is certainly rare in our dogs; we have never met with a specimen in numerous dissections, but its existence is fully shown by the occurrence of the larval form in many animals and occasionally in man.

* On Echinococcus Disease in America, by Wm. Osler, M.D., *American Journal of Medical Sciences*, Oct., 1882.

CONCLUSIONS.

1. The investigation shows that the hogs slaughtered for our markets present parasites in numbers sufficient to necessitate a more thorough inspection than is at present carried out.

2. As regards *Trichina spiralis*, which was found in the proportion of 1 to 250, we are of opinion that, considering the extreme rarity of cases of trichinosis, and the difficulties attendant upon a systematic inspection, a compulsory microscopic examination of the flesh of every hog killed is not at present called for.

3. In the case of "measles," the liver should be carefully examined, and if present in it, the flesh of the animal should receive the special attention of the inspector; if only in the liver, the entire carcass need not be confiscated.

4. Echinococcus cysts in the liver render that organ unfit for food, but in other parts, unless very numerous and disorganizing, they may be cut out, and the carcass remain marketable.

5. The public should be made aware of the possible dangers of eating, in any form, raw or partially cooked meat. The best safeguard against parasitic affections is not so much inspection of the flesh, unless, indeed, this is minutely carried out, as careful attention to culinary details.

6. To reduce the number of infested hogs, greater attention should be paid to their hygienic surroundings, particularly in the matter of feeding. The danger is not during the period when the animals are penned and fed on grain, &c., but when they are allowed to roam at large and feed indiscriminately.

Our thanks are due to the authorities of the Montreal and of Dominion Abattoirs who kindly permitted the inspection.

A TRIP TO COLORADO—NOTES BY THE WAY.

By T. WESLEY MILLS, M.A., M.D., Montreal.

Any conclusions based upon a trip extending over three weeks must necessarily be open to objection; still, it has occurred to me that a few notes such as I was able to make might not be without interest to some of the readers of this JOURNAL.

First of all, with respect to means of travel, I found the journey from Montreal to Chicago by the G. T. Railway by far the most

undesirable, and, on the return trip, took another route in preference; but, as a gentleman observed, one scarcely knows what railroading is till he gets beyond Chicago, so superior is the management in all respects. An invalid with a compartment in a Pullman, or, better still, a "drawing-room," will cover these great distances with unexpected comfort and ease. The journey from Montreal to Denver by the fastest possible travel may be set down at about three and a half or four days. Of course, an invalid ought not to attempt to cover two thousand miles in that time, especially as great changes in altitude are made. It may be remarked, too, that the dining cars attached to trains furnish meals that are all that is claimed for them; indeed, equal to those of a first-class hotel.

During a brief stay in Chicago, I visited the new College of Physicians, open this year for its first session. Dr. Angear, Professor of the Principles of Medicine, with characteristic American courtesy, showed me every part of the building. The edifice is an unusually handsome structure, of light-colored stone, with polished dressings, and of three storeys. Its principal lecture-rooms are very large and well-lighted, with an easy access for students by different entrances that must prove a great convenience. But the absence of any sort of desk or support for note-books in so perfectly arranged a building seemed to me remarkable. The laboratories were not quite completed, so that any special excellencies they may eventually possess were not yet developed. The building is supplied with two hoists—one for use by the professors; the other for students, subjects, &c. These are of the greatest service, and it is contemplated to bring up from the ground-floor a patient lying on a couch, when desirable for clinical instruction. Each professor has a private-room, with his name on the door. The lecturer on chemistry has a counter on which he can, in his laboratory, place his various chemicals, &c., and then shove forward on the truck provided for it to his lecture-room, evidently a most desirable arrangement. In the basement I was shown a large *refrigerator*, specially constructed to preserve subjects. On the ground-floor the various departments of the Western Dispensary, really the College's

own, are located. The doors of the various rooms are labelled to indicate the class of diseases to be treated therein, such as "Diseases of the Chest," "Diseases of the Eye." "Diseases of Women," &c. From certain other provisions, it was perfectly clear that the students had been considered in other aspects than as mere students. In the basement there is a *dining-room*, where meals may be had at a cheap rate. There is also a neat little office where enquiries can be made of the secretary, and where a student can, by an easy method, ascertain whether there is any mail matter for him, and, if so, obtain it. A third matter of interest was a superb drinking fountain. In some schools the ordinary water-tap, with an old and battered tin cup, is made to do duty. I must confess I was myself particularly pleased to see this College built with so much regard to the elegant and beautiful. It does not seem unreasonable to expect a young man who may here spend his whole career as a student, amid beautiful and agreeable surroundings, to be the better prepared to act the refined and polished gentleman society expects the doctor, even the young doctor, to be. If everyday experience teaches anything, it is the value of surroundings in moulding the character. I left this College feeling that if they devote as much attention to the training of their students, and in getting the right sort at the commencement, as they have in providing a most beautiful and suitable edifice for their reception, it will have but few rivals. Before the structure was begun, the architect was directed to visit several of the principal schools in America with a view of getting the latest and best ideas. I did myself the honor of calling upon a graduate of McGill, Dr. St. John, who is a professor in this College, and whose name appears on the foundation-stone as one of the original founders. The doctor made several inquiries of me in regard to his *Alma Mater*, evidently with a view of ascertaining whether she was falling behind, keeping abreast, or leading the times.

But to leave Chicago with its damp and raw atmosphere we were glad to escape from, and get to the broad plains of Kansas, Missouri, &c. We did not begin to feel the effects of altitude till within four or five hours ride of Denver, perhaps because we

aarived at that city about 10 A.M., and sleep before the hour of six had made all things as though they were not to us. But about 7 A.M. I noticed that a young lady of robust health, and with a florid complexion, seemed to be unusually flushed in the face, and complained of a sense of fulness and headache. This sense of fulness I myself experienced, and noticed a slight tendency to epistaxis.

Denver is a magnificent city, and has some features suggesting a degree of progress perhaps not equalled by any city in Canada. It is "the hub" of the far west. It was a great pleasure to meet here Dr. E. A. Rogers, a graduate of McGill of '80; and, later, Dr. Bonesteel and Dr. Cattanach, also graduates of McGill; and being so far from the old place, we clanned together like "John Tamson's bairns," for which, under the circumstances, it is hoped we were none the worse. From all the medical men I had the good fortune to meet, I gathered as much as possible relating to the climate. Dr. Rogers has been but one year in Denver, and would not give dogmatic assertion to his opinions. Dr. Bonesteel, like myself, was a visitor, though a delighted one, to this part of the country. Dr. Cattanach has sought this climate for a lung affection he himself has, as will be known to many. Dr. C. has travelled over almost every part of this continent. Some weight, therefore, must be attached to his opinions. He said: "There can be no doubt that this is *the* climate for consumptives, but it is a mistake, I think, to send all patients to Colorado Springs. The air of the more northern part of the State is more bracing; people can take more cod-liver oil there." He added, as did other residents, "the locality that suits one does not always equally well, or at all seasons of the year, suit another.

I also called upon Dr. Dennison of Denver, well known for a work he has written on Colorado as a health resort. I regularly "interviewed" the doctor, and put a good many questions to him. Perhaps I may summarise the views he expressed as follows: There are a good many cases of phthisis that Colorado climate will not only not cure, but will make rapidly worse. These are: 1st, Cases of disseminated tubercle. 2nd, Cases of acute

tuberculosis. 3rd, Cases in which there is little healthy lung left. Indeed, all the physicians there lay stress on there being a portion of lung quite healthy,—*enough for the patient to live upon till he can get the benefits of climate for the diseased part.* Cases of bronchitis are often made worse; cases of asthma are almost unknown in Colorado. Hemorrhagic cases, provided they bear the first effects of the change of climate, do well always. The patients do not take on the hemorrhagic character in Colorado. He observed that he was glad to know that our Professor of Practice of Medicine agreed with him in regard to the advisability of leaving *fistula in ano*, in phthisical patients, alone. Dr. Dennison thinks small cavities are often overlooked, and showed me a double stethoscope, with a very large bell, he uses for their detection, by holding it before the patient's mouth during percussion. Finally, Dr. D. thinks that if patients do not improve within the first four or six weeks, but, on the contrary, fail, it will be useless for them to remain. He complains, as do other Colorado physicians, that patients are sent out without due discrimination as to the sort of cases, and he often advises them to return at once, so that they may die at home.

I visited and spent a very short time at Canon City, Pueblo, Colorado Springs, and Manitou. At Canon City, a very pleasant interview with Drs. Dawson and Gray took place. Dr. Dawson spoke of a well-known medical neighbour of mine in Montreal, who, on his arrival there, looked like a "cadaver," but, after a few months residence, returned to Montreal to resume a large practice, and now enjoys good health. I can never forget the manner in which the clear, bright, invigorating, yet balmy air of Canon City impressed me. Sheltered as it is on three sides by mountains, with its two excellent springs (one a gas spring, the other an iron spring), it seems to me to possess, from a climatic point of view, certain decided advantages over Colorado Springs and other places often chosen. It is a few degrees warmer than Colorado Springs, and more sheltered from winds; though the Springs people say its dust is of unrivalled quality of badness. But the dust is a nuisance everywhere in Colorado—indeed so bad at times even in Denver, that people keep within doors.

Colorado Springs is a pretty little town; evidently, as far as society and culture are concerned, the place, of all others, among health resorts in the State. The medical talent here is also first-class. Dr. Buli, one of McGill's *alumni*, ranks among the best men. Dr. Solly, who paid a short visit to Montreal a few months ago, is the author of some very carefully written monographs on the climate of Colorado and on the mineral springs of Manitou. A very great want is being now supplied, so that by next spring Colorado Springs will have a really first-class hotel, which it has not now.

Manitou is a delightful little spot, nestling among the mountains, about six miles from Denver, is now accessible by rail, and with its hotels, its springs, its baths, its greater elevation, must furnish a most desirable resort, in summer especially. One quality of the climate of Colorado has not become generally known, I fancy, and that is, its power in *improving the digestion.* All the medical men agree that acute nervous diseases are made worse in this climate. Pueblo is a good smelling centre, and unsuitable as a residence for an invalid. My own general impression of the climate may be summed up about as follows: In those cases where climate can avail at all, the climate of Colorado is that which has all the conditions any climate can have to assist in the cure of pulmonary diseases, but that the greatest care must be exercised in the selection of cases. Many persons will find it necessary to become permanent residents. There is abundant evidence to show that if Colorado climate does not agree, it will not answer to change for a more southerly one, as to go to that of California. Considering the great distance, the expense, and the separation from friends, I would suggest that in doubtful cases it would be well to have a consultation, by letter, with some reliable resident physician, giving all the details of the case, before sending the patient off. Moreover, in most cases it would be wise to take some steps to secure comfortable quarters before setting out, for it is hard enough for one in health to get those in the little towns I have mentioned, and how much more so for an invalid.

As I write not as a tourist, but a physician, I say nothing of the scenery of this country, which is of unrivalled grandeur.

CASE OF IDIOPATHIC TETANUS.

TREATED BY CHLORAL AND POTASS. BROMID.—RECOVERY.

By C. L. COTTON, M.D., Cowansville, Que.

E. C., æt. 6, of good family history and generally good health, complained on October 27th of some soreness in the jaws, which was attributed to a slight cold or to mumps, which disease was prevalent in the neighborhood. He ran about all day, but during the night it was noticed that he was more restless than usual, and groaned in his sleep. The following day, while putting on his shoes, he complained to his mother that the act of bending over hurt his back. His mouth was sore, for which some simple remedy was prescribed, and he was confined to the house and given a dose of castor oil. His appetite did not fail him. Towards night he experienced some difficulty in opening his mouth, and there was a slight swelling at the sides of the jaws, which confirmed his parents in their opinion of the case being one of mumps. Also, during the evening, he complained of some pains in his back. On the 29th, his right leg was stiff, and he walked with difficulty, and continued to complain of pain in his back. His mouth, it was noticed, could not be opened to its full extent. His back and left leg showed signs of becoming stiff. During the night the pains in his back and legs became more frequent, almost entirely preventing sleep. On the following day, all his symptoms increased in severity.

Oct. 31*st.*—Was called to see the boy to-day. I found him lying on his back, with considerable rigidity of the body and legs. The legs could be partially flexed at will, but with difficulty. Mouth could be opened about three-quarters of an inch. Tongue heavily coated, and numerous spots of aphthæ about the mouth. He complained of sharp darting pains in his legs and abdomen, sometimes referring them to the region of the stomach and sometimes to the lower part of the abdomen. During these pains I noticed slight contraction of the muscles of the legs, just enough to give him a sudden start. The pains recurred every five or ten minutes. Pulse, 120; temperature, 101°F. Appetite good. Constipated. Ordered Hydrarg. cum Creta, grs. v; Pulvis Rhei, grs. x; followed in four hours by castor oil; afterwards Tr.

Aconite mi hourly; diet, milk and broths. Believing this to be a case of Tetanus, I enquired very particularly regarding the past month, but could find no history of injury whatever. The day before his first complaints were heard he had been out three or four miles on a cold day, and not very warmly clothed. On his return home he complained of being very cold, and this fact is all I could discover bearing on the case.

Nov. 1st.—Had a very restless night. Kept awake as on the previous night by the spasmodic pains, but says he is freer from pain this morning. Pulse, 122; temperature, 105.5°F. Rigidity of all the affected parts increasing. Ordered Potassii Bromid. grs. x every three hours.

Nov. 2nd.—Pains were very severe during the night, causing much suffering. Referred the pains altogether to the region of the epigastrium. Back is becoming arched. Head thrown back. The entire body, except the arms and face, is quite rigid. The feet are extended to their utmost limit, and toes bent inward.

Nov. 3rd.—Another sleepless night, with very profuse sweating. Spasms in all the affected muscles were very frequent, but only of momentary duration. Neck, trunk and legs absolutely rigid. Opisthotonos well marked. The teeth can still be separated about half an inch, but the jaws are affected like the rest of the muscles by the spasms, and he has bitten his tongue several times. Takes nourishment well. Some difficulty in passing water.

Nov. 4th.—Condition about the same. Profuse perspiration continues at intervals. Dr. Fuller of Sweetsburgh joined me in the case. Ordered ℥iss whiskey per diem.

Nov. 5th.—Mind wandered a little during the night. Sweating not so profuse. Little or no sleep. Pulse, 128; temperature, 101.6°F. Fits of spasm recur at slightly longer intervals. Rigidity continues. Opisthotonos distinctly marked. Mind quite clear this morning. Takes nourishment and stimulants, and experiences no difficulty in swallowing. 7 *p.m.*—Condition much the same. During the afternoon he had a severe fit of dyspnœa, which, from his father's account, appeared to have been brought on by the act of swallowing. It was so severe, and contined for

such a length of time, that his father thought he was dying. Ordered Potassii Bromid. ℥iiss; Chloral Hydr. grs. lxxx; Syr. Aurantii, ℥ss; Aqua ad ℥ii. A teaspoonful every three hours.

Nov. 6th.—Slept quietly from 12 to 2 A.M. and from 5 to 7 A.M. It was noticed that his jaws relaxed during sleep, but all the other affected muscles remained rigid. Slightly delirious while awake. There is at present an appreciable relaxation in the rigidity of all the muscles, especially those of the back and neck. Can bend his head forward slightly. Temperature, 101°; pulse, 140. Muscular spasms recur at longer intervals than yesterday. Does not complain so severely of the pain. Skin slightly moist. Mind clear. Increased whiskey to ℥iii per diem.

Nov. 7th.—Had a better night, sleeping quietly from one to three hours at a time. Muscles generally relaxing. Temperature, 101.5°; pulse, 126. Ordered to alternate the chloral mixture with Potassii Bromid, grs. xv every three hours. Continues to take nourishment and stimulants well. 7 *p.m.*—Patient was sleeping when I called, and while asleep I could flex all the joints easily, but on awakening, they immediately became rigid. Number of spasms much reduced during the day. Opisthotonos almost entirely disappeared.

Nov. 8th.—Found him partially sitting up, and able to partly flex the legs voluntarily. The feet are still extended to their utmost limit. The back touches the bed through its whole extent.

Nov. 9th.—No cramps during the night. A moderate amount of sleep. Sits up easily, and can flex the legs voluntarily. Temperature, 102.4°; pulse, 140. Ordered Potassii Bromid. ℥iii; Chloral Hyd. ℥i; Tr. Digitalis, ℥i; Aq. ad. ℥ii. A teaspoonful 4 q.h.

Nov. 10th.—General improvement. Pulse continues at 140. Whiskey reduced to ℥iss.

Nov. 11th.—Power over muscles gradually returning; only noticeable remains of rigidity in the feet, which are still extended, and in the jaws. Omitted the Chloral and added Tr. Cinchonæ in ℥ss doses to the above.

Nov. 15th.—All tetanic symptoms have disappeared. Sleeps well; takes food well. Temperature, 99.5°; pulse, 130. Can

walk from the chair to the bed with a little assistance. A slight diarrhœa developed yesterday. Ordered Pulvis Ipecac co. gr. ii every six hours.

Nov. 20th.—Continues to improve. Tongue clear; pulse, 120; temperature, 99°. Occasional diarrhœa, but easily kept in check. Is taking Ferri et Ammoniæ Cit. and Tinct. Cinchonæ.

Dec. 1st.—Ordered ½ gr. Quiniæ Sulph. three times daily.

Dec. 7th.—Is playing about the house.

REMARKS ON REST AND TRACHEOTOMY.

By Prof. LOUIS ELSBERG, of New York.

[This interesting communication contains the substance of Dr. Elsberg's remarks at the meeting of the Canada Medical Association, upon the paper of Dr. Major, published in our last Number.—Ed.]

I hold that it is the duty of everyone who successfully devotes himself to a special branch of medicine to add from time to time the conclusions arrived at by himself and his fellow-specialists to the general stock of information, so that the results of special knowledge and skill may become, as far as possible, the *common property of the medical profession.* It is this duty which Dr. Major has taken upon himself to perform this evening, and he has performed it very ably. The subject is one perfectly well understood among throat specialists, but one seemingly very little known or acted upon by general practitioners. Dr. Major has given some original illustrations, and has added the results of his own observations as to glandular enlargements in cancer and the use of gold canulæ.

I personally, after reading Hilton's lectures on Rest, called the attention of the profession nearly twenty years ago to the fact that the prescription of rest for inflamed or diseased parts is as applicable to the throat as to any other portion of the body. As Dr. Major has said, the judicious practitioner prescribes rest for inflamed joints, in peritonitis, cerebritis, etc.; and one of the first points that struck me was the harm sometimes done in acute affections by the time-honored method of gargling. I suppose the very name "gargling" is connected with the gurgling sound and motion with which it is accompanied; but, as this movement

irritates the parts, I have long taught patients and medical students that when I prescribe gargling I never mean "gurgling," but throat-baking. Indeed, gentlemen, if Dr. Major has succeeded by his paper in thoroughly impressing the truth upon you about gargling, if he had done nothing more, he deserves your thanks and the thanks of your patients, for by avoiding the gargling movements while holding medicated liquids in his throat in proper positions, the patient may gradually learn to bring these liquids into contact with parts of the throat that cannot at all be touched by ordinary gargling,—and thus you may do more good and avoid all harm!

As to laryngeal rest, you know the larynx is a framework of cartilages, covered by perichondrium, united by ligaments, moved by muscles, supplied with blood-vessels, lymphatics and nerves, and lined by a peculiar elastic membrane and a mucous membrane continuous with that of the throat above and the windpipe below. Although, in by far the great majority of all cases of laryngeal disease, it is the mucous membrane that is affected, either primarily or secondarily, yet each of these constituent structures may be involved, and in each instance, rest may become an important—if not the most important—part of successful treatment. Dr. Major has related some interesting cases, and my own experience agrees with his. Under the influence of rest, inflammatory conditions subside and œdema diminishes; nervous and nervo-muscular affections, phthisical, syphilitic and malignant ulcerative diseases, and even morbid growths, may be wonderfully aided if rest enters as a factor in their treatment. The larynx is of necessity moved, in its entirety or in parts, in the production of voice, in breathing, and in swallowing; and if you desire to follow me a little further, I shall take pleasure in speaking to you, in a sort of reviewing way, of each of these three functions in connection with giving rest to the larynx.

The production of voice is voluntary, not counting exceptional involuntary vocal sounds; and by an exertion of will it can be stopped for a shorter or longer period. To stop it absolutely for any length of time is a matter of much more real difficulty than any person would *à priori* imagine, and in this connection I beg,

in all seriousness, to contradict a widespread slander upon the female sex. You know, gentlemen, the proverb says that a woman cannot hold her tongue, but the truth is, and I have tested it very often, a woman, *if she really wants to*, can hold her tongue, both literally and metaphorically, a great deal better than a man. I have had patients whose laryngeal disease could only be cured, and really was cured, by complete vocal rest, by absolute silence lasting for from one or two weeks to two months, in a few cases to even more than three months, either by this rest alone or by rest conjoined with other treatment. Such silence, avoiding the saying of even yes or no, avoiding even an audible smile or sigh, requires tremendous and constant exertion of will power, which not very many women, but far fewer men, are equal to.

What Dr. Major has said about whispering is positively true, although contrary to the general belief of patients and of general practitioners. Whispering, especially when emphatic, involves a greater strain upon vocal organs than easy, unexcited, ordinary phonation. In all cases, therefore, in which you require comparative rest of the voice, you must caution the patient not only against shouting, screaming, singing, and all loud talking, as is generally done, but also against undue whispering.

The second function in which the parts of the larynx are moved, that of breathing, although to some extent subject to the will, *i.e.*, as to its immediate performance, its frequency and relative duration, is performed involuntarily and is necessary for the continuance of life. By securing easy, physically and emotionally unexcited, quiet, unforced respiration, and regulating the temperature and character of the air that is breathed in—making it more soothing and unirritating than it otherwise would be—we can bring about comparative laryngeal rest during breathing, and by the surgical operation of tracheotomy we have it in our power to exclude the larynx from essential participation in the respiratory act. Is it even justifiable and advisable to perform tracheotomy for the purpose solely of giving phonatory and respiratory rest to the larynx? This question presented itself to me in February, 1873. So far as I knew it had never before been decided; probably, it had never before

been asked. I had long been treating a patient, Mrs. B., who had lost her singing voice, upon which her livelihood depended. She was divorced from a man who had given her syphilis some years before, had passed very thoroughly through anti-syphilitic treatment, and was now free from any manifestations unless her present laryngeal disease was such. She had certainly overstrained her voice, and for six months I had been unremitting in my care of it. She had deep fissures in the posterior commissure and a strip of red and swollen mucous membrane nearly a line in width joining the lateral attachment of the vocal bands, *i.e.*, along the external boundary of the ventricles. She complained of constant terrible aching in her larynx, but respiration and swallowing were uninterfered with. There had been inflammation involving the whole lining membrane of the larynx and for some time aphonia. I had relieved her considerably, but in spite of painstaking treatment, general and local, with absolute vocal rest for over seven whole weeks, I could make no further progress with the condition described. She was very much interested in the case of Mrs. D., whom she had brought to me as a patient, who sang in the same choir and who had passed through an experience similar to her own. In Mrs. D.'s case there was unmistakeable syphilitic ulceration and swelling, with increasing dyspnœa which had required on the 10th of December, 1872, tracheotomy to prevent suffocation, and from that date on Mrs. D.'s case progressed so favorably that by the middle of February the canula had been removed and two weeks later she again sang in the choir and gave private singing lessons. This was not the first case in which I had seen wonderful results follow tracheotomy and in which I ascribed the success of other treatment as being mainly due to the rest of function given the larynx by the operation. I had observed and recorded unexpected cures after tracheotomy in several cases in which the operation had been forced upon me by the necessity of relieving the patient from extremely painful and difficult breathing. In the year 1862 I had such a case in an unquestionably phthisical patient, and during the intervening ten years I had seen a number of others. Now, Mrs. B. hav-

ing become acquainted with my view as to the possible good effects of rest to the larynx, insisted upon my operating in her case. She was desperate; life had become unbearable to her with her throat as it was. I debated the question of the operation anxiously and conscientiously with myself and a medical friend, decided it deliberately and performed tracheotomy in February, 1873. She began to improve immediately, and in less than two months' time the interior of her larynx looked almost healthy; in June the canula was permanently removed and ever since the autumn of the same year she has been giving singing lessons and has sung in church and in private and public concerts.

This was an extreme case but an uncomplicated one. Its success, together with the success that had attended numerous cases since—cases, however, in which some degree of stenosis indicated the operation—proves unmistakeably the good effect of the complete rest of the larynx which tracheotomy affords. The numbers of more or less successful tracheotomies in cases alone of phthisical ulceration of the larnyx, which I have either myself performed or counselled others to perform, must by this time amount to perhaps thirty. Yet, I by no means share the opinions of those surgeons who regard trachestomy as a simple or harmless operation; but I consider the value of the rest which it secures so great in appropriate cases, even in incurable cases, that this consideration goes far with me towards overbalancing its difficulties, dangers and possible ill after-effects whenever indicated by laryngeal stenosis. You, of course, understood that after tracheotomy *phonatory rest* is conjoined with respiratory rest of the larynx; but the movements which the larynx undergoes during the third function in which it takes part, viz., deglutition, are not done away with by performing tracheotomy. Comparative deglutitory rest may be secured by regulating as much as possible *the act* of swallowing, and the pressure which boluses exert upon the posterior wall of the larynx may be lessened by using mincing machines, soft food in suitable quantity and at stated times, etc. Acting on this principle of securing rest, of avoiding to irritate but on the contrary of soothing the

parts, I have been enabled to accomplish surprising results as to nourishing the patient and prolonging life in some cases of post-laryngeal and œsophageal cancer. In phthisical and other conditions of irritation of the structures over which food must pass I recommend the same measures.

Finally, protective, sedative and anaesthetic medication, local and general, frequently owes some of its good effects to the rest which it affords the part. This fact has very properly been alluded to by Dr. Major.

We have then at our command, as the means of giving rest to the larynx, medication, tracheotomy and regulation of the three functions of phonation, respiration and deglutition. The specific application of these means to an individual case of disease must, of course, be left to the judgment, the skill and the medical tact of the physician who takes the responsibility of treating the patient. Like all other therapeutic measures, when improperly applied as to time and circumstance, some of these means are fraught with danger; but, *physiological rest is likely in any case to do more good than harm*, and Dr. Major certainly deserves your thanks for his presentation of the subject. As to myself I must apologize for the lengthiness of my remarks and to express reiterated thanks for the attention with which you have favored me.

Reviews and Notices of Books.

The International Encyclopædia of Surgery: A Systematic Treatise on the Theory and Practice of Surgery.—By Authors of various Nations. Edited by JOHN ASHURST, Jr., M.D., Professor of Clinical Surgery in the University of Pennsylvania. Illustrated with chromo lithographs and woodcuts. In six volumes. Vol. I. New York: Wm. Wood & Co.

Ten years ago, when Holmes announced to the profession that he had completed the fourth volume of his System of Surgery, it was generally thought that this, with an occasional revision, would answer the requirements of the profession for at least a quarter of a century. And doubtless it would, but our American

neighbors, who travel faster in every way than the rest of the world, and who look upon decades as other nations do centuries, have long ago classed it among the literature of another age, and now yearn for something new. Agnew's Surgery, only very recently issued, and the work at present under review, are outcomes of this insatiable thirst for novelty. But give the surgical literature of America its just due, it deserves a high place in the world, and we feel convinced that the experiment now being tried by Dr. Ashurst will be productive of the best results, and will be only another illustration of what can be done by American skill and enterprise.

The first volume opens with an article on the "Pathology of Inflammation," and as a guarantee of its excellence, we have simply to mention that the writer is Dr. Stricker of Vienna. The latter takes this opportunity to cross lances with Cohnheim, whose views he disposes of in the following rather summary fashion:— "The migration theory has proved to be fruitless. It has made no progress since 1867, and in regard to the doctrine of inflammation, it cannot make any progress, for it denies the active processes. But the doctrine of tissue metamorphosis has made constant advances, and every new step which I have taken in the course of the last decade has proved to be an argument against the migration theory." Thus the article is doubtless tinged with a strong partisan color, but it is nevertheless of great value, coming, as it does, from the pen of one of the most eminent pathologists of the day.

Dr. Wm. H. Van Buren of New York contributes an article on "Inflammation," and considering that the subject is not quite in his line, it is a remarkably able production. We must confess to some disappointment in perusing the next article, by Dr. Delafield, on "Pyæmia and Allied Conditions." There is here no attempt made to differentiate the septic fevers, and the question of treatment is dismissed very curtly. The article, however, is richly adorned by two colored lithographic plates, illustrating the pathological appearances of metastatic abscesses. The subject of Erysipelas has fallen into good hands, namely, those of Dr. Alfred Stillé. Dr. Bultin contributes a well written paper

on "Scrofula and Tubercle," and takes the opportunity of airing his modern pathology. "Anæsthetics and Anæsthesia" are ably discussed by Dr. Henry M. Lyman, the historical portion of the subject being especially very full and interesting. This volume closes with an article on "Amputations," by the Editor, Dr. Ashurst. This, while exceedingly interesting and valuable, is not as complete, especially on the subject of treatment, as we might have expected. Dr. Ashurst is evidently very conservative in his method of treating wounds, as, for example, he still seems to prefer wire sutures, and dresses his stumps after the old-fashioned style, with adhesive straps, &c.

The illustrations are, on the whole, fair, and the type is large and handsome. The book itself is rather ponderous and unwieldy, but this is a minor consideration, and tends only to add to the dignity of this splendid work.

Diseases of the Rectum and Anus.—By CHARLES B. KELSEY, M.D., Surgeon to St. Paul's Infirmary for Diseases of the Rectum, &c. New York: Wm. Wood & Co. 1882.

This is the August number of Wood's Library, and constitutes a very valuable addition to the series. So far as we can see there is no attempt made on the part of the author to produce anything very original in the pathology or treatment of rectal diseases, but he has certainly succeeded in giving an admirable compilation of the recommendations of others. With regard to the treatment of hemorrhoids, we must confess to no little disappointment that the author should prefer the old-fashioned ligature to the clamp and cautery. Certainly he can have had no experience with the latter, or he would have given it a larger place in his book. We have tried both, but have long ago given our verdict in favor of the clamp and cautery. It is an operation at the same time easy of performance, thorough, safe, and yielding permanent good results.

The author's remarks on fistula are, to our way of thinking, clear and logical. He believes, with many others, that the chief cause of ischio-rectal abscess in phthisis is a purely mechanical one, depending upon loss of fat in the ischio-rectal fossa, and a

consequent removal of support from the hemorrhoidal veins, which, during the cough and concussion, become congested, and eventually abscess results. Dr. Kelsey is very positive in his remarks regarding the advisability of operating in cases of fistula complicating phthisis. He says: "I have yet to meet the first case, which, under suitable and careful general and local treatment, refused to heal after the operation." Further on, he cautions against operating either in very advanced or rapidly advancing lung trouble. A portion of the concluding chapter of the book is devoted to the important subject of rectal alimentation. Altogether, this work has much to commend it, and for the purposes of the general practitioner we know of none more suitable.

On Slight Ailments, their Nature and Treatment.—By LIONEL S. BEALE, M.D., F.R.S., F.R.C.P., Professor of the Principles and Practice of Medicine in King's College, London, and Physician to King's College Hospital. Second edition, enlarged and illustrated. Philadelphia: P. Blakiston, Son & Co. Montreal: Dawson Bros.

Prof. Lionel Beale is in the first rank of medical philosophers, and his writings are always highly original. They are instructive and couched in language extremely attractive and entertaining. The slight ailments are common to all,—all persons suffer from them more or less. But, because they are frequently not associated with any organic disease, and do not present any serious aspect, they are only too apt to be neglected or made light of, to the dissatisfaction of the sufferer and the discomfiture of his medical attendant. These lesser ills are none the less real, from their minor degree of intensity, and, taken together, make up a large sum of actual distress. As a matter of fact, also, many of these are quite amenable to treatment, provided only sufficient care and attention be given them. Indigestion, Constipation, Diarrhœa, Worms, Vertigo, Biliousness, Neuralgia, Rheumatism, &c., are a few amongst the many common ailments dealt with. The concluding chapters upon the feverish and inflammatory state, and on the common forms of slight inflamma-

tion, are particularly interesting, and contain much of the writer's special views on this subject. The book is replete with points which readily escape observation, but which will often find their practical application when one's attention has been directed to them. Every physician, especially every young physician, should have a copy of "Slight Ailments,"—and read it.

The Sympathetic Diseases of the Eye.—By LUDWIG MEUTHNER, M.D., Royal Professor in the University of Vienna. Translated from the German by WARREN WEBSTER, M.D., and JAMES A. SPALDING, M.D. New York: Wm. Wood & Co.

"This comprehensive monograph, on the Sympathetic Diseases of the Eye, is the first of a series intended to embrace the whole province of Ophthalmology." It has been prepared more especially for the general practitioner, and thus avoids as much as possible the abundant terminology and the minutiæ of the special science. In order to meet the case of those not sufficiently familiar with the subject, a chapter is devoted to a consideration of the peculiarities of the anatomical structure of the eyeball and its tissues. After which are fully considered the ætiology, pathology and therapeutics of that important—very important—class of eye diseases in which a previously good eye has become the seat of functional or organic disturbances due to some serious derangement in its fellow of the opposite side. The great urgency of many of these problems renders it imperative for every one to possess a fair knowledge of the views of eminent ophthalmologists of the present day. This can be obtained in a very clear and concise fashion in the volume we are noticing, and we commend it to the favorable attention of the profession.

Questions on Human Anatomy.—By SAMUEL O. L. POTTER, M.A., M.D., author of "An Index of Comparative Therapeutics," &c. With 63 illustrations. Philadelphia: P. Blakiston, Son & Co. Montreal: Dawson Bros.

This constitutes No. 1 of a series of handbooks on the various subjects comprised in a medical education, which are being pre-

pared under the title of Quiz-Compends. They are intended specially for the use of students preparing themselves for examination. This one seems to have been carefully prepared, and is complete in its various departments. It will no doubt form a useful aid in the manner intended.

Medical Electricity: a Practical Treatise on the applications of Electricity to Medicine and Surgery. —By ROBERTS BARTHOLOW, A.M., M.D., LL.D., Professor of Materia Medica and General Therapeutics in the Jefferson Medical College of Philadelphia, &c. 2nd edition, enlarged and improved. With 109 illustrations. Philadelphia: Henry C. Lea's Son & Co.

Less than two years ago we gave an opinion in these pages upon this work. It has evidently been well received by the profession (as it certainly deserved to be), since a second edition has been already called for. It is only necessary now to notice this fact, and to add the especial points in which improvements and additions have been made. The author says that, though the treatise has been specially prepared from the practitioner's rather than the scientific standpoint, yet, "in response to an increasing desire for scientific treatment," he has "developed more fully the modern methods of ascertaining and expressing current strength, tension, resistances, &c." He has also "entered more fully into the polar method and into the action and uses of the magnet."

Society Proceedings.

MEDICO-CHIRURGICAL SOCIETY OF MONTREAL.

Stated Meeting, November 17th, 1882.

R. A. KENNEDY, M.D., PRESIDENT IN THE CHAIR.

Dr. Osler exhibited the following Pathological Specimens:

Cerebral Aneurism and Hæmorrhage, from a case in the Montreal General Hospital under the care of Dr. Molson. The patient, a woman, æt. 62, was admitted in a semi-unconscious state, with complete paralysis of the right side, following a fit

she had had some three days before. As far as could be ascertained her previous health was good and her habits temperate. Death occurred on the 7th day after admission. At the autopsy was found a small saccular aneurism situated upon the left middle cerebral artery, which had ruptured and produced extensive laceration of the inner and anterior part of temporal lobe and hemorrhage into the meninges of the base. The arteries were atheromatous, and from the exceedingly thin structure of the wall of the aneurism it is probable that it originated in an atheromatous ulcer, exposing the middle and outer coats which had yielded to the pressure. There was no heart disease and no special change in the other organs. Dr. Osler remarked that this was the sixth specimen of cerebral aneurism he had exhibited to the society.

Verminous Aneurism in Horse.—The animal had been admitted to the infirmary of the Montreal Veterinary College with colic, and had died in about 36 hours. The post-mortem shewed intense engorgement, with great distension of the small intestines. The aneurism was from one of the mesenteric branches, and contained thrombi, among which were numerous examples of the palisade worm, *Sclerostomum Armatum.* The so-called colic of horses is very frequently produced by these aneurisms, portions of the thrombi become dislodged and plug the terminal branches of the mesenteric arteries and cause infarction of the portion of the bowel supplied by the plugged vessel. In reply to a question by Dr. Gurd, Dr. Osler stated he did not think these cases could be distinguished from those of ordinary colic. Indeed Prof. Bollinger of Munich held that colic in horses was in the majority of cases of embolic origin and due to these verminous aneurisms.

Cancer of Stomach, with enormous *Secondary Cancer of Liver.* This case was also under the care of Dr. Molson, who gave the following clinical history: L. P., æt. 52, healthy up to two months ago, when he began to lose flesh and get weak, with pain after eating and eructation of wind. On admission, November 3rd, 1882, was decidedly cachectic ; great prominence with evidence of a tumor occupying the whole of the

upper zone of the abdomen. Commencing on the right side and extending over towards the left in the median line, it extended two inches below the umbilicus and on the right side down as far as the ilium. Œdema of both legs and feet. Urine contained abundance of lithates, a small amount of albumen, and numereus granular and hyaline casts some days after admission. Jaundice set in gradually but this was never deep, and vomiting for the first time occurred. He died November 16th, p. m. The stomach showed a small, flattened, slightly raised cancer, situated on the lesser curvature, about 1½ inches from the pylorus; it had an excavated base, puckered and hard on the peritoneal surface, and a chain of enlarged glands extended along the lesser curve to the cardiac. The microscopic examination showed it to be a cylindrical-celled epithelioma. The liver was enormously enlarged, weighing over thirteen pounds, and presenting innumerable masses of secondary cancer scattered through its substance.

Erosion of Internal Carotid in Cavernous Sinus six weeks after a blow on the head. Fatal hæmorrhage from the nose.—The patient, æt. 21, had received a blow over the left eye. being one of the victims of the "Beauharnois" boiler explosion. There was a long wound extending the whole length of the eye-brow, but it was not thought he had received any other injury, as he recovered quickly. Some time after, however, he noticed that the sight of that eye was failing, and he consulted Dr. Buller, who diagnosed commencing atrophy of the optic nerve, due probably to extravasation in the sheath. He had had several attacks of epistaxis, but not of an alarming character. One morning, about six weeks after the accident, while washing his face, profuse hæmorrhage took place from the nostrils, and he died before assistance could be procured. At the post-mortem the orbital ridge of the frontal bone was found indented at the site of injury. The orbital plate presented an area of superficial erosion about three lines in width, extending beneath the *dura* from a point corresponding to the external wound to the body of the sphenoid. The left wing and body of

the sphenoid slightly reddened, the surface of the bone eroded, and at one spot in the latter the bone was so soft that it broke on a slight touch. The sphenoidal and ethmoidal cells were filled with coagula. On slitting up the internal carotid in the cavernous sinus, just as the vessel turns up to enter the skull, there was seen an opening on its interior part leading directly into the sphenoidal cells. There was a small spot of red softening the size of a ten cent piece in the third left temporal convolution. Though no fracture of the sphenoid was evident, yet it was believed that at the time of the accident a slight fracture must have occurred leading to ulceration and erosion of the bone and subsequent perforation of the carotid. Dr. Osler remarked that the case was unique in many respects, but Mr. Prescott Hewitt, in his lectures upon fractures at the base, mentions an instance in the practice of Mr. Scott of the London Hospital in which after an injury a pulsating tumor of the orbit occurred, and during an examination profuse hæmorrhage from the nostrils took place, which was controlled by compression of the common carotid, and subsequently cured by ligation of that vessel.

Specimen from a case of Diphtheria, showing blocking up of the glottis by false membrane and extension down the trachea into the primary bronchi. Tracheotomy had been performed, but with only temporary relief. A point of interest in this case was the caking and hardening of the exudation at a point corresponding to the orifice of the tube, which must have materially interfered with the entrance of air.

Dr Wilkins exhibited *Tubercle Baccilli* prepared by the Ehrlich-Gibbes method, with an important modification, as suggested recently by Balmar & Fraentzel. The sputum after being spread out on a thin layer on cover glass and dried and passed through the flame of a Bunsen's burner, is now placed in a solution of *fuchsin* in *aniline* water (one part of *fuchsin* to fifty parts of *aniline* water); it is kept in this for twenty-four hours, after which it is taken out and washed in distilled water and placed for about half a minute in dilute nitric acid (one of acid to three of water). After being again washed it is placed in a

concentrated solution of *methylene blue* for a few minutes. The specimen is then thoroughly dried, passed through a Bunsen flame once or twice and mounted in balsam.

Dr. Wilkins read a paper on a case of *Obliteration of Superior Vena Cava.* (The specimen was exhibited at a former meeting of the society.) The patient was admitted into the Montreal General Hospital on June 27th, complaining of great dyspnœa, which condition existed through the whole course of the disease. A year or so before coming into hospital he felt something give way on lifting a heavy weight, and has suffered more or less ever since. Shortly after admission he became cyanotic, with an œdematous condition of the head and neck. About six weeks after entrance into hospital fluid began to collect in the left pleural cavity, and subsequently also in that of the right side; he was tapped a great number of times, but only experienced transient relief—eight hundred and sixty-two ounces in the aggregate were drawn off. Patient's pulse, which previous to this never went above 104, now rose considerably, and the temperature, which hitherto had been normal, rose to 102°. Dyspnœa became very severe; he was again aspirated, withdrawing twenty ounces of bloody fluid from the left side and forty ounces of clear fluid from the right. The patient finally died from exhaustion.

At the autopsy, the *superior cava, innominate, and internal jugular veins* were found obliterated by thrombi; the left pleura was covered with recent lymph; the azygos veins were widely dilated, and the foramen ovale was found to be permanent. Dr. Wilkins exhibited beneath the microscope a number of sections from various parts of the thrombosed vessels, the most interesting being those taken from the cardiac extremity of the superior vena cava, showing cicatricial thickening of a portion of the circumference of the vessel to the extent of two millimetres, the vessel itself being but six millimetres in diameter, and filled with organized clot. No other lesion could be discovered accounting for its occlusion. Dr. Wilkins considered these changes to have arisen from a primitive phlebitis, commencing in the adventitia causing changes in the intima, with subsequent

thrombosis, thus giving rise to secondary phlebitis of the vessels above, resulting in a thrombosed condition of these vessels also. Some of the sections showed fibroid thickening of the septa of the alveoli of the lungs, due to a passively congested condition of these organs. The cyanotic appearance was explained by the blood current being delayed until a collateral circulation was established. In accounting for the dyspnœa Dr. Wilkins stated that the blood of the left bronchial vein reached the heart through the superior vena cava, and consequently when that channel closed it would necessarily return to a great extent by way of the pulmonary veins, thus distending them and helping to cause thickening of their walls; he considered the permanency of the foramen ovale an important factor in causing the dyspnœa, and the remarkably slight relief obtained by aspirating the pleura. As soon as the blood current from above was shut off by closure of the superior cava the current from the inferior cava, meeting with no opposed current, must lift up the upper segment of the *annulus ovalis*, and get into the left auricle and so block up the blood returning from the lung.

Dr. Wilkins accounted for the larger quantity of fluid in the left side from the fact that on that side the blood from the four superior intercostals reaches the heart by the superior vena cava, while from only one on the right side. After thrombosis of the superior vena cava blood would reach the heart by enlarging the inosculation between the intercostals, and between these and the azygos veins.

Discussion on Paper.—Dr. Osler thought the only rational explanation of the affection was a phlebitis excited by inflammation in contiguous parts. He would not, however, attribute the same importance to the valvular opening between the auricle and ventricle as Dr. Wilkins had done; he had frequently seen this condition with an orifice of considerable size, and without giving rise to any symptoms.

Dr. Ross asked if it was not a fact that a small tube had been used in this case for continuous drainage and had been followed by pleurisy. He had seen a case of ascites treated in this way, after tapping had been performed in the ordinary way

without ill effect on two occasions, followed by fatal peritonitis in 48 hours. He was inclined to think this method was not altogether safe. In these cases is the inflammation the result of irritation or the inadvertent entrance of germs?

Dr. Roddick also asked how the occurrence of inflammation in these cases could be explained. He doubted if these short tubes always reached the cavity, and spoke of the possibility of their slipping back, and by their constant irritation of the peritoneal or pleural surface setting up inflammation.

Dr. Osler also mentioned a case of abdominal dropsy drained in this way and followed by fatal peritonitis.

Dr. Ross, in reply to Dr. Osler, said that Southey recommended his trochar only in conditions of anasarca, but that others had recommended its use in draining serous cavities also.

Dr. Hingston spoke of the great risk always attending puncture of the abdomen, either with or without a tube, and cited a case where death had followed a single puncture in three or four days.

Dr. Roddick thought that in the case of ovarian dropsy, the operation of tapping should always be approached with great caution. He believed that an exploratory incision with antiseptic precautions was, as a rule, less likely to be followed by mischief in these cases. With regard to the operation of tapping in ordinary abdominal dropsy he was in the habit invariably of closing the puncture with a catgut suture and dressing it with iodoform, as he had seen at least one case in which septic peritonitis followed tapping where a leakage was allowed to go on for some hours.

Dr. Bell thought the history of the case did not show it to have commenced with a severe enough illness to have been a *phlebitis* and subsequent thrombosis at the time of the accident. Might not the cicatricial tissue which was found partially surrounding the vein, and which was probably the result of laceration of tissue and inflammatory action at the time of the severe strain described by the patient as the starting point of his illness, have acted by constricting the vessel so as to retard the

blood current and thus cause a thrombosis which was followed by phlebitis? The history of the case seemed to show that the phlebitis was acute and recent when admitted to hospital, while he attributed his illness to an accident twelve months previous. The aspirations of the chest as shown by the report had been performed a great many times without any unpleasant consequences. The first time the *Southey tube* was used it remained *in situ* for twenty-four hours and then slipped out. After twenty-four hours it was again introduced, and in a few hours was followed by signs of pleural inflammation. He thought the continuous presence of the tube was the cause of this inflammation, and considered that it was almost, if not quite, impossible to leave a tube in any cavity for any length of time without air entering in at the sides, more especially in the pleural and peritoneal cavities where the action of the lungs and diaphragm exercised as it were a constant suction.

Dr. Wilkins, in reply to Dr. Osler, stated that he could quite understand, other conditions being all right, how a permanent foramen ovale could be unattended with interference in the usual course of circulation, but as soon as the current from above was cut off, the current from below would lift up the upper segment of the annulus ovalis. Dr. Wilkins showed the patient's heart with this projecting considerably, and said, supposing a force pump attached to inferior vena cava, before opening the walls of the heart and water pumped in, it would be impossible to prevent it passing through into left auricle, there being no counter current from above. The projecting upper segment of annulus is directly in the course of the fluid from below, and as it must exercise pressure on the lower portion before it reaches the upper it will unavoidably open the valvular orifice and allow escape into the left auricle. In reply to Dr. Bell, Dr. Wilkins said, in the absence of any tumor, the theory advanced by Dr. Bell was the one he was most inclined to favor until he examined sections of various parts of the vessel. No cicatricial growth of any kind existed outside of the walls of the vessel pressing on the vessel causing its closure; but for a short part of its course,

not quite half an inch, there was a very marked cicatricial thickening of the walls of the vessel itself; the cord-like feeling perceived at the autopsy was due to this and the firmly organized thrombus; the lesion was so very limited he did not think it could have resulted from the rupture of any vessel outside or in the vicinity of the origin of the superior vena cava. He did not see any reason why it might not have originated from rupture of some of the capillaries of the adventitia at the time of the patient's complaining of something giving way in his chest.

Resolution of Condolence.

Dr. Henry Howard, in speaking of the great loss which the medical profession in general and that of this city in particular had sustained in the death of the late Dr. David, moved the following resolution, which was seconded by Dr. Hingston and carried. Resolved: "That the Medico-Chirurgical Society of Montreal deeply regrets the death of A. H. David, M.A., M.D., Dean of the Faculty of Medicine of Bishop's College, and formerly a member of this society. Always highly esteemed and respected by his brother practitioners for his many sterling qualities and honest bearing towards them, being especially kind and considerate to the younger members of the profession, his loss will be sorely felt and his place can with difficulty be filled. That this society tenders its sincere sympathy to the members of the bereaved family, and assures them that the profession sympathizes with them in their great affliction."

Stated Meeting, December 1st, 1882.

DR. T. G. RODDICK, VICE-PRESIDENT, IN THE CHAIR.

PATHOLOGICAL SPECIMENS EXHIBITED.

Pericœcal Abscess.—Exhibited by Dr. George Ross. The following were the main clinical features of the case:

The first day there had been sudden acute pain in right iliac fossa, with great tenderness and high fever. Dr. Ross saw him soon after with Dr. Bell. They applied leeches freely and gave opiates. Immediate relief followed, and the temperature fell. For some days condition quite satisfactory. Then slight

fever and uneasy feelings in the belly. After the lapse of several days more, a chill and increased fever. From this time the temperature fluctuated greatly, accompanied by irregular chills. It was believed that pyæmic absorption was taking place from localized suppuration—but still the most careful exploration of the affected region failed to determine any fulness, fluctuation or other signs by which to localize the abscess. Dr. Ross had been strongly of opinion that a small abscess would be found behind the cæcum. The idea of operating with a view of finding the matter was earnestly discussed in consultation with Drs. Howard, Shepherd and Osler, but the difficulties in the way were believed to be insurmountable. The autopsy completely confirmed the diagnosis. A singular feature was the development of a very loud systolic murmur, so harsh that at first it was suspected to be of pericardial origin. No organic change was found in the heart.

Post-mortem.—A recent peritonitis existed, with a moderate amount of exudation; the mesentery was swollen, particularly in the upper part; about the cæcum the parts looked pretty natural, except at the inner margin, just below the valve, where there was considerable pigmentation. On dissecting this point a small saccular abscess the size of an egg was found situated behind the cæcum, and the termination of the ileum, it was quite on the inner side of the cæcum and did not extend to its outer border. It contained a creamy pus, and the walls were thick and dark. The cæcum itself was healthy. On slitting up the appendix the mucosa for half an inch looked healthy; the remainder of the tube was somewhat dilated, closely adherent to the sac of the abscess, and presented two perforations into the sac. The swelling of the mesentery proved to be an extensive abscess, involving a considerable portion of the membrane, particularly that attached to the jejunum; the mesenteric vessels in these parts were full of pus; the portal vein was distended with pus, the walls thickened, and when followed into the liver many of its branches were found dilated and in communication with saccular abscesses; there was no endocarditis.

Dr. Armstrong spoke of his having had two cases in his

practice similar to the one described by Dr. Ross, and with his experience, if another such case presented, he would be inclined to look for the matter, and let it out if possible. In the "Annals of Anatomy and Surgery" several cases are reported as having been operated upon, and with favorable results. He asked if any foreign body or concretion had been found in the abscess cavity indicating that any perforation of the appendix had occurred.

Dr. Osler remarked that the situation of the abscess in this case was such that it could only have been reached by a laparotomy. No foreign body or concretion was found in the sac. In any case of perforation of the appendix the situation of the resulting inflammation would depend on the course of the little tube which, as was well known, was exceedingly variable. In one case which he had examined, the appendix passed out at right angles to the cæcum and was attached to the sacrum; it had perforated and formed an abscess in that region, which had ulcerated into the bowel and produced fatal hemorrhage. The ulceration was usually due to the irritation of some foreign body, or, more often, of a small fœcal concretion, or, in some instances, the distal part of the tube gets cut off from the cæcal portion, the secretions accumulate and produce inflammation of the walls. In this case the patient had had typhoid fever and there may have been an ulcer in the appendix, which had produced the narrowing evident about an inch from the cæcum.

Dr. Osler exhibited a large aneurism of the thoracic aorta taken from a gentleman aged about 70, who had suffered for years with laryngitis and for the past two years with symptoms of intrathoracic tumor, dullness at the left base, feeble breathing in left lung and pain with cough and bloody expectoration. There was a doubt whether the case was one of aneurism or malignant disease. The whole of the thoracic aorta was dilated and from its anterior wall two aneurisms projected. The upper one, the size of a large fist, had a wide orifice and was densely laminated with old firm layers of fibrine. It projected into the left lung, which was much flattened by it and the

bronchus almost occluded. The other sac sprang from the vessel just above the diaphragm, and was about the size of a lemon. The posterior wall of the aorta was very atheromatous. The point of great interest in the case was the possibility of the large sac having existed for years, causing the laryngeal symptoms which had troubled him. In this situation aneurisms had been known to last for an unusually long time. Dr. Osler showed a plate from Ziemssen's Archiv. (1877) illustrating an aneurismal sac which had lasted from 1863 to 1876, and had at one time been diagnosed aneurism by Oppolzer and cancer of the lung by Skoda.

In reply to Dr. Henry Howard Dr. Osler stated that caries of the vertebræ almost always followed aneurisms springing from the posterior wall of the descending aorta.

Aneurism of the Arch of the Aorta. Specimen exhibited by Dr. G. Ross. The history of the case was as follows :—About one year ago was consulted by J. R. for a troublesome cough. Dr. J. Bell had already seen the patient and suspected aneurism. J. R. was a well-built, powerful looking man of 32 years of age. Had been only a short time in Canada. In England he practised gymnastics a great deal, and sometimes assisted in public at feats of strength. He still did some running, and even a few days previous to seeing Dr. Ross had been on snowshoes over the mountain. Never complained of shortness of breath, but had lately had a teasing cough which was increased by exertion. He had never had either syphilis or rheumatism. Patient had a constant, short, hacking cough with a marked goose-like character. On examination distinct evidence from the state of the circulation and from murmurs was found of aortic regurgation. Physical signs of aneurism were entirely wanting with two exceptions, slight pnlsation deep in the episternal notch and very marked tugging at the trachea. A positive diagnosis of small aneurism pressing on the trachea was given. He was treated by rest in bed and potass iodide for several months. He entirely lost the cough. No new sign showed itself as to the chest. Repeated careful examination failed to discover pulsation or bruit other than those from the heart, no indication

of pressure on either bronchus. Two months ago he suffered from severe bronchorrhœa with fever and general disturbance and fits of intense suffocation; cough accompanied by the expectoration of great quantities of purulent matter. This entirely subsided in about two weeks. For several months the right radial pulse had been absent. He was so much better that he attended to his business till a few days ago. Death was caused by rupture into the trachea, and a vast flow of arterial blood from the mouth. The interest in the case lay in the recognition of the disease from the peculiar character of the cough, confirmed by the very marked impulse against the trachea in the absence of all other physical evidence. The laryngoscope aided also by excluding disease of the larynx and pressure upon the laryngeal nerves. Dr. R. would look upon this as an example of combined aortic valvular disease and aneurism induced from the constant over-exertion or strain of excessive gymnastic exercise. Dr. Mills gave the following report of the laryngoscopic examination. The laryngoscope was used with a view of determining the cause of the altered breathing and assist in locating if possible the aneurism. The position and movements of vocal cords found normal. The patient was asked to produce as much difficulty in breathing as he could. Upon doing so the position of the vocal cord remained practically unchanged. It was therefore clear that the cause of the dyspnœa was not in the larynx. Since the air seemed to enter each side of the chest equally well, pressure on the bronchi was excluded. The diagnosis therefore was tumor pressing on the trachea. Upon holding a double stethoscope close to the open mouth it was noticed that with both inspiration and expiration there was a wavy interruption of the breath current. This seemed to confirm the diagnosis. Dr. Mills thought this method of investigation might be of considerable value in doubtful cases.

At the autopsy the following condition was found. There was a small projecting tumor the size of a walnut beneath the manubrium. On slitting up aorta there was a circular orifice the size of a copper at the site of the innominate, and this

opened into a saccular aneurism of this vessel which projected downward and backward between the arch and the trachea. A small extension of it passed anteriorly and appeared beneath the manubrium. The sac was lined with fibrin at the peripheral part. The subclavian and carotid arose from the upper part of the sac, and about an inch above the bifurcation a rupture the size of a five-cent piece had taken place. The aorta was atheromatous, and the valves thickened, curled and incompetent. Heart hypertrophied, particularly the left ventricle.

Dr. George Ross then read a paper on *two unusual forms of paralysis* under his care in the Montreal General Hospital.

1.—*Case of Paralysis of the Tongue, Lips and Soft Palate. Acute Onset.*—J. M., æt. 45, was admitted into the General Hospital on 8th Nov., 1882. He has thick, indistinct utterance, and complains of dizziness and dull pain in the head. His trouble dates from July, 1881, and came on suddenly. The following are the particulars obtained from him: He has been a hotel porter for 25 years, and always enjoyed excellent health and was strong and robust, used to drink pretty freely, but for two years has entirely abstained. Had gonorrhæa many years ago, but never had syphilis. Has had two attacks of inflammatory rheumatism, but both occurred many years ago. One year ago last July, whilst driving a *bus*, he was suddenly seized with a *dizziness*, which was taken for sunstroke. Finding himself falling he dropped the reins and held on to the seat. He broke into a profuse perspiration, and felt a most uncomfortable dizzy sensation in the back of his head. He was lifted from the *bus* and carried into a drug store. He was then unconscious, and remained so for some hours. When he came to he was carried home, for he could not walk. At home he felt very weak, found he could not speak, and felt very dizzy. He remained in bed and on a chair for three weeks, during which time he spoke so badly that he could barely make his friends understand what he wanted. By this time he could walk about the house. Power of articulation gradually improved. He remained weak and unable to work for about nine months. Patient is a low-sized man, well nourished. Presents a

slightly dull expression of countenance. He speaks slowly, with hesitation and difficulty—all words are pronounced with varying degrees of thickness; there is no nasal intonation. His defective articulation resembles completely that of a man much intoxicated. When directed to protrude the tongue, he does so imperfectly and with considerable effort. It trembles violently. When first projected the tip is turned down over the lower lip, but is almost immediately retracted; still he tries hard to hold it out, and shuts his teeth upon it in order to do so. It is observed that at the same time the lips become quite tremulous, and the lower jaw assumes a quivering movement. When he tries to whistle he can only succeed in imperfectly closing the orbicularis oris muscle, short puffing expirations alone are produced, accompanied by a blubbering motion of the lips. He can masticate food well, and swallows without difficulty. On examining the soft palate it is seen to be much relaxed, the uvula hangs loosely on the root of the tongue, and handling it produces no reflex contractions of its muscles. Sensation in the lips and tongue appears good. Sense of taste unimpaired. Other special senses unaltered. He walks with perfect freedom, and grasps well with either hand. Reflexes normal. Heart normal. Pulse 62. Fundus oculi presents no change. Urine of natural quantity and appearance, and contains neither albumen nor sugar.

Nov. 13th.—Complained every day of pain in the back of the head, which he says often prevents him from sleeping.

2.—*Case of Paralysis of Right Side of Face, Tongue and Soft Palate.*—A. B., mulatto, æt. 53, was admitted into the General Hospital, Nov. 20, '82, with difficulty of speech and drawing of one side of the face. Has always been a strong and hearty man. Went to bed in his usual health on the night of the 16th inst.; about midnight awoke, and found that he could not speak; the next day managed to speak, but with great difficulty could hardly make himself understood. With very slight improvement this condition has lasted up to the present time. There was no loss of power in any of the extremities.

Status præsens.—A. B. is a man of large muscular form, ar-

teries stiff and somewhat atheromatous, arcus sensilis well marked, the right side of the face is observed to be flattened, smooth and wanting in expression. The mouth is drawn towards the left side, and the right angle is drooping. He can wrinkle the forehead equally on the two sides; closes the two eyes equally strongly; cannot whistle; in making the attempt the right side of the mouth does not move, whilst the left flaps. The tongue is protruded somewhat to the right side; with the mouth wide open he cannot raise the tip of the tongue against the roof of the mouth on the incisor teeth. In speaking the lingual and dental consonants give the most trouble, and the voice has an appreciable nasal intonation. There is no difficulty in swallowing, solids collect inside the cheeks and cannot be removed from inability to use the tongue. The closed temporal and masseter of the right side appear less firm than the corresponding muscles of the opposite side. On moving the lower jaw forwards it assumes an oblique position, the inclination being towards the paralyzed side, specially noticeable when the mouth is widely open. The uvula is club-shaped, inclined to the right, and the soft palate does not contract at all upon being touched or handled. Iodide of potassium has been administered, and the patient has markedly improved. Speech is quite intelligible, and he seems otherwise well.

Remarks.—These two cases present features in common and still are strikingly different. They both have thick speech and paralyzed lips, without disturbance in the limbs, the result of a sudden seizure; but the chief distinction between them is the fact that, in the first case, the paralysis is bilateral, and in the second it is unilateral. Both have arisen, I think, from a cerebral hæmorrhage which in either case must have been small. In the case of J. M. the lesion is situated, I infer, in the *medulla oblongata*. It is hardly possible to find any other situation where a single lesion could thus injure the function of these particular branches of both 7th nerves and both hypoglosal nerves. If this be true the case presents an unusual form of *bulbar paralysis*, the more serious accompaniments of this trouble being markedly absent, viz., difficulty in swallowing, difficulty in mas-

tication, and disorder of circulation and inspiration. Unusual such forms must be when we consider how closely the important centres for these functions are grouped together in the small medulla oblongata.

I might summarize the case thus: This man whilst in apparent health had a sudden giddiness and rapidly became apoplectic, remained so for some hours, could not walk for three weeks, was weak for several months. Coincident with the attack he lost the power of articulation, which still remains very imperfect. Has marked motor paralysis of the tongue, lips and soft palate. I should infer that he suffered from cerebral shock with apoplexy at the moment of the bleeding, then a complete paralysis of the tongue and an incomplete paraplegia. That the latter was caused only from functional interference with the motor parts, and was therefore entirely recovered from. That the centres of the hypoglosal and facial have been permanently injured, and hence persistent paralysis of these nerves remains. The second case showing paralysis of the hypoglosal and part of the facial on one side must be due to a lesion removed only a short distance from the contiguous seats of origin of the two nerves.

Dr. Proudfoot mentioned a case of an old gentleman, aged 81 years, subject to attacks of congestive apoplexy, but never followed by paralysis until June last, when, following an attack, he suffered from paralysis of the tongue and soft palate, great difficulty in swallowing and disturbance of speech; these symptoms have all since disappeared, with exception of difficulty in swallowing, which still exists to a slight extent.

Dr. Major read a paper on a case of *Cancer of the Œsophagus*. The patient, a female, æt. 47, was first seen by him on the 1st July last. She had suffered from difficulty in deglutition from childhood, not being able to swallow anything larger than a *barley-corn* without great difficulty; this continued with more or less varying exacerbations up to the age of forty (seven years ago), when it became so distressing that she consulted a physician, but no apparent cause was made out. When seen by Dr. Major in July last, she was considerably emaciated, and appeared to be the subject of some wasting disease. On making

a *laryngoscopic examination* the disease was found confined chiefly to the right side, the tissues between the right arytenoid and œsophagus being especially involved; and on this side a very red swelling appeared, about the size of a *pigeon's egg*, its surface studded with four or five yellow points from which some discharge escaped. The *posterior arytenoid space* was pressed upon to such an extent that the *right arytenoid* was rendered invisible. A guarded opinion at this time was given, the possibility of its being a *chondritis with formation of abscess* being considered. Iodide of potassium with a bitter principle was prescribed, and a weak spray of carbolic acid with bicarbonate of soda used to correct a slight offensiveness of the breath and to aid in the removal of accumulated mucus. This was followed by some temporary improvement, the patient became a little stronger, liquid nourishment was taken more freely, and her breathing was more easy. She was again seen and examined on the 2nd of September; her condition at that time was not so favorable, the difficulty in swallowing was increased, and her breathing was more embarrassed, the *bright red swelling* had developed into a dirty greyish mass, about the size of an acorn, and shewed a more clearly-defined œsophageal origin. The general debility advanced very rapidly, and each subsequent examination revealed local changes taking place. Softening occurred first on the left side and caused increased difficulty in the breathing by prolapse of a mass of broken-down tissue on to the larynx, and at this time a marked alteration in the voice was first noticed. Death occurred November 25th. At the autopsy the upper two and-a-half inches of the œsophagus were found involved in a cancerous mass, which almost completely obliterated the lumen of the tube. On microscopic examination it was found to be *epithelial in character*. All the other organs appeared normal.

Dr. Major remarked that the interesting features in this case were the great length of time that had elapsed between the first symptoms and the well recognized cancerous condition suggesting the existence of an originally fibrous stricture which had subsequently become malignant, and the absence of *in-*

durated glands and of *pain* to within a few hours of death. In reply to Dr. Ross, Dr. Major said that for seven years she had taken nothing but liquid diet, not on account of *pain*, but from tendency to regurgitation.

Dr. Proudfoot spoke of a case in his memory where ordinary fibrous stricture was diagnosed, and the patient subsequently died of malignant disease.

Dr. Ross said the case was a remarkable one, from the prolonged difficulty in swallowing, and he thought Dr. Major's explanation of *mechanical obstruction from simple fibroid stricture* was very reasonable. The next question to solve would be the probable cause of such a structure, possibly from injury during childhood. The disease also being so high up, where strictures are almost never found, without traumatic origin.

In reply to Dr. Roddick, in regard to œsophagotomy, Dr. Major said there was no means of making out or limiting the extent of the disease.

MEDICO-CHIRURGICAL SOCIETY.—At the meeting on the 28th ult. there was a pleasing variation in the usual order of business. No regular paper was read, but cases in practice were in order. The members then adjourned to the Library, where refreshments had been prepared, and enjoyed a social evening. These friendly gatherings do good, and serve to promote the harmony and kindly feeling which characterize the profession of this city.

TORONTO UNIVERSITY.—The following Examiners in Medicine for 1883 have been appointed :—Physiology and Pathology, Dr. George Wilkins, Montreal. Medicine and Therapeutics, Dr. Eccles, London. Midwifery and Forensic Medicine, Dr. D. B. Fraser, Stratford. Anatomy, Dr. M. H. Aikens, Toronto. Surgery and Surgical Anatomy, Dr. Grassett, Toronto. Clinical Medicine and Surgery, Dr. O'Reilly, Toronto. Hygiene and Medical Psychology, Dr. Covernton, Toronto. Chemistry, Dr. Ellis, Toronto. Biology, H. Montgomery, M.A. We congratulate Dr. Wilkins on his appointment as Examiner in Physiology for the third time. It is a proof of the appreciation by his *Alma Mater* of his work in this department.

CANADA

Medical and Surgical Journal.

MONTREAL, JANUARY, 1883.

ANNUAL DINNER OF THE UNDERGRADUATES OF McGILL UNIVERSITY.

The annual dinner of the Undergraduates of the Faculty of Medicine of McGill University took place at the Windsor Hotel on the 18th December, about 150 being present. The chair was occupied by Mr. C. E. Cameron, on his right being Principal Dawson, C.M.G., Dr. Lavelle (Queen's College, Kingston), Mr. Alex. Manson, and Prof. Bovey; on his left were His Worship Mayor Beaudry, U. S. Consul-General Starnes, Dr. Scott, Dr. Sullivan (Kingston), Mr. C. J. Coursol, M.P., Dr. F. W. Campbell, Rev. Dr. Stevenson and Rev. Principal McVicar. The vice-chairs were occupied by Messrs. W. G. Johnson, D. J. G. Wishart and J. H. Darey. Among others present were Mr. Geo. W. Stephens, M.P.P., Mr. J. J. Curran, Q.C., M.P., Mr. Richard White, Mr. Hugh Graham, Rev. J. B. Saunders, Drs. W. Osler, Geo. Ross, Rodger, Molson, Jas. Bell, Sutherland, Henderson, T. Wesley Mills, Greaves (Barbadoes, West Indies), McEachran, Shepherd, Alex. Munro, Girdwood, Gardner, Macdonnell, Stephen, and others.

The dinner concluded, the Chairman called upon the Secretary, Mr. J. B. Loring, to read letters which had been received from those unable to be present. The following letter was received from Dr. R. P. Howard, Dean of the Medical Faculty of McGill University;

MONDAY EVENING.

J. B. Loring, Esq., Secretary Committee of Undergraduates Faculty of Medicine:

DEAR SIR,—I very much regret that a recent domestic trial will prevent me from being present this evening at the annual dinner of the Undergraduates in Medicine. Nothing less than something of the kind would have prevented me from availing myself of the opportunity of testifying to the interest I feel in the welfare and advancement of medical

students generally, and of those belonging to my own Alma Mater more especially. And as the interests of the Medical Undergraduates are very much concerned in the success of a movement recently begun, the object of which is to commemorate the memory of our late Dean in a way that would have been most congenial to his feelings, viz., in the extension and improvement of our means of teaching Medicine, I am pleased to be able to say that the as yet few friends who have been called upon in behalf of the "Campbell Memorial Fund" have responded generously, and that the Faculty hopes to have, ere long, a moderate annual income which can be devoted to the advancement of the Students' interests and of those of Medical Science and of the general public.

Wishing the Undergraduates a very pleasant evening, I remain, very sincerely yours,

R. P. HOWARD,
Dean of Medical Faculty, McGill University.

Letters of regret were also received from Chancellor Day, Hon. Justice Mackay, Dr. J. W. Mount, Dr. J. L. Leprohon, Dr. Fulton, Hon. L. R. Church, Dr. Alex. Johnson, Mr. James McShane, M.P.P., Hon. James Ferrier, Mr. W. H. Kerr, Q.C., Dr. Fenwick, Dr. Roddick, and others.

The toasts of "The Queen," "The Governor-General," and "The Lieutenant-Governor" were then proposed, and enthusiastically received.

The Chairman then proposed "The President of the United States," which was greeted with applause.

U. S. Consul-General Starnes responded, thanking them for the enthusiastic manner in which they had received the toast. He said they had great reason to be proud of their Alma Mater, and hoped that the undergraduates would do their share in keeping up the high standing which she at present enjoyed.

Mr. W. G. Johnson proposed the toast of "The Alma Mater" in a very humorous speech, and the toast was received with great enthusiasm.

Principal Dawson responded. In the course of his remarks he expressed the hope that their Alma Mater would always continue to do all she could for her children, and that the undergraduates would strive to assist her in maintaining the reputation of old McGill.

The Chairman then proposed "The Dean and Professors."

Dr. Scott, in responding, said he had been connected 43 years with the McGill University, and had been engaged as a teacher in the Medical Faculty for 38 years. To show the progress which the Medical Faculty of McGill had made, he said that at the organization of the Faculty there were 13 students, and this

year they had 187. He concluded by thanking them for the hearty manner in which they had received the toast.

Drs. Girdwood and Ross also responded.

Mr. J. Gardner then proposed the toast of "The Montreal General Hospital" in appropriate terms.

Dr. George Ross, senior attending physician to the General Hospital, responded, and in the course of his remarks referred to the importance of the hospitals to the medical students in training. The Montreal General Hospital, he said, was a general hospital in the fullest sense of the term, and it had always been the aim of those who had charge of its management to carry on the work of the hospital in the most efficient manner, and its doors were open to the medical students of all the Universities. He concluded by thanking them for the enthusiastic manner in which they had received the toast.

Dr. T. Wesley Mills proposed the toast of "The Sister Universities," which was duly honored.

Dr. Lavelle, of Queen's University, Kingston, in responding, thanked them for the hearty manner in which the toast had been received. McGill University, he said, was an institution honorable in every way, and well fitted in every respect to promote the interests of the Medical profession. The Dominion, he said, owed a great deal to the Medical Universities, and the Province of Quebec owed a great deal to McGill University. And to-day her graduates were taking leading positions in all the professions throughout the Dominion. In the Province of Ontario the progress that had been made in Medical education during the past fifteen years had been such as to command the respect of all who appreciated Medical Science, and he hoped that nothing would occur in the future to mar that prosperity which had attended the teaching of Medical Science in this country. He asked the Students to aid their Professors in their great work; the mantle would fall upon their shoulders in a few years, and then they would learn to appreciate the support given to them by their Students. They had now nine Medical Schools—four in Ontario, five in the Province of Quebec, and, he believed also, one in the Maritime Provinces. These Schools were all self-sustaining, but still there was always

room for improvement, and he hoped all these Schools would acquire such wealth as would enable them to carry on the important work of Medical education. He referred to the cordial feeling which appeared to exist between the Professors and Students of McGill, and he asked the Students to cultivate this intimacy with their Professors. He concluded by expressing a hope that the Undergraduates would, after they had graduated, take up their life work in such a manner as to merit the confidence of the public whom they were called upon to serve. (Loud applause.)

Dr. Sullivan, of Queen's University, also responded. He referred to the warm feeling which existed between the two Universities. He spoke of the progress which Queen's University had made of late years, and said that in an evil hour some ladies had entered in. (Loud applause.) Usually trouble came with the ladies, and some little trouble had come to them through the ladies also. The trouble was not expected, and no one could have been kinder than the male students—indeed, they thought at one time that the boys were too affectionate towards them. (Laughter.) Such was not the case, however,—it was not necessary to go into details,—but they compromised the matter as best they could, and he might say that everything was going on as before. He then referred to the honorable, upright manner in which the Medical Faculty of McGill University had acted throughout this whole matter. He was sure that they would reap their reward for their action, and it was mainly for the purpose of showing their appreciation of their services that he and his friend Dr. Lavelle had come down to this gathering. He concluded by hoping that the good feeling which had always existed between the two Universities would continue in the future. (Applause.)

Dr. F. W. Campbell, Dean of the Medical Faculty of Bishop's College, also responded in a suitable manner.

Mr. J. H. Darey proposed the toast of "The Sister Universities."

Rev. Dr. Stevenson, in responding on behalf of Divinity, said he never knew any class of students, taking them as a class, that were so kind to the poor and suffering, as the medical stu-

dents, and referred to the great work which the medical profession had to do in the world.

Mr. J. J. Curran, Q. C., responded on behalf of the Law, and in the course of an eloquent speech, expressed the hope that McGill would always maintain the high reputation which she now enjoyed.

Mr. Alex. Manson responded on behalf of the Pharmaceutical Association, "The Hand-maiden of Medicine."

The following toasts were proposed and suitably responded to: "Our Guests," "The Class of '83," "The Freshmen," "The Ladies," and "The Press."

This terminated a most successful gathering.

TEACHING OF MATERIA MEDICA.

Before the close of the half session of McGill University preceding the Christmas vacation, a petition of first and second year's students was presented to the Faculty of Medicine. It stated that the class were dissatisfied with the course of lectures delivered to them by the Professor of Materia Medica; that these were diffuse and unpractical, and compelled those preparing for examination to spend a great deal of time in acquiring unnecessary details and minutiæ, time which otherwise could be better employed; that representations had already been made on that subject in previous years, but had not been followed by material alterations; that, under the circumstances, nothing less than the resignation of the Professor would satisfy the petitioners. A similar petition was likewise addressed to the Governors of the University. During the vacation the matter was fully discusssed by the Faculty, and upon the reassembling of the classes, the Dean made a formal statement of the conclusions arrived at. He said that the Faculty could not admit the right of a class of students to dictate how any subject should be taught; but that, at the same time, Dr. Wright had agreed to introduce substantial modifications into his course with a view of rendering it more practical, and containing fewer of the undesirable minutiæ, and that he would continue his lectures as hitherto. That, owing to the present disagreement, the Faculty had thought it well to apply to the Corporation for an Associate Examiner to

take part with Dr. Wright in the Spring Examinations. That, seeing the desire of the Faculty to do every justice to the petitioners, it was hoped that the students would loyally continue their studies as hitherto. We are happy to state that, at the present time, the classes are being attended, and the work of the various departments carried on, without further interruption. We do not wish to enter here into a discussion of the merits of this particular case. We are sure that the desire of the Faculty of McGill College is to have the teaching on the important branch of Materia Medica as thorough, practical, and up to the modern standard, as that from any other chair: and, though a completely satisfactory solution of the late difficulty may not have yet been reached, still we feel satisfied that the students may now safely leave their interests in the hands of the Faculty, certain that the interests of both are really identical.

MORTUARY STATISTICS.

The practical outcome of the recent meeting at Ottawa with reference to the collection of mortuary statistics throughout the cities of the Dominion has been the publication of the following regulations governing that matter:—

An Order-in-Council, under date of December 26th, has been issued at Ottawa, cancelling the order of the 12th of July last, in connection with mortuary statistics, and authorizing the following amended regulations to apply to the collection of statistics of deaths and their causes within the limits of the following named cities or towns, and others having a population of 25,000 inhabitants or upwards, according to the census of 1880-81, that is to say:—Montreal, Toronto, Quebec, Halifax, Hamilton, Ottawa, St. John, N.B., Charlottetown, Winnipeg, Fredericton, and Victoria, B.C., to which neighboring localities may be added from time to time, or to such other cities, towns or localities, or joint cities, towns and localities, whenever, by experience, it will appear that the system is satisfactorily worked, and when sufficient means are granted by Parliament for that purpose.

In pursuance of section 31 of the Census and Statistics Act of 1879, the system involved in the following rules, regulations and forms may be put in operation in each of the above-mentioned cities by the Minister of Agriculture, whenever it is satisfactorily demonstrated to him that there is in existence for the said city a local "Board of Health" to which is attached a permanent

salaried medical officer, whether such "Board of Health" and "Sanitary Medical Officer" are appointed and paid by the corporation of the said city or by the Provincial Government, or in any other way provided by the local laws or by-laws; and on the further condition that the application of the system to any city can be withdrawn by the Minister of Agriculture for inability or negligence to carry it to such degree of accuracy as is necessary for the purpose intended.

The Minister of Agriculture may make out of the Parliamentary grant an allotment equal to one cent for every individual unit of the population, in favor of each of the cities aforesaid, in order to defray the expenses of collecting the said Mortuary Statistics, to be paid by monthly instalments or otherwise, and such allotment may be withdrawn in case of unsatisfactory working of the system.

The Minister of Agriculture may, if he deems it necessary, add to such allotment, for every one of the said cities, a lump sum not to exceed $400 in any case, to assist the local authorities in their procuring the necessary information of Mortuary Statistics, and may withdraw the granting of such lump sum.

Pursuant to section 30th of "The Census and Statistics Act of 1879," the Governor-General in Council will, whenever one or more or all of the said cities have complied with the requirements hereinbefore stated, appoint the Sanitary Medical Officer of the local Board of Health a statistical officer for the collection of Mortuary Statistics, from the local records, which appointment may be made to terminate for reason of unsatisfactory working of the system.

The salary of the statistical officer aforesaid shall consist of twenty-five per cent of all the sums allotted as aforesaid to the city for which he is appointed; which salary shall be paid to him by the Minister of Agriculture.

In case of epidemics or endemics, or in the case of contagious or infectious diseases threatening or breaking out, the Minister of Agriculture may cause special investigations to be made in any locality, by any or several of the said statistical officers, and regulate and defray out of the parliamentary grant the cost of such investigations.

The Minister of Agriculture may request the statistical officer to supplement the numerical returns by such statements and information as relate to the various medical and other questions relevant to the subject of accidents, crimes, diseases and public health as causes of deaths reported by the Mortuary Statistics as aforesaid.

BODY-SNATCHING.—One can hardly take up a Montreal newspaper without finding some reference to recent body-snatching embroglios. The public are much excited upon the subject. In country parts burial of deceased relatives is effected upon private property where the remains can be watched, not in the graveyards—and much ill-feeling towards the entire class of medical students is naturally engendered. This is a very disagreeable state of things. Where does the responsibility for it rest? It rests with those who obstruct the operation of the Anatomy Act. If this law were enforced, the schools would all be amply supplied, and such a thing as body-snatching would be unheard of. We hope the Provincial Government will give this matter some attention, and, if possible, devise some means for the efficient carrying out of their own Anatomy Act. If they do this they will remove a crying evil, and a great public scandal.

TORONTO GENERAL HOSPITAL.—Improvements are still the order of the day in this model institution. New floors have been laid in many of the wards, and the walls calcomined. A convalescent building is in course of completion, consisting of two large wards, which will be used as day rooms. A large conservatory is attached. The Christmas decorations were even more beautiful than last year's. We do not remember to have seen even in London such elaborate and tastefully arranged hospital decorations. Having done so much for the comfort of the patients, the trustees should now think of the students. The theatre must now be very crowded, and quite incapable of comfortably seating 275 men, the number now in attendance. A reading-room and library, such as exist in many American hospitals, would be greatly appreciated by the students.

HAMILTON CITY HOSPITAL.—We had the pleasure of visiting this new Institution last month. It consists of two pavilions, with with a central administration building and a small detached ward for contagious diseases. Each pavilion has two large wards, pleasant day rooms, and nurses' quarters. For their length, the wards seem rather low and narrow, but the ventilation is excellent, and the general arrangements everything that could be desired. In the upper part of the central building is the lying-in

department, and rooms which can be used as private wards. When full, the hospital accommodates about 100 patients. The old building is used as a House of Providence. Dr. F. E. Woolverton is still the House Surgeon.

PRIVATE ASYLUM FOR ONTARIO.—Mr. Langmuir, late Inspector of Prisons and Charities, and Dr. Stephen Lett, of the Toronto Asylum, are about to establish a private asylum for the insane at Guelph. They have secured the house and property of Mr. Norman Guthrie, which is admirably adapted for the purpose. The accommodation will at first be limited to fifty, but ultimately the proprietors hope to enlarge the premises so as to receive at least one hundred patients. The well known executive abilities of Mr. Langmuir, and the professional skill of Dr. Lett, will certainly make the institution a success, and we bespeak for it the good wishes of our colleagues.

KINGSTON MEDICAL SCHOOL.—The troubles referred to in our last issue have been settled, and the Faculty has agreed to give the lady students a separate course of lectures. Co-education in Medicine has proved, and we believe always will be, a failure. By all means let women have every facility for studying the learned professions, but in medicine let the teaching be in separate institutions such as are now so successfully conducted in New York and London.

—The will of the late David J. Greenshields leaves $40,000 each to McGill University and the Montreal General Hospital. In the best interests of the city at large, it is to be hoped that this noble-hearted and well-directed charity towards our greatest educational and benevolent institutions will prove an example to others well worthy of imitation.

—As we go to press, the news reaches us of the death of Joshua Chamberlin, M.D., of Frelighsburg, at the advanced age of 84. Dr. Chamberlin was probably the oldest practitioner in this Province, and was much and deservedly respected. An obituary notice will appear in our next number.

—The *Canadian Journal of Medical Science* has, very wisely, we think, changed its name, and will henceforth be known as the *Canadian Practitioner*. Our ably-conducted contemporary also appears in somewhat new and improved form. We wish the *Practitioner* every success.

— The New York *Medical Record* has lengthened its pages, and somewhat altered its appearance. This move will, of course, give more reading matter; but we do not take kindly to the elongated visage of the paper, and are afraid that those who bind it will have to reserve a special shelf on which to place it, as it stands some two inches taller than the London *Lancet* and such like volumes.

Personal.

Dr. Wm. Grant, of Perth, has gone over to the Benedicts.

R. C. Moore, M.D. (McGill, '69), of Exeter Ont., is about to remove to Minneapolis, Minn.

Richmond Spencer, M.D. (McGill, '79), of Brandon, has been in town for a few weeks.

Montrose A. Pallen, M.D. (McGill, '64), has resigned the Chair of Gynæcology in the Post-Graduate New York School, and has gone to London.

We were glad to have a visit from our friend J. W. Whiteford, M.D. (McGill, '73), of Winnipeg.

F. F. D'Avignon, M.D. (McGill, '71), was in town for a few days this month. He is in practice at Leadville, Col., and gives a glowing account of the progress of the city in the past few years.

W. H. Howey, M.D. (McGill, '78), of Delhi, Ont., has been appointed one of the assistant surgeons on the Eastern Division of the C.P.R.

Richard Whiteford, M.D. (McGill, '57), has been appointed Professor of Physical Diagnosis and Diseases of the Chest in the lately organized Toledo Medical College. We congratulate Dr. Whiteford on his appointment, and the Faculty in having secured so able a coadjutor.

Wm. McEachran, M.D. (McGill, '79), V.S., has gone to Winnipeg, where he intends to commence practice as a Veterinary Surgeon. Dr. McEachran has been one of the lecturers at the Montreal Veterinary College for the past three years, and has but recently returned from Nova Scotia, where he has been Government Inspector, investigating the Pictou cattle disease. We wish the Doctor every success in his new home.

J. B. Lawford, M.D. (McGill, '79), is at present acting as one of Dr. Savage's assistants at Bethlehem Hospital, London.

He was for some time Mr. Nettleship's assistant in the Ophthalmic Department of St. Thomas' Hospital, and we are glad to see that he has been doing good work in this line. The report of this department in the St. Thomas' Hospital Reports is from his pen, and at the meeting of the Ophthalmological Society of Great Britain, on the 14th ult., he read a paper on "Central Amblyopia in Diabetes," and exhibited sections of the optic nerve from a similar case.

Medical Items.

—We understand that Mr. Dyer, of the Branch of the Medical Hall on Phillip's Square, has recently assumed the entire ownership of that well-known establishment, which he has so long and successfully managed.

—Dr. Thomas Payne died in Huron County on the 2nd inst. He was Registrar of the College of Physicians and Surgeons of Ontario from 1872 to 1880, and was succeeded by his son, Dr. R. A. Payne, the present Registrar.

—The death of Von Bischoff removes one of the last of the older anatomists and physiologists of Germany, He was best known as the author of an important work on "The Development of Mammals." He held chairs successively in Bonn, Heidelberg, Giessen, and Munich, and died in the latter place on the 5th of December, aged 76.

—Duncan McGregor, M.D. (McGill, '61), died in Winnipeg on the 3rd inst., after a short illness. For many years he practised with great success in Chatsworth, Ont., and only removed to Manitoba in the spring of last year. He was a jovial, kind-hearted man, and very popular with his patients and professional brethren. He was a native of Glengary, and studied medicine at McGill, where he graduated in 1861.

—Professor Burdon-Sanderson has been elected to the Waynflette Chair of Physiology at Oxford. This will be a serious loss to London, and particularly to University College, the scene of his labors for the past ten years, and where he has done so much to advance the teaching of Physiology. Fortunately for the school which he has left, there is a man on the spot worthy to be his successor—Mr. E. A. Schäfer, F.R.S., the Assistant Professor, one of the few men in England who has devoted himself exclusively to Physiology. A favorite pupil of Sharpey's, an able and original investigator, a trained and successful teacher, his appointment to the vacant chair will be hailed with satisfaction by all old University College men and the profession at large.