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PERFORATION IN TYPHOID FEVER.

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THIS accident is so frequent a cause of death in typhoid fever that it merits our most serious consideration. In recent years, operation has resulted favorably in so many cases that there is good reason to look for much more favorable results as the conditions become more thoroughly understood and the necessity for prompt action better realized.

The frequency of perforation varies considerably in different seasons, just as does the severity of the disease itself. It occurs in about one and a half to three per cent. of all cases of typhoid fever. In the Toronto General Hospital during the last two years the number has been 5 in 240 cases, nearly 2.1 per cent. There were in all twenty-five fatal cases, 10.4 per cent., so that perforation occurred in 1 in 5, or 20 per cent. of the fatal cases. This is considerably higher than the general average percentage of reported cases. In 4,680 autopsy reports examined by Fitz, perforation occurred in 6.58 per cent., and in 2,000 autopsies at Munich there were 114 perforations, 5.7 per cent. However, in the Johns Hopkins series perforations occurred in over 30 per cent. of the fatal cases.

Without studying our own statistics, we can scarcely realize how frequently this calamity overtakes our patients, at least we will find it difficult to have before our minds in each case we see the risk of perforation in that individual case, and in the event of the accident occurring that his life will probably depend on its early recognition, as only in prompt action on our part lies any hope of saving his life.

The character of the perforations is variable and has a marked bearing on the symptoms. First, the perforation may be large, owing to the slough extending through the bowel including the peritoneal coat. Then, as the slough separates, the intestinal contents escape early and freely into the peritoneal cavity and there is rapid diffusion of infection throughout the cavity by means of the lymphatics. More frequently, separation of the slough is delayed; in that case the diffusion of infection is also delayed so that the symptoms of peritonitis are at first local and correspondingly milder. *Secondly*, from extension of the ulcerative process through the peritoneal coat the perforation may occur as a single

small opening, usually at the bottom of a small ulcer formed by the destruction of a solitary gland; or a number of small cribriform openings may form at the base of a sloughing Peyer's patch. In such cases the peritonitis will usually be localized at first, and become rather slowly diffuse. A *third* form is described; after the sloughing and ulceration has extended to the subserous tissue rupture of the serous coat may result from various causes such as the tension of peristalsis excited by irritant contents as milk curds and other undigested food; pressure on the abdominal contents during straining at stool or by external pressure; injury by coarse particles in the contents of the intestine, as the outer coat of grain in unstrained gruel, etc. In these cases, the opening being large and suddenly formed, the intestinal contents escape rapidly and widespread infection of the peritoneum quickly follows.

In the next place, the symptoms of perforation vary according to the situation which the perforated bowel occupies in the abdominal cavity. The nearer it lies to the central part of the abdomen the more fulminating will be both the local and constitutional symptoms. Owing to its proximity to the central nerve structures in the abdominal cavity, the pain will be more sudden, extreme, and diffuse, so that it will give no indication as to the seat of the lesion. We meet with cases of appendicitis from time to time with symptoms of a similar character; in such cases the appendix extends far inwards into the umbilical region, and when it ruptures or becomes suddenly gangrenous there is sudden and virulent peritoneal infection. A similar condition may result from rupture of a septic gall-bladder. Any of these accidents will be rapidly followed by meteorism and spasm of the abdominal muscles. Shock will be extreme and sudden in development. Furthermore, owing to the great vascularity of the central portion of the peritoneal cavity, great facility is afforded for absorption, consequently toxæmia takes place with extreme rapidity. On the other hand, the nearer the perforated bowel lies to the periphery of the abdomen the more focal will be the attendant phenomena, and the more accurately can it be localized by subjective as well as objective symptoms. In such cases, the local and constitutional symptoms are both milder and more gradual in development.

Perforation may occur in any kind of case, even the mildest ambulatory one, but, in common with other accidents, it is much more frequent in the severe cases with active abdominal symptoms such as diarrhœa, meteorism and hæmorrhage—all symptoms of extensive and deep ulceration. This greater liability to perforation in diarrhœa cases is well shown in the Johns Hopkins Hospital service, in which the accident occurred in twenty out of one hundred and fifty-seven cases with diarrhœa—12 $\frac{2}{3}$ per cent., as against ten in six hundred and seventy-one non-diarrhœa cases, 1 $\frac{2}{3}$ per cent. Our own experience is similar; in four

out of the five cases there was marked diarrhœa—in some of them—caused by the daily administration of purgatives; in the fifth case sent into the hospital after perforation occurred there was moderate diarrhœa and slight hæmorrhage. It is probably a matter of indifference so far as the liability to perforation is concerned whether the diarrhœa is due to irritation of the bowel by the toxins of the disease, by irritating bowel contents from injudicious diet, or by purgative drugs. The symptoms depend not only on the situation and nature of the perforation, but also on the severity of the general symptoms and the degree of toxæmia. In those with much prostration and blunted perceptions the symptoms may be quite masked, especially if meteorism is marked, so that the occurrence of perforation cannot be more than suspected. In a *second* class of cases, rare ones in which there is much toxæmia but without mental obtuseness, the local reaction may be so slight that there are no abdominal symptoms to mark the occurrence of the accident, just as may occur in septic peritonitis from other causes—*e.g.*, strangulated bowel or gangrene of a Fallopian tube. In a *third* class, milder cases in which neither the mental nor physical perceptibility is much, if at all, obtunded, the symptoms are practically always frank. To this class probably belongs the majority of all classes of perforation; at all events, it is in these cases that there is at least a fair chance of recovery if treatment is prompt. Fortunately the great majority of cases of perforation occurring in this country, at least for several years past, belong to this class. Cases of extreme toxæmia with marked meteorism, profuse diarrhœa, muttering delirium, coma vigil, and subsultus tendinum are of rare occurrence.

If we examine the various works in medicine, large and small, we will find that the majority of writers describe the onset of the symptoms of perforation as marked by extreme severity—sudden acute pain, rigidity of the abdomen, some fall in temperature, acceleration of pulse, anxious facies and rapid onset of collapse. So far as my own experience goes, only a small minority of the cases show this extreme degree of disturbance. It is of great importance that we should appreciate the fact that the symptoms of perforation may at first be only few and moderate in degree; otherwise the condition will not be recognized at once and therefore proper treatment will be delayed. It will not be amiss to emphasize the fact that every minute's delay adds to the gravity of the condition and lessens the probability of recovery, one might almost say, in a geometrical ratio.

We know that the phenomena of typhoid fever may vary very much in different seasons or in cycles of seasons. A decade and two back, the disease in Toronto was marked by much greater severity than it has been of late years. In warm climates it is probably a much graver disease

than in our temperate climate. In consulting the Johns Hopkins Reports one is struck by the almost uniformly severe course of the disease in almost every case of perforation—high temperature, rapid pulse, diarrhoea, meteorism and delirium. We see few such cases; as already said, ours are nearly all of a much milder type, although often greatly protracted. Notwithstanding this, our percentage of perforation cases is nearly as high as in the more severe types.

Of the symptoms of perforation, *pain* is much the most important and constant. In the milder classes of cases that occur in this country, it is practically never absent. It may be the only symptom. It may be so slight that little complaint is made of it, even by a patient otherwise in good condition, but it is always persistent, and usually but not necessarily paroxysmal. This one character of *constancy* should be emphasized, as it stamps the pain as due to an organic lesion and not to functional spasm. Persistent pain is the only symptom I have never known to be absent in perforation of typhoid fever in the milder type of cases which we are discussing. Of course my experience is relatively small, but in it are two cases illustrative of the course in many others. The first was that of a case of ambulant typhoid in a man aged 48. He had been under treatment for a dyspnoea due to a syphiloma of the apex of the right lung. Three months later, after he had recovered from the dyspnoea, he sought advice for malaise and loss of appetite; no cause for it being apparent, it was thought to be due to the effect of the potassium iodide which he was taking. The drug was stopped. He did not report again for two weeks. When seen then he said he had had moderate pain in the abdomen for two or three days. He was found sitting in a chair, looking much distressed. There was fluid in the abdomen to the level of the anterior superior iliac spines. The abdominal wall was not tense, nor was there great tenderness. Death occurred next day and at the autopsy two small typhoid ulcers were found in the ileum and a perforation 1 mm. in diameter at the bottom of one of them.

The other case was even more instructive. It was that of a man aged 32, in the General Hospital a few years ago. His illness was moderate in degree, there was slight diarrhoea, but the abdomen was of normal appearance and his mental condition was quite clear. In the third week one afternoon while I was in the hospital, he felt a rather sudden, though not severe, pain in the lower part of the abdomen, but not distinctly localized. There was no tenderness or increased tension in any part of the abdomen, nor change in temperature, pulse, or respiration, or in the facial expression. He himself regarded the pain as of little moment. The instructions left were that he was to have plenty of water but no food nor any anodyne; he was to be closely watched and

his condition reported in three hours, sooner if he were worse, the intention being to have an operation done if even this moderate pain persisted. He was reported in the evening as free from pain, and concern regarding him was dismissed. On seeing him next day, there was no apparent change in his condition, but he said the pain still persisted. It was then found that through an unfortunate misunderstanding, morphine, grain $\frac{1}{4}$, had been given the evening before. His pulse was about 90 and temperature 102 F., the same as for some days previously. The abdomen was flat, quite soft everywhere, not tender nor presenting any abnormal condition. My colleague, Professor Cameron, saw him with me and we concluded that the persistent pain, though slight, must be due to an organic lesion and therefore almost certainly to perforation, and we decided to operate. An oval perforation, about 1 cm. in the long axis, was found about thirty inches above the ileo-cæcal valve and the coil of intestine in which it occurred lay down in the pelvis behind the bladder. The general peritoneal cavity was fairly protected by the filling of the inlet of the pelvis by other coils of intestine. By this time, however, twenty-six hours after the onset of the pain, and therefore after the occurrence of the perforation, infection had been carried up to the root of the mesentery by the lymphatics which were marked out by red striæ, and it was to this infection that the fatal result four days later was due. Had the operation been done early, as intended if the pain persisted, there is no reasonable doubt that he would have recovered.

These two cases clearly emphasize the importance of even slight pain, if persistent, notwithstanding the absence of all other symptoms and signs. The first case probably had no other symptoms and the second certainly had not.

The pain signifies local peritoneal irritation by whatever cause produced, whether with or without perforation. A variety of conditions may be concerned in causing the pain to be slight and in preventing the occurrence of other phenomena. The infective bacteria may possess little virulence; partial adhesions may circumscribe the area of infection and so delay, if it does not prevent, the diffusion of the infection in the peritoneum; the patient may possess a sufficient degree of immunity to inhibit the activity, if not arrest, the growth of the infecting bacteria; and further, some people are but little sensitive to painful impressions.

However, sudden persistent pain in cases of typhoid fever is not always due to perforation, as infection may occur without that accident. This was well illustrated in the case of a woman in the hospital lately; she was apparently suffering from typhoid infection. She had had a miscarriage two weeks before being received into the hospital. She was then suffering from a febrile condition which had existed probably from

the time of the miscarriage, but apparently not due to it. The leucocytes were only 3,900, the spleen was large and the Widal reaction was reported well marked. At 9.30 on the evening of the sixteenth day after parturition and the second after admission to the hospital there occurred a sudden pain, felt chiefly in the upper zone of the abdomen; it was persistent with fairly marked paroxysms. The abdomen was distended and somewhat tense, but an enema reduced it considerably. On seeing her an hour after the onset of the pain, the abdomen was rounded but quite soft in all parts; it was tender, especially in the upper zone; the spleen and liver were palpable; there was free sweating, especially of the face, which was slightly cyanotic and its expression haggard. The pulse was very frequent and weak, temperature 104 F., respiration rapid and shallow. The leucocytes were then over 11,000, and there was some fluid in the peritoneal cavity. Sudden acute infection of the peritoneum had evidently occurred, and, as she apparently had typhoid fever, perforation was the most probable cause of it, although of course infection may occur without perforation. Dr. Primrose saw her with me and we deemed immediate operation advisable, as probably giving her the only chance of recovery, although the outlook was anything but favorable. On opening the abdomen, some brownish serum was found in the cavity, the intestines in the upper part were decidedly congested, but the ileum, appendix, colon and pelvic organs appeared healthy to the hurried examination that had to be made, as she was bearing the anæsthetic badly. She recovered well from the operation and was somewhat better next day, but died the day following. An autopsy was not permitted. The diagnosis is quite uncertain. There was no history of a previous attack of typhoid fever, so that the low leucocyte count and the Widal reaction were strongly suggestive, although not conclusive evidence of typhoid infection. However, that does not discount the value of persistent pain as a sign of peritoneal irritation; it is important to note that in this case it was not attended by any tension of the abdominal muscles.

Even in some graver cases of perforation the symptoms are not very marked nor their development rapid, although the pain is usually of sudden onset and persistent; other symptoms often appear gradually. In a lady, aged 65, seen lately, the symptoms were not severe. Moderate persistent pain began suddenly, was later followed by some distension of the abdomen and slight tension of the muscles, chiefly in the right lower quadrant. There was some tenderness in all parts of the abdomen, but somewhat more marked in the same region. The pulse and temperature had not been disturbed; the general appearance had not been altered much and there was no sweating of the face or elsewhere. An operation was done as soon as possible. The peritonitis was slight and confined to the cæcal region, yet the abdominal tenderness had been general. In

the ileum was found a large slough extending through the peritoneal coat, but as yet not separated. This accounted for the moderation of the symptoms and their gradual development. The sloughing area was turned inwards and the wall of the bowel stitched over it. The rest of the bowel seemed in good condition. She did very well for two days, when there was again a rather sudden accession of pain, vomiting, increased distension and prostration; this was considered to be probably due to fresh infection at the sutured surfaces. She died two days later; at the autopsy the sutured peritoneal surfaces were found united and in good condition; a short distance above this part were two fresh sloughs similar to the first one. Without these additional perforations she should have made a good recovery. It is but another illustration of one of the many pitfalls besetting the path of even the most promising cases of perforation.

I have purposely restricted my remarks to the more moderate cases in which the patient's perceptions are sufficiently clear to appreciate anything that causes discomfort and to complain of its occurrence—by far the largest class met with in this country. In them pain is the one symptom that may be said to be never absent; it may be only slight, but whether severe or slight it is with very rare exceptions *persistent*, and therefore not due to functional disturbance; other symptoms usually follow, but more gradually. Of these, abdominal tension, localized or general, is the most common and important. It may, however, be so slight as only to be appreciated on careful examination.

Recently, increase in blood pressure has been found to occur in all cases of peritonitis. I have no doubt of the correctness of the observation, although I have not had the opportunity of testing it.

The value of leucocytosis in the diagnosis of perforation is very great. Leucocytosis begins promptly with the occurrence of perforation or of peritonitis from any cause; this was shown well by the case above referred to, in which at the operation no perforation was found. In some cases, probably only in those in whom toxæmia is marked, the leucocytosis may disappear very early, so that its absence will not exclude the possibility of perforation.

In these milder cases, there are probably seldom any disturbance of the pulse, temperature or respiration, and with such moderation in the symptoms general depression would be gradual and collapse a late phenomenon if it occurred at all. Some of these milder cases are probably due to typhoid perforation of the appendix.

My own views as to our duty in these cases of perforation are perhaps best illustrated by the regulations governing the management of cases under my care at the Toronto General Hospital. Any case of typhoid fever in which pain occurs is to be reported at once to the house

physician, who makes an immediate examination. A complete record should be made of the condition and all changes noted as they occur. If the attack of pain is unmistakably due to perforation, or even if there is good reason to fear that such is the case, immediate notice is to be sent to me and to my surgical colleague, the aim being to have an operation done immediately so as to prevent peritoneal infection. So important is immediate operation that it is better done at once even by a member of the house staff rather than wait unduly long for the services of one of the surgical staff.

In mild cases in which there is only a possibility of perforation having occurred, the patient is to be closely watched by the house physician. All food is to be stopped, no anodyne of any kind is to be given, but water is allowed to be taken freely. If the pain persists for an hour or so, then notification is to be sent out as in the undoubted cases.

There seems to be no doubt that it is imperative to act at once when symptoms of perforation occur in these milder forms of typhoid fever. I think this is imperative even in the cases occurring in out-of-the-way places where expert surgical aid cannot be promptly obtained. Three of Shattuck's (Trans. of the Assoc. of Amer. Phys., Vol. XV., page 111) cases were such as should have recovered had they been operated on early. He says they show that fatal peritoneal infection may occur within one or two hours after perforation. However, these must have been cases in which the infective organisms were extremely virulent. In other cases, on the other hand, recovery follows operation done after general peritonitis has occurred; in these cases the infection must be less virulent and the immunity of the patient may be greater. Similar results follow non-typhoid perforation of other organs, notably the appendix. Every physician should be quite prepared to operate himself under such circumstances. The operation is not so difficult that a capable physician should not be able to deal with it practically as efficiently as the most expert surgeon. The chances for the patient operated on immediately by the physician are very much better than for those in whom operation is delayed for a few hours in order to procure the assistance of even the most capable surgeon. No doubt such prompt action in country places where capable assistance is not available entails grave responsibility on the physician in charge. In many cases the diagnosis cannot be made with absolute certainty, but fortunately even if there is no perforation an operation in most cases does not seem to be followed by material injury to the patient's condition. Under the most favorable conditions only a moderate percentage of the cases recover and the physician who operates promptly may be blamed by the friends for the fatal result. Notwithstanding all this, in a case with symptoms strongly indicative of

perforation, it is a risk and responsibility that he cannot well evade if he is to do his whole duty.

When there are decided symptoms present there can scarcely be a question that it is in the patient's interest to accept the danger of an unnecessary operation rather than the infinitely greater one of a perforation left untreated; the former is attended by more or less danger, while the latter is practically hopeless.

In the cases of profound toxæmia or marked typhoid state in which there has been great prostration with meteorism, delirium, and diarrhœa, perforation is often accompanied by early and marked collapse. In these cases it may be questionable whether operation should be done before the symptoms of shock have at least partially passed off. In such cases either course is beset with difficulties; on the one hand if we wait for shock to pass off there is the danger of peritoneal infection spreading widely, and on the other hand, immediate operation may cause a fatal termination through shock. Each case will have to be determined on its own merits, but even here I think that with rare exceptions it is in the interest of the patient that immediate operation should be done, as the danger from peritoneal infection that follows so rapidly on perforation is probably a greater menace to life than is even the shock. In these severe cases, even with immediate operation, the percentage of recoveries will always be very low.

In order to carry out such prompt treatment in cases of perforation it is necessary not only that each case shall have the attention of a well-trained nurse, but also that the services of the physician shall be at once available when required. It is difficult to make the public appreciate the necessity of such vigilant expert attention, especially as it will materially add to the expense in caring for each individual case.

As the accident occurs in only about 2 per cent. of cases, the liability to it in any given case, especially if running a mild course, is easily overlooked even by the physician, so that the public can scarcely be blamed if they fail to realize the danger. It is, however, essential that the physician has a clear appreciation of all the dangers that beset the path of even the mildest case of typhoid fever.

151 Bloor street west.

THE TREATMENT OF CHRONIC HEART DISEASES.

By Professor THEODORE SCHOTT, Nauheim, Germany.

ALLOW me first to thank you for your kindness in asking me to address you. I will now endeavor to lay before you some few particulars of my experience in connection with chronic diseases of the heart.

Hardly twenty-five years have elapsed since it was believed that there were only two remedies for chronic diseases of the heart, namely, rest and digitalis. When these two methods failed, all was over, so far as medical treatment was concerned. If the heart was strong enough to stand the drug, a cure might be effected, but chronic diseases of the heart were neglected, more or less.

Not more than twenty-five years ago three methods appeared, nearly simultaneously, but, I would point out, entirely independently, of each other. These were the Oertel cure, the Swedish method, and the balneological-gymnastical method of my late brother and myself.

I may speak first of the Oertel cure, which has been a powerful incentive to renewed research. Still, in the main, Oertel's theory concerning the limitation of the supply of liquids proved to be erroneous. Mountain climbing is only useful in a limited number of cases of heart affections, and should really be resorted to towards the end and not at the beginning of the treatment.

The Swedish method is principally used in the form of Zänder's mechanical contrivances. These do not, however, render the patient independent either of his momentary physical condition or of continued medical supervision. They are useful, nevertheless, wherever the cost of the apparatus and that of running them do not come into consideration. Of course it should never be overlooked that with Zänder's machinery the patient is dependent upon time and locality, and above all, that it is a very difficult matter, to attain a precise degree of individualization in the measurement of the resistance. The machine may be set so as to suit the patient to-day, but the adjustment of the resistance is all wrong for to-morrow. In this way the element of time and the condition of the patients render it necessary that they be constantly under the observation of the physician. When the machine is set to a given resistance, to overcome this may be too much for these patients if the heart action becomes weaker.

Mention may here be made of many drugs that have a marked effect on the heart's action, such as nitro-glycerine, strychnia, digitalis, etc. These remedies are not to be entirely disregarded. Morphine has a decided effect in reducing the frequency of the heart's action, and is useful in some cases of tachycardia, but the effects must be closely watched.

The method of physical exercise, as a treatment for chronic heart diseases, is rather old, beginning with a method which was thought most highly of for a short time. A Dublin physician, Stokes, was of the opinion that persons suffering from heart disease, and more especially from fatty heart, should be prescribed mountain climbing, to cause a return of a sufficient muscular action of the heart. The idea was soon

forgotten until it was taken up by my late brother, August Schott. The method had three points: to strengthen the heart by walking, to remove the fluid from the blood, and to modify arterial pressure.

My brother and I have discovered that the removal of the fluid from the blood does not add to the strength of the circulation. In dealing with fatty hearts especial care must be taken. It is not so much to decrease the amount of fat but to increase the muscle. A loss of from 40 to 50 pounds in from four to six weeks might also be wise, but a small loss of weight coming from lack of nourishment might be accompanied by danger.

Electricity, massage, and other mechanical devices have been employed in the treatment of chronic heart affections. A moderate amount of massage may be very helpful to the circulation, stimulating the blood flow and regulating arterial tension.

My late brother and I carefully combined with the gymnastic method that of baths. From these most beneficial results have been obtained - many absolute cures. I wish to point out to you how we proceeded and to consider some of the principal points, namely, how to promote the action of the fatty heart.

It is very important to obtain an action of the heart strong enough to force out all the fluid, as until it is forced on, the heart makes rapid, ineffectual efforts to force it out. This would account for the increased pulse rate. The effort to eject the fluid often produces hypertrophy, or hypertrophy with arterial tension.

In cases of increased tension in the arterial system, where the sphygmomanometer shows frequent pulsations, systolic and diastolic prolongations, and long, weakened respiration, I will show that the bath and gymnastic treatment is of the utmost value, and is specially useful if there be chronic myocarditis and it is necessary to relieve the vascular tension.

The effects from the baths are the most lasting, while those from the gymnastics are the most rapid. The medical man in making a diagnosis should always endeavor to examine the size of the heart and take particulars. It may be difficult to get the patient to be in exactly the same position at a subsequent measurement and in that way errors may occur. By auscultation weak sounds often become more apparent, the more pronounced may be changed into divided sounds, and some which were not audible become so. If palpation shows that the apex rises upwards and inwards, it is a sign that the size of the heart has been reduced.

As you observe the tonifying result of the gymnastics, digitalis may be prescribed and the dangers of any injurious effects may be easily

avoided. As the organ becomes stronger the blood becomes better oxygenated and a better muscle builder.

With regard to the baths, let me begin by stating some things which must be noted. The patient should be most carefully watched. The baths should be administered first at a temperature of 93 degrees F. They should not exceed 95 degrees, or the tonifying effect will not take place. The patient will first feel a sensation of warmth as long as he remains in the bath. Some feel chilly in a little while, on leaving the bath. This should be avoided. It shows the bath was too long continued. The water in the baths is condensed from the spring. At Nauheim it is kept in reservoirs and thus the carbonic gas is kept. It averages about 1,000 c.c. of free carbonic gas. This is what constitutes the change from the saline to the effervescent bath. The water for these should be at a natural temperature from 86 to 96 degrees, with 2,000 c.c. of carbonic gas. In some cases three or four baths may be given, but the baths should not be prolonged for more than 20 minutes. The patient should then be rubbed to a glow, put in bed and allowed to rest there for an hour. A strict supervision should be kept over the patient and careful notes should be taken.

The water for this bath should be at 86 to 90 degrees, just as used in ordinary life. The water as it contains carbonic gas by the heat of the body becomes effervescent and the carbonic gas penetrates rapidly through the skin.

My brother and I have published what may be employed to make the artificial Nauheim baths. A good bath may be made by putting 7 pounds sodium chloride, 10 ounces calcium chloride, half a pound sodium bicarbonate, and 12 ounces hydrochloric acid 25 per cent., in 40 gallons of water at 95° F. This produces free carbonic gas in quantity. Stronger baths may be employed as the patients gain in strength. At first the baths should be simple saline solutions, such as sodium chloride, 5 pounds, and calcium chloride 8 ounces to the same quantity of water.

With regard to the gymnastic exercises, I wish to say that no definite rules can be laid down, they must be made to suit each case. It is not to be considered, however, that each patient must be treated differently, but each must be carefully supervised. A certain amount of knowledge is presupposed, if it be not present at first it can be easily and gradually acquired. It would be well to train a member of the family in the exercises, so that the patient can at all times have the advantage of the assistance. The first class of exercises admit of assistance by the attendant, while the later ones bring in self resistance. These exercises are carried on for some days. No new exercises are to be undertaken until the pulse is lower. The treatment has yielded most favorable results in the hands of medical men in America.

There are many things to be observed, the heart should be most carefully observed in all cases where digitalis has been used. We sometimes use it in connection with the bath and exercises.

The first exercises, as said before, are done with the assistance of an attendant. Then come those bringing into play resistance on the part of the patient. These are of great advantage to the patient and are to be concluded by mountain climbing which not only employs the muscles but has a powerful effect upon the heart. An excess of muscular action may lead to rupture, embolism and apoplexy. In these resistance movements one set of muscles is made to oppose another set, and are performed by the patient with or without the aid of an assistant.

In cases of well developed myocarditis and arterio-sclerosis, its effects are to be considered carefully; and, with or without carbonic acid baths, good results can be obtained, but the method is sometimes dangerous.

It is inadmissible that exercises will offer as good results as bathing and gymnastics combined. Under the latter treatment, an unusually high blood pressure moderates; and where there is a low blood pressure it is increased.

Ice packs, etc., are also a good means for quieting the pulse; and in cases of high tension good results can be obtained by the use of an india rubber bag filled with hot water. This may be applied and shifted over the entire area of the heart and chest. The result of such action is to quieten the action of the heart. The heart can be reduced in size, but this subject should require a separate paper in order to do it ample justice. I only wish to add that the combined treatment is a strong agent which may easily be dangerous.

No large amount of effervescent liquid or large amount of food should be taken, as that would tend to embarrass the heart's action. The use of tobacco in such cases may prove injurious and should be either moderated or stopped entirely.

HYGIENE IN PUBLIC SCHOOLS.*

By C. J. FAGAN, M.D., Medical Health Officer for British Columbia.

IT is with a feeling of great diffidence I stand before you to deliver an address. I have no pretensions to literary merit and must crave your indulgence and consideration for the few rudely expressed ideas I propose to advance.

We all sympathize with honest and strenuous efforts in any line directed towards bettering the human race, and of all such efforts I do

* An address delivered to the Teachers' Convention, January 8th, 1907.

not know of any of very much greater public utility than the end and purpose of that large and comprehensive training, which you, as teachers, are privileged to bestow.

Humanity, in its mental or nervous construction, is as varied as it is in its physical aspect, in the fact that no two persons are identical. Hence, probably, the expression "it takes all kinds to make a world." To some persons work is natural, but to most of us it is not pleasant till the taste is acquired, then with some it becomes one of the strongest tendencies of their nature, for the developed and active brain requires its accustomed exercise, just as much as the active and developed limbs need theirs. But the apprenticeship in ninety-nine cases out of one hundred is not pleasant, and perhaps there is no one respect in which the importance of early training is more deeply felt. Men may supply, well or ill, in later life, the want of acquired knowledge; they may accommodate their habits and thoughts to the necessities of a changed position; they may develop their natures in ways wholly unexpected; but one defect, I believe, can hardly ever be made good when the time of youth and early manhood is past—or, if made good, it can be so only as a result of painful and exceptional effort; the want, I mean, of habits of steady application and industry. These are hard at any age to acquire, but there is this about them, that once acquired, they are not easily lost.

Here, then, teachers, is my first suggestion—impress it by precept and example on your children and you will be remembered with gratitude by them when the voyage of life has been entered upon in earnest.

But, ladies and gentlemen, work is all important, is necessary; indeed, I do not believe that the unemployed man, however otherwise irreproachable, ever was or ever can be really happy. Yet, we must remember that many careers are stunted (or, indeed, may be ruined) by strain, either of mental or bodily powers. This results from many causes, and teachers who from want of good judgment or carelessness or any other reason, fail to recognize conditions, are failures as teachers.

The first cause of overstrain is mental or physical deficiency, as compared with others more highly favored, and any teacher who attempts to accentuate the difference by holding up to personal ridicule assumes a terrible responsibility. The result of such action is want of self-confidence, self-respect and consequent sulking, or work in nervous, frenzied haste, which eventually leads to being overwhelmed and put completely out of depth. Here is where a fearless and wise teacher might distinguish himself. He may earn the censure of his superintendent—he may fail in his general results as declared in the public press—but if he cut in two the prescribed curriculum, he will probably save a career and make the foundation for a more than ordinary useful citizen.

We have often heard of men crushed in youth by excessive mental strain; we know this to be true; but I believe that nine times out of ten this is the result of mismanagement.

I doubt whether honest work, judiciously portioned out and steadily and regularly carried on, ever hurt anybody, but I do most certainly believe that the present day tendency to cram down all and every kind of knowledge is fatal to most of our young people; less than half the prescribed work, absolutely understood and thoroughly mastered, would give useful and practical citizens, whereas students with a smattering of everything, but an actual, practical knowledge of very little, are inclined to over-estimate their capabilities, and lead them, when men or women, to seek positions for which they are absolutely unfitted.

As accurate habit of thought and expression is one of the very rarest acquirements. It implies a good deal—carefulness, close attention to details, a certain power of memory, and the habit of distinguishing between things which are alike but not identical. Here is the distinguishing mark of good and faulty teaching, of real and unreal learning. The best thing is to know nothing about it, and to be aware that you know nothing; the worst is to know a little, and to know that little vaguely and confusedly.

There is another point to which I would like to direct your attention. Teach children to know what powers they possess, and teach them to use these powers. The powers of intellect, of conscience, of love are great; for what can equal a clear thought, a pure affection, a resolute, conscientious act? These powers are the greatest gift of the Almighty, and their development and guidance ought to hold first place in the teacher's mind. They cannot be taught as Geography or Euclid is taught. A knowledge of what can be done by reading, and by the interchange of ideas with others, is of the most overwhelming importance. In this country everyone has means of improvement, of self-culture. To teach children to use these means is to render them the best service they can receive. I know many fear to propose to themselves improvement by the false notion that the study of books is the all-important and only means; whereas the great sources of wisdom are experience and observation; but to use these with benefit the individual must be trained to earnestly bring into play his reason controlled by truth and justice.

I fear I have already trespassed too far on lines that might be considered foreign to me as health officer, but I did so because I know the trained mind governs the body so rationally, that natural healthfulness is given every opportunity to expand and develop.

We all have heard over and over again the almost now hackneyed saying, "*mens sana in corpore sano*," but how many apply to this their reasoning powers, how many draw deductions and act on them? Do

you teachers? I leave the answer to your conscience and will proceed to discuss some health principles.

Man's health is a precious gift. Its loss causes injury and harm, not only to the individual person, but also to the community.

The individual whose health is impaired feels discomfort or pain; he loses the power for working, the ability for earning money and of enjoying life. He is compelled to spend his time, and often what money he possesses, in search of health; in short, sorrow, misery and distress for himself and his family may be the results of bad health.

The community, besides being a loser through the diminution of the working power of the individual citizen, has to bear a material, financial burden for the support of the indigent sick in case of danger to their neighbors.

Were we to make an estimate of the economic losses caused by illness, which are capable of being prevented by the observance of simple sanitary rules, I think some of our political economists would be astounded; yet we rarely hear of such persons advocating the enactment or enforcement of sanitary laws; and if we do, we always find that the great objection advanced to sanitary undertakings is that "it would cost too much."

The scope of the science of Hygiene is the preservation and promotion of human health; its task consists therefore first of all in the prevention, restriction and removal of sickness disease; in the conservation and prolongation of man's health itself.

No matter how we theorize as to the nature of man, we can at least distinguish two essential parts—mind and body, and however we speculate as to their essence and the mode of union, we know at least that all life-long they are linked together for weal or woe—they develop together, mature together, decay together, ever dependent on each other, reacting upon one another, sympathizing, suffering with each other. When we strengthen the body, we invigorate the mind; when we strain and neglect the body we strain and neglect the mind. It follows, therefore, that for the proper development of the individual, the body must be considered and cared for as well as the mind.

Recognizing the elementary principle of social economic law that the continued existence of a free country depends on the general intelligence of its people, the State has assumed the right to enforce the education of her future citizens. The State has also assumed the right to prescribe the kind of instruction that shall be given in the public schools, and has thus become responsible for the results of such education.

The trend of recent educational thought has been in the direction of encouraging the proper development of the physical body as an aid to mental advancement. It ought not to be considered that a boy or girl

is fitted to graduate into the world of business activity, if he or she has attained to a certain intellectual standing which is measured, by ability to procure answers to certain kinds of questions. The State pays large sums of money for educational purposes in order to qualify her citizens to hold their positions, not only in the race of man against man, but in the race of nations for superiority.

It has been pointed out by Herbert Spencer that the first requisite of success in life is to be a good animal, and that a nation of good animals is the first condition to national prosperity. Now what is the very laudable object of the State in establishing public schools? It is to insure the proper development of the individual so that each citizen may be in a position to advance the interests of the State, and thereby his own interests. According to nature's plan, body and mind develop simultaneously, not alternately. While bone, muscle and nerve are growing, the child is busy observing, testing, comparing, gaining a knowledge of his environment, and learning to think and reason. So the process goes on, but soon the child is sent to school. Is the same plan of development continued? Do teachers realize that education should look to physical as well as the mental needs of their scholars and that strong bodies are as essential to success in life as well-stored minds?

A CASE OF GENERAL SEPTIC PERITONITIS.*

BY JAMES B. COLERIDGE, M.D., Ingersoll.

MR. PRESIDENT and Gentlemen,—In response to the honor you have done me in asking me to read a paper before your society, I have prepared a report of a case of general septic peritonitis, which has occurred in my practice since my last visit to your city.

The patient, Mrs. P., aged 22, was the mother of two children. Her past history was negative, excepting that during the summer just passed she suffered from a symptom complex, which led me to suspect septic trouble in the uterus, but upon examination nothing could be ascertained upon which to base a diagnosis. There was no tumor or enlargement of the appendages, and the only information which could be elicited was a tenderness of the right ovary. She ran a typhoid temperature for about two weeks, when her condition improved, the temperature became normal and she was apparently well.

I saw or heard nothing more of her until about three o'clock on the morning of the 14th of November, 1906, when her husband came to my house, and stated that his wife was having severe pains in the abdomen.

* Read at a meeting of the St. Thomas' Medical Society, 12th February, 1907.

Being very tired, I gave him some morphia to take home, telling him that I would call in the morning. When I called at 9 a.m. I found her in a collapsed condition, with evidence of peritonitis. I decided to wait until she had recovered from a collapse, and, as she appeared better at night, I waited again. In the morning I called again and found general peritonitis, with all the concomitant symptoms. I made a diagnosis of general septic peritonitis, due to rupture or perforation of some viscus, possibly the appendix or tube, and advised operation, which was refused. By night she had become semi-comatose. She had persistent vomiting. The abdomen was like a barrel, pulse 130 to 140, and I urged operation as her only hope, in spite of the fact that another physician of excellent judgment was inclined to the opinion that she would die on the road to the hospital. However, we moved her to the Sanitarium in Ingersoll and, at one o'clock in the morning, I operated on her.

Not being certain of the initial lesion, I opened the abdomen through the right rectus muscle. Upon entering the peritoneal cavity, free sanguineous pus and fluid poured out. The odor was extreme. The intestines were everywhere inflamed and coated with plastic lymph. As rapidly as possible I brought up the appendix, only to find that it was normal, except in that it shared the peritonitis, which was diffuse. The ovary was practically gone. The tube was ruptured and pouring out offensive pus, and sanguineous fluid. No attempt was made to remove the tube, but the abdominal cavity was rapidly and gently flushed with hot normal saline solution.

The uterus was enlarged and she would appear to be about three months pregnant. This was borne out by her history, and it is worthy of note that, notwithstanding the seriousness of her condition and likewise of the operation, the pregnancy was not interfered with.

I placed a glass drainage tube in Douglas' cul de sac and one large drainage gauze, in the region of the tube, and another above to wall off the cavity. She was removed from the operating room to her bed.

She was, as you may see by the chart, in a very weak condition, although all possible dexterity was used in the operation; pulse, 142, scarcely perceptible. She was placed in the elevated head and shoulder position, the head of the bed being raised so that she lay on an inclined plane. The nurse was instructed to administer very slowly, but continuously, hot normal saline per rectum, and atropine and strychnia were given hypodermically. By 10 o'clock a.m. six quarts of saline had been administered in this way and absorbed and was continued until the third day, when it was no longer retained.

On the evening of the second day, five grains of calomel were given, in divided doses. She began to pass gas freely, and on the morning of the third day there was a free defecation. The gauze drain was removed in twenty-

four hours and, in subsequent dressings, the glass tube was used, to flush out the sinus with saline solution. Recovery was gradual, the odor becoming less at each subsequent dressing. The patient went home in three weeks well, with the exception of a small sinus which at the present time, twelve weeks after operation, continues to discharge a small quantity of pus.

The points in the case worthy of consideration are :—

1. The apparent hopelessness of the case ;
2. The method of doing the toilet of the peritoneum ;
3. Drainage ;
4. The fact that pregnancy was not interfered with ;
5. The elevated head and shoulder position ; and
6. The constant rectal administration of hot saline solution.

THE ONTARIO MEDICAL ASSOCIATION.

The Committee on Papers announces that the series of papers to be read at the next meeting, dealing with the relation of the profession and the public will be read under the following titles :—

1. The Medico-Legal aspects, by Dr. G. Silverthorn. This paper will take up the question of the appointment and remuneration of coroners; the selection of expert pathologists for autopsy work and proper remuneration; the present undesirable method of retaining experts in legal cases; a discussion of the present irresponsibility for the payment of fees in legal cases and a comparison of all fees with those of other countries.

2. The Public Health aspects, by Dr. J. W. S. McCullough. The need of the appointment of county health officers; compulsory vaccination; remuneration for the registration of births, deaths and infectious diseases and that attendance upon the poor should be remunerated by the municipality; the organization of the profession and how to deal with the peripatetic dead-beat.

3. The Ideals of Asylum work for Ontario, by Dr. C. K. Clarke.

4. The Infection of Drinking Water, by Dr. J. A. Amyot.

The following have promised, with some reservation at this early date, to discuss these papers: Drs. C.A. Hodgetts, R. Raikes, W. R. Hall will take up certain portions of Dr. McCullough's paper; Drs. Beemer, Burgess of Montreal, J. Russell and W. N. Barnhart, Dr. C. K. Clarke's; and Drs. Starkey of Montreal and W. T. Connell, Dr. Amyot's paper.

The Committee on Arrangements wishes to announce that there will be a smoking concert on the first evening, and on the second a dinner at one of the large hotels at which a distinguished guest will speak whose name will be announced later.

PROVINCE OF QUEBEC NEWS.

Conducted by MALCOLM MACKAY, B.A., M.D., Windsor Mills, Quebec.

The annual report of the Royal Victoria Hospital shows that 3,144 patients were admitted during the year, an increase of 351 over the previous year. There were 1,989 free patients, 1,021 public ward patients, paying 50 cents and \$1 a day, and 434 private ward patients. The average number of days' stay in the hospital per patient was 22.04 as against 23.07 the previous year. In the out-patient department the total number of consultations was 29,403, medical 10,085, surgical 861, eye and ear 3,853, nose and throat 5,434, diseases of women 1,390.

The following appointments were made to the staff: Consulting surgeon, Dr. F. J. Shepherd; physicians, Drs. W. F. Hamilton and C. F. Martin; associates in medicine, Drs. Cushing, Fry and McCrae; dermatology, Dr. Burnett; neurology, Dr. Russel; gynæcology, Dr. Goodall; ophthalmologist, Dr. Tooke; assistant pathologist, Dr. Klotz.

It has been found that the maintenance of the Alexandra and St. Paul Hospitals necessitates a much larger expenditure than the committee had calculated upon, and a delegation from each of the hospitals for contagious diseases met the Hygiene Committee, asking for the amounts granted to be raised from \$15,000 to \$30,000. It was shown that the institutions were running into debt to the extent of \$15,000 to \$20,000 per annum and that in consequence immediate help was required. Dr. Fyshe, the medical superintendent of the Alexandra Hospital, said that 205 cases were treated at that institution, the average death rate being 5.6 per cent. During the recent typhoid epidemic they received an average of twenty patients a day. The buildings had proved to be all that could be desired and excellent work was being done, and it was only right that the city should give adequate support. In replying to the delegation, Ald. Dagenais, M.D., chairman, said that evidently a new contract was necessary and he was ready to give it consideration.

The new home of the Provincial Board of Health on St. James street, Montreal, was opened informally in February. The laboratory equipment is valued at \$3,000, and the library consists of 3,900 volumes of standard works and reports. The Quebec Government's annual grant reaches \$12,000, and a special allowance is made in times of epidemic. Great progress has been made by the board since its inception in 1885, and at present it has probably the best and most complete outfit in Canada.

At a recent meeting of the corporation of the Montreal Dispensary, the many changes necessitated by the sale of the present site of the

institution and the removal to new quarters were discussed. It has been found that from \$10,000 to \$12,000 additional will be necessary to put the new buildings at the corner of St. Antoine and Inspector streets into suitable condition for habitation, and the manner in which this amount could be raised was the chief topic of discussion.

The old site of the Dispensary was purchased by the C.P.R. for \$23,000 and the new property cost this amount all but \$500. When the alterations necessary have been completed quite a large sum will have to be expended. An appeal to the public was made to support the institution, which had been running free from debt since 1864. During the past year some 19,000 patients have been treated.

Dr. E. R. Brown was appointed to the nose and throat department and Dr. Fred. Douglas to the children's department.

The McGill medical dinner was held this year without the official sanction of the faculty, but notwithstanding the nominal withdrawal of the professors yet actually quite a number took part in the proceedings, and the function was an unqualified success.

Among those present were Dr. Roddick, Dean of the Faculty of Medicine; Judge Archibald, Dr. Ruttan, Professor of Chemistry; Dr. Adami, Professor of Pathology; Dr. Elder, Assistant Professor of Surgery; Dr. Scane, Registrar; Dr. Morrow, Assistant Professor of Physiology.

Dr. Roddick was presented with an address and silver loving cup, suitably inscribed, from the medical undergraduates on the occasion of his marriage to Miss Redpath. The address spoke in well chosen language of the splendid work which Dr. Roddick had accomplished not only in the medical and political field, but among the student body, for the advancement of the medical faculty.

Dr. Roddick in his address mentioned that he was about to sever his connection with the McGill Medical Faculty, but that he hoped to be connected indirectly with it for years to come. He hoped that the freshmen present would have but one examination to pass in order to be able to practice anywhere in Canada, or indeed in Great Britain.

Dr. Adami, in replying to the toast of "The Faculty," stated that he found himself in an invidious position, as "The Faculty" had refused to sanction the meeting, and that he was there not as a member of the faculty, but only as a medical professor present as an unofficial guest. He thought that such dinners were good, and should be occasions upon which professors and undergraduates should meet on an equal footing. He fully expected that "The Faculty" would another year allow matters to return to the old plan.

The first annual banquet of the District of St. Francis Medical Association was held at the Chateau Frontenac, Sherbrooke, on January

16th, and it proved to be a most successful event, about forty-five medical men being present.

Dr. Banfill, president of the Association, occupied the chair, and on his right and left were the guests of honor: Dr. George Armstrong, representing McGill University, and Dr. Sevenis Lachapelle, representing Laval.

The toast, "Our Alma Mater," was proposed by Drs. Austin and Bachand, and replied to by Drs. Armstrong and Lachapelle.

Dr. Armstrong, in a vigorous speech, spoke of the advancement of McGill to its present position, and pointed to the five years' course as the latest improvement. He was delighted with the gathering and wanted to know how the French and English elements became so mingled that medical societies could be formed where papers were read and discussed in both languages; he should like to take the information home with him.

Dr. Lachapelle spoke first upon the question of reciprocity and Dominion registration, and later upon the subject of the infants—particularly the French-Canadian infant. He prayed the doctors present to teach the mothers the elements of proper feeding and care of infants.

During the evening music and songs were rendered by a most excellent quintette headed by Mr. Rioux, and much of the evening's entertainment was due to their splendid singing. Drs. Gadbois, Genest and Mackay also favored the company with selections.

The committee of four (namely, Drs. Lynch, Darch, Williams and Camirand) elected to plan and carry out the dinner, is to be congratulated upon its success and it is hoped that such reunions will be frequent.

In the afternoon the Association held its regular meeting and papers were read by Drs. Edgar and Ethier. Dr. Edgar reported a case in which he had tried the Beard (trypsin) treatment of cancer with some success.

Dr. Ethier discussed the question of treating gonorrhœa during pregnancy.

Dr. Williams reported a case of Cæsarian section required on account of a tumor in the pelvis.

Dr. Lynch reported a case of acute hæmorrhagic pancreatitis in a child, where death took place within 36 hours.

Dr. Mackay mentioned a case of tachycardia, in which the heart beat would change from about 80 to the minute to 230 to the minute; drugs had but little effect as a rule, and in four to twelve hours the beat would suddenly become normal again. Dr. Banfill reported a case very similar to the above, and stated that drugs had but little influence on the condition.

CURRENT MEDICAL LITERATURE

MEDICINE.

Under the charge of A. J. MACKENZIE, B.A., M.B., Toronto.

CHLORAL HYDRATE IN SCARLET FEVER.

In the *Therapeutic Gazette*, January 15th, there is an article by Royer, resident physician of the Philadelphia Municipal Hospital, in which the results of the routine treatment of 800 cases of scarlet fever with chloral hydrate are contrasted with those of 756 cases treated with the usual remedies. As long ago as 1896, Dr. James C. Wilson advocated the routine use of this remedy, claiming that it produced early diuresis and thus protected the kidney, that the nervous symptoms are allayed, the itching is arrested, and the patient made more comfortable. These statements were supported by the study of these cases, except that no distinctive diuresis was found, an early diuresis is common to all cases admitted to the hospital, probably due to better nursing and the giving of water regularly. No signs of circulatory depression were found among 1,000 cases treated with doses sufficient to produce slight somnolence.

The two series of cases mentioned were similar in every way, all histories of mixed infections were excluded. Three patients died in the chloral series, four among those treated with the ordinary remedies.

Summary:—

Total number treated with chloral	800
Total number developing post-febrile nephritis	44
Percentage developing post-febrile nephritis	5.50
Total number having usual remedies	756
Total number developing post-febrile nephritis	58
Percentage developing post-febrile nephritis	7.76

RUPTURE OF THE HEART.

In *Northwest Medicine*, January, there is a report by Dr. Bridgford, of Olympia, of this condition. The patient was a man, 69 years of age, shoemaker, about 5 feet 6 inches tall, weighing about 165 pounds. For several weeks prior to his death he had complained of shortness of breath and some pain in the region of the heart, and was cautioned to lead a quiet life and avoid exertion; there is no previous history. He was found dead in his chair. At the autopsy all organs were found normal except the heart, where there was aortic insufficiency. The left

ventricle had ruptured during systole, showing a tear near the apex, half an inch in length. The heart was not hypertrophied though the walls of the left ventricle were very thin. The tissues around the tear were ecchymosed, showing that there had been some gradual tearing before the wall ruptured entirely. The pericardium was distended with blood.

SOLUBLE MIXTURES.

In the *British Medical Journal*, February 21st, in the report of the Therapeutic Society, the following formulæ are given as read by Dr. Bonnefin for the production of soluble mixtures of the drugs creosote and cannabis indica:—

(a) For making creosote soluble:—

Decoct. quillaiæ conc. (1 in 7)	2 parts.
Sol. sodii salicylatis pur. (1 i.)	1 part.
Creosot. optim.	1 part.

Shake and warm very gently.

(b) For making cannabis indica soluble:—

Ext. cannabis indica (physiologically tested)	1 part.
Spir. vin. rect.	4 parts.
Decoct. quillaiæ conc. (1 in 7)	7 parts.
Aq. distil.	8 parts.

Mix the extract with the alcohol; warm; add warm decoction of quillaiæ; shake; finally add warm distilled water; shake; and strain after three days.

These remain clear on the addition of water, and on acidification, so that there is no precipitation in the stomach.

In the discussion on *Cactus grandiflorus* evidence was brought forward to show that its preparations contained no active principles, and that after due consideration they had been deliberately omitted from the American Pharmacopœia as inert.

EFFECTS OF VERONAL.

In the *British Medical Journal*, February 2nd, Dr. Lyons, of Wicklow, describes an experience he had with the effects of this drug, which has generally been regarded as harmless. Mrs. F. gave a history of having the day before taken two powders for a headache about 11 a.m. After sleeping for about two hours she awoke, feeling dazed and stupid, quite unable to walk or even stand and with complete double vision. During the evening the symptoms were more marked; she was reeling

and tottering. At 10 p.m. she was seen by a physician, who found her in a semi-paralyzed state, with sluggish pupils, diplopia, thready pulse, scanty urine, and normal temperature. In the morning, seen in consultation, the condition was the same—tingling sensations in the arms, pulse 84 and compressible, reflexes quite gone. The head could not be raised; it fell back when lifted, a feeling of weight being described; there was complete anæsthesia over the right lower limb, on the left complete as far as the knee and partial over the rest, some anæsthesia over the trunk, but the arms had normal feeling. During the next day considerable improvement had taken place, sensation returning to the greater part of the anæsthetic area. This continued, and in a few days the reflexes were normal.

The powders contained codeia gr. $\frac{1}{4}$, veronal gr. 10. She had taken a double dose. The treatment adopted was a dose of calomel and a mixture containing belladonna, hot coffee, etc.

BRIGHT'S DISEASE.

In the *Cleveland Medical Journal*, Dec., there is an article by Croftan, of Chicago, on what is commonly known as Bright's disease. Ordinarily the term is used synonymously with nephritis and albuminuria. This is wrong, for in Bright's disease the changes about the heart and arteries predominate, and not infrequently precede the renal signs. High arterial tension with changes to correspond in the heart and vessels, is the determining feature of Bright's disease. The circulatory disturbance results in disturbance in various organs, especially in those that have end arteries, as the kidneys, brain and retina, and it is here that the signs of injury are frequently found.

The disease is usually found in the routine examination of the urine when the presence of albuminuria causes a thorough examination, but paradoxical as it may appear, there may be Bright's disease without nephritis. The causes that produce this heightened blood pressure are doubtless manifold. Circulating toxins must in most cases be the incriminating agent. These may be of two classes, endogenous and exogenous, *i.e.*, they may be introduced into the circulation from within by some deep-seated perversion of the general metabolism, or they may be introduced from without, *e.g.*, from the gastro-intestinal tract by the abnormal disassimilation of the contents. The former is probably the more common, but it is also the more obscure. Some pressor principles have been isolated from among the intermediary products of intracellular disassimilation, as purin bodies, which have the effect of producing in animals many of the cardio-vascular and even renal changes peculiar to Bright's disease. In the bowel contents a large number of pressor

bodies have been found, especially when there has been putrefaction. These may act by direct introduction to the circulation in small quantities, causing increased blood pressure, or they cause intoxication of the liver cells, bringing about in turn the introduction into the blood stream of abnormal products. Treatment must, therefore, concern itself with counteracting as far as possible the formation of these various groups of toxic bodies; and this can be done by paying strict attention to the diet and by promoting intestinal antiseptics by various means. Here is the role of the vi'e acid salts. (*Vide* Croftan, "The Bile Acids as a Remedy," *N. Y. Med. Jour.*, April 21, 1906). That intestinal putrefaction is being held in check can be determined by the reduction or disappearance of the aromatic sulphates from the urine.

In the treatment of the cases not due to gastro-intestinal derangement, but to metabolic perversion of an obscure type, the treatment is symptomatic, but this means treating a heart disease, not merely a kidney trouble. Measures dietetic, hydrotherapeutic and medicinal may be used. The diet should be such that no preformed pressor principles are ingested and the minimum of food is eaten that leads to the formation of such bodies, *i.e.*, nuclein containing foods and those containing extractives. Alcoholic beverages and tea, coffee and tobacco should be avoided. Hydrotherapeutic measures, especially the simple warm bath every evening, are very useful. Medicines are those indicated by the symptoms; the most useful are the nitrites and nitroglycerin. Small doses of digitalin given continuously are of value. The diet should be kept well up to the calory requirements of the body.

WORKING FORMULÆ TO FACILITATE THE PERCENTAGE MODIFICATION OF MILK.

In the *Medical Record*, Jan. 12th, Dillon, of New York, gives some formulæ for the percentage modification of milk, which are convenient and brief, while they give greater accuracy than the round number method so frequently adopted in order to avoid the trouble of mathematical calculations. They are designed to determine for a given modification a definite quantity, (I.) of the percentage cream necessary for dilution, (II.) of the quantity of the cream required, and (III.) of the quantity of gravity or 16 per cent. cream required, which when diluted with whole milk will give a percentage cream as determined by I. and to the quantity determined by II.

Rule I. The fat percentage (f) of the modification multiplied by 4 and divided by the proteid percentage (p) of the modification will give the fat percentage of the cream required for dilution, or, graphically:

$$\frac{f \times 4}{p} = \text{fat percentage of cream required.}$$

Rule II.—The total quantity in ounces (n) of the modification multiplied by the proteid percentage (p) and divided by 4, will give the ounces of cream required for dilution: $\frac{n \times p}{4}$ = ounces of cream required.

Rule III.—To determine the quantity of 16 per cent. cream required to make, with a proper quantity of milk, a desired quantity (N) of cream of a stated fat percentage (F) $\frac{N (F-4)}{12}$ = ounces of 16 per cent. cream required.

To make an application of these rules we will suppose that we require 48 ounces of a 4-7-2 modification.

By Rule I. $\frac{f \times 4}{p}$ = percentage cream required, in this case $\frac{4 \times 4}{2} = \frac{16}{2} = 8$ per cent. cream.

By Rule II. $\frac{n \times p}{4}$ = quantity of 8 per cent. cream, in this case $\frac{48 \times 2}{4} = \frac{96}{4} = 24$ ounces.

Having ascertained by the two previous equations the quantity and fat percentage of the cream required, 24 ounces of 8 per cent. cream, we have still to derive that cream from the gravity cream, and, by Rule III., $\frac{N (F-4)}{12}$ = quantity of 16 per cent. cream required, in this case $\frac{24 (8-4)}{12} = \frac{96}{12} = 8$ ounces 16 per cent. cream. Here we have quickly and accurately determined that, to make 48 ounces of a 4-7-2 modification, we require 24 ounces of 8 per cent. cream, or its equivalent, 8 ounces of 16 per cent. cream, and 16 ounces of whole milk.

Contracted for easy reference, the formulæ would be as follows:—

I. $\frac{f \times 4}{p}$ = fat percentage of cream required to make a *modification* with fat at f per cent.

II. $\frac{n \times p}{4}$ = quantity in ounces of cream required to make n ounces of *modification*.

In Rule I. and II. p is the proteid percentage of the *modification*.

III. $\frac{N (F-4)}{12}$ = quantity of 16 per cent. cream required to make N quantity of cream with a fat percentage of F.

Since Rule III. is based on a general formula for the reduction of a cream of a certain fat percentage, those who use a 12 per cent. cream for their modifications may modify Rule III. for 12 per cent. cream as follows: $\frac{N (F-4)}{8}$ = quantity of 12 per cent. cream required to make N ounces of a cream of fat percentage of F.

THE INCIDENCE OF GASTRIC ULCER ACCORDING TO AGE.

In the *B. M. J.*, January 5th, Dr. Calwell, of Belfast, discusses the comparative frequency of gastric ulcer according to age and sex. He believes that gastric ulcers may form with great rapidity in the adolescent, and that many cases of chlorotic dyspepsia, if the truth were known, are really cases of gastric ulcer, but these lesions heal as rapidly as they form, therefore unless there be noticeable hematemesis the condition may remain undiscovered; and this fact would markedly increase the proportion in females, as chlorotic affections of the stomach are chiefly confined to this sex. By the study of 200 cases and the correlation of 314 by Bramwell it is seen that there is an enormous increase in the number of cases in the female in the period previous to the age of 25, but that after that age the incidence of the onset in the sexes is about equal. He advises that all cases of dyspepsia in young women be treated as cases of ulcer, unless it be clearly determined that they belong to another clinical variety.

SURGERY.

Under the charge of H. A. BEATTY, M.B., M.R.C.S., Eng., Surgeon Toronto Western Hospital; Consulting Surgeon Toronto Orthopedic Hospital; and Chief Surgeon Ontario Division, Canadian Pacific Railway.

FOREIGN BODIES IN THE ŒSOPHAGUS.

In the *International Journal of Surgery*, January, 1907, W. S. Wiatt contributes a paper on the above subject.

In attempting to deal with foreign bodies in the gullet, the surgeon must follow one of two methods, (a) Removal with forceps, probang, or coin catcher, aided by the œsophagoscope or fluoroscope; (b) œsophagotomy or gastrotomy.

If the foreign body had lodged in the upper two-thirds of the gullet, œsophagotomy is to be performed after efforts at removal per os fail. If lodged in the lower third, gastrotomy is the operation indicated.

Œsophagotomy has a mortality of 23 per cent., septicæmia being the most frequent cause of death.

The following conclusions are presented:—

1. All foreign bodies in the œsophagus should be removed at once to prevent impaction, ulceration and its dangerous complications.
2. Prolonged efforts at removal through the mouth are to be condemned, as the œsophagus, thoracic blood vessels, or viscera may be lacerated, causing fatal hæmorrhage or infection of the mediastinum or plural cavity.

3. All bodies of *bone* or *metal* should be located with the x-ray before attempting to remove them.

4. Feeding through a stomach-tube (after œsophagotomy) is not practicable in a child of 18 months, so it must be fed per rectum until the wound in the œsophagus is sufficiently closed to prevent flooding into the neck during the act of swallowing liquid food.

A NEW OPERATIVE METHOD FOR THE CURE OF INGUINAL HERNIA.

In the *American Journal of Surgery*, Nov., 1906, appears the following description of a new operation for the cure of inguinal hernia, advocated by Wullstein, of Halle (*Zentralblatt für Chirurgie*, No. 38):—

The ideal operation must aim to completely obliterate the inguinal canal, and to completely close the lateral portion of the abdominal wall as far as the pubic spine and rectus edge. At the same time the cord must not be compressed at all, nor kinked. The author's skin incision starts at the pubic spine and makes a bow-shaped curve upward and outward, running from one to two finger breadths above Poupart's ligament and extending to the neighborhood of the internal inguinal ring. The skin flap is reflected downward to Poupart's ligament. The sac is isolated in the usual way and the external oblique aponeurosis split as far as the internal ring. The sac is tied off and cut away as in other operations. The cremaster fibers are separated from the cord, but allowed to remain in connection with the external oblique and Poupart's ligament. Now, the transversalis fascia is split almost to the internal pillar of the external ring, care being taken not to injure the epigastric vessels, and the cord is dislocated backward so as to lie between the transversalis fascia and the peritoneal fat. The four layers of the abdominal wall—external oblique, internal oblique, transversalis and transversalis fascia—are now united by interrupted suture to the posterior surface of Poupart's ligament until the vicinity of the external inguinal ring is reached. The sutures should be placed a little nearer the median line in Poupart's ligament than in the abdominal wall in order to restore normal tension in flabby subjects.

A plastic flap is now constructed in the following manner. The skin is pulled inward by an assistant in order to expose the rectus muscle fully. The outer two-thirds of the anterior rectus sheath is cut transversely across immediately above the level of the symphysis, exposing both rectus and pyramidalis fibers. The cut is continued upward and again outward until it ends opposite the pubic spine, but 4 cm. above this landmark. The resulting tongue-shaped flap is readily freed from the muscle and reflected outward to the outer edge of the rectus

muscle. Merely the fibers forming the inner pillar of the external ring prevent a complete reflection of the flap, and these fibers are now cut across close to Poupart's ligament. After this mobilization, the remainder of the hernial opening can readily be closed by suturing the abdominal muscles to Poupart's ligament. The purpose of the flap, as will be shown, is to be placed behind the rectus muscle. The three sutures used to transpose the flap also serve to fix and carry the cord into its new bed. The sutures are of the mattress type, the lowest horizontally placed, the upper two vertical. They all pierce the rectus muscle, and enter the fascial flap some distance away from its free edge. Care must be taken to place the cord above suture *a* before making suture *b*, enough space being left not to strangulate the vas and vessels. When the sutures are tied the aponeurotic flap is pulled behind the rectus muscle and the cord assumes a course running well behind the rectus muscle (between muscle and flap), and then rounded on all sides, except below, by rectus muscle which is now also sewn to Poupart's ligament. Finally the gap in the rectus sheath is repaired by stitching the two edges together. The cord now lies in a new canal behind the rectus, straining or coughing merely pressing aponeurotic flap to muscle.

Nineteen cases—direct, indirect, and reducible and irreducible—have been operated upon with perfect results, the patients getting up as early as the eighth or ninth day.

VITAL POINTS IN THE TECHNIC OF SUPRAPUBIC ENUCLEATION OF THE PROSTATE FOR BENIGN ENLARGEMENT OF THAT GLAND.

In the *Journal of the American Medical Association*, Oct. 13th, 1906, E. Hurry Fenwick, of London, states that our present technic in suprapubic prostatic enucleation tends (1) to the destruction of the vesical orificial ring; (2) to the wholesale destruction of the prostatic urethra with its afferent seminal ducts; (3) to the rough handling of the membranous urethra. No matter how the operation is carried out, the original vesical orifice should be left intact and covered with its own mucous membrane. A neglect of this rule in a certain proportion of cases will leave the patient with a warped or narrowed vesical orifice and its attendant evils. Unless there is enough intravesical projection to afford spare mucous membrane to replace that destroyed, such will be the case. To avoid this the author has successfully grafted in portions of a sheep's urethra, and reports a case in which this was done. He suggests that if a medium or large projecting lateral lobe is present, that it be separately enucleated by an antero-posterior incision, and that the rest of the prostate be removed by an operation described by him in 1904, in which he

starts the separation from the prostatic urethra up to the first joint, the point of the finger is then bent and plunged sideways through the mucous membrane, which in the soft elastic prostate gives readily before the pressure. At once the finger finds itself between the tough capsule of the prostate and the contained adenomatous masses; traveling on without much opposition, the entire lobe is enucleated and generally stripped off the urethra. Great care is taken to keep the floor of the urethra intact and attached to its bed. Usually the adhesions of the lateral walls of the urethra and the lateral lobe are very dense; that part of the canal comes away with the lobe, but the floor is preserved. The lobe is now gently detached from the triangular ligament, so as not to tear or bruise the membranous urethra, and being free, it is pushed or pulled into the bladder; the opposite lobe is treated in a similar way. The finger finally smooths down the mucous membrane in the prostatic urethra, leaving the vesical opening clear and free from projecting tags. The vesical opening heals by being lined with part of the original prostatic urethra. Fenwick emphasizes the importance of not destroying the ejaculatory ducts, and also of not injuring the membranous urethra in separating the anterior face of the prostate from the face of the triangular ligament. As this is the future true sphincter of the bladder after prostatic enucleation, it should be very gently and cautiously handled.—*American Journal of Surgery*.

GYNÆCOLOGY.

Under the charge of S. M. HAY, M.D., C.M., Gynecologist Toronto Western Hospital, and Consulting Surgeon Toronto Orthopedic Hospital.

TUBERCULOSIS OF THE PERITONEUM.

The *Cleveland Medical Journal*, of January, has an article on this subject written by Dr. Lewis S. McMurtry of Louisville, Ky. He says that tuberculosis of peritoneum has but one cause—the invasion of the peritoneum by tubercle bacilli. Clinically, the disease is observed most frequently in patients between the ages of 20 and 40 years. The disease is twice as frequent in women as in men. This may be accounted for by the easy route of invasion through the fallopian tubes.

Many pathologists assert that infection may take place through the intestinal coats without any recognizable *atrium*. Peritoneal tuberculosis commonly presents itself independent of lesions of the thoracic organs or remote lymphatic glands. The tubercle bacillus has no saprophytic qualifications; it does not destroy primarily the tissues it invades; it is the secondary pyogenic changes which are destructive.

Continuing, the writer says: The Fallopian tubes are very susceptible to tubercular infection. That every gynæcological surgeon has been impressed with the affinity exhibited by these structures for Koch's

bacilli. Tuberculosis of the vulva, vagina and uterus is rare, and usually occurs in girls prior to puberty, and in women past the menopause. Tuberculosis of the Fallopian tubes is very common, and occurs during the child-bearing period.

He also says the exceptional susceptibility of the tonsils to tuberculosis is generally recognized. The follicles of the tonsils correspond in structure with those of Peyer's glands in the intestine. The tonsil readily transmits tubercle bacilli to adjacent structures, and so doubtless do the corresponding intestinal follicles. The vermiform appendix has a histologic characteristic in common with the tonsils in that its lymphatic tissue lies open on the mucous membrane. Like the tonsil, the appendix has an affinity for the tubercle bacillus, and is a common focus of infection. The Fallopian tubes and the appendix are the common foci of tuberculous invasion of the peritoneum.

The symptomatology of peritoneal tuberculosis is so varied that, in its several stages and with diverse local and systemic manifestations, the diagnosis is most difficult, and in some instances impossible. In very acute cases, he says, the onset of the disease may be so well marked by high temperature and acute abdominal pain as to be mistaken for appendicitis. Such painstaking clinicians as Musser and Keen report such a case, wherein abdominal section was done.

Dr. McMurtry says that perhaps the most prolific source of diagnostic error exhibited by any form of the disease under consideration is that of sacculated adhesions associated with the ascitic type. The simulation here to ovarian cystoma is so complete, affording a repetition of all the classic signs, that the counterfeit almost defies detection. The late Mr. Greig Smith declared that in certain cases of encysted dropsy from tuberculous peritonitis the differential diagnosis from ovarian cyst was altogether impracticable. The writer points out the fact that some good authorities still recommend the purely medical treatment for this class of cases, but still there seems to be an overwhelming testimony in favor of the surgical method, and this consists merely in opening the abdominal cavity, evacuating the fluid, and letting in the air and light. Just how this cures has never been satisfactorily explained. Winckel attributes the cure to evacuation of some toxic principle. Gatti and Hildebrandt believe the cure is brought about by post-operative hyperæmia and effusion of serum which has bactericidal properties, and thus the bacilli are inhibited or destroyed. Others have attributed the wonderful results of simple abdominal section to the admission of air and light to the diseased peritoneum. The doctor says that however varied may be the theories offered in explanation, the clinical fact remains that a large number of cures unquestionably follow abdominal section, the percentage being variously estimated from 25 to 80 per cent. Probably when the

focus of infection is also removed at the time of operation a fair percentage of recoveries would be 75 per cent. Dr. J. B. Murphy made the important suggestion of removing the focus of infection. Dr. W. J. Mayo has applied this suggestion in numerous cases, and states that in numerous instances, where simple section and evacuation of the fluid had failed, permanent cure was effected by secondary operation with removal of the infecting focus, which was most frequently the fallopian tubes. Murphy concludes from his studies that the cure by operation is effected by the subsequent inflammatory reaction with its cell proliferation, which encapsulates the tuberculous foci on the serous surface. For obvious reasons the operation should be done after, rather than during, the acute stage. Care should be taken to cause no unnecessary traumatism to the intestinal coats.

VERMIFORM APPENDIX.

Arnold W. W. Lea, *Jour. Obst. and Gyn.*, Aug., in view of the importance of the appendix as a cause of pelvic pain and inflammation and as a secondary complication of pelvic disease, advises the following procedure. The appendix should be examined as a routine precaution in all cases of abdominal section for pelvic disease. It should be removed (*a*) if it lies at the brim of the pelvis or in the pelvis; (*b*) if it shows any peripendicular adhesions or contains a concretion; (*c*) if it is adherent to any pelvic inflammatory swelling or tumor; (*d*) if it lies in close relation to the pedicle or raw surface left after the removal of any pelvic organ.

[The reviewer endorses the above conclusions and wishes to state that, last week, while operating for diseased right ovary and tube, he examined the vermiform appendix and found it badly diseased, being enlarged to about three times its normal size. It was of course promptly removed.

Had this operation been done exclusively by the vaginal route this dangerously diseased vermiform appendix would necessarily have been left in the abdomen.—S. M. H.]

SURGICAL TREATMENT OF GONORRHOEA IN WOMEN.

J. Wesley Bovee, *Amer. Jour. Surg.*, Aug., advises against operation in acute gonorrhœal tubal involvement. In chronic pyosalpinx, ablation of the tubes is best. The vaginal route is preferable in most cases. The ovaries are not to be sacrificed unless they are hopelessly involved or the patient is over forty. Both tubes should always be removed. The body of the uterus may be retained if not adherent or considerably involved. Cul-de-sac drainage is advisable in both vaginal and abdominal ablations.

OBSERVATIONS ON FIBROMA UTERI DERIVED FROM OPERATIONS ON 633 CASES.

C. Jacobs, *Bull. de la Soc. Belge de Gyn.*, Vol. XVI., No. 4, has operated on 633 cases of fibroma uteri. He concludes that it is a mistake to leave these growths in the abdomen under the impression that the menopause will bring about a regression of the growth which will benefit the patient. Whenever their presence produces symptoms, general or local, that are of a serious nature they should be removed. Such patients should always be kept under observation, since serious manifestations may take place at any time. Serious accidents arise from small tumors as well as large ones. Cure is the rule after well-conducted operations in fibroids. Out of 633 patients operated on by the author, 609 were cured; 24 died. The author always leaves a portion of the cervix in place when it is not involved in the tumor. In 466 cases the operation was sub-total hysterectomy; in 89 cases it was total. When the cervix is involved in a metritis and endometritis with ectropion and ulcerations it should not be left. The cervix, when left in place, serves as a barrier to infection, assisted by antiseptic packing of the vagina. There are many types of degeneration to which fibromata are subject. Calcification is most common, and with it may be combined necrosis of a part of the tumor. Fatty degeneration is relatively rare. Colloid degeneration is frequent. There were three cases of suppuration and septic mortification of fibromata. Sarcomatous degeneration is rare. Cancerous degeneration also is rare, as is adenomatous. Affections of the adnexa have no direct relation to the accompanying fibromata.

OBSTETRICS AND DISEASES OF CHILDREN.

Under the Charge of D. J. EVANS, M.D., C.M., Lecturer on Obstetrics, Medical Faculty,
McGill University, Montreal.

PYELITIS COMPLICATING PREGNANCY.

H. Meek, London, Ont., in *Am. Jour. Obstet.*, Feb., 1907, records three cases of pyelitis complicating pregnancy and claims to have accurately described the condition in January, 1891, some months before Rebland, who generally gets the credit.

The cases seem to be well marked examples of the condition. All three went to term and recovered, the urine clearing up after delivery.

After reviewing the recent literature of the subject, Dr. Meek dwells on the well known tendency of pyelitis to occur in the right kidney, as in all three of his cases he notes that at the outset of the disease no pus

may be found in the urine, nothing being present but a trace of albumen and a few hyaline casts. Pus, however, soon appears in varying quantities.

He agrees with Crogin that interruption of pregnancy is seldom, if ever, necessary. He recommends rest in the recumbent posture, fluid diet, chiefly milk, and large quantities of water. Laxatives and saline purges may be employed with benefit. Urotropin in gr. v. doses every four hours is the best urinary antiseptic to employ in this condition. The employment of an ice bag applied to the loin of the affected side will be found efficacious in relieving pain. Morphia should be used in severe cases.

TYPHOID FEVER IN CHILDREN.

H. Koplik and H. Heimann, New York, in a clinical study of relapses in typhoid fever in children, *Arch. Ped.*, Jan., 1907, analyze 24 relapses which occurred in 160 cases of typhoid fever treated in the Mount Sinai Hospital Children's Service. Their conclusions are as follows: "Relapses in typhoid fever are more common in children than in adults, about 15 per cent. in the former. The mortality is exceedingly low. The usual duration of a relapse in a child is from one to two weeks. As a rule the temperature is continuously high between a rapid rise at the onset and a rapid fall to normal at the termination of the relapse. A constant symptom in addition to the prolonged temperature elevation is enlargement of the spleen; roseola is present in about 75 per cent.; leukopenia in about 60 per cent., and mild abdominal symptoms in about 50 per cent. of relapses in children. Complications in these cases are mild and infrequent. For the prediction of a relapse no reliable signs are furnished by the character of the interpyrexial period nor by the course, duration, and severity of the original attack. Persistent enlargement of the spleen after defervescence occurs in a fair proportion of relapse cases; and a relapse following a mild primary illness is not so likely to be repeated as one occurring after a severe original attack.

EMPHYEMA IN CHILDREN.

John H. Jopson, M.D., in *Univ. of Penna. Med. Bull.*, Dec., 1906, gives a surgical analysis of a series of forty-one cases operated on in the Philadelphia Children's Hospital as recorded by Dr. Jopson. The cases ranged from ten months to thirteen years of age. In the large majority of cases, if not in all, there was a history of pneumonia preceding the development of empyema.

The empyema usually follows closely on the heels of pneumonia. A large proportion of both hospital and private cases showed a long period to have elapsed between the onset of pneumonia and the detection of pus in the chest. Probably many cases perish with a pleural collection unrecognized. In two cases the pus pointed on the anterior aspect of the chest just below the nipple. In two other cases pus discharged into a bronchus.

In every case the convalescence is tedious and sometimes incomplete owing to the lasting adhesions of the lung.

The author believes that aspiration has no place as a curative measure in the treatment of empyema. He considers that while intercostal incision is sometimes a highly successful operation, resection has certain unquestioned advantages. It affords more room for drainage, larger tubes can be used and large masses of lymph, so often found, can be more readily removed. Excision of a portion of a rib takes little more time than intercostal incision. When the condition of the patient forbids even a transient, or incomplete, anæsthesia a simple incision should be practised. In very sick children with large collections, preliminary aspiration, twenty-four hours before operation, is deemed advisable.

The author prefers an incision with its centre on, or a little posterior to, the post-axillary line, and immediately over the eighth or ninth rib, in unencysted collections; where the collection is encysted, the rib corresponding to its lowest limit is chosen. About an inch of rib is removed in small children. Two large drainage tubes are used.

No irrigation was employed either during or after the operation.

In the forty-one cases of all types, there were eight deaths, a mortality of 19.5 per cent. Most of the fatal cases were in very young children. The causes of death were pneumonia, exhaustion, and sepsis. In the author's experience very young children with high fever, dyspnoea, and rapid pulse are much more unfavorable cases than older children with long standing collections. There seems to be a difference in virulence of infection in different years.

OPHTHALMOLOGY AND OTOTOLOGY.

Under the charge of G. STERLING RYERSON, M.D., C.M., L.R.C.S., Professor of Ophthalmology and Otology Medical Faculty of the University of Toronto.

PARINAUD'S CONJUNCTIVITIS.

Andrew Littel (*The Ophthalmoscope*, Dec., 1906) describes the disease as follows: It is an affection of the conjunctiva somewhat resembling granular conjunctivitis. It is monocular. In the inflamed conjunctiva are seen arranged more or less irregularly along each fornix

a number of opalescent rounded projections, with, in addition, a number of smaller and more pellucid miliary granules, much resembling the granules seen in trachoma. These granules are confined to the thickened and inflamed conjunctiva. The rest of the conjunctiva is normal in appearance. The position of greatest inflammatory thickening is along the upper and lower fornix conjunctivæ. This inflammatory thickening spreads forward on the globe of the eye, but stops short of the ciliary zone and leaves the cornea intact. In granular ophthalmia the pannus is present in most cases. The lids feel thick and look so. There is a very noticeable absence of suppuration, sometimes there is ulceration, but not often. When observed there are a number varying in size from a pinhead to a quarter of an inch in diameter. The ulceration is apparently due to the breaking down of the small thickened enlargements of the conjunctiva through some necrotic process believed to be due to the presence of a micro-organism which brings about this necrosis. Associated with the eye disease is an inflammatory enlargement of the pre-auricular glands, which are always in a state of active inflammation when the eye is at its worst. In about half of the cases they suppurated and required surgical treatment. The conjunctival enlargement and the contents of the inflamed glands have been examined most carefully by bacteriologists of repute with little result. It is generally considered to be due to a micro-organism not yet discovered, not tubercle at any rate. Verhoef and Derby consider them phagocytic in nature. The disease is not serious as regards the eye or the neck, as it subsides in from two to six months, leaving the eye healed and perfectly normal. As regards the cause, Parinaud considered that it was the result of foot and mouth disease infection, but fuller investigation has thrown great doubt upon this.

It is commoner among females and below twenty years of age. The treatment consists in antiseptics of the eye and the usual surgical measure for the abscess in the glands.

In the same issue of the *Ophthalmoscope* are summaries of observations by seven other observers of this disease. The results do not differ from the above.

THE RADICAL MASTOID OPERATION.

H. W. Loeb (*St. Louis Med. Rev.*, January 19, 1907) points out some of the dangers of the operation and emphasizes the extreme to which some operators are carrying the operative treatment in simple otorrhœa.

Lateral sinus. Though less likely to be involved in the simple mastoid operation, this is always to be considered, especially in view of

the fact that its approximation to the antrum is often close. The operator who feels his way backward after chiselling an opening close to the posterior wall of the external canal will seldom find trouble in this particular.

Cranial Cavity. The cranial cavity may be invaded in two places, the middle and the posterior fossæ. In the former the operation is carried too high up beyond the linea temporalis which marks the usual limit of this fossa; in the latter it is extended too far posteriorly.

While opening the cranial fossæ is of itself as a rule of no danger, it is to be avoided if possible.

Facial Nerve. The course of the facial nerve through the petrous portion of the temporal bone brings it close to the field of operation when the bridge formed by the posterior wall of the external canal is removed. The vertical portion of the facial nerve lies between the antrum and the middle ear. Its horizontal portion is just below the floor of the aditus, and as its course is not always the same and its landmarks distant or taken away when the bridge is removed, it becomes a matter of nice judgment and care to avoid injuring it. Fortunately, even though paralysis supervene upon injury, it very commonly disappears, although while it remains it is an unpleasant reminder of misfortune, bad judgment, carelessness, or perhaps unavoidable accident.

Labyrinth. The labyrinth may be injured at the oval window by manipulations involving the stapes, at the round window by curetting and at the semicircular canals. The horizontal semicircular canal lies immediately above the facial nerve, following the course of the horizontal portion of that nerve, just as in a position where it may be readily injured when working in the antrum and when removing the posterior portion of the external auditory canal. Patients generally recover from minor traumatism of the labyrinth during operations, but deafness and extreme vertigo are common enough to justify the utmost care.

Jugular Vein. Curettement of the tympanic cavity may result in injury of the jugular, which lies just below its floor.

Carotid Artery. The close relation of the carotid artery to the Eustachian tubes, brings it into consideration, whenever attempt is made to obliterate the pharyngeal outlet of the middle ear.

Aside from the possibility of injuring these structures in the radical mastoid operation for otitis media suppurative chronica, with but ordinary complications, it must be borne in mind that disease of the bone adjacent to or involving them may constitute a still greater danger which must not be shirked simply to avoid unpleasant possibilities.

The exenteration being completed, the posterior incision may be utilized for dressing, or any one of the numerous plastic methods with

closure of the postauricular opening may be adopted. The former is to be used where there is necessity for an open field by reason of any complication, such as injury to the sinus or cerebral or cerebellar involvement, or extensive disease of the bone. Where possible, the flap operation offers to speediest and most satisfactory results. But to accomplish it properly, the operation must be a complete one with no rough surfaces, otherwise it will be far better to dress it posteriorly.

While there are many who use regularly one of the various flaps, such as the Koerner, Panse, Ballance, or some of the modifications, one must be guided by the condition of the soft parts after the completion of the bone operation. The flap which in the individual case leaves the least deformity of the external auditory canal and yet provides ample room for dressing is the one to be selected.

Dressing. Otologists are gradually giving up the old-time method of tightly packing the wound after operation. Before the method of operation was as complete as it is now, it was necessary to avoid the formation of pockets and exuberant granulations, and to assure the healing from the bottom by keeping the wound well packed. With the newer methods, however, this loses its force, in that the possibility of delay and of complication in healing is greatly lessened, while epidermization is greatly promoted by the plastic methods used and by skin grafting judiciously undertaken.

To accommodate this changed condition of things, various methods of after treatment have been devised. The most common are the dry boric acid treatment, the cigarette drain, and the rubber tube with spiral cut. Here is where the personal equation of the individual operators or dressers enters into play, for their experience and characteristics determine what is best for the case in hand. Still the methods without close packing have certainly been gaining ground of late.

The operation may be considered successful if, after a reasonably short period of dressing, there is complete healing with complete epidermization without complication. As a rule, the hearing remains about the same, though it may be reduced, or even improved.

Every form of wound accident may follow the radical mastoid operation that may result from any other operation.

The injury of adjacent structures has already been mentioned. Death occurs in no inconsiderable number of cases; this fact should be remembered in urging the operation. It may result from shock, general infection, anæsthesia, pneumonia, and intracranial complications.

Infection of the cartilage is one of the most unfortunate results. Unless very positive treatment is undertaken at once the entire cartilage may be lost, with consequent deformity of the auricle.

Delayed healing occurs in a fair number of cases, due to the incompleteness of the operation, improper dressing and drainage, fistula and infection. This is very trying to the patient, not only because of the length of time which the after treatment requires, but also on account of the actual pain endured and the annoyance entailed.

There is little likelihood of subsequent trouble following after healing where the radical mastoid operation has been performed. Where there is some diseased portion, especially if cholesteatoma masses still remain, a secondary operation will be necessary. The operation must then be undertaken to clear away whatever disease remains, however, without the very helpful guides which were present at the first operation.

Taken altogether, the radical mastoid operation must be considered as a serious task, requiring great care, skill, and judgment, involving danger to life and to important structures, and subjecting the patient to pain, discomfort, and trying annoyances. Yet it is a complete and positive cure for the hidden and insidious suppuration of the middle ear cavity, which may progress without external expression or by acute exacerbations which menace the health and even the life of the patient. After all has been said upon the subject, we are face to face with the elemental proposition whether it is best to clear out the condition in anticipation of future trouble or to wait for more serious expression of that trouble, when it may be more dangerous or perhaps too late to accomplish a good result. Judgment, conscience, and intelligence, directed to the individual case, alone can answer the question.

INJURIES TO THE EYE.

CORNEA.—The exposed position of the cornea renders it liable to injuries of many kinds, including lacerated, incised, and punctured wounds, and burns and scalds.

Burns of the cornea usually accompany similar injuries to the conjunctiva and lids and from the same causes, and if severe may end in impairment or complete loss of vision from the resulting opacity. If the lesion is limited to the epithelial layer, regeneration may occur without resulting disturbance of the transparency of the cornea. The injury is always painful and is attended with profuse lachrymation, photophobia, injection and more or less swelling of the conjunctiva and eyelids. The treatment is similar to the treatment of burns of the conjunctiva and includes cold compresses to relieve pain, soothing lotions of boracic acid, and protective ointments. The eye should be covered, and rest will be better secured and the tendency to iritis overcome by the use of atropine which may be incorporated with castor oil. Pain is

usually severe for a few hours only and is best controlled with opiates rather than with cocaine, which is evanescent in its effect and retards regeneration of corneal epithelium.

One of the commonest accidents to which the eye is subject is the superficial lodgment of foreign bodies in the cornea. Cinders, particles of sand, emery, steel, stone, and other similar substances find entrance and produce varying degrees of discomfort depending upon whether the foreign body is sharp or rough, as also upon the sensitiveness of the individual. Not infrequently the foreign body becomes imbedded as a direct result of the rubbing of the eye by the patient in his efforts to get it out. If the foreign body is septic, or if it is not removed promptly, infection is liable to occur and the wound is soon surrounded by a zone of grayish infiltration and a corneal ulcer is the result.

Oblique illumination is of the utmost service in locating foreign bodies, and a magnifying glass is frequently helpful in enabling the physician to quickly locate small particles of steel or emery. Removal of the offending object should always be under local anæsthesia, and the foreign body should be delicately *picked out* of its bed. Under no circumstances should the cornea be scraped as is so frequently the case in unskillful efforts to remove foreign bodies, to the detriment of the epithelium which is not infrequently denuded over large areas by such methods. After the removal of an imbedded foreign body from the cornea the eye should be covered to exclude infection until regeneration of epithelium has taken place. If infection has already taken place the ulcerated area should be thoroughly curetted and I have had very satisfactory results from the delicate application of pure carbolic acid, or pure iodine, to the curetted surface. A dressing of bichloride vaseline and a protective bandage will add to the comfort of the patient and lessen the chances of a second infection.

A rather common accident is abrasion of the cornea from a scraping blow of the finger nail, branch of a tree, etc. The epithelium and anterior layers of the cornea may be destroyed over quite a large area, but if infection does not take place the wound heals readily. The eye should be irrigated frequently with boric acid solution, 1 to 10,000 bichloride solution, or better still dressed with 1 to 5,000 bichloride vaseline.

INTRAOCULAR INJURIES.—The eye-ball, owing to its elasticity, is able to withstand a certain amount of compression without injury. It is saved from many severe blows from large objects by the surrounding bony ridge of the orbit, but occasionally it receives the full force of a blow, which, while not rupturing the eye-ball, alters its shape so that the coverings and intra-ocular contents are subjected to great strain and disarrangement. Blows from the hand, snowballs, or flying pieces of wood,

corks driven with violence from champagne or soda water bottles, or blows from any other fairly large objects with smooth surfaces are examples.

A common consequence if such traumatisms is hæmorrhage into the anterior chamber of some of the blood vessels of the iris, and more rarely hæmorrhage into the vitreous from rupture of some of the vessels of the retina or ciliary region. If the damage is confined to a break in the continuity of some of the blood vessels, absorption of the blood may take place and function be restored. If the hæmorrhage is profuse there is some danger of complicating inflammation from pressure, as glaucoma, and at best absorption and recovery of vision will be slow. Frequently when the anterior chamber has been freed of blood it will be found that the iris has been torn away from its ciliary attachment in one or more places (iridodialysis). This condition is usually permanent.

If the injury causes laceration of the capsule of the lens, permitting aqueous humor to invade the lens substance, a traumatic cataract will result. Traumatic cataract may also occur without rupture of the lens capsule, simply from the concussion to which the eye is subjected. Severe contusion may result in rupture of the zonula and dislocation of the lens. The dislocation may be partial or total, depending upon the extent of the rupture of the zonula. If partial, the lens is usually found tilted forward into the space immediately behind the iris. Occasionally the partial displacement is backwards into the vitreous, and I have seen lenses swinging backward into the vitreous by a hinge of suspensory ligament that had escaped the effects of the injury. In total dislocation the lens either falls into the vitreous or is forced forward through the pupil into the anterior chamber. Partial, and especially complete, dislocation of the lens is very apt to set up irritation ending in iridocyclitis or acute glaucoma unless promptly relieved.

Severe contusions or concussions may result in rupture of the retina or choroid, or more or less extensive detachment of the retina, with attending disturbance of vision. The diagnosis can only be made upon ophthalmoscopic examination. If there is only rupture the appropriate treatment will be rest of the eye and cold applications. If there is detachment the patient should be placed in bed on his back, both eyes being bandaged, with a view to encouraging reattachment of the retina.

Rupture of the eye-ball may occur from a severe contusion and is usually of serious import, the majority of such eyes being lost. If there has not been severe injury or loss of intra-ocular contents the wound may be closed with sutures in an attempt to save the eye-ball. If there has been loss of or hernia of intra-ocular contents, enucleation should be per-

formed at once. Extensive rupture, no matter how carefully treated by aseptic and antiseptic precautions, is very apt to end in suppuration and require excision of the eye-ball. Wounds in the ciliary region are particularly apt to produce sympathetic ophthalmia, and sympathetic irritation may develop as early as two weeks or as late as many years after the injury.—A. E. Bulson, Jr., B.A., M.D., of Fort Wayne, Indiana, in *Fort Wayne Medical Journal-Magazine*.

LARYNGOLOGY AND RHINOLOGY.

Under the charge of PERRY G. GOLDSMITH, M.D., O.M., Toronto, Fellow of the British Society of Laryngology, Otology and Rhinology.

A DISCUSSION ON THE LARYNGEAL DISTURBANCES PRODUCED BY VOICE USE.

At the recent meeting of the B. M. A., Dr. Middlemas Hunt introduced this subject. He arranged his material under the following heads:

1. Use of voice through its whole compass, at definite degrees of pitch, and usually for short periods of time—singer's lesions, hyperæmia, muscle paralysis.

2. Use of voice for long periods but with prolonged intervals of rest—preachers' and public speakers' lesions, chronic congestion, phonasthenia, neurotic disturbances.

3. Daily use of the voice for many hours at a stretch—school teachers' lesions, laryngeal nodules, fibromata.

4. Violent use of the voice for long or short periods and in unfavorable surroundings—hawkers', drill sergeants', and auctioneers' lesions, submucous hæmorrhages, rupture of muscle or ligament, pachydermiasis.

5. Use of the voice for long or short periods at an unusual pitch, or in an unusual manner—actors' in certain roles, choirmasters', and falsetto singers' lesions; congestion, hypersecretion, benign growths, especially fibroma.

Hunt includes, under the heading "Laryngeal Disturbances," those changes which are detected by the ear of the observer, or by the subjective sensations of the patient, as well as the objective changes seen in the larynx. Emphasis is laid on the fact that for the discovery and cure of many of those laryngeal disturbances more is needed than skill in the use of the laryngoscope. A practical knowledge of the essentials of voice production and some acquaintance with the art of singing, are

also necessary. Hunt not infrequently follows his patients to hear them sing, preach, teach, or act, and has frequently gained more than by examining their throats. Sometimes one is able to detect laryngeal disturbances only by examining the patient immediately after he has sung. Laryngologists are agreed that the voice troubles of the singer are almost always due to wrong methods, and rarely to over use. The foundation of all artistic singing rests upon the right management and control of the breathing, and upon the perfect looseness of the tongue, throat and jaw.

The two errors in training which constantly lead to serious vocal disturbance are (1) the forcing upwards of the registers, especially carrying of the chest tones too high, and (2) mistaking the natural quality of the voice so that a tenor is trained as a baritone, or a mezzo-soprano as an alto or *vice versa*.

This paper, which appears in the *Journal of Laryngology*, is an extensive one and a valuable contribution to the elucidation of these difficult cases.

THE RESULTS OF THE EXAMINATION OF THROAT CULTURES FOR DIPHTHERIA.

Joseph F. Biehn, bacteriologist of the Health Department, Chicago, writes in the *Clinical Review* on the bacteriological findings in throat cases. He divides all inflammations of the throat, clinically, into two general classes, those with a membrane, and those without. Either may or may not be true diphtheria. Bacteriological examination is necessary to make a positive diagnosis. The frequency of cases of mistaken diagnosis is shown by the municipal laboratory. Of 364 cases diagnosed, clinically, as diphtheria, only 135, that is 37 per cent., contained diphtheria bacilli. Allowing, say, 13 per cent. for unavoidable errors, it is found that only 50 per cent., diagnosed clinically as diphtheria, were true diphtheria. The error, however, works out to the patient's advantage. The danger is in treating cases of diphtheria for tonsilitis. This is quite often the case, for of 416 cases diagnosed clinically as tonsilitis, 68, or 16.34 per cent., showed diphtheria bacilli, though 10 per cent. showed no membrane.

Biehn expresses his opinion as to the clinical diagnosis of the disease as follows:—"There is no known clinical sign, or combination of signs or symptoms, always present in every case of diphtheria by which this disease can be certainly diagnosed."

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EDITORIAL.

THE CANADIAN MEDICAL ASSOCIATION JOURNAL QUESTION.

This subject has been up for discussion on a number of occasions ever since the reorganization committee reported last August to the annual meeting of the Association. If our readers will refer to our issue of December last, they will find the text of the committee's report, and an editorial dealing with the proposal to establish a journal as the official organ of the Association.

On that occasion we pointed out that with a circulation of 1,500 members the journal would cost annually at least \$10,000 to \$11,000. It will be seen that the income from 1,500 members would only be \$7,500; but as a certain portion of this would go to the Association, there would be need for a considerable sum from other sources. These other sources are advertising, and a guarantee from the Association or some of its members. Laying aside \$1,500 to defray the expenses of the Association, there would remain \$6,000 to meet the cost of the journal. At the least \$4,000 to \$5,000 would have to be forthcoming either from advertising or the guarantees.

But this is all on the assumption of 1,500 paying subscribers. To secure these there must be a large amount of money expended, and much time given to the project. We do not think this number would be secured in five years. In the meantime the journal is being produced at heavy annual loss to the Association. We venture the opinion that it could not be put on a paying basis with less than \$10,000 on hand to commence publication with.

It is necessary to look a matter of this sort fair in the face. The journal could not be published more frequently than once a month. Only some two to four hundred persons attend the annual meetings, and many of these the same persons from year to year. The Association side of the question does not appeal, therefore, very strongly to more than a small percentage of the profession. If anything is going to appeal to the profession to secure members it would be that of securing the journal. But it is very doubtful if many would care to pay \$5 a year for a monthly when there are so many large weekly medical journals on the market

for the same price. Here, we think, is an insuperable difficulty in the way of issuing a monthly journal for the Association and charging \$5 for it.

But what would be the gain to the profession from the publication of such a journal? The present journals are always ready to assist the national association in every way in their power. The Association has, therefore, seven journals published in the English language at its command. If it had its own journal, these journals would be quite indifferent. They could not make use of any of the papers read at its meetings, nor publish the proceedings of the Association. They would look for their material elsewhere and leave the Association and its journal to work out their own salvation. We seriously think the Association is much better served by the present journals than it could be by one of its own. Every journal now published is truly loyal to our national association. The papers and proceedings by the present system receive a much wider circulation than they could hope to receive through the medium of an Association journal.

The *Dominion Medical Monthly*, in its January issue, remarks that "the publication of an official journal is a subsidiary question." We do not so regard it. We believe that the journal question is the most important one that will come before the Association, for it means the expenditure of a large sum of money, and might involve the Association very seriously, or cause its complete bankruptcy. The various items in the proposed constitution, such as title, objects, membership, branches, council, sections, meetings, officers, finance committee, funds, amendments, membership rules, guests, order of business, elections, duties of officers, duties of committees, scientific work, and amendments, are all of much less moment than the journal question, as they do not involve the Association in any liability.

The February number of the *Canadian Journal of Medicine and Surgery* takes the same view as we did in our December issue, that it would take at least \$11,000 a year to conduct a journal of respectable size, covering a circulation of 1,500. The remarks in the above journal are well reasoned and moderate.

It would seem to us that if it should be found inadvisable to embark on the costly project of publishing a journal, it would be quite out of the question for the Association to impose a membership fee of \$5. We believe that it is no part of the duties of the Association to undertake scientific or research work. The funds cannot for many years be sufficient to attempt anything so ambitious. This sort of work must be left for the universities and the provincial and federal laboratories. If every doctor in Canada was a member of the Association, and paid such

a fee as can be reasonably imposed, it would not justify any such expensive undertaking as research work.

We can only say again, as we did on a former occasion, if we are not correct in our views we shall give the fullest publicity to those of a different sort.

THE ONTARIO MEDICAL ASSOCIATION.

The twenty-seventh annual meeting of the Ontario Medical Association will be held in Toronto on the 28th, 29th and 30th of May coming. It is the duty of the profession of the Province to make the meeting a most successful one.

It is apparent to all who take an interest in this Association that it is not as well attended by members of the profession as it ought to be, and this is especially true of the members living out of Toronto. A special effort should be made this year to make the attendance large. Out of 3,000 doctors in Ontario there are rarely more than 200 present at the Ontario Medical Association.

There may be some reasons for this. One of these is that in many places there are good local associations where the practitioners of the district meet and discuss their medical affairs. Then, again, it may be that in the opinion of many the meetings of the Association have not been as interesting as they might have been. This opinion we think will not stand examination, as the meetings have been usually of a very high standard. It appears to us that the principal reason is apathy on the part of the profession.

This should not be the case. Whether the meetings of the Association are of interest from a scientific aspect or not, it is the duty of the profession to attend, and make the business side of the meeting of value. If this be done in future, there is little fear but that the gatherings will become much more interesting from the scientific standpoint. THE CANADA LANCET has continuously been pointing out that the medical profession of Canada has been paying too little attention to the worldly side of things. It is in grave risk of having the safeguards around it, and for the benefit of the public, swept away. The country is full of agitators against the medical profession.

We learn that an effort will be made to introduce a number of discussions on some important topics of public interest. Among these may be mentioned: The Profession in Relation to the Public, Public Health Aspects, Medico-Legal Aspects, Ontario Asylum Work, and The Water Supplies of the Province.

On all these subjects we have been urging the medical profession to take a keen interest. It will not do, however, to meet and discuss

them, and, perhaps, pass some resolutions. Nothing is of the slightest avail in effecting needed reforms but work. The profession may just as well make up its mind now as at a later date that if it ever hopes to be a factor in the public life of this Province or country it must act as a body. It is of no use to point to the fact that there are 6,000 doctors in Canada. What counts with the politician is the fact that these are organized into a coherent body capable of expressing a united opinion upon public health questions.

Those who vend proprietary medicines are well organized. They meet in regular session and banquet well-known politicians. It is surely plain to the dullest what effect this must have on legislation. It is a harsh statement to make, but we think it can be well sustained that legislation in Canada and the various Provinces is to a considerable extent a matter of lobby and bargain. Those who can count most votes or pass under the table most money, usually win. Take a question such as vaccination, and in Toronto the efforts of some lay agitators, backed up by some exploded statistics, led to the repeal of vaccination before entering the public schools. It mattered nothing that there were 400 medical men in Toronto who knew that the course of the School Board was very wrong. They were not organized and therefore had no influence.

It may be admitted that the Ontario Medical Act is of very little use, except to give the Council power to fix a standard of education and examine students. It must always be borne in mind that when a medical case gets into the courts it comes before laymen, for judges are as much laymen to medicine as a carpenter. Law cases come before judges who were lawyers prior to their appointment to the bench. They are trained to understand the points at issue. In the case of the medical profession there is no medical expert or advisor to the court. A judge may be learned in the law and very little and care less about the nice points of medical ethics.

If what we have said has any effect in the way of awakening the medical profession to take a more lively interest in what might be termed medical politics, or medicine as it is related to all its environments, then we will have accomplished our purpose. While we are very anxious to be right, we are more anxious to get the profession at thinking.

THE PROPOSED ACADEMY OF MEDICINE.

At a recent special meeting of the Toronto Medical Society there was a full discussion of the report of the committee on the proposed Academy of Medicine for Toronto. There was a marked unanimity of feeling that the Library Association, the Pathological Society, the Clin-

ical Society, and the Toronto Medical Society, should join forces and form an Academy for Toronto. The recommendations of the committee, with the addition of a few amendments, were approved of and sent on to the joint committee, to be carried on to completion.

We have advocated for years the formation of such an Academy, and are glad that it would appear now to be an assured event. There is no gainsaying the fact that it will bring much benefit to the profession of Toronto.

In the formation of the Academy it was admitted by everyone that all who are now members in good standing in any one of the societies forming the Academy should have the right to become members of the Academy if they so desire. The right of the Council to pass upon members should be reserved to such as may wish to join at a later date, and who may not be members of the foregoing societies retiring into oblivion in order that the Academy may come into existence. This is the only fair and just course. Not a single member of these societies should be excluded from the Academy should he wish to be one of its members.

Should a broad and liberal spirit prevail towards the whole profession of the city, the Academy will prove of undoubted value. If, on the other hand, any group of medical men attempt to dictate its policy, there will be a protest raised and new societies will be brought into existence. We hope that nothing will occur to mar the bright outlook ahead of Toronto's Academy of Medicine.

The fee is fixed at \$10. This gives membership to the library and one of the sections, with associate membership in the other sections. This, we think, is reasonable. The library fee now is \$5, the Toronto Medical Society \$2, the Pathological Society \$2, and the Clinical Society \$2. We feel that there will soon be a large membership. We wish the Academy every success.

THE VISIT OF DR. THEODORE SCHOTT.

The Ontario Medical Library Association issued invitations to hear a lecture by Dr. Schott, of Nauheim, on the treatment of chronic heart diseases. In response to the invitation there was a goodly attendance of the profession of Toronto.

The lecture was read by Dr. Schott, and, though in very good English, it could only be taken down by a competent stenographer, in a materially abbreviated form, owing to the very pronounced foreign accent of the reader. This being the case, a request was made for his address, in order that a copy might be taken of it, the original to be returned him at his hotel in a few hours. This he declined to do, but gave us his

address in New York to write to. He was communicated with, making the special request that he send a copy of his address for publication in Canada. In reply, he sent an abstract which was of no practical value. We had, therefore, to fall back upon our own notes. It may be mentioned that Dr. Schott stated to us that he had promised his paper to some journal in the States, and did not think it was quite proper to give it out in Canada.

Now, we have no hesitation in saying that we do not agree with this. Dr. Schott is not the only one who has acted in the same way. We are of the opinion that when a Canadian association introduces a doctor to a Canadian medical gathering, the least he can do in return is to show the courtesy of leaving a copy of his address for publication. We do not wish to be too severe, but it is possible that some of these flying visits, and the delivering of a series of lectures in various places, may not rise much above the level of advertising events. It is more than likely that some of the patients at Nauheim may be from Canada and the States. At all events, he should have been willing to let us all read what he said.

We raise our protest against the custom, all too common, of persons of note from abroad enjoying the hospitality of Canadian medical societies before which they air their views, and then ignore the Canadian medical press as unworthy of their papers. We hope there will not be another instance of this sort for a long time. If a Canadian medical audience is good enough to hear these papers, then Canadian medical journals are good enough for their publication.

TUBERCULOSIS A SOCIAL DISEASE.

S. A. Knopf, in a recent issue of the *Johns Hopkins Hospital Bulletin*, contributes a very exhaustive article on the above subject. He sets out with the statement that tuberculosis in infancy is due on the one hand to an inherited or acquired tendency to the disease, and on the other to exposure to infection.

He does not give the slightest credence to the opinion that tuberculosis in the parents confers an immunity on the children. Much weight is given to the importance of heredity. In addition to this, everything that lowers the vitality of the child tends to make it a ready victim to the infection. For these dangers the main, or sole, remedy is education. The people must be taught that the disease is communicable, how it spreads from the sick to the well, and how to prevent this spread. The following rules are laid down for school children :

1. Every child or adult can help to fight consumption. School children can be helpful by complying with the following rules :

2. Do not spit except in a spittoon, or a piece of cloth, or a handkerchief used for that purpose alone. On your return home have the cloth burned by your mother, or the handkerchief put in water until ready for the wash.

3. Never spit on a slate, floor, sidewalk, or playground.

4. Do not put your fingers in your mouth.

5. Do not pick your nose or wipe it on your hand or sleeve.

6. Do not wet your finger in your mouth when turning the leaves of books.

7. Do not put pencils in your mouth or wet them with your lips.

8. Do not hold money in your mouth.

9. Do not put pins in your mouth.

10. Do not put anything in your mouth except food and drink.

11. Do not swap apple cores, candy, chewing gum, half-eaten food, whistles, bean blowers, or anything that is put in the mouth.

12. Peel or wash your fruit before eating it.

13. Never cough or sneeze in a person's face. Turn your face to one side or hold a handkerchief before your mouth.

14. Keep your face and hands and finger-nails clean; wash your hands with soap and water before each meal.

15. Do not kiss anyone on the mouth, nor allow anyone to do so to you.

16. When you don't feel well, have cut yourself, or have been hurt by others, do not be afraid to report to the teacher.

17. Be just as careful and cleanly about your person at home as in school.

18. Clean your teeth with toothbrush and water, if possible, after each meal, but at least on getting up in the morning and on going to bed at night.

19. Learn to love fresh air, learn to breathe deeply, and do it often.

In France, a number of useful rules have been printed on the covers of all the text-books in the hands of the children.

The Superintendent of Education should give instructions to teachers and pupils on the prevention of tuberculosis. In this way a vast amount of knowledge could be disseminated among the people. Schools should be sanitary and afford proper means of outdoor exercise for the children.

He refers to the dangers of underfeeding, going to menageries, living in close rooms, and the baneful effect of child labor. In no instance

should teachers or children suffering from tuberculosis be allowed to attend school.

Attention is directed to the need for care in sweeping and dusting that particles be scattered in the air to the least extent possible.

The evils of alcoholism is spoken of as one of the great factors in the causation of consumption. Under this heading patent medicines containing much alcohol are condemned. Reference is made to the statement of Dr. A. Jacobi that the people in the States spend about \$200,000,000 yearly on proprietary medicines.

Next to alcoholism comes poor houses and tenements, with their lack of air and sunshine. But better houses and proper food mean more cost in living, and this demands higher wages, that the working classes may live better.

All forms of transportation should be made as clean and sanitary as possible, such as railway carriages, steamships, etc.

For those who have the disease and are limited in money, there should be sanatoria. This is the cheapest way for the people to care for these cases, and will in the end save money by curing some and preventing the spread of the disease. A comparison of the cost of this plan is given as against that of allowing consumptives to run on till they die, and thereby give the affection to others. He concludes by saying: "The solution of the tuberculosis problem means the solution of the social problem. Whatever prevents the development of tuberculosis will prevent social misery; whatever cures it will help to cure the social ills. Inasmuch as we diminish tuberculosis among the masses we will diminish suffering, misery, and social discontent, and when the problem of tuberculosis will have been solved, we will be nearer the millennium than we have ever been before."

THE TREATMENT OF GENERAL PERITONITIS.

Mr. A. W. Mayo Robson, of Leeds, in the Purvis Oration (*Lancet*, 29th Dec., 1906) lays down some very clear cut rules.

In the first place, he agrees with the late Lawson Tait that the administration of morphine in peritonitis and its employment after operations has done much harm.

The second point taken up is the administration of purgatives. He admits that in post-operative distention, the exhibition of salines and other aperients as advocated by Lawson Tait does good. But in peritonitis from appendicitis and perforation of any of the viscera the practice of giving such drugs is very harmful. Roux is quoted to the effect that

by the starvation treatment and the avoidance of opiates 95 per cent. of acute cases of appendicitis recover without operation.

In the surgical treatment of general peritonitis the following course is urged:—

1. The removal or repair of the cause with or without irrigation of the peritoneal cavity.

2. Drainage of the site of operation by a split rubber tube containing a strip of gauze, and of the peritoneal cavity by a tube in the pelvis, assisted by the reclining posture, which for years he has advocated in all abdominal operations.

3. Rapidity of operation, and the avoidance of unnecessary exposure and handling of the viscera.

4. The prevention of shock and the free administration of saline fluid by the rectum.

5. The rectal alimentation of the patient and the stoppage for a time of mouth feeding.

6. The avoidance of opium and sometimes the administration of repeated small doses of calomel subsequently to operation.

The good results obtained by these rather simple methods led some surgeons to advocate and try a much more thorough operation; and a continuous stream of fluid was run through the abdomen, or the patient was submerged with the wound open for hours in a saline solution. The lecturer hopes that these methods are dead. But there is still advocated by many a heroic treatment described by one writer thus: "The abdominal cavity cannot be cleansed without evisceration, and at the same time the bowels must be incised and the intestine emptied by rubbing between the index and middle fingers of both hands or with a special instrument, and of needful the stomach must be punctured and the cæcum emptied."

The treatment advocated by Dr. A. J. Ochsner, of Chicago, consisting of rest and starvation, is reviewed. Much praise is given to it in all cases of appendicitis where skilled surgical aid cannot be obtained. The treatment consists in rest, the avoidance of all food and drink by the mouth, and the relieving of thirst by saline enemata, and later on some nourishment per rectum. This treatment has given very good results. In many cases where the disease had advanced beyond the time for safe operation, the patients made good recoveries when thus treated. Notwithstanding these excellent results, Mr. Mayo Robson holds that the better course to follow is to perform the limited surgical operation, as described by himself or Murphy, of Chicago, in cases of spreading or general peritonitis due to appendicitis.

Mr. Robson then takes up the difficulty in making an absolutely certain diagnosis in sudden abdominal cases. If one could always be sure of the diagnosis, the treatment by delay might be justified in some cases. For example, it is very difficult to differentiate acute pancreatitis from perforative appendicitis, or a perforating duodenal ulcer from a perforating appendicitis. This seems to decide the question in favor of an operation of the conservative type. There can be but little chance of a recovery by delay in intestinal strangulation, or in a perforated gastric or duodenal ulcer; and these conditions can only be made perfectly clear by an operation. The cause of the peritonitis can then be dealt with and the treatment already advanced followed, without having recourse to the heroic methods of some modern surgeons. In the same way delay in peritonitis from perforation in typhoid fever would be a fatal mistake.

He then takes up the conservative operation for acute perforative peritonitis, and gives much credit to Dr. Murphy, of Chicago, for pressing its claims. The treatment is practically that of Mr. Robson as advocated by him in 1896. Dr. Murphy attributes the good results of this method of treatment of general peritonitis to the following points: 1, Relief of pressure at the site of infection; 2, providing for continued drainage; 3, avoiding manipulation, sponging, and washing of the peritoneum, refraining from separating adhesions, and rapid operation; 4, aiding the elimination of the ptomaines and toxins in the blood by the administration of large quantities of fluid through the rectum; 5, assisting with gravity the flow of pus to the least absorbent zone of the peritoneum, the pelvis, through the Fowler position; and 6, the administration of large doses of streptolytic serum. Dr. Murphy states that the most important points are: 1, Rapidly treating the cause without unnecessary manipulation or traumatism to the peritoneum; 2, relieving the pus pressure by drainage; and 3, the giving of large quantities of fluid by the rectum.

In order to properly understand the subject of peritonitis certain facts must be borne in mind: The lethal issue is due to toxins absorbed from the peritoneal cavity; the infection may arise from a perforation or by the passage of germs through the gastro-intestinal canal in unhealthy conditions; the first germs usually to pass through in this way are the staphylococci albi; when the peritoneal cavity is infected the germs should be allowed a means of escape; the use of opium masks symptoms and is otherwise objectionable; the cause must be repaired in order that drainage be of service; the administration of salines by the rectum; the semi-sitting posture; all food and fluid by the mouth should be withheld; and the avoidance of purgatives, as they tend to spread infection.

SIR VICTOR HORSLEY ON THE NECESSITY OF UNION IN THE PROFESSION.

On the 12th of December last in Sheffield, Sir Victor Horsley delivered an address on the above subject. It is but a few months since we had Sir Victor with us, taking an important part at the meeting of the British Medical Association. His words in Sheffield are of special significance, and we take pleasure in giving their salient features to our readers. On many occasions we have called upon the members of the medical profession of this country to bestir themselves in the matter of the business side of their profession. It is noteworthy to see such an exponent of medical opinion as Sir Victor couching his lance in behalf of the *worldly* aspect of the healing art. The doctor must not be too altruistic. He should do all the good he can to his patients both physically and morally, and to the public generally along the lines of preventive medicine; but he must be paid for these valuable services. To attempt to do without food, shelter and raiment would end, in the case of the doctor, as it would in that of any one else, in disaster.

Sir Victor points out that there is nothing undignified in the term "trade," and that all who work for a reward may be said to belong to a trade. In like manner there is nothing wrong in belonging to a union, provided the object of such union is to uphold the best ideals. Then it comes to be a live question whether or not the medical profession shall adhere together as a whole in protection of the common interests, or whether the self-interest shall predominate. Here the lecturer urged that the duty which every doctor owes to his neighbor as a member of the human family, he owes in a special sense to his neighbor in the medical profession, and that, therefore, the members of the profession be mutually united with and interested in each other.

The general good to the profession from such cohesion among its members cannot be over-estimated. He points out three important ways in which it does good:—

1. The standard of professional life and conduct should be maintained at a high level; 2, that a medical practitioner shall receive a fair wage for his work; and 3, that the State should recognize the importance, the difficulties, and the national responsibilities of medical work. The only point that could cause any discussion between the public on the one hand and the profession on the other, would be regarding what is a fair wage.

Now, it must be borne in mind that during the past 25 years the wages of the general community has been rising, while the general cost of living has not materially increased. In the case of the medical profession, taxes and the general cost of living, and the upkeep of appear-

ances, have been increasing, while the income of doctors, as tested by contract practice, has not risen. To counteract this condition, the members of the medical profession must unite and fight their own battles, as has been so successfully done in some places. But all must be loyal to the effort.

On the question of why the income of doctors is not rising, indeed, in many instances is actually falling, several reasons are advanced. Among these are to be found the lessened rate of sickness from an improved condition of sanitation. Then, again, there is markedly lowered birth rate. Antiseptic surgery and obstetrics have done much to reduce the amount of sickness. Another cause is to be found in the large amount of prescribing done by druggists. The tablet and the elixir are handed over the counter for almost every ill. Then comes in the subject of hospital abuse. Sir Victor does not hesitate to state that this is a serious matter to the general practitioner.

The overstocking of the profession is a subject of much interest and affects the economic conditions of the profession very much. The custom of taking contract practice at low rates has done much harm. The "six-penny doctor" has harmed the whole profession. One of the reasons for overcrowding is that there are in Britain so many licensing bodies. This applies to a considerable extent in this country. How much better it would be if we had a common standard for all Canada? Sir Victor sees but little hope of improving the situation in Britain so long as there remain so many bodies with power to grant qualifications.

Then the profession must become a unit in order that it may secure from the Government needed legislation recognizing its rights and position in the larger community of the general public. The Government has not done its duty to the medical profession. In the case of the army, which is not as useful to the general community as the medical profession, there are pensions. Some professions and trades with a shorter and a cheaper period of preparation are more fully protected than the medical profession. This should not be. But the Governments of the day are the creatures of the people, and, therefore, it behooves the medical profession to influence the people in order that their representatives may deal justly by the doctors.

The deductions that must be drawn from such an address is that the medical profession must organize to safeguard its interests. The whole system of lodge and contract practice as we now have it is doing a vast amount of harm to the profession and upsetting its economic conditions. Then, again, there is a widespread abuse of the privileges of patients at hospitals, and these institutions are giving free attendance where it should not be given. An effort should be made to lessen the

overcrowding of the profession. This can be best done by raising the standard of medical education. Then, finally, the medical profession must be a solid unit, a trades-union if you will, for the purpose of securing such legislation as may be necessary to safeguard the rights of the medical profession. Nothing short of these changes will meet the present conditions, and bring even a partial cure for our many difficulties.

THE VENEREAL PERIL.

The subject of venereal diseases is a very important one. It will bear much discussion from many points of view. In several countries movements are on foot looking towards the control of these diseases and the mitigation of their evils. In the *Journal of the American Medical Association* for 22nd December, 1906, there appeared an editorial of interest to the profession. We take the liberty of quoting from it and endorsing the opinions therein expressed.

“In the ever-needed reforms here indicated the medical profession must necessarily be the leading factor. That large portion of mankind which is not influenced by purely moral considerations or that needs an unmoral stimulus to self-control, can be reached to a large extent by medical instruction, and the latter certainly will be a valuable adjunct to the higher arguments with the weak and the weaker wilful transgressors.

“The spread of venereal diseases is largely through ignorance, and there is doubt whether physicians have done all that could have been done in this matter. There have been too many, even in our profession, who have taken the so-called ‘man of the world’ view of the question, and their counsel has been in some cases distinctly bad. Since Noeggerath, however, published his paper on the dangers of gonorrhœal infection there has gradually developed a very marked change in medical opinion in regard to that disease. While his ideas were perhaps considered as extreme, they contained so much truth that there are few, if any, who will nowadays ignore them. We have also widened our views as to the dangers of syphilis, though it may be that the old ostrich policy of wilful blindness is still in evidence in the attempts to belittle its agency in the causation of such disorders as paresis and tabes, and we can not say yet that we have an exhaustive knowledge of its capacities for evil to mankind.

“Although the medical profession is, or certainly ought to be, thoroughly alive to the physical evils of immorality, the general public is still largely in a state of ignorance. If, as claimed by some authorities, 75 per cent. of the special diseases of women that call for medical or

operative relief are due to gonorrhœal infection, and if this infection exists or has existed (and we can often not tell when it ceases to exist) in 70 or 80 per cent. of the young men of our large cities, as some authorities declare, the condition of affairs is certainly a sufficiently formidable one. Although the percentages are doubtless over-estimated, the fact that they seem to be justified to some observers is bad enough. How, except through ignorance, rational men will subject themselves to the risk of incurring diseases that involve such consequences is hard to see. The difficulties of publicity are obvious, but if the evil is to be checked it will have to be largely through popular education by parents, teachers, clergymen, and especially by physicians. The general unanimity of this opinion among medical men who have given due thought to the subject is very evident in the papers and discussions of the symposiums, and the propositions as to how this is to be brought about are well worthy of consideration. The tone of the speakers is gratifying and encouraging, and signifies a determination to spare no effort in attempting to solve the problem.

“How far all the legal measures that are proposed, and that are said to be in actual existence to a certain extent in some parts of the country, will be effective will have to be decided by experience, but they cannot be even enacted, much less adequately enforced, without an educated public sentiment behind them. Notification, without needless publicity, should certainly be a legal requirement, as it is in other far less dangerous infections; the successful enforcement of this regulation would depend on physicians, and their attitude as regards the law should not be in doubt.

“Within the past few years we have seen the public aroused in regard to the perils of tuberculosis; the movement is still in progress and intolerant zeal may need to be checked if the popular interest in the matter increases as it seems likely to do. The evil of venereal disease is just as great. It may not cause so much direct mortality, but its evil effects on the welfare and happiness of society are much greater. With the present drift of modern civilization these are accentuated; the increasing migration into cities, the stress of life, making early marriages less frequent, the tendency in our mixed population to neglect the higher moral considerations and to undervalue religious instruction, all help to increase the evil.

“It is the duty of the medical profession to take the lead in this movement for the enlightenment of the public regarding the ravages of these two preventable diseases. In fact, here and there in different parts of the country county societies are already at work, as we have noticed in our news columns on several occasions. The work done by the societies

referred to is usually in the form of distributing leaflets and in limited public meetings.

"To repeat, it is a question of education, and everything that will enlighten the public in regard to the matter is worthy of encouragement."

WOMEN AND SYPHILIS.

At a meeting of the Academy of Medicine of Paris, Dr. Fournier, the eminent authority on syphilis, took up the subject of how women become infected with syphilis.

He pointed out that 20 per cent. of his female syphilitic patients were married, and contracted the disease from their husbands. In one-third of the cases the husbands contracted the disease after, in the other two-thirds before, marriage. In the majority of the cases the women became infected during the first year, mostly in the first six months.

As the result of these investigations, Dr. Fournier concludes that men marry too soon after they have contracted the disease. Formerly he thought three years a fair time to allow, provided treatment had been thorough. Now, however, he thinks at least five years should be insisted upon, and that the case should be watched in the most thorough-going manner.

His reason for this view is that there are so many examples of late syphilis assuming an active or infecting character that it is necessary to insist on a lengthy period of observation and treatment before permission to marry is granted. The disease has been conveyed by the husband to the wife as late as nineteen years after the date of his own infection.

Cases of syphilis in the male, not treated or insufficiently treated, are specially dangerous. He insists that syphilitics should not use tobacco, as it tends very markedly to cause late secondary symptoms.

THE EVOLUTION OF THE STREPTOCOCCI.

For the past ten years, much of the scientific work in medicine has been directed towards the discovery of the life history of the various germs that attack man and the lower animals. The importance of this field of research justifies all the attention which has been given it, and, as yet, only the border land of the subject has been touched upon compared with what is yet to be discovered regarding the pathogenic bacteria. Although much remains to be done, much has also been done. Of the life history of many germs we now know a good deal.

Every effort to elucidate further the growth and characteristics of any important pathogenic organism is, therefore, of interest. Along this line we note with much pleasure the work done by Dr. F. W. Andrewes, of London, as revealed in his Dobell lecture. The lecturer speaks of the streptococci as a group, which seems to be succeeding well in the struggle for existence, and causes some of our commonest and most dangerous diseases.

The speculation is thrown out that some of the fungi may be the result of the evolution of bacteria during the bygone ages. Further, the lecturer suggests that bacteria have acquired the power of adapting themselves to very different environments, and this is one of the ways in which evolution may take place, as well as by a complexity of structure.

Cocci are placed lowermost in the bacterial scale. The sphere is a more primitive form than the rod. In the case of the streptococci the division takes place across a given axis and this gives rise to the chain found to exist in this variety of organism. In the variety of streptococci met with in scarlet fever an occasional rod or bacillus formation is found not unlike that of diphtheria.

Another feature in the growth and development of streptococci is that the capsule of the coccus varies very much, according to the culture media. When grown on certain media the capsule may become very thick. The pneumo-coccus, which is grouped with the streptococci, has usually a thin capsule, but when grown within the animal body the capsule becomes greatly developed.

The lecturer thinks it very difficult to divide the germs streptococci into separate species. It is in this further division that morphology proves so uncertain a guide. It is not possible to believe in the absolute fixity of species, and the species of streptococci may vary a good deal and shade off into each other. The evolution of these minute organisms may be rather along physiological than morphological lines. Thus it may be their pathogenic qualities may vary a great deal, and no morphological features to distinguish the species of the genus streptococci from each other.

Some varieties of bacteria are very persistent, and live in nature, producing themselves in great numbers. To such belong the colon bacilli and the streptococci. While this is true, there is marked variability in their species.

With regard to the life of bacteria, three varieties are noted. First, there is the prototrophic, or those forms which can subsist on mineral food, as nitrogen compounds, such as ammonium tartrate. The second class, the metatrophic, live on a more complex set of compounds; or organic matter that results from decomposition. These are known as saprophytes.

The third class, the paratrophic, live on complex organic compounds, such as are found in the living animal body. It is here that we meet with those dangerous to life.

The streptococci seem to have cut adrift entirely from the first class, and are now saprophytes and animal parasites, or are metatrophic and paratrophic. The lecturer goes on to show that the alimentary canal of animals is even more abundantly infested by the streptococci than by the colon bacilli. These are voided and get into the air in the form of dust-borne germs. When not soon taken back into the digestive canal, they do not persist free in nature long. In sewage a certain amount of reproduction takes place. They cannot grow and multiply for any length of time outside the animal body. It would appear that they are confined to animal life for their existence, and when voided by one animal must find another animal host. They have succeeded in adapting themselves to a life in the alimentary canal, and this gives them a great advantage in the struggle for an existence. This life within the intestinal canal and in the open air has made the streptococci both anærobic and ærobic.

The streptococci, in the course of their evolution, have acquired some other interesting characteristics. The range of temperature they can withstand must have changed since the primitive state of the organism. Under 18 deg. C. they do not grow, and 54 to 56 deg. C. will destroy them. The pneumococci can scarcely flourish below 25 deg. C. They have also acquired the power of resisting chemicals, as example they will grow in broth containing 1-1000 carbolic acid. Another feature of the life of the streptococci is their power to live on such a wide variety of food stuffs, and absorb such a variety of chemical bodies. This is the result of a long process of evolution.

Most of the streptococci are still saprophytes, but some have advanced to the stage of true parasites, and can thrive in the living animal body. These are destroyed by various actions such as phagocytosis, bacteriolytic action of the blood, the presence of poisonings, etc. The higher animals have evidently been evolving resistance, while the organisms have been evolving the power to attack them.

By a series of metabolic tests it is now possible to sort out the forms of streptococci which occur in disease. As many as 200 varieties have been isolated, and one writer speaks of some 300. The forms found in the intestines are weak, and do not seem capable of injuring the healthy body, but when weakened by disease they may attack tissues that are reduced in vitality. This explains such cases as erysipelas at the terminal period of life, or in other instances set up a chronic inflammation, a terminal septicæmia, or a malignant endocarditis.

Some varieties of the streptococci have gone much further in their evolution, and have acquired the power to attack the healthy animal, such as in erysipelas and the pneumococci. These have learned to develop poisons and hæmolysins, etc., that prove so serious to the animal economy. The long process of the higher animals being attacked by the weak saprophytic forms has evolved the virulent forms of the cocci; and in turn the animal has developed the power to resist. Here we see the struggle for the dominant place in nature. In bygone ages the organism was weak and the animal resistance low, but gradually both increased in vigor, and we now have virulent strains of cocci, and high resistance on the part of the animal.

But the lesson of all this is that the phenomena of an infectious disease are only phases of normal evolution. Fever and inflammation take on a new aspect. They are evidences of resistance by the animal and should not be too readily interfered with.

THE REPORT ON THE HOSPITALS OF ONTARIO.

There are in Ontario 61 hospitals, 37 refuges, 30 orphanages, 3 homes for incurables, 2 convalescent homes, 2 Magdalen asylums, 25 county houses of refuge. The total number of patients under treatment in the hospitals during the year was 41,950. This does not include those who received medicine and treatment as outdoor patients. The number of deaths during the year was 2,429; percentage of deaths to number under treatment, 5.79; total number of days' stay in the hospitals, 963,696; Provincial grant to hospitals, \$110,000; amount received from all sources, \$1,001,082.12; subscriptions, donations, etc., \$150,620.58; total expenditure for hospitals (including capital account, \$54,070.25), \$1,288,289; average cost for each patient per day, \$1.08; percentage of Provincial grant to total maintenance expenditure, 12.13.

Referring to the Toronto hospitals, it says:—

“There have been many improvements during the year in the equipment of Toronto hospitals. There remains, however, great need for increased accommodations in order to provide proper hospital facilities for a city of a population of a quarter of a million people. The new General Hospital will not be completed for at least four or five years, and by the time that institution is ready for occupancy the population of the city will no doubt be greatly increased. In the meantime every encouragement should be given to the existing hospitals to enlarge their accommodations and improve their facilities for the care of the sick and suffering in the community. In proportion to the population Toronto is lacking in hospital

accommodation as compared with many other Canadian cities and towns. While the new General is to be a great institution devoted to public, and especially to educational, purposes, and is likely to have the most modern equipment and facilities, there will be more than room for all the present hospitals. These, then, are worthy of generous public support from the municipality and the people they serve."

There is an interesting review of the work of the separate wards at the Toronto General Hospital for the treatment of neuropathic and psychopathic cases, towards which a Government grant of \$5,000 was made. The report says: "The step which has been taken marks a line of progress from which will probably develop a recognition of the great need of special hospitals where neurasthenic patients can receive special treatment. The neuropathic and psychopathic are closely related. Patients sent there are not insane, as the word is ordinarily understood, although technically there is little difference between the psychoses of the neuropathic and what is medically termed 'insanity'—the difference being one of degree rather than of kind. . . . The importance of the mission of the psychopathic hospital cannot be too highly extolled. We cannot shut our eyes to the fact that insanity is on the increase and if we are to combat that advance success must be sought by adopting prophylactic measures. To prevent insanity is better than to cure it, which we know too well is often impossible. The psychopathic hospital has passed the experimental stage. Other countries have proved its usefulness and it is not too much to hope that the commencement made in Toronto will be adopted at every asylum centre, so that by an early recognition and timely treatment of those symptoms, which so often are a prelude to insanity, the development of the disease may be checked. Every acute case of mental disturbance should be provided with treatment in a psychopathic hospital before being sent to an asylum. If that were done over one-third of the cases, it is estimated, would escape the dreaded stigma unfortunately arising from asylum treatment. Toronto should have a large modern psychopathic hospital separate and distinct for the care and treatment of these acute cases and where greatly needed clinical advantages might be afforded."

Referring to the necessity of hospitals for consumptives, regret is expressed that the municipalities are slow in taking advantage of the statutory aid offered to such institutions. The excellent work of the National Sanatorium Association is commended. It is urged that an institution for the care of feeble-minded women would be a valued addition to the public charities of Ontario. There are now in the Province at least 500 feeble-minded girls without proper custodial protection.

In respect to country houses of refuge, the report says, in part: "In some counties the management is much better than in others. Some

houses were found neat, clean and everything in good order. In others there was a lamentable lack of any system in management and discipline. The inmates in some of the institutions were found apparently well looked after and when sick properly nursed and nourished. In others the unfortunate inmates seemed to be left very much to take care of themselves, and the sick were, I fear, greatly neglected. In some of the houses the grossest indifference could only account for the conditions existing. No institution supported by public funds should be maintained in an unsanitary condition. In several houses the beds were found unclean and not free from vermin. In many the bathing facilities were quite inadequate and the inmates left altogether too much to themselves to see that their persons were kept clean. All these conditions could be remedied if sufficient help was employed. Too often the whole desire is to see not how well but how cheaply the institution can be conducted."

The orphanages of the Province, the report says, are well managed.

There are still some counties in Ontario without hospital accommodation.

The report reflects much credit upon Dr. Bruce Smith. There are a number of illustrations throughout it, and the whole report evinces a great deal of care in its preparation. Dr. Smith is to be congratulated upon the results of his labor in this thirty-seventh annual report on hospitals, refuges and orphanages.

STATISTICS OF MURDER.

A remarkable analysis of the crime of murder for the last twenty years by Sir John Macdonnell, Master of the Supreme Court, is the principal feature of the criminal statistics of England and Wales for 1905. The number of people sentenced to death for murder from 1886 to 1905 was 488 males and 64 females. In the last decade the actual number of cases in which execution followed the death sentence is shown in the following table:—

	Sentenced.	Executed.
1905	32	17
1904	28	16
1903	40	27
1902	33	22
1901	28	15
1900	20	13
1899	29	15
1898	27	11
1897	14	6
1896	33	20

Sir John writes: "The first fact to be noted is that murder, as might be expected, is a crime of men. Murder means murder by men in a great majority of cases. Out of 532 sentenced to death since 1886, 488 were men. The figures are more remarkable because as regards women they include cases of child murder, to which they are of course more prone than men.

"The next noticeable point, which is rarely mentioned, is that a great majority of the persons murdered are women. They are as three to one.

"A great majority of the murders are committed by persons between the ages of 21 and 40, that is, during the period of greatest physical vigor.

"A further notable point in regard to murders committed by men is the very large proportion of murders of wives. Out of a total of 488 murders for which men were sentenced to death in the twenty years under consideration, no fewer than 124, or about 1 in 4, were murders of wives by their husbands. Most of the men convicted of murder belonged, like the women, to the laboring classes.

"The principal causes or motives for murders during this period were: Jealousy and intrigues, 92; drink, 90; quarrels or rage, 68; revenge, 77; robbery, 50; extreme poverty, 39; illegal operations, 12, and for insurance money, 3. Saturday is a favorite day for murder, 208 having been ascertained to have taken place on that day."

Sir John Macdonnell makes this remarkable declaration of the relation of drink to crime:—

"Drunkenness is no doubt the cause of many crimes, and is the accompaniment of many others, but the theory of the close correspondence of crime and drunkenness must be viewed with caution."

THE WATER SUPPLY OF LARGE CITIES.

The Toronto Medical Society was favored at its meeting of 7th February by an address from Dr. Amyot, provincial bacteriologist, on the subject of the water supply of large cities.

He pointed out that the death rate in large cities fell with every improvement in the water supply. In some large cities it was as low as 7 and 8 per 100,000 of the population. In Toronto it has fallen from 62 to 21 by the carrying of the intake pipe out to its present position.

Dr. Amyot pointed out that for a number of years, specimens of water taken at the situation of the intake had shown that the water was contaminated with the colon bacillus, and, therefore, polluted by sewage. It was a very rare occurrence for any month to pass with the water at the intake in fit condition for drinking purposes.

He argued that it would be impossible by any known method to secure a pure condition of the water in the Toronto Bay. The laying of a trunk sewer might do some good, but could not cure the difficulty. He was of the opinion that a trunk sewer and the necessary plant for the treatment of the sewage could not be secured for a lesser outlay than \$6,000,000.

In the face of the fact that we cannot procure a pure water supply under the present system, he urged that the water be obtained from the lake at Scarboro', and that large filter beds be established for the proper treatment of the water. The heights at Scarboro' were 350 feet above the lake level. By his plan the city could obtain an abundant water supply of the maximum purity, and with a much higher water pressure than at present. It was pointed out that the annual death rate in Toronto was about 50 from typhoid fever, and this meant that about 1,000 suffered from the disease.

There can be little justification for any city laying down a water system at great cost and, through defects in that system, sell to its citizens typhoid fever to its water consumers, so as to cause the death of so many persons, and the sickness of twenty times as many from this one disease.

What is true of Toronto is true of other cities. All over the Dominion towns and cities are polluting our rivers and lakes. It would not cure the difficulty in the case of Toronto to bring the water from Lake Simcoe, as there are many towns pouring their sewage in that lake now, and as these towns become more populous the condition must become worse.

It is said that about 40,000 people die annually of typhoid fever in the United States. This would imply that 800,000 suffer an attack annually, or nearly half as many as are born each year. When life is considered of more value than dollars, there will be some hope that public bodies will do their duty.

THE NECESSITY FOR ORGANIZATION.

At the recent meeting of the Canadian Press Association the Ontario Medical Council came in for some severe criticism. From the reports of the meeting we take the following from one of Toronto's daily papers:—

"The powers of the Medical Council were brought up before the meeting by Mr. Joseph Clark, who urged that they were altogether too extensive. He believed that such powers should only be wielded by officers of the Crown. The speaker cited the Crichton case as an instance, where a man had been punished merely because he had departed from

the unreasonable rules of the medical fraternity as regards advertising. The Council had gone so far as to strike his name off the register, which meant practically the deprivation of means of livelihood, besides casting a stigma upon his character, which was emphasized by the use in their finding of such epithets as "scandalous" and "disgraceful." The Council had been prepared to deal more leniently with Dr. Crichton if he had submitted to them, but he had carried the matter to the High Court, where he was vindicated. Still, he was forced to pay his own costs. It appeared outrageous to Mr. Clark that, after establishing that the Council had acted with gross irregularity, Dr. Crichton should have had to pay from \$800 to \$1,000 law costs.

"Mr. Archibald McNeer thought that both the medical and the legal professions were granted too much power. The Medical Council and the Benchers enjoyed privileges that no private body, or even quasi-public bodies, should enjoy. He referred to the Soper case as one illustrating the absurd pretensions of the Medical Council. According to their decision, it was a crime for a doctor to engage a page of a newspaper to advertise himself, but perfectly legitimate to insert an ad. occupying two or three inches. It might appear that they were actuated by self-interest in the matter, but he claimed to treat it from the broad standpoint of public policy."

Some other members took part in the discussion, when it was finally left to the executive to deal with the matter and make such a presentation as it might deem fit to the Legislature.

Now, the medical profession as a body does not advertise, and medical societies do all that lies within their power to restrain members of the profession from advertising. It is just here that those who advertise extensively virtually subsidize the press.

It would not be a difficult task to show that many of the advertisements appearing in the columns of the press are grossly misleading and dishonest, and this is well known to those who are responsible for the conduct of the papers in whose columns these advertisements appear. There are advertisements for so-called remedies that are mainly alcohol, of others that contain most injurious drugs, and of others that put forth claims that are not possible. All this is wrong and fraudulent.

The press is a power, but this may be for good or evil. It matters little that the press in its editorial columns advocates what is reasonable and right, if it sells its advertising columns for the purpose of flaunting before the public articles of a dangerous or dishonest character. It is well known that where attempts have been made to regulate the sale of proprietary medicines by requiring that their composition be made known the press has taken very strong ground against such a course.

It is now the duty of the medical profession to look after its own interests. So far we have not heard of a territorial division in Ontario having held a meeting. Each Province has its own special conditions to deal with. The medical profession is undoubtedly the noblest of all the callings to which a man gives his attention, but it will not do to be too altruistic. All over the length and breadth of the land doctors are attending poor people at their homes and in hospitals free of charge, and yet the public ask the hospitals to care for these indigent poor at a loss, the municipality giving 40 or 50 cents a day for a short period, and the Government less than 20 cents. This is all wrong.

There is a bill before the Federal Government dealing with proprietary or manufactured medicines. The terms of the bill are of a most favorable nature towards these. The bill goes far enough to give the color of legal regulation without accomplishing a particle of protection to the people. Here is another instance where the medical profession is asleep, both to its own and the public's interests. No one looking after the doctor, and he does not look after himself.

PERSONAL AND NEWS ITEMS.

Dr. McNeill, of Charlottetown, P.E.I., is reported as much better.

Dr. Rutledge, of Grand Forks, N.D., a pioneer physician of the Red River Valley, is dead.

Dr. E. A. Hall, of Victoria, B.C., has decided to run as the labor candidate in that city.

Dr. David Jameson, M.P.P., of Durham, is spending the winter with his family in Toronto.

The Council of St. Thomas is moving in the matter of a new isolation hospital for the city. It is much needed.

Active measures are being taken to secure a library for St. Joseph's Hospital, Glace Bay, Nova Scotia.

Dr. W. A. Cameron, late of the house staff of the Toronto Western Hospital, has opened an office in Thessalon, Algoma.

Dr. Lipsey was recently unanimously elected president of the Board of Governors of the Amasa Wood Hospital, St. Thomas.

From the *Maritime Medical News* we learn that Dr. John Stewart, of Halifax, is much improved in health, and has gone to Bermuda for a change.

Dr. John Malloch, of Toronto, has been appointed pathologist to the Victoria Park Hospital, London, England. It is expected he will return to Toronto next fall.

Dr. J. M. Fawcett, of Mount Forest, has sold his practice there and will locate at Sault Ste. Marie.

Dr. Nelson Tait has opened an office at 498 Spadina avenue, Toronto, where he will devote his time to diseases of the ear, nose and throat.

Dr. J. O. Todd, of Winnipeg, who is known to our readers as a contributor, has gone to Europe for a period of post-graduate study.

Dr. A. H. Caulfield, for some time resident pathologist at Toronto General Hospital, has gone to Britain for a period of post-graduate study.

Dr. Geoffrey Boyd, 167 Bloor street east, Toronto, has announced that in future he will confine his practice to diseases of the nose, throat and ear.

The north section of the County of Wellington has had a lively time with smallpox. There are many cases, more or less serious, around Drayton.

Dr. and Mrs. Steele, of Regina, whose marriage recently took place in the East, will take up their residence on returning to that city in Dr. Pollard's house.

Dr. Donald Macalister, fellow and director of medical studies of St. John's College, Cambridge, has been appointed Principal of the Glasgow University.

Drs. W. F. Hamilton and C. F. Martin have been appointed physicians to the Royal Victoria Hospital, Montreal; and Drs. Cushing, Fry and McRae, associates in medicine.

The Department of Agriculture has issued a beautifully illustrated pamphlet on the making of maple sugar and syrup. The illustrations of the sugar camps are very interesting.

The people in Chatham are greatly exercised over the reports as to the smallpox in that place. The remedy is get vaccinated, and then there will be no more smallpox to report.

On motion of Mr. Fowler, a by-law was passed appointing—A. C. Jones, M.D., Medical Health Officer; A. C. Pettit, member of the Board of Health, and Geo. Forth, sanitary inspector, for Nelson, B.C.

The troubles of hospitals are not few. The City Hospital of Vancouver has had much trouble with the subject of the cooking, and the papers contained some rather racy reading about it.

The annual meeting of the Victorian Hospital, Thessalon, was a very successful affair. The hospital is making good progress. There were 105 patients admitted during the year. The finances are in a good condition.

The *Evening News*, of Buffalo, contained recently an interesting article urging the medical inspection of children in the schools. Much credit is accorded the women's clubs for the good work they have done in this matter.

The Canadian Nurse is making good progress. This publication merits support from everyone who is devoting her time to the nursing profession. Doctors would do well to recommend this journal to those nurses whom they know.

It is expected that a new Medical College building will be secured for London, and that it will be located beside the Hygienic Institute, when the site for the same has been selected. Some place near the Western University is preferred.

Dr. W. H. Lowry, who was one of the internes in Toronto General Hospital in 1901-2, and who has spent some two years abroad in special study of the eye, has commenced practice in Toronto, where he intends devoting himself to ophthalmology.

Dr. D. A. Rose, who was an important witness in a criminal trial at the recent Assizes in Toronto, was fined \$25 for being late. He stated that he had been unavoidably detained by a patient, but he was not excused on this account by the trial judge.

Mayor Scott, of Ottawa, has advised Dr. Law, Medical Health Officer, to appoint Dr. George Hilton, assistant to Dr. J. G. Rutherford, Dominion Veterinary Inspector, for the special testing of milk and inspection of cattle byres to be undertaken.

Through the neglect of vaccination, smallpox is quite prevalent in a number of places throughout the Dominion, causing heavy outlay of money, much loss of time, a good deal of suffering and disfigurement. People are hard to teach, and soon forget.

Dr. D. G. Fitzgerald has been appointed pathologist in the Asylum for the Insane, Toronto. He has studied mental diseases in the Asylum in Buffalo, and psychology in Johns Hopkins. Such an appointment is a hopeful indication, as it is on merit and not by political pull.

In Brandon the past year was a most successful one for the Woman's Hospital Aid Society, which succeeded in raising over \$3,500, and after putting aside \$800 for a refund to erect a Parliament building on the Fair grounds, have still \$700 in the bank. The balance was spent on the hospital.

Dr. Doherty, superintendent of the Provincial Asylum, British Columbia, has returned from Spokane, where he went to confer with E. C. McDonald, State Deputy Attorney-General, who is authorized by a recent United States law to receive from the British Columbia officials all insane patients who are citizens of the United States.

Owing to ill health, Dr. I. H. Davidson, of Manitou, Man., has been forced to take a short rest. He will go south. He will avail himself of the opportunity to do some post-graduate work, and spend most of his time visiting the Chicago hospitals and the Mayo Brothers' hospital at Rochester, Minn. On his return he will resume his practice.

The Sisters of St. Boniface Hospital desire to express their thankful acknowledgments for the following donations, viz.: Municipality of Morris, \$50; Municipality of Lorne, \$25; Joseph Biollo, \$50. Their grateful patient, Mr. Joseph Biollo, also sent a presentation of beautiful flowers and chocolates in celebration of his recovery from recent illness.

Sir Michael Foster, Unionist member of Parliament from London University since 1900, died suddenly on 29th January. He had been in ill-health for some time. Sir Michael Foster was born in 1836, and was professor of physiology at Cambridge University from 1883 to 1903, and in 1899 he was president of the British Association for the Advancement of Science.

Blindness is a terrible affliction. To ameliorate the evils of blindness, the State of New York has appointed a commission with Dr. F. Park Lewis as president, to enquire into the causes of blindness. The American Medical Association has also appointed a committee consisting of Drs. F. Park Lewis, J. Clifton Edgar, and F. F. Westbrook, to report on ophthalmia neonatorum.

The township of Sandwich West was practically isolated from Windsor during the early part of February, upon orders from the local health authorities, who deemed such drastic measures necessary to guard against possible infection from smallpox. It had just been discovered that the disease had gained a slight foothold in the township, and prompt steps were taken to meet the danger by preventing residents of the infected district from coming into the city.

The *News-Tribune*, of Blenheim, states that Dr. G. W. Fletcher and wife and child are there on a visit with the former's mother, Mrs. A. Laird. The doctor has just returned from London, England, where he went to continue surgical studies, but was obliged to return home on account of illness. He will return again to England in a few weeks and will probably be accompanied by Mrs. Fletcher.

Miss Margaret Cavan, of Thurso, nurse-in-training in the Water Street Hospital, Ottawa, fell from the window of her room at the institution and was instantly killed. Miss Cavan was but 24 years of age and had been connected with the hospital for about six months. The unfortunate accident has cast a gloom over the entire staff, for she was extremely popular and particularly progressive in her studies.

It is reported that a number of medical men throughout the Province are considering the advisability of waiting upon the Government and urging the enlargement of the Cabinet by the inclusion of a Minister of Public Health. This idea has been mooted with more or less persistency for some time, the proposition embodying a scheme whereby such a Minister's department would include the factory and sanitary inspectors.

At the Medical Students' Association meeting recently held it was decided to recommend to the students' representative council maroon and white as suitable colors for the University of Manitoba. These will not interfere with any other university of prominence and if adopted will not clash with the colors of any of the affiliated colleges. Steps are also being taken by the association to have the memorial tablets which were erected in the old building to the memory of the students and graduates who died in defence of their country, suitably placed in the new building.

"Worry, the Disease of the Age," is the subject of Dr. C. W. Saleeby's article in the January issue of the *Canadian Magazine*. The writer of the article does not advise an indolent life, but rather one of activity. He contends that it is not work, but care, that kills. Worry is the result of modern conditions, though the equivalent is to be found in the language and life of the ancients, but it was infrequent. It is a mistake to think that people living in the country are free from this evil. In cities unhygienic conditions favor its existence. Worry is the enemy of true happiness.

The grand jury in Toronto a short time ago made the following presentment to the presiding judge: "During the consideration of the charge of murder our attention was forcibly directed to the reprehensible practice of daily and evening newspapers, in Toronto and elsewhere, publishing advertisements of the vendors of noxious drugs. Some of these advertisements are disgustingly frank in describing the ailments they are designed to cure, and others carefully worded to be a thin veil to cover a palpably illegal business. If, as we are assured, it is an infraction of the law to publish these, the law should be strictly enforced."

The thirty-seventh annual report of the Inspector of Prisons and Public Charities upon the hospitals and charities of Ontario is a most creditable volume. It is got out in handsome blue paper cover. The paper used this year is of high quality and takes the type and illustrations very well. The introduction is an outspoken effort to better the condition of all the hospitals in Ontario. The medical profession will no doubt appreciate this report and give its pages careful study. It will prove very interesting to all who are engaged in hospital work.

Dr. C. A. Hodgetts, Secretary of the Provincial Board of Health, has handed out the following statement: Neglect on the part of many medical men in promptly reporting cases of smallpox to the local Boards of Health, either through ignorance in recognizing the disease or intentional concealment, thereby preventing effective and prompt quarantine being enforced, has led to a widespread epidemic in the Province. As a result the Provincial Board of Health has determined to punish the doctors showing such negligence. A case recently occurred in Barrie, resulting in one of its most prominent physicians being fined \$10 and costs.

Dr. Clingan, of Virden, Man., was sued by Mr. Alex. McDougall, of the same place, for \$2,000 damages on account of attendance on the plaintiff when he fractured his leg. The case came to trial in Brandon, and Drs. Chown, Galloway, and others gave evidence in Dr. Clingan's behalf. Mr. Justice McDonald gave the following judgment: "I have no hesitation in finding that the defendant was not guilty of any neglect of skill; in fact, I believe he was skilful in his treatment, and I dismiss the action with costs and enter a verdict for the defendant on his counter-claim as sued for."

The formal opening of Wingham's new hospital on Thursday, 27th January, passed off very successfully and many people visited the building, but the disagreeable weather kept a number of people at home. Mr. Thomas Bell, President of the Board, and Mrs. C. M. Walker, President of the Ladies' Auxiliary, received the visitors. The ladies served a light luncheon and during the evening the Citizens' Band furnished a musical programme. The building has been so arranged as to furnish accommodation for forty patients. Miss Kathrine Stevenson of Buffalo has been appointed lady superintendent.

On Tuesday, January 22nd, the Niagara Falls General Hospital threw open its doors to the public. The building, the rooms and the wards were inspected, and the officials of the hospital, the committees and the nurses were on hand to accord a welcome to all. It was arranged that all the visitors should bring with them offerings of fruit, vegetables, or—the wherewithal to procure such necessary articles. The Women's Auxiliary and the Hospital Trust have so far done a noble work in their untiring efforts to bring about the realization of their plans and hopes. To them the citizens owe a debt of gratitude.

The Hamilton City Hospital Governors held a special meeting on 31st January, to discuss the generous offer of Mr. William Southam to undertake the responsibility of erecting a home for incurable consumptives. Two propositions were made in a letter forwarded by Mr. Southam. One for the ladies to buy and furnish a home and manage it, the city making a grant for maintenance. The other was Mr. Southam's offer to erect a wing in connection with the City Hospital, not to exceed \$10,000 in cost, to furnish and deliver it free, on condition that the Hospital Governors keep it under their control and maintain it.

A large and enthusiastic meeting of graduates of the London Medical College was held recently for the election of four representatives on the Senate of the Western University. Dr. C. S. McGuffin was elected for the four-year term, Dr. E. Seaborn for three years, Dr. J. B. Campbell for two years, and Dr. J. D. Balfour for one year. Subsequently a medical branch of the corporation was formed and the following officers elected: President, Dr. A. V. Becher; Secretary, Dr. Septimus Thomp-

son; Executive, Drs. H. T. Reason, H. A. McCallum, C. H. Reason, F. R. Eccles and J. B. McCallum. The branch will take active steps at once to extend the membership of the corporation and advance University affairs in general.

Dr. Hodgetts, Secretary of the Provincial Board of Health, has called attention to the fact that milk preservatives and milk coloring was being sold freely to milk dealers, and that the sale was being pressed by a large Toronto house of good reputation. The letter in Dr. Hodgetts' possession stated that the sale had been steadily increasing for years. The preservative and coloring are manufactured in the United States. Whether injurious or not, they are adulterants when added to milk or cream. Superficially one package gives evidence of a chemical very injurious to children. The law apparently does not restrict the importation of these preparations and the public at present can be safeguarded only through publicity.

The Government has decided to make a grant of \$50,000 towards the erection of a hygienic institute in the city of London, and to give \$5,000 per annum for five years towards its maintenance. This step is in accordance with the policy of the Government to encourage medical education in sections of the Province other than those adjacent to the facilities afforded at the University of Toronto. It is understood that the city of London will give a free site for the institute and also vote a sum perhaps equalling that given by the Government towards the cost of the building. In addition the city will build a contagious diseases hospital separate from the institute, of course, but with which staff the latter will work in conjunction whenever occasion offers.

Medicine appropriates everything from every source that can be of the slightest use to anybody who is ailing in any way, or like to be ailing from any cause. It learned from a monk how to use antimony, from a Jesuit how to cure agues, from a friar how to cut for stone, from a soldier how to treat gout, from a sailor how to keep off scurvy, from a postmaster how to sound the Eustachian tube, from a dairy-maid how to prevent small-pox, and from an old market-woman how to catch the itch insect. It borrowed acupuncture and the moxa from the Japanese heathen, and was taught the use of lobelia by the American savage. It stands ready to-day to accept anything from any theorist, from any empiric who can make out a good case for his discovery or his remedy.—O. W. Holmes.

In a recent address Professor Kilpatrick, of Knox College, remarked: "Play the game yourself. It is not a bad way of spending the time to see a football match, but don't look upon the teams as the degenerate Romans did upon the gladiators whom they trained and paid and sometimes butchered to make a Roman holiday. I sometimes feel

that it is a great pity when I see hundreds of young men going to watch a game which they couldn't play themselves, and couldn't try to play. Plato had written of the Greek custom of withdrawing young men for three or four years from scholastic life to devote their whole time to the training of the body. This was not possible nowadays, but the body as the soul's instrument should be trained to its best development. Athletics and gymnastic work were good for both men and women, and I commend the Y.M.C.A. and Young Women's Christian Guild gymnasium. I advise expending as much energy as possible without the result to players of not being able to attend church next day or to resume work on Monday. I deplore the fact that thousands of young men in the Old Country, while not attending matches, made them an excuse for gambling. I also regret the debauches that often followed athletic contests, the players returning physically and mentally weaker."

The following donations have been received by the Toronto Western Hospital during 1906: Mr. E. B. Osler, \$500; Mr. J. W. Corcoran, \$500; Mr. H. Langlois, \$1,000; Mr. Randolph Macdonald, \$1,000; Mr. J. E. Webb, \$552.44; Mr. Charles Cockshutt, \$100; Mr. H. C. Tomlin, \$100; The W. R. Johnston, Limited, \$100; Mr. Wellington Francis, \$100; Mr. W. H. Brashie, \$100; Mr. Henry Lewis, \$100; Mr. George Rathbone, \$50; Dr. Beatty, \$100; Mr. Thomas Hook, \$50; Mr. R. H. Graham, \$50; Mr. Elias Rogers, \$50; Mrs. Bella Caswell, \$50; Mr. Bates, \$50; Mr. John Vokes, \$50; Metallic Roofing Co., per Mr. John Thorne, \$50; Mrs. George Gooderham, \$50; Mrs. A. M. Cosby, \$50; Mr. S. B. Donald, \$50; Mr. John A. Walker, \$50; Mrs. C. E. McGregor, \$50; Mrs. W. H. Riddell, \$50; Mr. David McDonald, \$40; Mr. Wm. Buckingham, Stratford, \$62; Mr. Charles Powell, \$25; Mr. J. Findlay, \$25; Mr. James Brown, \$25; Mr. W. E. Lemon, \$25; Mr. Alex. Burns, \$25; Mr. E. Neld, \$15; Mr. Winter (Gourlay, Winter & Leeming), \$15; Mr. Atwell Fleming, \$10; Mr. C. A. McCann, \$10; Mr. Albert Maas, \$5; L.O.L. No. 136, \$5; Yarmouth Lodge, S.O.E., \$5; York Lodge, S.O.E., \$5; L.O.L. 551, \$5; Mr. Hugh McMath, \$5; Mr. Harry York, \$1; Mrs. David Fasken, one dozen chairs; Mr. Harry Horton, \$10; Mr. Harvey Hall, \$5.

OBITUARY.

G. A. L. PAYNE, M.D.

Dr. Payne died in Montreal in the early part of January of typhoid fever. He was a McGill graduate of the year 1906.

SIR WILLIAM H. HINGSTON, M.D.

In the morning of 19th February, Sir William was up and about as usual, and lunched with a party of friends at the Mount Royal Club in the middle of the day. It was noticed that, although he endeavored to retain his usual pleasant and interesting exterior demeanor during the meal, there was something amiss. He did not complain of any illness or pain, but seemed to find it hard to keep awake. After luncheon, in the smoking-room, he dozed off, and it was not until some time had passed that his friends realized that he was breathing in a more than unusually heavy and abnormal manner. Efforts were made to arouse him, but without avail. He seemed to have dropped off into a quiet trance, as though from the effects of some strong drug. Medical aid was at once summoned, and he was conveyed to his home, where his son, Dr. Donald Hingston, and several other physicians did all in their power to revive him. Sir William continued to sleep peacefully, however, and it was not until early in the morning that any fears were entertained as to what the ultimate outcome might be.

In the early hours the crisis came. The heart beats, which up to that time had been free and strong, began to lose their vigor. The movement of the respiratory organs became more and more strained, until at 9.30 the doctor passed peacefully and quietly away. Acute indigestion is ascribed as being the cause of his death.

Sir William Hales Hingston, Kt., M.D., was a son of the late Lieut.-Col. S. J. Hingston, of Her Majesty's 100th Regiment, and was born in Hinchinbrook, Que., on June 29, 1829. He graduated from the McGill Medical Faculty in 1851, and practised all his life in Montreal. He occupied a most distinguished place in the medical profession, and was especially on record as a surgeon. He was at the head of the Hotel Dieu, and was professor of surgery at Laval University. Sir William all his life took the greatest interest in municipal affairs and he served as Mayor of Montreal from 1875 till 1878, when he declined renomination. For the coolness and judgment he displayed during the Guibord excitement in Montreal he received the thanks of the then Governor-General of Canada, the Earl of Dufferin. He was appointed a Commander of the Roman Order of St. Gregory in 1875, was knighted by Her late Majesty on May 24, 1895, and was called to the Senate of Canada by the Earl of Aberdeen on January 2, 1896. He was a Conservative in politics, and unsuccessfully contested Montreal Centre in that interest for the House of Commons in December, 1895. He married in 1875 Margaret Josephine, daughter of the late Hon. D. A. Macdonald, formerly Lieutenant-Governor of Ontario. Lady Hingston survives him, as do also his five children, the Rev. William Hingston, Dr. Donald Hingston, Miss Aileen Hingston, Mr. Basil Hingston, and Mr. Harold Hingston.

 JOHN MACDONALD, M.D.

Dr. John MacDonalD, of Chatham, N.B., died on the 12th of December last. He had been in poor health for a long time. He was in his fifty-sixth year, and was a graduate of Jefferson College, Philadelphia. He conducted a large practice for twenty-five years in Chatham. He leaves a widow, an aged mother, two brothers, and two sisters to mourn his death.

 N. THORNTON, M.D.

Dr. Thornton died at his home in Bonaventure County, Que., on the 2nd January. A lamp was accidentally overturned, setting his house on fire, causing such severe burns that he died a short time afterwards.

 GEORGE DUNCAN, M.D.

Dr. Duncan died on 2nd December, 1906, in Victoria, B.C. He was born near Ottawa in 1862, and graduated from McGill in 1890. He went west, and for some time was in the Yukon. He returned to Victoria to take up the practice of his brother, who died there.

 W. FLOOD, M.D.

There has been received intelligence of the sad death of Dr. Flood, a surgeon in the North-West Mounted Police detachment at Fort Churchill, under command of Colonel Moodie. Dr. Flood was frozen to death about twelve miles from the fort on November 30 last. He was a young man who had only arrived shortly before that time on the *Adventure* and lost his way while out hunting.

 DR. PORTER.

Dr. Porter, of Bradford, one of the oldest practitioners of this county, died at his home there on Monday. Deceased was buried with Masonic honors at Holland Landing on Wednesday. A number of the brethren from this vicinity attended the funeral.

 J. D. CAMERON, M.D.

Dr. Cameron died in Montreal on 4th January, at the age of 38, of typhoid fever. He graduated from McGill in the year 1893. He practised in Montreal and at the time of his death was assistant gynaecologist to the Montreal General Hospital.

BOOK REVIEWS.

HYPNOTISM AND SUGGESTIONS.

A Practical Handbook on Hypnotism and Suggestion. By Edwin Ash, M.B., B.S., Lond., M.R.C.S., Eng., Sometime Demonstrator of Physiology in St. Mary's Hospital Medical School and Lecturer on Physiology to the South Western Polytechnic. Late House Surgeon and Resident Anaesthetist to St. Mary's Hospital, Paddington, Cheadle Gold Medalist, etc., etc. J. Jacobs, 149 Edgware Road, London, W. Price 4 shillings.

This little volume gives a very careful account of hypnotism and Suggestion, and what is meant by these terms. He discusses the subject under the headings of Methods, Phenomena, Dream-State, Somnambulism, Muscular Phenomena, Sensory Phenomena, Post-Hypnotic Influence, Suggestive Therapeutics, and The Scope of Suggestive Therapeutics. There is an appendix dealing with The Induction of Hypnosis, the Use of Passes, the Stages of Hypnosis, and the Induction of Hypnosis by Drugs. The work is from the pen of a trained physiologist and experienced physician. The subject is divested of all mystery, and reduced to the level of a true physical science. The two main theories, dual consciousness and attention, are examined carefully, and the statement offered that "in the fixation of attention we have the key to the problems of hypnosis. Due weight is given to the theory of the duality of the mind. The Conscious Mind is ever changing, but the Subconscious Mind represents the true character of the individual. Suggestions that are agreeable to it are accepted, while those which are not are vetoed. It is in this way that auto-suggestion is best explained. The Conscious Mind may be fully occupied with the things of the external world, while the Subconscious Mind is busied with a course of introspection. This may go the length of giving rise to many hallucinations. In time the person comes to be a firm believer in these auto-suggestions of the Subconscious Mind. The book is an excellent one.

GENITO-URINARY DISEASES AND SYPHILIS.

A Compend of Genito-Urinary Diseases and Syphilis, including their Surgery and Treatment. By Charles I. Husch, M.D., Assistant in the Genito-Urinary Surgical Department, Jefferson Medical College Hospital, Illustrated. Philadelphia: P. Backston's Son and Company, 1012 Walnut Street. Price \$1.

This volume belongs to Blakiston's well-known Quiz Compend series, of which there are about twenty volumes. This volume is an excellent member of the series. It is not large, and yet the author covers

the subject of Genito-Urinary Diseases and Syphilis very fully. After a very careful perusal of this book, we can very heartily recommend it. It is *multum in parvo*. The book is got up in first-class style in every way. It will not disappoint the reader.

ABDOMINAL OPERATIONS.

By B. G. A. Moynihan, M.S. (London), F.R.C.S., Senior Assistant Surgeon at Leeds General Infirmary, England. Second Revised Edition, greatly enlarged. Octavo of 815 pages, with 305 original illustrations. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$7 net; Half Morocco, \$8 net. J. A. Carveth & Co., Toronto.

Mr. Moynihan needs no introduction. His writings on Hernia, Gall Stone, Gastric and Duodenal Ulcer, the Surgery of the Stomach and Pancreas, have made his name familiar to every practitioner. The present volume takes up General Considerations, Operation on the Stomach, the Intestines, the Liver, the Pancreas and the Spleen. In every page is seen the hand of the clinician, the pathologist, and the surgeon. It would be impossible to enter into any detailed review of this very able exposition of the important subject of abdominal surgery. The vast number of operations that are now performed on the various abdominal organs render it necessary that every practitioner should read such a work as this, even if he be not a surgeon. The precious hours are too often lost that mean the patient's life. So many acute conditions are now known to occur in the abdominal cavity that have such a tendency to become surgical cases that it is obligatory on every physician to be able to recognize these conditions with as much skill as our knowledge permits of. On the surgery of the abdomen, this book by Mr. Moynihan will be found to be a most excellent guide. It would not do to pass from the review of this work without expressing high praise for the superb manner in which the publishers have given it to the profession. The paper, binding, illustrations and typography are all that could be desired by the most exacting. We have much pleasure in recommending this work to our readers. It is one of the best special works on surgery with which we are acquainted.

DIET IN HEALTH AND DISEASE.

By Julius Friedenwald, M.D., Clinical Professor of Diseases of the Stomach in the College of Physicians and Surgeons, Baltimore; and John Ruhrah, M.D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Second Revised Edition. Octavo of 728 pages. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$4 net; Half Morocco, \$5 net. J. A. Carveth & Co., Toronto.

It is not long since the first edition of this book appeared. This work deals with foods in its widest sense. It takes up the physiology of

digestion, classes of foods, beverages, factors in foods, infant feeding, diet for special cases and diseases. The authors have spared no pains in gathering into the pages of this book all that is trustworthy on the subject of diet. We do not hesitate to recommend this work once more to our readers. Diet is what we live on, and yet it is often neglected.

SAUNDERS' POCKET MEDICAL FORMULARY.

By William M. Powell, M.D., author of "Essentials of Diseases of Children;" Member of Philadelphia Pathologic Society. Containing 1,831 formulas from the best known authorities. With an appendix containing Posologic Tables, Formulas and Doses for Hypodermic Medication, Poisons and their Antidotes, Diameters of the Female Pelvis and Fetal Head, Obstetric Table, Dietlists, Materials and Drugs used in Antiseptic Surgery, Treatment of Asphyxia from Drowning, Surgical Remembrancer, Tables of Incompatibles, Eruptive Fevers, etc., etc. Eighth Edition, Adapted to the New (1905) Pharmacopœia. Philadelphia and London: W. B. Saunders Company, 1906. In flexible Morocco, with side index, wallet and flap. \$1.75 net. J. A. Carveth & Co., Toronto.

On a former occasion we reviewed this little book. It contains many excellent formulæ for most of the conditions the physician is called upon to treat. Some object to this sort of ready-made method of prescribing, but there is much to be said in favor of seeing how many of the world's ablest physicians prescribe for their patients. The practitioner need not slavishly follow these formulæ, but rather use them as models on which to construct his prescriptions. For this reason we can speak well of this book.

A TEXT-BOOK OF OBSTETRICS.

By Barton Cooke Hirst, M.D., Professor of Obstetrics in the University of Pennsylvania. Fifth Revised Edition. Octavo of 915 pages, with 753 illustrations, 39 of them in colors. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$5 net; Half Morocco, \$6 net. J. A. Carveth & Co., Toronto.

This excellent text-book has now reached its fifth edition. This is saying much for its merits, as few books can claim such a distinction in the few years since the first edition appeared. Dr. Hirst is a writer of high repute, and it has been his aim to keep this work up to a very high standard. This work covers the subject of obstetrics in the usual way, dealing with pregnancy, the physiology of labor, the management of labor, the mechanism of labor, the pathology of labor, the puerperium, obstetric operations, the new-born infant. The author's views on these various topics are well balanced and brought

forward to date. Open the work at any page and sound advice will be found. The author leans to the conservative school of teachers, and is not disposed to accord to any remedy more merit than is properly due it. Hence his remarks on the serum treatment of sepsis are very cautious, but, we think, judicious and safe. To those who wish a good book on obstetrics, as a guide in their daily work, will find this a very suitable one. It can be depended upon as containing the best that is known in this branch of the healing art. It would be difficult to single out any portion of the book as deserving of more praise than another, but if we were disposed to do so, it would be the section dealing with the pathology of labor. We think the author is specially strong on those serious complications that are unfortunately only too often met with in practice, and that tax the skill of the obstetrician to the utmost in order that he may do the best he can for his patient. The author has very clear-cut views on deformed mothers, deformed and monster children, and injuries to the maternal parts. The publishers have spared no pains to produce a readable book. It is well printed and very profusely illustrated. This new edition of a standard work will no doubt meet with a kindly welcome.

PREVALENT DISEASES OF THE EYE.

By Samuel Theobald, M.D., Clinical Professor of Ophthalmology and Otolaryngology, Johns Hopkins University. Octavo of 551 pages, with 219 text-illustrations, and 10 colored plates. Philadelphia and London. W. B. Saunders Company, 1906. Cloth, \$1.50 net; Half Morocco, \$5.50 net. J. A. Carveth & Co., Toronto.

The author in announcing this, the first, edition of this work, states that it is particularly calculated to meet the needs of the general practitioner. He remarks that most works on the diseases of the eye, which have been launched with this claim, are really mainly adapted to the work of the specialist. The writer follows the usual divisions of the subject, but his language is clear and direct and calculated to suit those who are devoting only a portion of their time to diseases of the eye. When medicine is reduced to its final analysis, it is the general practitioner who sees almost every form of disease first. On him, therefore, is imposed the task of bringing down judicious treatment, or giving the patient proper advice regarding a special consultant. This work of Dr. Theobald meets these conditions in a satisfactory manner. It is a good guide to the general practitioner. The book is got up in attractive form.

THE TECHNIC OF OPERATIONS UPON THE INTESTINES AND STOMACH.

By Alfred H. Gould, M.D., of Boston, Massachusetts. Octavo volume, containing 190 beautiful original illustrations, some of them in colors. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$5.00 net; Half Morocco, \$6.00 net. J. A. Carveth & Co., Toronto.

This is truly a handsome book of its kind. The author states that it is the outcome of three years' research and experiment on animals and the cadaver. The book is an edition de luxe. The plates are object lessons in art. The paper is of the highest quality. The descriptions of the various operations are given in clear language. The best operations on the stomach and intestines find a place in the volume. To those who do abdominal surgery this work will prove interesting and suggestive. It is founded on sound anatomical principles. The author covers the Repair of Intestinal Wounds, the Materials and Instruments Required, the Anatomy of the Intestines, Operations upon the Intestines, and Operations upon the Stomach. Such a volume as this is one that any physician or surgeon might well be proud to have in his library. It is a storehouse of information on the field covered in its pages.

OBSTETRICS FOR NURSES.

By Joseph B. DeLee, M.D., Professor of Obstetrics in the Northwestern University Medical School, Chicago. Second Revised Edition. 12mo of 510 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$2.50 net. J. A. Carveth & Co., Toronto.

It is not long since the first edition of this book appeared. The second edition has been thoroughly revised and considerably enlarged. It is a very useful book for nurses, containing everything that they could require. It contains much information of value for the general practitioner as well. The author has selected his matter and illustrations with much skill, and has given his readers a useful book. The publishers have done their part very well.

THE PRACTICE OF GYNECOLOGY.

For Practitioners and Students. By W. Easterly Ashton, M.D., LL.D., Professor of Gynecology in the Medico-Chirurgical College of Philadelphia. Third Edition, thoroughly revised. Octavo of 1,096 pages, with 1,057 original line drawings. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$6.50 net; Half Morocco, \$7.50 net. J. A. Carveth & Co., Toronto.

This large work has now reached its third edition, and may be assumed to have passed the stage of adverse criticism, and to have eliminated from its pages any errors which may have appeared in its earlier

editions. It appears before the profession in as nearly a perfect form as it is possible for author, artist, and publishers to produce it. One might look over the contents of this volume in vain in search for something that had been omitted. Every possible detail of every possible condition and operation are found in this work. The author has covered the whole of gynæcology in a very thoroughgoing manner, and is to be congratulated on the success of his ambitious efforts. There is here the combination of that experience and reading which alone can make a book a safe guide to the practising gynæcologist. This work of 1,100 pages might be called a complete encyclopedia on the subject of gynæcology. With such a book to refer to, the gynæcologist may feel himself fortified for every emergency that may come his way. It is complete in scope, rich in matter, and attractive in form. The publishers have certainly spared nothing to make this edition a most worthy successor to the former one, and worthy of their house. We might conclude our remarks by saying that nothing has been omitted that should have been included, and that nothing has found place that should have been omitted.

THE PRACTITIONER'S MEDICAL DICTIONARY.

An Illustrated Dictionary of Medicine and Allied Subjects, including all the words and phrases generally used in Medicine, with their proper pronunciation, derivation and definition. By George M. Gould, A.M., M.D., author of "An Illustrated Dictionary of Medicine, Biology, and Allied Sciences," "The Student's Medical Dictionary," "30,000 Medical Words Pronounced and Defined," "Biographic Clinics," "The Meaning and Method of Life," "Borderland Studies," etc.; Editor of *American Medicine*. With 388 illustrations. Octavo, xvi plus 1,043 pages. Flexible leather, gilt edges, rounded corners, \$5.00; with thumb index, \$6.00 net. P. Blakston's Son & Co., Publishers, 1012 Walnut St., Philadelphia.

This book is in every respect and detail new. Its object is to supply the practitioner with trustworthy, modern definitions of essential medical words and terms. It is based on recent medical literature. It contains among other new features the terms of the Basle Anatomical Nomenclature (BNA). The standards of pharmaceutic preparations as authorized by the eighth decennial revision of the United States Pharmacopœia are given. Tables of signs and abbreviations used in general medicine and the specialties, and of the English and metric systems of weights and measures are introduced.

It has been made up in a form most suitable for ready reference, complete in text and illustration, and attractive in appearance. Printed on tough, thin paper, excessive weight and bulk is eliminated, while the dull surface of the paper, together with the employment of new, clear type, facilitate ease and comfort in reading. The book will lie perfectly flat at any page to which it may be opened.

Dr. Gould's dictionaries have enjoyed an unusual degree of popularity. Over 200,000 copies have already been sold. We can most cordially recommend this dictionary to every practitioner. The paper, typography and binding make it a real work of art, in addition to its literary excellencies.

BIOGRAPHIC CLINICS, VOL. IV.

Essays Concerning the Influence of Visual Function, Pathologic and Physiologic upon the Health of Patients. By George M. Gould, M.D., Editor of *American Medicine*, Author of "An Illustrated Dictionary of Medicine," "Borderland Studies," etc., etc. Philadelphia: P. Blaikiston's Son and Co., 1012 Walnut St., 1906.

Dr. Gould needs no introduction to our readers as a medical writer. The present volume contains a number of essays on the subject of eye strain. It also contains a series of articles on eminent persons who suffered from eye-strain. Many who did not at first agree with Dr. Gould have modified their views. There is no doubt of the fact that he has done much good by calling attention so ably to this subject. His method of emphasizing his views by an appeal to the lives of noted people has had the effect of making the profession stop and think.

WOMAN IN GIRLHOOD, WIFEHOOD, MOTHERHOOD.

Her Responsibilities and Her Duties at all Periods of Life, and a Guide in the Maintenance of Her own Health, and that of Her Children. By M. Solis-Cohen, A.B., M.D., Instructor in Physical Diagnosis, University of Pennsylvania; Visiting Physician to the Hospital for Diseases of the Lungs, Chestnut Hill; Assistant Physician to the Philadelphia General Hospital; Physician to the Children's Dispensary of the Jewish Hospital, Philadelphia, Pa. Profusely illustrated with Color Plates, Scientific Drawings and Half-tone Engravings and Manikin Chart printed in Colors, with an Index. Printed on extra quality of paper from large, clear, readable type, 500 pages, octavo, (size 6½ x 8½). Bound in Extra Cloth, Gold Back-title, each book encased in serviceable box. Price \$2.00 net. Postage 20 cents extra. The John C. Winston Company, 1006-1016 Arch Street, Philadelphia.

This work is written in the easiest and simplest terms by a physician of unquestioned reputation and therefore such information as it gives can be taken with confidence and strictly relied upon. The first aim and guiding purpose of Dr. Solis-Cohen in writing this work has been to use plain words and to give easily understood directions to woman for all periods of her life. It is not a book of fads, nor is it written to arouse the curiosity of the young and old. It not only tells of the preservation and cultivation of her health and beauty, but also includes the latest and

most approved information on woman's ailments and troubles, and how they are treated and cared for, as practised in the most up-to-date hospitals and by the most successful physicians. Ignorance of the peculiar, yet the wise provisions of nature for a woman's complex life of girl, wife, mother is the cause of ill-health, wretchedness and often sorrow in the home. How to avoid this is the first aim of this great book.

INTUSSUSCEPTION.

The Diagnosis and Treatment of Interssusception. By Charles P. B. Clubbe, Hon. Surgeon to the Royal Prince Alfred Hospital; Hon. Surgeon to the Royal Alexandra Hospital for Children, Sydney; Joint Lecturer in Clinical Surgery at the Sydney University. Edinburgh and London: Young J. Pentland, 1907.

This small book of 92 pages is founded on the author's experience. It discusses etiology, pathology, diagnosis, treatment by irrigation, incision and resection, and feeding. The book is an excellent statement of facts regarding this important surgical condition. It will well repay a careful study of its pages. It is got up very neatly.

STARR ON NERVOUS DISEASES.

Organic and Functional Nervous Diseases. By M. Allen Starr, M.D., Ph. D., LL.D., Professor of Neurology in the College of Physicians and Surgeons, New York; ex-President of the American Neurological Association and of the New York Neurological Society. Second edition, thoroughly revised. Octavo, 824 pages, with 282 engravings and 26 full-page plates. Cloth, \$6.00 net; leather, \$7.00 net. Lea Brothers & Co., Philadelphia and New York. 1907.

The author's position in the forefront of neurologists has been shown anew in the rapid exhaustion of the first edition of his work, limited though it was to organic nervous diseases. An even warmer reception is assured for this revision, which brings the organic portion to date and adds a section covering the functional diseases, so that the volume now presents the whole field of neurology as understood and practised by a master. The author is the reverse of abstruse or nihilistic. On the contrary, he is straightforward and direct, and justifies his optimism as to the advanced position of neurological diagnosis and treatment by the wealth of information placed at command of his readers. Paying due regard to theory, he devotes especially full attention to etiology, diagnosis and treatment, both medical and surgical. The book is largely based on the solid foundation of long experience, but it also embodies the well-attested knowledge of other authorities as gleaned from a thor-

ough sifting of the vast literature of neurology. Practical, authoritative, covering the whole subject in all its aspects, and abundantly illustrated, this new edition of Prof. Starr's work answers the needs of students, practitioners and specialists. We hope the book will meet with that widespread perusal which this revised edition merits. All in all, it is a most excellent work on the difficult subject of nervous diseases.

PLASTER OF PARIS AND HOW TO USE IT.

By Martin W. Ware, M.D., Adjunct Attending Surgeon, Mount Sinai Hospital; Surgeon to the Good Samaritan Dispensary; Instructor in Surgery, N. Y. Post Graduate Medical School. 12mo; 72 illustrations, about 100 pages. Surgery Pub. Co., 92 William St., New York City. Cloth, \$1.00.

This is one of the most useful books ever presented, not only on account of the general demand for the information and instructions upon the subject which this book so explicitly, practically and comprehensively covers, but because this knowledge was not previously available except from such a vast experience as enjoyed by Dr. Ware, in part, by reference to many books on allied subjects.

It is a vivid narrative, profusely illustrated, of the many uses to which plaster of Paris is adaptable in surgery. The whole subject, from the making of the bandage to its use as a support in every form of splint, corset or dressing, is graphically described and illustrated. The use of plaster of Paris in dental surgery is also covered. The book is presented in the artistic manner characteristic of the Surgery Publishing Company. It is printed upon coated book paper and attractively bound in heavy red buckram, stamped in white leaf and gold.

ATLAS AND TEXT-BOOK OF HUMAN ANATOMY.

Volume II. By Professor J. Sobotta, of Wurzburg. Edited with additions, by J. Playfair McMurrich, A.M., Ph.D., Professor of Anatomy at the University of Michigan, Ann Arbor. Quarto volume of 194 pages, containing 214 illustrations, mostly all in colors. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$6.00 net; half morocco, \$7.00 net. Canadian Agents, J. A. Carveth & Co., Toronto, Ont.

This volume takes up the viscera and the heart. The text is brief, but clear, and gives a good account of the parts described. This is an excellent work for the practical anatomist as a guide to his work at the dissector's table; and it is thoroughly reliable and interesting as a work of reference in the library. The photographic method has been made use of as the basis for the drawings. The coloring is very fine, and the artistic effects obtained are most attractive. One feature of the plates

appeals to the eye at once, namely, the superior perspective of the drawings. The paper and general finish of the volume is all that the most perfect bookmaking could produce. We most heartily congratulate the author, the editor, and the publishers on this volume.

“WOMAN.”

A Treatise on the Normal and Pathological Emotion of Feminine Love. By Bernard S. Talmey, M.D., Gynecologist to the Metropolitan Hospital and Dispensary, New York. With 22 engravings. The volume is in small octavo with flexible leather covers. The price is \$3.00. Practitioners Publishing Company, 62 West 126th Street, New York City.

We take pleasure in announcing the appearance of a work for which there is a great need. Although the pathology of the female sexual functions from the psychical point of view is of immense importance, yet the subject is very little known to the profession. There is no concise scientific work treating this subject exclusively from the point of view of the general practitioner in existence. The physician seeking elucidation on any pathological phenomenon of feminine amatory emotions has to work his way through big volumes on psychiatry, legal medicine, philosophy, etc., where he may find scattered here and there some incomplete information. Yet the complete knowledge of the subject in question is of the greatest importance if it is taken into consideration that many a family tragedy, having had its origin in an anomaly of some female sexual function, might have been averted by judicious advice from the family physician, if he understood the root of the evil.

The author of “Woman,” therefore, deserves great credit for having provided the medical and, to a certain extent, also the legal profession with a work specially devoted to the one subject, “Feminine Love,” thorough and complete in its scope, thus facilitating the study of the physiological and pathological phenomena of the feminine sexual functions.

In passing, we may say that the excellent diction, the finished phraseology and the admirable style in which the subject matter is presented to the reader renders perusal easy, pleasant and comprehensive, while from a typographical standpoint the work is quite perfect. Over a score of plates illustrate the book.

UNIVERSITY COLLEGE, LONDON, ENG.

The Past, Present and Future of the School for Advanced Medical Studies of University College, London. being the Address at the Opening of the Winter Session, October, 1906. By Rickman John Godlee, Home Professor of Clinical Surgery; Surgeon in Ordinary to H. M. the King. January 1907. London: John Bale, Sons and Danielsson. Price, 2s. 6d. net.

This is a very interesting address in handsome book form. It gives an excellent account of University College, University College Hospital,

and the Medical School in connection with it. The book is well illustrated with full page plates of the old and new buildings, and of the men who have figured in the history of the institution. To read the book and look at the illustrations is a great pleasure.

A TEXT-BOOK OF PATHOLOGY.

By Alfred Stengel, M.D., Professor of Clinical Medicine in the University of Pennsylvania. Fifth revised edition. Octavo of 977 pages, with 399 text-illustrations, many in colors, and 7 full-page colored plates. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$5.00 net; half morocco, \$6.00 net. Toronto: J. A. Carveth & Co., Agents.

Professor Alfred Stengel and his book on pathology are words known to nearly every medical man on this continent. From time to time the author issues a new and improved edition of this standard work. To master the details of this book is to make oneself fully familiar with the subject of pathology. The arrangement of the matter is in a most convenient form for the student and makes it an exceedingly useful text-book.

TEXT-BOOK ON THE PATHOGENIC BACTERIA.

For Students of Medicine and Physicians. By Joseph McFarland, M.D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia. New (5th) Edition. Octavo volume of 647 pages, fully illustrated, a number in colors. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$3.50 net. Toronto: J. A. Carveth & Co., Agents.

That this book needs few words of praise is well borne out by the fact that it has now reached its fifth edition. One may safely say of this book that it gives the latest views on all forms of pathogenic bacteria. It avoids useless discussions, but goes direct for the essential points. It is a most valuable work for the practitioner as well as the student of medicine. It meets with our hearty recommendation.

THE ELEMENTS OF THE SCIENCE OF NUTRITION.

By Graham Lusk, Ph.D., M.A., F.R.S. (Edin.), Professor of Physiology at the University and Bellevue Hospital Medical College, New York City. Octavo of 326 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$2.50 net. Toronto: J. A. Carveth & Co., Canadian Agents.

Dr. Lusk has given the profession a very useful book on the important subject of nutrition. A good deal has been written lately upon this topic, and a work such as the present one, which brings everything

well up to date, is of much value to the medical profession. We should like to know that this book may meet with a wide circulation, as it certainly merits such. It will prove a safe guide on this subject.

A TEXT-BOOK OF DISEASES OF WOMEN.

By J. Clarence Webster, M.D. (Edin.), F.R.C.P.E., F.R.S.E., Professor of Obstetrics and Gynecology in Rush Medical College, in affiliation with the University of Chicago. Large octavo of 712 pages, with 372 text-illustrations and 10 colored plates. Philadelphia and London: W. B. Saunders Company, 1907. Cloth, \$7.00 net; half morocco, \$8.00 net. Toronto: J. A. Carveth & Co.

This is what might be truly called a superb work. The author has expended great labor upon the text matter of the book, while the publishers have spared no pains to make the work a most attractive one. The mechanical appearance of the book is very superior. The plates are among the finest we have ever seen in any book. This work will prove of the utmost value to all who need such a book.

A MANUAL OF NORMAL HISTOLOGY AND ORGANOGRAPHY.

By Charles Hill, Ph.D., M.D., Assistant Professor of Histology and Embryology, Northwestern University Medical School, Chicago. 12mo volume of 463 pages, with 312 illustrations. Philadelphia and London: W. B. Saunders Company, 1906. Flexible leather, \$2.00 net. J. A. Carveth & Co., Toronto, Canadian Agents.

This small volume gives a very lucid account of the minute anatomy of the various organs of the body,—no easy task. The book is founded on the practical method of study, and is intended mainly for students. Anyone will find pleasure in reading it, if he takes an interest in the histology of the important organs of the body. The book is a very handsome one.

A MANUAL OF PATHOLOGY.

By Guthrie McConnell, M.D., Pathologist to the St. Louis Skin and Cancer Hospital and to St. Luke's Hospital, St. Louis, Missouri. 12mo of 523 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1906. Flexible leather, \$2.50 net. Toronto; J. A. Carveth & Co., Canadian Agents.

This is what it claims to be, a manual of pathology. It is well arranged, well printed and illustrated, and well bound. The make-up of the book is all that could be desired. The contents cover the subject of pathology in a very thorough, though brief, manner. The arrangement of the book is such as to facilitate the study of pathology and make it interesting.

INNOCENT AND MALIGNANT TUMORS.

The Essential Similarity of Innocent and Malignant Tumors. A Study of Tumor Growth. By Charles W. Cathcart, M.A., M.B., C.M. (Edin.), F.R.C.S. (Eng. and Edin.), Surgeon, Royal Infirmary, Edinburgh; formerly Conservator of the Museum of the Royal College of Surgeons, Edinburgh. With 86 illustrations, mostly from photographs. Bristol: John Wright & Co.; London: Dushin, Marshall & Co., 1907. Price, 9s. 6d. net.

One of the ways to study pathology is to begin with the normal tissues. In the study of the malignant growths a comparison with the innocent forms of tumors is no doubt a good foundation. In this effort Mr. Cathcart has been very successful. He has made it quite clear that there is a close connection between what has often been regarded as innocent and what is looked upon as malignant. Such studies may throw new light upon the whole question of new formations. The present work is a good addition to the literature upon tumors, and will stimulate further research. We can recommend the book to our readers as one which will furnish much food for reflection.

 MISCELLANEOUS.

PROPOSED INTERNATIONAL ASSOCIATION OF MEDICAL MUSEUMS.

The undersigned medical museum representatives, realizing the possibility of extending the resources and efficiency of the medical museums by the conference together and co-operation of active workers, agree to participate in the organization of an International Association of Medical Museums, at the Army Medical Museum, Washington, D.C., in May, 1907.

Such an association will have as its object:—

- a. The promotion in a general way of the efficiency of the medical museum as a compendium of scientific facts, a storehouse of material for research work, and as a medium for teaching.
- b. Stimulation of the study and increase of the knowledge of gross pathology.
- c. Discussion of plans of cataloguing and classification and methods for the preparation and preservation of specimens.
- d. Arrangements for the exchange of specimens and for the specialization of certain museums along particular lines in which they may enjoy the best facilities, provided this can be done without detriment to the interests of any of the museums concerned.

e. Consideration of the feasibility of publishing an *Index Pathologicus* in the future.

To this end it is proposed as follows:—

1. That such an association shall be formed and that the association shall be conducted solely in the interest of science and of the museums represented. It shall be known as the International Association of Medical Museums.

2. That the active membership shall be limited to representatives of the leading medical museums of America and other countries, that is, that it shall be international in scope.

3. That active membership shall be restricted to one representative from each museum and such membership in the association shall cease immediately upon severance of the relations between any member and the museum he represents.

4. That, in addition to the active membership, there shall be a roll of honorary membership, to which may be elected by a majority vote of the council of administration, taken at any time, (1) persons not actively engaged in museum work, but who are interested in the subject, and who have become distinguished in the field of human pathology, (2) former active members of the Association.

5. That there shall be also an auxiliary membership open to persons who are actively engaged in medical museum work. That proposals for auxiliary membership shall be signed by three active members of the association, and election shall be by a two-thirds majority vote, in writing, of all the council of administration, and such vote shall be taken not sooner than six months from the receipt of the application by the secretary.

6. All applications for membership shall be accompanied by an admission fee of two dollars (\$2).

7. That upon the receipt of any application for membership, properly signed and endorsed, and accompanied by the admission fee, the secretary shall immediately notify each active member, in writing, and, after the proper interval of time, shall call for a vote, in writing, upon the same.

8. In order to insure absolute equality of influence in matters of general policy and government, on the part of all the institutions represented in the association, such matters shall be decided by a two-thirds majority vote of the council of administration.

9. The active members of the association shall constitute the council of administration, to which all matters of policy and government shall be submitted. Measures shall be adopted only upon a two-thirds majority

vote of approval of all such members present at a stated meeting, or, in the interim, by a two-thirds majority vote, in writing, of all the members of the council.

10. Auxiliary members shall have the privilege of attending the general meetings of the association, of reading papers, and of participating in the general discussions at such meetings.

11. Following each stated session of the association, there shall be a meeting of the council of administration for the transaction of business. At such meetings the roll shall be called and nine members shall constitute a quorum.

12. That until the meeting of 1907, invitations may be extended by the Committee on Organization to any institution or museum to which it may desire to offer the privilege of membership.

13. That after the meeting of 1907, nominations for active membership shall be made only after the person to be nominated has been officially accredited, in writing, to a university, college, hospital or other organization, as the representative of its medical museum. Such nominations shall be submitted to the secretary, in writing, signed by three active members, and election shall be by a two-thirds majority vote, in writing, of all the active members. All propositions for membership shall lay over for one year from the receipt of the formal application, before the vote is called for by the secretary.

14. That propositions for membership may be forwarded to the secretary of the association at any time.

15. That the dues be fixed at two dollars (\$2) per annum, payable in advance, to cover the cost of stationery and postage for records and correspondence.

16. That the business of the association shall be conducted chiefly through the medium of correspondence. The stated meetings shall be held triennially at the Army Medical Museum in Washington, D.C., or such other place as may be decided upon and they shall be devoted to the reading of papers and to the discussion of matters of general policy and interest.

17. That a meeting for the purpose of organization be held at the Army Medical Museum at Washington, D.C., in May, 1907, at the time of the meeting of the Congress of American Physicians and Surgeons.

18. The place of meeting may be changed at any appropriate time by a two-thirds majority vote, in writing, of all the active members of the association. Such vote shall be taken not more than twelve and not less than eight months before the date set for the meeting. All invitations to meet at certain places shall be submitted to the secretary in writing, and shall be voted upon. Each member shall be furnished a list, by

name, of all votes cast in deciding upon a place of meeting, and unless a two-thirds vote is obtained in favor of a change, the meeting shall be held at Washington, D.C.

The list of persons who have indicated by signature their intention to participate in the organization of the International Association of Medical Museums, is as follows:—Army Medical Museum, Washington, D.C., Dr. James Carroll, U. S. Army, Chairman; Johns Hopkins Hospital, Baltimore, Md., Dr. W. G. McCallum; McGill Medical Faculty, Montreal, Canada, Dr. M. E. Abbott, Secretary-treasurer; Johns Hopkins University, Baltimore, Md., Prof. Wm. H. Welch; Oxford University, Oxford, England, Prof. Wm. Osler; University of Glasgow, Glasgow, Scotland, Prof. Robert Muir; McGill University, Montreal, Canada, Prof. J. G. Adami; University of Freiburg, Germany, Prof. Ludwig Aschoff; Jefferson Medical College, Philadelphia, Pa., Prof. W. H. L. Coplín; University of Minnesota, Minneapolis, Minn., Prof. F. F. Wésbrook; University of Toronto, Toronto, Canada, Prof. J. J. MacKenzie; University of Michigan, Ann Arbor, Mich., Prof. A. S. Warthin; University of Pennsylvania, Philadelphia, Pa., Prof. A. J. Smith; University of Chicago, Chicago, Ill., Dr. James B. Herrick; Harvard Medical School (Warren Anat. Museum), Boston, Mass., Dr. W. T. Whitney; Albany Medical College, Albany, N.Y., Prof. R. M. Pearce; Western Reserve University, Cleveland, Ohio, Prof. Wm. T. Howard, jr.; University of Havana, Havana, Cuba, Prof. John Guiteras, and Tulane University, New Orleans, La., Prof. Edmond Souchon. The first three names form the Committee on Organization.

LIQUOZONE BARRED FROM REGISTRATION IN THE U. S. PATENT OFFICE AS UNLAWFULLY INTERFERING WITH THE TRADE MARK GLYCOZONE.

Notice is hereby given that in a proceeding in the United States Patent Office, which is entitled *The Drevet Manufacturing Company vs. The Liquozone Company*, the name "Liquozone" was barred from registration in the U. S. Patent Office as unlawfully interfering with the trade mark "Glycozone."

The individual or corporation in any way infringing upon the trade mark "Glycozone," which is a lawful trade mark (Glycozone being a thoroughly scientific and legitimate preparation for the treatment of germicidal diseases, etc.), and duly registered under the new trade mark law, or selling of any merchandise labeled with any mark or name infringing upon the trade mark "Glycozone" or in any manner resembling the same, will be prosecuted for damages to the full extent of the law.

CANADIAN MEDICAL ASSOCIATION, MONTREAL, SEPTEMBER
11th, 12th, 13th, 1907.

WORKING COMMITTEES.

Medicine.—Drs. H. B. Cushing, F. G. Finley, Gordon, H. A. Lefleur, Martin, Morrow, Nicholls, Peters, Richer.

Surgery.—Drs. Armstrong, Archibald, Bell, Barlow, Bazin, Elder, England, Garrow, Monod, Forbes, von Eberts.

Dermatology.—Drs. Jack, Shepherd.

State Medicine.—Drs. McTaggart, Louis Laberge, Starkey.

Laboratory Workers.—Drs. Keenan, Yates, Duval, Adami, Klotz, Bruere.

Pediatrics.—Drs. Blackader, Gordon Campbell, Fry, F. P. Shaw, Francis.

Gynæcology.—Drs. Chipman, Gardner, Lockhart, Laphorn Smith.

Museum.—Drs. Adami, Maud Abbott.

Eye.—Drs. Beyers, J. J. Gardner, Stirling, McKee, Tooke.

Laryngological.—Drs. H. S. Birkett, R. Craig, Jamieson, H. D. Hamilton.

Neurologist.—Drs. Shirres, Colin Russell.

Obstetrics.—Drs. Cameron, Evans, Reddy, Little.

ALVARENGA PRIZE OF THE COLLEGE OF PHYSICIANS OF
PHILADELPHIA.

The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Senor Alvarenga, and amounting to about \$180, will be made on July 14, 1907, provided that an essay deemed by the Committee of Award to be worthy of the prize shall have been offered.

Essays intended for competition may be upon any subject in medicine, but cannot have been published. They must be typewritten, and must be received by the Secretary of the College on or before May 1, 1907.

Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within the name and address of the author.

It is a condition of competition that the successful essay or a copy of it shall remain in possession of the College; other essays will be returned upon application within three months after the award.

THOMAS R. NEILSON, M.D.,

Secretary.

THE SENSIBLE TREATMENT OF LA GRIPPE AND ITS SEQUELÆ.

The following suggestions for the treatment of La Grippe will not be amiss at this time when there seems to be a prevalence of it and its allied complaints. The patient is usually seen when the fever is present, as the chill, which occasionally ushers in the disease, has generally passed away. First of all the bowels should be opened freely by some saline draught. For the severe headache, pain and general soreness give one Antikamnia tablet, or if the pain is very severe, two tablets should be given. Repeat every two or three hours as required. Often a single dose is followed with almost complete relief. If after the fever has subsided, the pain, muscular soreness and nervousness continue, the most desirable medicines to relieve these and to meet the indications for a tonic, are Antikamnia and Quinine tablets, each containing $2\frac{1}{2}$ grains Antikamnia and $2\frac{1}{2}$ grains Quinine. One tablet three or four times a day will usually answer every purpose until health is restored. Dr. C. A. Bryce, editor of the *Southern Clinic*, has found much benefit to result from Antikamnia and Codeine Tablets, administered for the relief of all neuroses of the larynx, bronchial as well as the deep-seated coughs, which are so often among the most prominent symptoms. In fact, for the troublesome coughs which so frequently follow or hang on after an attack of influenza, and as a winter remedy in the troublesome conditions of the respiratory tract, there is no better relief than one or two Antikamnia and Codeine Tablets slowly dissolved upon the tongue, swallowing the saliva.

CATARRHAL DISEASES OF THE NASO-PHARYNX.

H. M. Marsh, M.D., Auburn, Ky., writes:—As the season is now fast approaching when this class of diseases take up most of the physician's time and is the cause of more suffering among more people than almost all other diseases combined, I wish to say something in regard to a simple and effective treatment of this class of diseases. In this climate this is the commonest of all diseases, there being very few who do not suffer from it in some of its various forms. Chronic nasal catarrh is in most cases a result of repeated attacks of acute catarrh or "common colds." In this short article it is not necessary to go into details or take up time or space with causes and symptoms, everyone is familiar with them. My object here is to simply give my plan of treatment plain and simple, yet eminently successful. In the treatment of these cases every physician is well aware of the fact that cleanliness is in most cases all that is necessary for a cure. Every physician also knows that in order

to have a perfect cleansing agent it must be both alkaline and antiseptic. My success in treating these diseases, viz., acute and chronic nasal catarrh, including ozena, acute and chronic tonsillitis, pharyngitis, catarrhal deafness, etc., has been due almost entirely to the systematic and thorough cleansing of the mucous surface with Glyco-Thymoline. I have been using this ideal alkaline antiseptic in my practice for years and have never been disappointed in it.

ONTARIO MEDICAL ASSOCIATION.

The Committee on Papers of the Ontario Medical Association, in addition to the address on Surgery by Dr. Crile, of Cleveland, is now able to announce that an address in Medicine will be delivered by Dr. Ravenal, of the Phipps Institute, Philadelphia, on "The Methods of Infection in Tuberculosis."

One of the afternoons of the meeting will be given up to a series of papers dealing with the "Relation of the Profession to the Public." These will touch the medico-legal, public health, and psychiatric aspects of the question, the preservation of water supplies being taken up in a distinct paper.

The programme in both the medical and surgical sections is being rapidly filled up in a manner that leaves no doubt about the interest that will attach to the discussions.

THE PURITY OF HOWARD'S CHEMICALS.

It is now universally recognized that the utmost care is necessary in selecting drugs and chemicals for pharmaceutical purposes as free as possible from deleterious impurities.

In no case is this more necessary than in that of calomel, because the impurity most likely to incur is the extremely poisonous corrosive sublimate. The necessity of constant watchfulness is well illustrated by the following cutting, which we take from the "Answers to Correspondents" column of the well-known English periodical, *The British and Colonial Druggist* :—

"We find about .84 per cent. of hydrarg. perchlor. in the sample of calomel sent us. This is rather less than you found yourself, but possibly the sample is not uniform in composition. Anyway, it is unfit for use in medicine."

Messrs. Howards & Sons, Limited, have been known for nearly a hundred years as makers of calomel of the highest and most invariable purity and the physician or dispenser who specifies "Howards" need never fear being placed in the unpleasant position of the *British and Colonial Druggist's* correspondent.