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SYMPTOMS OF APPENDICITIS.*

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IN the proper treatment of any abnormality of the human body, the first necessity is a correct diagnosis and in few of these abnormal conditions is a correct and prompt diagnosis more important than in an acute inflammation of the vermiform appendix. There are few acute disorders that will bear delayed and haphazard treatment, whether that treatment be radical or palliative.

Important as is the diagnosis, it is not easy. Like so many of the problems of the physician or surgeon there are no axioms, or postulates of mathematical exactness for his guidance. The axioms are preceded by an "if" and postulates followed by a note of interrogation, for there are so many other disturbances of the abdominal organs that simulate more or less accurately an inflamed appendix with its far reaching sequelæ.

The first symptom that obtrudes itself on the patient is pain, in acute cases, sharp, sudden, radiating, spasmodic, and generally referred to epigastrium. The patient is unlikely to be able to definitely locate any one part that is the central cause of his distress, and on palpation there may be, at first little rigidity of the abdominal muscles and little sensitiveness.

In this early period the radiating pain may often be either a help in locating the position of the appendix, or an embarrassment in diagnosis for while McBurney's point will more or less accurately mark the majority of appendices, it is by no means unvaryingly to be relied upon. The appendix may be found down in the pelvis, up close to the liver, outside or behind the cæcum or ascending colon and even to the left of the median line. To further complicate diagnosis, it varies in size from a mere nodule a quarter of an inch in extent to a length of nine and a half inches and in a diseased condition a diameter of an inch and a quarter. The average length of three and a half inches and diameter of a quarter of an inch, is perhaps as frequently found as the position at McBurney's point.

An inflamed appendix that lies outside or behind the cæcum will be accompanied by pain radiating upwards to loin, while if it lies low in pelvis near the bladder or ureter there will be vesical irritability with distress and even pain and retraction of testicle as in acute cystitis

*Read at a meeting of the medical staff.

or a renal colic. This is the initial pain, which is in a great majority of cases followed by vomiting, the vomiting being reflex and from a cause similar to that of renal or hepatic colic. This early vomiting does not last long excepting where there are other grave accompaniments resulting in intestinal paresis.

Following the initial pain comes tenderness on palpation. This may be rather diffuse, but careful examination will, after a few hours, locate a specially painful point where the appendix lies. This will in most cases be at a point on a line drawn from the right anterior superior spine of the ilium to the umbilicus an inch and a half to two inches from the spine, though, as previously indicated, it may be elsewhere situated. This tenderness will be accompanied by rigidity of the abdominal muscles, probably some quickening of respiration, with shallower breathing, usually the dorsal decubitus with flexed thighs. These symptoms becoming more emphasized as the inflammation extends over the peritoneum. At this period no tumor can be felt, though the deceptive contraction of the muscular protecting wall may appear like a hard and large appendix. Much force in examining is to be deprecated, as it not only causes the patient distress but might cause the rupture of an ulcerated organ. In cases where the tender spot is low information may be gained by a rectal or vaginal examination.

Along with, or following, these symptoms of pain, vomiting and tenderness is found a rise of temperature. This elevation of temperature is delayed from two or three hours to a day after the initial pain. This sequence is so important in making a differential diagnosis that it cannot be too much emphasized. Usually in acute cases of moderate severity, in less than twelve hours a temperature of 101° to 103° F. will be found. In cases where there is neither rupture nor extensive peritoneal involvement by the second day there is remission of fever.

An increased pulse rate is an early symptom. In children it may be very high. In adults, while increased pulse is by no means pathognomonic, a pulse of 100 should excite suspicion and a pulse of 120, with the other typical symptoms, might be accepted as a warrant for operation.

These, then, are the early symptoms of an acute appendicitis: Pain vomiting, tenderness, muscular rigidity, and fever, with an accompanying increase of frequency of heart action.

With appropriate treatment, in a few days these symptoms may all disappear, possibly finally, or only to return in a worse form at a later period.

This will not always happen, and if early operation be not done the secondary symptoms appear. The pain ceases, being spasmodic or colicky, and becomes a settled uneasiness, increased by movement. The

vomiting ceases. There is definite tenderness over the appendix whether it lie in the McBurney location or not. The temperature may remain at about the point of its initial rise. The pulse remains fast. Both temperature and pulse, however, usually fall. The patient has an inflammation that has extended to the adjacent peritoneum or a ruptured appendix, the escaping contents being walled in by adhesions, forming a circumscribed abscess. Or, the abdomen may become distended, and tender—occasionally not—the bowels inactive and not responsive; but there may be septic diarrhœa; the pulse fast and weak, the temperature increased or perhaps sub-normal, the dorsal position is maintained with flexed thighs, the breathing is fast and shallow, there may be hiccough. The face is anxious. The vomiting may have returned and is bilious or brown, may be stercoaceous. The patient has a ruptured appendix with general peritonitis.

Rarely, appendicitis is ushered in with this set of symptoms, and the attendant cannot be too keenly alive to the gravity of the case.

Again, after a sudden and severe onset, there may be sudden remission of fever and pain with fast pulse and anxious look. There is probably gangrene of the appendix and a very grave outlook. A sudden cessation of pain and temperature should always be viewed with concern as it probably means gangrene or rupture of the appendix. On the other hand, escape of the products of inflammation through the valve of Gerlach into the cæcum, or an increase in the inflammatory exudate, so forming a bar against absorption, may be accompanied by lessened fever and pulse. Any sudden marked change in pulse, temperature, or pain in whatever direction should be carefully watched, till it can be known whether it implies perforation, gangrene, extension of inflammation or dissemination of pus.

In cases where there is a circumscribed abscess, the acute symptoms may subside, leaving a pocket of pus to await a suitable occasion for exciting a new inflammatory process. Frequently, instead of becoming quiescent, the tumor formed by inflammatory exudate and pus increases in size, extending up the loin or over the region of the appendix, and if not artificially evacuated pointing externally or opening into one of the hollow viscera.

It is impossible in limited space to trace all the history of the numerous variations in this disease or detail its complications and sequelæ. Some points should be mentioned, though, in regard to differential diagnosis.

The "acute abdomen" is common to several diseases. Briefly, it is marked by anxious face, increased pulse rate, more frequent and shallower respirations, and those chiefly costal; somewhat distended, more or less tender and motionless abdomen with varying areas of dulness or

tympanites, usually vomiting, tongue furred and inaction of the bowels. Added to these symptoms is generally an abnormal temperature.

A perforated gastric ulcer may be mistaken for appendicitis. Here there is usually a history of indigestion with perhaps vomiting of blood. There may be dullness in flank changing with position of patient. There will be general abdominal distension with rigidity and a loss of liver dullness, and vomiting will be early, be brown or stercoraceous.

An intestinal perforation will be similarly differentiated excepting for the preceding history, which will be one of intestinal disease or typhoid fever. Occasionally appendicitis occurs during the course of typhoid fever.

An obstruction of the bowel is usually preceded by a history of constipation. The temperature and pulse are not as in appendicitis, and the differences in pain and tenderness are important. Then, there is the fecal mass as evidenced by an area of dullness.

Volvulus and intussusception are sudden in onset, but fever is delayed if it appears at all. Vomiting is generally more persistent. There is lack of a definite tender spot. The degree and area of tympanities is suggestive, and in intussusception there may often be felt a tumor, while the frequent attempts at defæcation resulting in the passage of a little bloodstained slime is all but conclusive.

Lead colic differs in the absence of fever, rapid pulse, tenderness, while generally there is a history of exposure to lead poisoning and obstinate constipation. The blue line at the edge of the gums may also be observed.

Acute indigestion has no abdominal rigidity nor tender point. The patient throws himself about. In most cases there is absence of fever, while there is perhaps a history of neglect of the bowels or injudicious feeding.

Bilious colic has generally a previous history. There may be a report of the taking of improper food. The tenderness will be over the liver and gall bladder. The subjective pain is from gall bladder to epigastrium. A pain at the right shoulder is frequent. Fever is usually absent in early stages. If there be fever it is generally preceded by chills. Vomiting is usually persistent.

Renal colic is not accompanied by rise of temperature or the pain and tenderness of appendicitis. Frequency of micturition with burning in urethra and aching and retraction of testicle is characteristic. The pain on pressure if it exists is over the kidney or ureter. There may be blood in urine. Vomiting may occur, but is less frequent than in appendicitis.

Colitis will be marked by colicky pain and mucous diarrhœa. It has not the sudden onset, pain or tenderness accompanying appendicitis.

The symptoms of dysentery are similar with blood-streaked dejecta and trenesmus.

Renal prolaps has many of the subjective accompaniments of renal colic, with the added fact of a rounded, movable body, pressure on which gives sickening sensation.

Salpingitis occurs in females, and a vaginal examination may show tumor on both sides of pelvis. There is slower development than in appendicitis with less abdominal rigidity. The pain is more dull and does not radiate to umbilical region. Tenderness is lower. There is usually little fever and that is more even. There may be a history of infection.

Ovaritis will rarely be confused with appendicitis. Dysmenorrhœa may occur. Vaginal examination should supply conclusive evidence.

A precedent appendicitis may have involved the right ovary and left the subject the victim of subsequent dysmenorrhœa.

Rupture of ectopic pregnancy will be marked by shock, pallor, rapid, feeble pulse, subnormal temperature. There will be history of menstrual irregularity. Labor-like pains and escape of decidual membrane are to be looked for. Pain is usually brief and diffused over lower part of abdomen. Tenderness appears with advent of peritonitis and tumor is recognized when effused blood has become organized and walled off by adhesions. It is best felt per vaginam.

Peritonitis from various other causes may be hard to distinguish from one derived from the appendix. In these cases a definite knowledge of the preceding history of the patient and the first signs of abdominal distress is very important. As idiopathic peritonitis has all but vanished from the nomenclature of science, the diagnosis will largely depend on this information.

Cases of tubercular peritonitis are of slow, insidious development with evening rise of temperature and morning remission. Pain is diffuse. There may be palpable mesenteric or lymphatic glands. A history of infection or predisposition is to be sought.

Chronic appendicitis—Catarrhal appendicitis may exist for years with mild exacerbations and long remissions, the patient regarding himself as being the victim of "indigestion." The rise in temperature and pulse with tenderness over appendix with some muscular tension will be the main points in deciding upon the cause of this protracted trouble.

There are many other rarer conditions to be differentiated, as rupture of an ovarian cyst, pyosalpinx or gall bladder, twisting of enlarged ovary or tube, the various morbid growths, malignant or benign, or abscesses from any other cause in any region where the appendix might lie. These all require most careful attention; also cases with an hysterical element.

There are several general considerations that are wisely remembered for differential diagnosis. The diagnostician cannot be too well informed about the condition of the patient before the advent of the set of symptoms he is to consider. He ought to have as complete a picture as possible of the patient's condition on his first visit and if he suspects appendicitis should repeat his visits in quick succession until satisfied. In case of doubt palpation by rectum and in the female per vaginam should not be neglected. Distension of the rectum by gas is a frequent sign of peritonitis and bowel paralysis. Careful palpation and percussion of abdomen is most important, to map out tympanitic or dull or tender areas and to discover where nature shields a sensitive part by a rigid muscle. Hysterical simulation may often be recognized by lack of consistent muscle tension. The stethoscope is very useful in deciding upon the extent of peritonitis where there is want of vermicular movement. Where there is complete intestinal stasis, the cardiac sounds may be heard in all parts of the abdomen. There will be lack of bowel movements over a tumor. A tumor from appendicitis is always secondary and requires time for inflammatory exudate to organize and for pus to collect. Fluctuation is a still later phenomenon. The dorsal position with knees and shoulders elevated is most favorable for palpation. Sometimes the patient may be examined with advantage while lying on the left side.

The counting of leucocytes may be a great aid in cases with pus formation. It is to be remembered that leucocytosis is not an accompaniment of appendicitis, but of those cases where there is septic absorption. So, a blood count will give negative results in simple catarrhal cases. It may also give little or no information in cases of gangrene or even in extensive, virulent cases where the vital forces are overwhelmed and there is no reaction on the part of nature. When the normal number of white corpuscles is increased by a half, that is to 15,000 per cubic millimeter, pus absorption is indicated. Counting of the leucocytes is very useful in excluding the various colics, torsions, displacements, obstructions, catarrhal inflammations, and hysterics.

It is to be remembered that this group is characterized generally by the absence of febrile movement, but it is also to be remembered that cases of gangrene or the worst peritonitis where the vital powers are sinking may have a normal or subnormal temperature. These latter cases are marked by depression, very fast weak pulse, and perhaps brown vomitus with "septic diarrhœa."

Appendicitis is the most common of all acute abdominal diseases, being as frequent as intestinal obstruction, including intussusception and perforations combined.

It is worth remarking that intussusception is almost absolutely confined to the first year or two of life. Acute appendicitis is most common between the ages of ten and thirty or forty. Perforations of the digestive tract are common over a similar period, though rather rare under twenty, while intestinal obstruction is more common among the old. A previous operation or peritonitis should prompt the surgeon as to the existence of volvulus or an internal hernia.

Let it be repeated that the classic signs of an acute appendicitis are first pain, sudden, severe, spasmodic, radiating about umbilicus; second, generally vomiting for a short time; third, abdominal tenderness with special pain over appendix; fourth, rise of temperature; fifth, rigidity of muscles over inflamed area; sixth, increase of pulse rate.

Having found all these, beware.

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THE MEDICAL TREATMENT OF APPENDICITIS.*

By G. CARVETH, M.D., Physician to Toronto Western Hospital.

MR. A. H. TUBBY, surgeon to Westminster Hospital, lays down the medical treatment of appendicitis thus:—

The pain should be relieved by opium, or a hyperdermic injection of gr. 1-6 or 1-4 of morphia, but as soon as the pain is relieved this drug should be discontinued. It does good when carefully administered in two ways: it relieves the pain and lessens peristalsis.

If there be vomiting, no foods should be given until it has ceased, and then only small quantities of some hot liquid. Beef tea and essence of meat are preferable to milk, and the latter should be peptonized. Thirst should be allayed by small amounts of hot weak tea, barley water, or toast water, but ice and iced drinks should not be allowed.

Purgatives must be avoided in the acute cases; but in the mild relapsing type 1 grain of calomel, repeated two or three times every three or four hours, is of service. If required to complete the action an enema may be given. If these means do not move the bowels, then leave them alone. The utmost care must be taken to avoid the "fatal" purgative. When pain and tenderness have almost subsided by the fifth or sixth day, a glycerine enema may be ordered with advantage. After this time a mild saline may be prescribed to maintain the requisite peristalsis.

When the temperature has become normal, and the tongue cleaned, an advance may be made towards solid food by giving toast, peptonized

* Read at a staff meeting of the Toronto Western Hospital.

milk, a little bread without crust, butter, then fish, and later fowl and meat.

In acute cases, with swelling and tenderness, leeches may be applied; but they are of no use when suppuration has occurred. Intestinal antiseptics may be given when the bowels are moving, such as salol, B. naphthol, sodi salicylate, etc., Absolute rest must be insisted upon.

Mr. C. B. Lockwood, of St. Bartholomew's Hospital, in his work on appendicitis, lays down the medical and expectant treatment in the following terms:—

“The treatment consists in absolute rest in bed, enough opium to relieve pain, a fluid and peptonized diet, and enemas to open the bowels. Absolute rest should include the avoidance, as far as possible, of abdominal or rectal examinations.”

He states that opium is best given by the rectum in doses of 10 to 20 minims of the tincture in a small nutrient or starch enema.

For the purpose of moving the bowels a dose of calomel of three to five grains is recommended, and an ordinary soap enema containing half an ounce of turpentine and castor oil. He has never seen any harm come from the use of such an enema, beyond a little pain, vomiting or erythema.

The use of blisters and leeches are not favored, as they injure the skin and may give rise to suppuration should an operation be required. Warm applications to the abdomen seem to afford the best relief from pain, and to these the tincture of opium may be added.

In chronic appendicitis he has seen benefit from small doses of salol or B.-Naphthol; but, he says, it is doubtful whether such feeble intestinal antiseptics can do much good in many cases.

When an operation has been decided upon in an acute case, but it cannot be performed for a short time, a hypodermic injection of morphine is recommended, as a means of allaying pain, and lessening peristalsis.

Messrs. W. H. Battle and E. M. Corner, surgeons to St. Thomas' Hospital, outline the medical treatment of acute cases thus:—

“It has been, and is, the custom to treat cases of appendicitis with milk, beef tea, etc., as food; rest in bed, fomentations to the abdomen, doses of opium. With regard to the opium, the least possible amount should be given, as it masks the symptoms, and gives a feeling of false security to the patient, the friends, and the medical attendant.”

With regard to a purgative, they state that this treatment has often been blamed, while, on the other hand, it has frequently been praised if the case did well. “If the case is seen shortly after the attack, and the vomiting permits of it, a purgative is a good thing.” After the end of the first day, the purgatives must be given with caution.

In every case the signs should be carefully watched for the necessity of an operation, as the medical treatment should never be continued too long, if the case is not improving. The first 48 hours is the period of election for early operation.

Drs. Howard A. Kelly and E. Hurdon in their work on the vermiform appendix lay down the medical treatment briefly in the following manner:—

The first step is to put the patient to bed and enjoin absolute rest in the dorsal position. There should be a rigorous regulation of diet, medication and treatment in general, which can be best carried out under a trained nurse.

Next in importance to the general rest of the body comes local rest to the alimentary tract; and with this end in view all food should be withheld. This lessens peristalsis and the risk of suppuration and rupture. If there be undigested food in the stomach, it may be washed out with normal saline solution. Sips of iced water, cold tea, or hot water, may be allowed to allay the thirst or to rinse the mouth.

Ice applied over the right iliac fossa is recommended. It should be put in a rubber bag in small pieces and spread out so as to cover the required area without being too heavy. Menthol locally applied will relieve pain, and poultices, sprinkled with tincture of opium, may be applied over the abdomen.

“The treatment of the bowels constitutes the crux of the subject to-day.” The treatment by opium and purgatives is reviewed, and the authors sum up the matter thus: The opium treatment should be begun with just enough to relieve the pain, either in the form of morphine hypodermically or $\frac{1}{4}$ to $\frac{1}{2}$ -grain opium by the mouth. This treatment quiets the bowels and favors the formation of adhesions. It should be kept up for several days and until all symptoms have subsided and general improvement has taken place. “After complete subsidence of the symptoms, the bowels should be unloaded by small oil enemata, or by calomel or castor oil given by the mouth.” The administration of strong salines or large enemata are dangerous and should be discontinued. “Only enough opium should be given to produce quiescence, the pupils being watched.” Too much opium obscures the symptoms.

“With improvement, both local and general, small quantities of food may be given by the mouth, beginning with albumen and water, a little cold coffee or tea. Small nutrient enemata may be given even in the midst of the attack, and continued until convalescence.”

Dr. William Russell, of the Royal Infirmary, of Edinburgh, in an address before the Edinburgh Medico-Chirurgical Society, after cover-

ing the general ground of rest and diet, remarked on the use of purgatives and opiates as follows:—

Some years ago, he always gave purgatives and without bad effects, and had often seen cases where the patient had taken a dose of some aperient of his own accord, and that no ill-effects resulted. It is quite true that some have regarded purgatives as dangerous, but perhaps in isolated cases, and without duly considering all the circumstances.

Going on to the discussion of the administration of opium he remarks that this drug is valuable when properly employed. It is quite true that if given in too large quantities, and in the hands of the inexperienced, it may "mask the symptoms"; but not so when properly used and by those who have experience with the disease and the administration of opium. The application of heat and cold for the relief of pain he does not regard as of much value, but thinks they are harmless.

Mr. F. M. Caird, Edinburgh, states: "I generally apply an ice bag, wash out the rectum, and wait for a day or two. If, when under observation, the patient did not improve, or if, after a temporary lull, symptoms again—within ten days—become exacerbated, operation is indicated."

The late Prof. Hermann Nothnagel lays down the medical treatment in his system of medicine thus:—

The most important thing is to enforce quiet, both general and for the intestines in particular. If the patient is not already on his back, he should be put to bed at once. This applies to all cases.

Food should be withheld in all acute cases. There is no objection to a little water by the mouth in tablespoonful amounts, as this is absorbed by the upper portion of the digestive canal. It should not be ice cold. When nourishment is given by the mouth it should be liquid in form, soups with egg, somatose, or artificial infants' foods. Milk should be given with care, as it tends to cause flatulence and peristalsis. Care should be taken for some time, and everything that tends to distend the intestines or cause gas formation must be avoided.

He strongly urges the proper use of opium as a means of giving the patient rest and restraining the disease. The objection that the drug masks important symptoms is not true, as, with care, enough can be given to relieve the pain and aid in the arrest of the disease without producing such conditions as will obscure the real state of the patient. The constipation may be allowed to continue for four or five days.

Moist hot or cold compresses are helpful. Prof. Nothnagel prefers the latter, in the form of an ice bag, or ice-cold coil. This use of ice-cold water is highly favored also by Dr. Lees, of London.

The employment of purgatives is strongly condemned. Everything should be done during the first few days to put the parts into a condi-

tion of rest, rather than to excite peristalsis. Now that the stercoral origin of appendicitis has been abandoned, there is no sound reason for purgation. In some cases the symptoms disappear after a purge, but these are cases of an irritation of the cæcum from fæcal matter rather than true appendicitis.

Dr. A. J. Ochsner, of Chicago, has formulated the rules for the medical treatment of this disease in a very clear and definite form. His rules are:—

1. In all cases of acute appendicitis, without regard to the treatment contemplated, the administration of food and cathartics by the mouth should be absolutely prohibited, and large enemata should never be given.

2. In cases of nausea or vomiting, or gaseous distention of the abdomen, gastric lavage should be employed.

3. In cases coming under treatment after the infection has extended beyond the tissues of the appendix, especially in the presence of beginning diffuse peritonitis, the foregoing conclusions should always be employed until the patient's condition makes operative interference safe.

4. In case no operation is performed neither nourishment nor cathartics should be given by mouth until the patient has been free from pain and otherwise normal for at least four days.

5. During the beginning of this treatment not even water should be given by mouth, the thirst being quenched by rinsing the mouth with cold water and by the use of small enemata. Later small sips of very hot water frequently repeated may be given, and still later small sips of cold water. There is danger in giving water too freely, and there is great danger in the use of large enemata.

6. All practitioners and the general public should be impressed with the necessity of prohibiting the use of cathartics, food, large enemata, and liquids.

7. The most convenient form of rectal feeding consists in the use of one ounce of one of the various concentrated liquid pre-digested foods in the market dissolved in three ounces of warm normal salt solution introduced slowly through a soft catheter, inserted into the rectum a distance of two to three inches.

The foregoing opinions from the highest authorities—and these could be indefinitely multiplied—go to show a very close unanimity of thought on the principal points in the medical treatment of acute appendicitis. They may all be summed up thus:—

1. Absolute rest in bed until all the symptoms have subsided for some days.

2. The withdrawal of all food by mouth and the severest restriction on liquids swallowed.

3. The avoidance of purgatives; for while they may appear to be good in some cases, they are dangerous.

4. The careful employment of opium to the extent of relieving pain and lessening peristalsis; but not to the extent of contracting the pupils to any extent nor arresting the urinary flow.

5. That very large enemata are very dangerous; and that the bowels should be moved, after all the acute symptoms have subsided, by small oil enemata, aided by gentle aperients, such as small doses of calomel or oil.

Having regard to the large number of cases that must occur where surgical treatment is not practicable at the time, and to the fact that 90 to 95 per cent. of acute attacks should recover under medical treatment for the time being, the importance of forming well-defined methods of medical and expectant treatment becomes at once apparent. This I have tried to accomplish by an appeal to the writings of leading physicians and surgeons. To these opinions, as just summarized, I give my adherence. But it must ever be borne in mind that no form of medical treatment can supplant the need for surgical aid sooner or later in the majority of the cases.

• APPENDICECTOMY.*

By A. H. PERFECT, M.B., M.D., Surgeon to Toronto Western Hospital.

IT is to be distinctly understood that this method of dealing with the removal of the vermiform appendix is not the only way, but a good way, and one that has given good results in a large number of cases. The only thing dogmatic about it is the school of experience. Besides, it is my first offence.

It is no light matter in an internal case to put a patient of full habit into the hospital one evening and operate on him the next morning. There should be a preparation of several days by a restricted liquid diet, a sufficient cleansing of the bowels by laxative and enema in addition to getting acclimated to his new surroundings and enforced rest. In a highly nervous, sensitive patient who worries much, the sooner the ordeal is over the better. There is not much to be gained by feeling for the appendix, no matter how highly educated the finger tips may be. It is enough to know the first attack was genuine, and then it is the surgeon's duty to isolate the "little assassin" as surely as he would an infected gall bladder. This is the only positive means of guaranteeing a non-recurrence. The laity have learned the location of the appendix and it is not an uncommon thing to have a diagnosis of appendicitis already made because they do not know that direct pressure over the normal ileo-cæcal

*Read before the staff of the hospital.

valve usually produces tenderness. Recently two healthy men came to my office to arrange about being operated on for an appendicitis that did not exist, their only symptom being that just mentioned.

A thorough good washing with soap and hot water, and then a good antiseptic poultice applied to be followed by the final washup on the operating table makes a good antiseptic preparation for the skin. The too vigorous use of the scrub, a soap with too much alkali, and a strong bichloride poultice may be cited as examples of useless and meddling methods of skin preparation. Many emergent preparations after the anæsthetic has been given have had primary unions. Another matter of detail for the comfort of both patient and surgeon is a generous stomach lavage just before the operation if the patient consents and always afterward before consciousness returns. These patients are not even nauseated nor are they harassed by the strain on the wound and its accompanying pain. There is pain enough following a section without suffering what is avoided. I speak feelingly on this subject. Let me again emphasize the good effect of washing out the stomach. A pint at a time of normal saline should be introduced through the stomach tube until it returns as clear as it entered.

The incision is a matter of choice and one cannot err much in using any well-tried method. In the female I usually open near the outer border of the right rectus. This has the advantage that any pelvic pathology may be dealt with at the same time. In uncomplicated cases the grid-iron incision obliquely through the aponeuroses of the three abdominal muscles, just over the appendix, and at the outer border of the right rectus without opening its sheath gives a splendid reinforced closure. There may be adherent intestines to the peritoneum so that this structure should be divided with much care. Its cut edges may be picked up with curved hæmostats that fall outward and keep the wound open. Some anatomical abnormality may be responsible for a difficulty in finding the appendix, but perseverance will be rewarded. Where the ileum and cæcum join there will the appendix be gathered together. Where there are no adhesions it is a simple matter, but where adhesions abound it is quite a difficult proposition to expose the appendix. Adhesions cultivate patience, and once the tip or free end of the appendix can be demonstrated there is usually not much difficulty in freeing the remainder. One must keep close, very close, to the appendix. Dense adhesions may be freely divided with scissors or scalpel without fear of hæmorrhage; recent ones by the finger or blunt dissector. Any adjacent structures should be carefully guarded against injury, all raw surfaces minutely examined and any tear immediately repaired. The safest structure on which to make tension is the appendix itself. There is danger in pulling on an adherent ileum, and in recent cases the muscular fibres may be easily separated by very slight traction. If an abscess be discovered the parietal

peritoneum should be protected and the pus carefully and completely swabbed out and the cavity treated with pure carbolic and alcohol. Having demonstrated the appendix in its entirety, it and its source should be brought out of the wound. Then ligate the mesoappendix by passing a ligature through the semi-transparent space near the base of the appendix. This secures the blood supply, and the mesoappendix may then be cut between the appendix and ligature. At the point where it is decided to amputate the appendix, and this should be nearly flush with the cæcum, the serous coat is circularly incised, the muscular coat exposed and a silk ligature applied to it. The assistant should secure the mesoappendix by forceps and surround the base of the appendix with gauze to protect the field of operation from a possible infection. The scalpel or scissors used to divide the appendix should be put away and not used during this operation.

The puckered lumen is frequently swabbed out with carbolic acid. This is not necessary. About half an inch from it and beginning at the mesoappendix there is introduced a purse string suture of sterilized catgut made to surround the stump. As this suture is tightened the stump is inverted and thus buried out of sight. The ornamental cuff forms a poor covering for the stump alone. All raw surfaces need to be covered with serous coating to avoid adhesions. The intestine is now returned to the abdominal cavity and if the condition of the patient call for it a quart of normal saline is put in the abdomen of clean cases. The peritoneal closure is also important for the comfort of the patient. By this I mean to avoid the possibility of the cut edge of the peritoneum being inverted instead of averted. An adherent bowel to the parietes is very unfortunate for both patient and surgeon. Having secured all small bleeding points so that the field is perfectly dry, the wound is closed by the layer method. Muscle is gently approximated to muscle by sterilized catgut also; fascia to fascia by 40-day chromicized gut No. 2, and if there is more than ordinary tension I prefer mattress sutures placed close together. A fat wall is the better of being gently brought together by small-sized catgut so as to avoid a dead space. A subcuticular catgut or silkworm gut completes the human end of it. I have every confidence in Van Horne and Sawtell's preparations and use no other. In the event of a likely wound infection a through and through silkworm gut suture is preferable as any form of catgut is useless in a few hours in the presence of pus. Dry gauze or any other good aseptic dressing may be used to cover the wound, a many-tailed bandage snugly fitted, the patient's stomach washed out, and he is returned to the ward with the foot of the bed elevated for several hours. In any case requiring drainage the head of the bed should be elevated for the whole period of convalescence. Under ordinary circumstances an uninterrupted recovery permits the patient to return to his home in from one to two weeks.

OUR CHILDREN AND TUBERCULOSIS.*

By SIR JAMES GRANT, M.D., K.C.M.G., Ottawa.

FEW subjects, at present before the public, are worthy of more careful enquiry than the health of children, and their environment during the period of school life. Our cities are increasing rapidly in population, residences are more in demand, and, doubtless, in many instances, there is the commencement of over-crowding, such as experienced in the cities of New York, Boston and Philadelphia. Under such circumstances, there is need for increased work, along broader lines, to bring about practical results, as far as staying the progress of tuberculosis, is concerned.

The systematic medical examination of school children in Canada has been under consideration during the past year or two, but, so far, has not reached any definite form. In the county borough of Blackburn, England, the recent report of Dr. Alfred Greenwood, Medical Officer of Health has attracted wide-spread attention. Of 338 school children examined personally, no fewer than 54 were suffering from tuberculous diseases. It is a serious state of health, that out of 338 children taken at random for examination, 54 should have pulmonary consumption. Such statistics will, doubtless, prove a surprise to many. The fact that young children are generally not supposed to suffer from pulmonary tuberculosis, may account for such states of the system being passed over in a casual manner. Most important points, in the early discovery of lung diseases, are separation from children in health, careful inspection, from time to time, of those who have been exposed to the disease, and most thorough enquiry, into the standard of living, in the residences of those diagnosed as consumptives. At this stage of proceeding, what an important place the trained nurse occupies. The principle of isolation is fully set forth to the family, in the home, for it is here the disease is born and bred. The premises must be disinfected frequently, and the patients instructed how to properly carry out such. In addition to hygienic measures, the food supply of the family frequently requires examination. If the parents are ill, and sent to a sanatorium, the children require, under such circumstances, special care and attention. These are a few of the points each local society has before it, and the success in such endeavors depends greatly on careful watchfulness over minor details.

Systematic medical examination is truly the correct way of defining diseases of school children, and the important responsibility should not be expected of teachers unequal to such scientific medical duties. The Canadian Association for the Prevention of Tuberculosis is exercising

*Address read before the Canadian Association for the Prevention of Tuberculosis, 28th April, 1906, at Ottawa.

every influence in its power to combat this disease, and the local association, as well, and yet the death rate in our midst is great, in proportion to our population, and requires untiring energy and exertion, backed by the timely co-operation of a willing public, to arrive at such a record, as will indicate satisfactory results. Committees on physical deterioration of the race are well enough in their way, but what we require at this stage of progress are true issues, along practical lines, based on common sense principles, vigorously carried into operation. Then, and then only, can we hope for a marked reduction in the sad mortality experienced daily in the march of this disease.

It is only within a brief period that the transmission of this disease has attracted attention and been thoroughly understood. There are to-day two well established principles: (1), that tuberculosis is preventable, and (2), that tuberculosis, strictly speaking, is curable. The problem of tuberculosis is one of prevention, and not one of cure alone. To prevent tuberculosis, we must get at the causes, and how are we to grapple with causes more directly than by the most careful and searching investigation of the manifestation of tuberculous disease in school children. Medical inspection will materially aid the healthy education of the young nation of Canada, all of which, in the opinion of "The Deputy Registrar General of Ontario," should be considered by a special committee, or commission, appointed by the Ontario Government, for that purpose. Such is a move in the right direction, of the most commendable character, and, if carried out, is certain to lead to practical results. The prospect of long life depends greatly on the manner in which life has been cared for, and protected, in the stage of childhood. In this period the very corner stones of future strength and constitutional development are placed, so as to build up and construct tissues, possessing the elements of vitality. The medical inspection of schools is well received in England by the Medical Department of "The Educational Committee of London County Council," and "School Doctor," is an established institution in the land. In Europe, also, as well as in the neighboring Republic and Japan, there is a general consensus of opinion, favoring this progressive move, for the protection of child life, and now, fortunately, extensively in practical operation. No form of educational organization can be considered complete which does not make provision for the systematic reference of the health of school children to medical experts, appointed for that special purpose. This is, in fact, the only correct method by which tuberculous disease can be properly diagnosed, and the requisite plan of action adopted to guard the life of the child and prevent communication of the disease to others. With the measures now in operation it is not surprising the disease is still spreading and the weekly record in our midst un-

satisfactory. All such points to the necessity for increased exertion in the line of inspection in both the school and the home, particularly, the very key to the prevention of tuberculosis, where, as a rule, it is contracted by the child. The opinion of the recent "Par's Tuberculosis Congress" favored the idea that, the question of healthy dwellings will always dominate the prevention of tuberculosis, and declared strongly in favor of the view that alcohol pre-disposes to tuberculosis, and aids the disease, in the work of destruction. The present care of the child or adult, as far as sanatoria are concerned, is a difficult problem.

Fully 8,000 consumptives die yearly in this Dominion, and, as to treatment, no adequate preparation. Each life, valued at \$1,000.00, indicates a direct loss annually of fully \$8,000,000, with very feeble evidence towards lessening this sad and telling mortality.

Last session the subject of tuberculosis was ably presented by Honourable Mr. Edwards, in the Senate, and Geo. Perley, M.P., in the Commons, resulting in most favorable comments, as to the necessity for action, to lessen the death rate in our country from "The White Plague."

A small grant has been received from the Dominion Government to assist in defraying the expenses of "The Canadian Association for the Prevention of Tuberculosis." Beyond this no specific action has been taken, owing to the provisions of "The British North America Act," as to public health. The Ontario Government offers a grant of 40 per cent. of the cost of all municipal sanatoria, but no grant to exceed \$4,000.00. The counties of Perth, Oxford, Wellington and Waterloo applied to the Government for a grant to each county, so that they could control \$16,000.00 toward the erection of a sanatorium, for their joint use. This union of counties is a practical idea, and why should four counties, in the valley of "The Ottawa," not do likewise? Such action, followed up by an appeal to the public for private assistance, would enlist sympathy and support when, as at present, general interest is aroused as to the necessity of immediate action. It is impossible to provide at once for all those laboring under the disease. What is absolutely necessary is compulsory registration of such cases, which, in time, would lead to a classification, and greatly assist in the selection of cases, to which attention could be given, as to immediate needs and requirements. Dr. Trudeau, of Saranac, favors the idea of having every community build its own sanatorium, and receive support, pro rata, from the state or county, the best and most efficient plan, from his point of view, of combatting the disease.

The day for expensive and elaborate sanatoria is about over. As a commencement, the simple shack, erected at the expense of a few

hundred dollars each, will be found most useful and practical. Thoroughly competent medical attendants and nurses are what we require, and not expensive structures to overburden willing contributors to this noble and philanthropic work.

"An important bill is now before the Maryland Legislature, which provides that children shall not work at any industry until they are twelve years old. Children who should be in the kindergarten work all night in cotton mills and glass works. In New York to-day it is a known fact that children, six, seven and eight years old, are working in cellars and garrets, sewing on buttons, making artificial flowers and other work; and in the Republic fully two millions of children, under 16 years of age, are earning their own living.

"The Bill before Congress for the regulation of child labor in the District of Columbia, if successful, will lead to much improved conditions as to the problem of child labor. No more important subject than that of the child labor could be considered by this association, so intimately connected with the development of tuberculosis, from overcrowding and over-taxation of mental and physical energy, while the system is really in the formative stage of development. So far I am not aware that Canada is over-taxed, in the lines of child labor, and yet it would be prudent to guard against such as far as possible by legislative enactments now in force."

THE RATIONAL TREATMENT OF URETHRITIS.*

By NOAH E. ARONSTAM, M.D., Detroit, Mich., U.S.

THE time-honored adage of the great syphilographer, Ricord, "Every-one knows when gonorrhœa begins, but God alone knows when it will end," holds no longer good to-day in face of the more thorough and rational methods of treatment inaugurated during the last two or three decades. The failure to bring a case of urethritis, it matters but little whether it be acute or chronic, to a favorable issue, is but a tacit indication of our lack of knowledge of both the etiology and pathology of this affection. Were the latter better understood and the routine treatment of this malady discarded for a more scientific one, there would be but few patients to complain and less of the profession to feel humiliated. A proper comprehension of the etiology and morbid anatomy of the subject under consideration is the most necessary prerequisite to the treatment of this disease. With this view in mind, the author has appended below a classification of the etiological factors instrumental in the production of urethritis. It would be absurd to regard every

*Read before the Wayne County Medical Society, Feb. 26th, 1906.

case of a urethral discharge as specific, or as having been propagated solely by sexual contact. There are numerous other etiologic factors, far removed from the sexual sphere that may cause it. The causative agencies may be divided as follows:—

(1) *Specific or Microbic.* This constitutes such elements as the gonococci, or infection due to other pyococci, the latter being capable of engendering not only a very virulent and at times extremely chronic case, but may also be accompanied or followed by just as many and just as severe complications and sequelæ respectively, as are met with in the course of the ordinary gonococci form. Chancroidal pus may likewise give rise to a urethral discharge of greater or lesser severity. Similar effects are occasioned by the virus of syphilis, ushering in a condition of affairs at first simulating urethritis, until the definite character of the dyscrasia is recognized later at the advent of the secondary phenomena of lues. Infection by the tubercle bacilli is another potent factor not to be overlooked. Furthermore, inoculation with sundry micro-organisms invading the vaginal canal, as, for example, the bacillus coli communis, etc., may similarly be productive of urethral inflammation in the male.

(2). *Non-Specific or Non-Gonococcic Urethritis.* This comprises those forms of this affection whose causes bear no intrinsic specific qualities, but, notwithstanding, which are known to cause urethritis. Thus the trichomonas vaginalis, occasionally inhabiting the normal vagina, may be credited with its production. Then, again, irritating discharges from the cervix and the uterine cavity, and the acidity of the mucous secretion, preceding the menstrual flow or following it, as well as the menstrual blood *per se*, are etiological factors of import. The non-specific form may also originate in the course or follow certain of the specific febrile diseases, as typhoid fever, pneumonia, la grippe, epidemic parotiditis, etc.

(3) *Mechanic.* Over-indulgence in venery is also apt to create urethral irritation; this is often observed in newly married men, especially so when they have been leading a chaste life prior to matrimony. Urethritis may also be caused by the action of divers mechanical factors upon the urethral mucosa, as, for instance, the passage of calculi or the introduction of foreign bodies into the canal. Catheterization or the insertion of the different urethral instruments for diagnostic or therapeutic purposes do not infrequently occasion urethral inflammation.

(4) *Diathetic or Systemic.* To this category belong those cases of the disease which make their appearance during the existence of some nutritional error or faulty metabolism. Thus the lithemic state is not rarely accompanied by urethritis. The same may be said of acute

rheumatic arthritis. Diabetes mellitus has been known to be provocative of urethritis in a number of authentic cases on record in medical literature. Phosphaturia, or the so-called "phosphatic state," similarly shares in its causation. Locomotor ataxia alone may give rise to urethral inflammation of varying degrees of intensity during the "vesical crisis" of the former. We must also take in consideration urethritis due to the syphilitic poison, appearing during the late secondary and tertiary periods. Acute debauchery and indulgence in the pleasures of the table likewise bear at times the brunt of responsibility in the causation of this disease. Debility traceable to many causes, cachexia incident to malignancy and malignant conditions themselves are also factors of weight. We should never forget that we have a patient to treat, and not merely a diseased urethra. This circumstance must not be lost sight of by the genito-urinary surgeon.

(5) *Consecutive or Secondary.* This caption embraces that form of urethritis the result of too active treatment, or rather over-treatment. Cases are sometimes too energetically handled, and in lieu of improvement the reverse is quite often the case. A non-responsive, flaccid and catarrhal state of the urethra is brought about, which will show no tendency to abate save upon the recognition of the cause and the subsequent suspension of all remedial intervention. To the same class also belong those cases that are evoked by some morbid condition of the urethral appendages. A cowperitis, seminal vesiculitis, prostatitis or prostatic hypertrophy may be at the bottom of the discharge, which conditions, when remaining untreated, will prolong it indefinitely. Chronic inflammation affecting the large urethral follicles, especially those situated in the fossa navicularis, is a factor not to be underestimated, the urethra itself in these particular cases remaining free from any vestiges of involvement and harboring no micro-organisms of any form.

As regards the *prognosis* it must be remarked that authors and the consensus of opinion of the profession in general are, unfortunately, too arbitrary, and hence the prognosis has been more or less influenced by this fact. Urethritis is by no means a self-limited disease. A prognosis must be rendered most guardedly, and should be based upon the particular etiologic factor that generated it, as well as upon the method of treatment employed, which, it must be confessed, is far from being rational at the present juncture, savoring of empiricism and a very ludicrous routine.

The *treatment* will now engage our attention. That it depends upon the causative factors is obvious. The non-specific form demands an entirely different regime to that of the specific variety. We must in all cases endeavor to eliminate the cause, so far as it be possible. To

dwelt at length upon the treatment of the various types of the malady under discussion would require more time and space than has been allotted to the author. Suffice it to say, however, that urethritis dependent upon certain dyscrasiae and diatheses must receive their adequate consideration before we can expect favorable results. To treat any given case of urethritis merely with a hand injection and the internal exhibition of some non-descript "urinary antiseptic," without having recourse to physical, urinary and microscopic examination, if it be necessary, is just as absurd as to treat the symptoms of a febrile disorder without taking cognizance of the specific elements that may have precipitated the fever.

Of greater interest to the practitioner and genito-urinary surgeon, however, is the treatment of the gonococcic form of the disease. Concerning the so-called "abortive plan" the author has nothing good to say of it. It is an inappropriate procedure and should be disapproved of and condemned by every scientific physician. To destroy the gonococci would necessitate the use of powerful germicidal agents, agents that will undoubtedly embarrass the intact urethral mucosa, and hence be conducive not alone to increased suffering, but also to appreciable solutions of continuity therein, damage the canal permanently, and thus eventuate into stricture formation subsequently. Its irrationality is apparent at a glance and need not be dilated on. The conservative school of the profession advocates the "expectant plan" of treatment, contending that gonococcic urethritis is a self-limited affection uninfluenced by interference of any kind. This is a very reprehensible conception of the real pathology of the malady, is far from scientific, and may at times lead to unfavorable sequelae and not infrequently prolong the duration of the disease indefinitely. This plan is of doubtful propriety and deserves to be ignored as an irrational mode of treatment. Not less reprehensible, and still more ludicrous, are the remedies in vogue at present, obsolete and obscure methods that have come down to us an heritage of barbarism or witchcraft from the latter part of the medieval past. The author cannot refrain from disparaging their employment, and shall prove the inefficiency of their highly vaunted therapeutic activity. Their name is legion and to enumerate them all would require a special chapter to be written in the histories of medicine now extant. The writer shall mention only a few of these in order to refute them. Prominently among them figure the "alkaline diuretics." The theory is pretty much prevalent that alkalies when ingested are absorbed into the circulation and neutralize normal urine by rendering it alkaline, thus alleviating pain and ardor urinæ, two harrassing symptoms of the acute stage of this disease, simultaneously acting also as mild urinary antiseptics. This theory contains much

that is futile. When alkalis are absorbed, their identity is completely lost as far as the acid radicle is concerned; they are ultimately converted into normal chlorides or salines, and not carbonates, which are known to possess diuretic properties; it is only by the latter virtue that they exercise a beneficial effect upon the inflamed urethra, not however, primarily as alkalis, but as diluents and diuretics. This, the author's, assertion may not conform to established orthodox doctrines or views pertaining to this particular phase of the subject, and he therefore anticipates to be rigorously dealt with and relentlessly criticized for it.

The therapeutic value of boric acid and salol, either alone or in combination, which are thoughtlessly administered as a routine measure with the expectation of disinfecting the urethral tract, is likewise to be doubted. The various balsamics, as copaiba, santal oil, gurjun and the oleoresin of cubebs, must be mentioned in order to condemn them, not only as nauseating substances, but also utterly devoid of benefit in this disease. It is unreasonable to believe, that a drug ingested and acted upon by the different ferments and fluids found in the gastrointestinal canal, after being absorbed in a modified and chemically altered form, and after being oxidized and in turn converted into simpler products, should act as efficaciously on the urinary passages, as *in vitro* in the chemical and bacteriological laboratories. The presumably beneficial effects of these remedies, as witnessed in practice, are not due to their inherent specific properties, but rather to the intake of large draughts of water proverbially following these antihemorrhagics, which acts, not merely as a diuretic, but also as a detergent and diluent, thus allaying painful urination, mitigating the urinary tenesmus and indirectly acting as a mild antiseptic by virtue of the saline constituents it usually contains.

The most rational method of treatment of the acute stage of gonococcal urethritis is that of irrigation, as first introduced by Janet, of France, and elaborated and extensively used in this country by Dr. Valentine, of New York. The author has, however, utilized a procedure which, for lack of an adequate terminology, he has designated the Modified Valentine's Treatment, and which he shall attempt to outline in the succeeding paragraphs. With this method the average duration of an acute urethritis should not exceed three weeks, provided the patient presents himself for treatment within the first three or four days after the entrance of the acute manifestations, and his urethra has not been impaired by the previous existence of the same trouble, *i.e.*, provided the patient has contracted the disease for the first time. Recurrent attacks of this affection render it less amenable to this form of treatment, and may prove very intractable.

The patient is told to drink plenty of water, and, if he be fastidious, he may partake of some of the so-called mineral waters with which the market is teeming, or he may use mildly acidulous drinks so abundantly dispensed in the confectionaries. All alcoholic and malt beverages must be interdicted, as well as tea and coffee. Condiments of any sort, highly seasoned dishes, and nitrogenous foods must be temporarily avoided. Soups are too stimulating and should be partaken of but sparingly. The anterior urethra is flushed with a normal saline solution by means of the Valentine douche or a similarly devised apparatus with a good valve attachment to regulate the flow. Not more than three pounds pressure should be allowed, or, what is the same, the apparatus should not be elevated higher than six feet. A soft rubber catheter encircles loosely the root of the penis, or, what is more preferable, the fingers of the left hand of the operator gently presses the penis at its root while the right hand manipulates the valve. The latter should be so constructed as to effectively regulate the current, which should be continuous and slow. The slight constriction at the root of the penis prevents the fluid passing the corresponding portion of the urethra and being propelled posteriorly, thus averting the possible invasion of the deeper portions of the canal, a feature very undesirable and zealously to be guarded against. The infectious agent during the acute stage is confined to the first two or three inches of the urethra. By allowing a steady stream of a normal saline solution to come in contact with the mucosa for about four or five minutes, it not only frees it from detritus and quantities of accumulated pus, but lends greater resistance to the cells as well, hence preventing the extension of the process and at the same time acting as a mild disinfectant. This effected, 20 minims of the suprarenal principle (1:1000) is instilled with an ordinary bulb eye-dropper into the canal, the meatus is then compressed and the solution kept there for at least five minutes, after which it is permitted to escape. The adrenal principle constricts the superficial capillaries and thus removes a prolific source of supply—the pabulum necessary for the multiplication and maintenance of the gonococci, which for the want of it readily succumb. Four results are thus achieved with the modified Valentine's treatment, namely:—

- (1) The removal from the urethra of mucus, epithelial debris, etc.
- (2) An astringent action; constriction of the peripheral vessels and the shutting off of a nutritive supply to the infecting agent.
- (3) By so doing, it acts directly as a disinfectant to the urethra.
- (4) The duration of the affection is decidedly curtailed without endangering the integrity of the urethra.

The effects of the above procedure are very satisfactory, as the discharge is manifestly lessened after a few irrigations, the patient expressing relief from all annoying symptoms. The saline irrigations are continued daily, or, what is still better, twice a day, if possible, for ten days, after which period it is changed to pot. permanganate in ascending strength, beginning from 1.10000 and increasing up to 1.1000 by the end of the third week. It will then be noticed that the discharge has come to a standstill and the urethra has been restored to its normal. If there is still a slight serous secretion, at times, evident at the meatus, we may resort to a prescription composed of zinc sulphate, adrenalin principle (1.1000), colorless fluid extract of hydrastis canadensis in a vehicle of distilled water, which in a short time will check it entirely. Three weeks suffice in the majority of instances to effect a cure, while in favorable cases, it is brought to a finale in 10 to 14 days. This time-factor alone bespeaks the advantage of the above treatment, as compared with that practised formerly in a loose, haphazard and empirical manner, when the prognosis, as to time, was considered to be from six to eight weeks. This method, then, has the advantage over the older forms of therapy, that it in a sense limits or shortens the duration of the affection, as evidenced by a number of cases on the author's record book. Specific or gonococcic urethritis under the aforementioned regimen is, therefore, a limitable and abortive disease, which regimen does not intend to undermine the integrity of the urethral canal, as is commonly the rule with the escharotic remedies in vogue during the last two decades, and still attempted by some under a mistaken conception of the pathology of the disease.

The treatment of the chronic form is more difficult, tedious and complicated than the acute variety, and requires perseverance and patience on the part of both the physician and the patient. Various solutions for injection have been advised, among them the vegetable compounds of silver alone or in combination with ichthyol and suprarenal principle either as a hand injection, or, what is more preferable, to be used by the physician himself. We should make it as an axiom never to entrust any mechanical or instrumental means, be it ever so simple, to the charge of our patients. An injection which has found favor with the author is a five per cent. solution of protargol, together with the chloride of the suprarenal principle and Magendie's solution of morphine, if there be tenderness present, with or without hydrastis, the latter in the form of the colorless fluid extract. This is injected either anteriorly, or in case the process has travelled beyond the triangular ligament, which it invariably does in nearly 75 per cent. of cases, through an Ultzmann instillator into the posterior urethra. Silver nitrate, which has been extensively used hitherto, has been dis-

carded for the albuminates and nucleates of the same metal. There are cases, however, where the nitrate acts more favorably than the beforementioned compounds, and is thus accordingly used in preference by the author in selected cases. Irrigations with strong solution of pot. permanganate are likewise useful, either as a recurrent irrigation by the Valentine apparatus, or as a vesico-urethral irrigation through a catheter, allowing it to escape by the natural route. Zinc sulphate has also been tried and found to be efficacious in those cases where the urethra is the seat of a catarrhal process, and where infectious organisms cannot be demonstrated microscopically. Ichthyol and belladonna in conjunction have been employed as a retro-injection in the chronic form of urethritis. The insertion of sounds for their stimulating effect on the mucosa offers a therapeutic measure of great value, but it is too laxely used by many without knowledge of the indications prompting their employment. As a routine procedure it is not to be advised in all cases. That their intelligent use is attended by marked improvement cannot be denied, but as used by some in the unsettled manner already intimated, it must be discouraged. The indications for their use are as follows:—

- (1) In the incipient and formative stages of stricture.
- (2) In involvement of the posterior urethra without implication of its adnexa.
- (3) As a powerful stimulant to the urethra in catarrhal conditions affecting its anterior segment, where no gonococci are demonstrable.

The cold sound is the best. It must, however, be thoroughly sterilized in boiling water before insertion, and well lubricated to facilitate its passage. The best and most expeditious method of sterilization is to dip the sound in alcohol and immediately ignite it, waiting until it is completely cooled off. To be effective the sound must be left *in situ* for at least 10, if not 15, minutes. Various ointments, containing minute quantities of ichthyol, silver nitrate, and balsam of peru, severally or in combination, furnish good lubricants, fulfilling a two-fold purpose, viz., as an emolient and slightly antiseptic astringent. Other emolients may be used if deemed advisable. The cupped sound, whereon some ointment of silver nitrate is deposited, is an efficient method in prostatic urethritis of long standing. Our intention is not solely to disinfect the morbid area, but also to stimulate it, *e.g.*, to cause a substitutive inflammation as well as to dilate the canal. In a number of instances this purpose is readily reached, and an acute posterior urethritis, or an exacerbation of the same, of greater or lesser severity, is produced. The packing method, recently advanced, must be mentioned in order to emphatically advise against it. Cataphoresis is of doubtful utility, but may be tried. The beneficial results obtained by

it are more pronounced in stricture. Massage or centrifugal effleurage of the prostate or seminal vesicles, per rectum, with simultaneous counter-pressure by means of a sound in the prostatic portion of the urethra, is a valuable means; but if no improvement be noticed after one week it should be abandoned as useless. The most thorough treatment is that afforded by the urethroscope, revealing not only the actual seat of the trouble, but aiding us in the direct application of the medicinal agent to the diseased areas. Of course, we must first determine whether the tube can be passed, *i.e.*, whether an obstacle obstructs its introduction in the form of strictures, polypi, diverticula, or other organic conditions. This ascertained, the posterior urethroscope is passed, the battery turned on and the field viewed through the fenestrated opening. A great deal of practice is required to differentiate normal from pathological conditions of the urethra. The possession of a urethroscope means but little, to interpret its findings correctly means half of success gained. It is impossible for the author to enter into an exhaustive study of the different states of the urethra, both normal and abnormal, as seen through the fenestrum. Long experience and a proper recognition of the urethroscope field are requisite to the correct interpretation of the viewed picture. Self-deception and uncertainty may create havoc and thus frustrate our aim. Treatment per urethroscope is the most rational method of procedure, as applications of divers nature may be made directly to the diseased parts; all ambiguity of treatment and ignorance of the actual existing condition are thereby thoroughly eliminated. The ordinary slender wooden applicator serves well in urethrosopic work. A double object is gained by the use of this instrument, namely:—(a) A means of diagnosis, and (b) a therapeutic auxiliary.

The value of internal treatment in chronic gonococcic urethritis is questionable. Personally, the author has no faith in its efficacy, save for the administration of some urinary sedative after instrumentation, as hyoscyamus, belladonna or urotropin. We can readily dispense with them even, if we strive to have our sounds and instruments scrupulously clean and perfectly sterilized, well lubricated, and gently and slowly introduced. No force, except that of a gentle gliding movement must be used. In patulous canals the sound finds its own way without much effort on our part.

Treatment also largely depends upon the exact seat of the lesion, which must in every case be first determined. The urine must be examined by the three glass test, to ascertain the probable location of the morbid process; the sound will detect strictured places or diverticula, which are by no means so rare as some authorities would suppose. If a stricture is present, its exact site must be made known by the olivary

bougie, or the bougie a boule. Rectal examination is not only advisable in some cases, but imperative in nearly all cases of chronic urethritis that come under the physician's observation. Any anomalies of the prostate and seminal vesicles are readily imparted to the examining finger. Inflammatory states of these structures will not infrequently give rise to urethrarrhœa, which is often mistaken for gleet, and unsuccessfully treated for this vague affection. A search must also be instituted for the possible presence of diseased states of Cowper's glands, as they are equally apt to cause an obstinate urethrarrhœa. There is a form of the latter condition that must not be omitted, entitled lacunar urethrarrhœa, on account of its being located in the first inch of the urethra, the lacuna magna on the roof of the fossa navicularis, where instruments are not rarely engaged. Again, within the first two inches of the urethra the follicles at its base are more prominent than at other portions of the canal. Folliculitis of the urethral mucosa in its course may induce a muco-purulent discharge. Its exact location must first be discovered prior to the adoption of treatment. A tight meatus is frequently a contributing factor which must not be overlooked during a urethral examination; the same holds good of a tight prepuce. In the former, a meatotomy is indicated before we are enabled to resort to direct medicinal applications or mechanical interference; in the latter, we must have recourse to a circumcision. Affections of the bladder, the ureters and pelvis of the kidney, or of the kidney itself, must attract our attention as possible causes in all ultra-chronic cases, where no palpable cause can be elicited in the urethra and its appendages. Cystoscopy, and, if necessary, ureteral catheterization, should be performed before definitely arriving at a diagnosis. The possibility of tuberculosis should never be lost sight of. Over-treatment is held to be a potent source for the continuance of a urethral discharge, which ultimately disappears upon the discontinuance of injections and instrumentation. Constitutional peculiarities of the individual must also be scrutinized before we are able to cope with the disease, as we are apt to meet with cases that do well on a tonic course of medicine with very little or no topical treatment. In these patients there is depraved health playing an important role; either malnutrition, digestive derangements, anæmia, and other debilitating states may be responsible for the perpetuation of the catarrhal discharge. That these anomalies of the general health must be corrected goes without saying.

In protracted and persistent cases of posterior urethritis, especially when there is a concomitant prostatic involvement, our only and *dernier resort* lies in prostatic drainage by means of a perineal section. This measure has of late been warmly recommended by some surgeons, and the results obtained so far are very promising.

In conclusion, the author desires to remonstrate against the vague, unscrupulous and unscientific manner of treatment adopted by some practitioners. The routine method used must be objected to by every one who is cognizant of the gravity of gonococcic urethritis. It must not be slighted, for it is a formidable disease and frequently becomes a menace, not alone to the individual afflicted with it, but also a source of danger to those who are sexually brought in contact with him, who suffer innocently and whose life may be jeopardized, which is indeed very deplorable. It may become constitutional, and attack the serous surfaces of the body, damage the delicate mechanism of the renal structure, and lead to serious after effects, immediate or remote. The treatment undertaken by the physician must be in conformity with the most modern principles governing it. The author also wishes to austereously censure and rebuke that faction of practitioners which holds itself aloof and is "too good to treat clap," as they deign to express it. Medicine, fortunately, recognizes no aristocracy; it knows of no elite, creed or caste. The only patricians are those who, by ardent endeavor and indefatigable labor, have helped to assuage the pains and heal the ills of suffering humanity, irrespective of whether the disease has been acquired in a moral or immoral way, and independent as to whether the causes have gained access through licit or illicit acts.

166 East High Street, Detroit, Mich.

THE TREPHINE IN INSANITY: NOTES OF THREE CASES.

By JOHN STENHOUSE, M.A., B.Sc., Edin., M.B., Toronto.

THE unsolved problems of cerebral physiology and pathology with their relation to psychology give a perennial interest to brain surgery; hence a few notes on three cases, each of which has a specially suggestive feature, may prove helpful.

The first of these was a boy, D. B., aet. 14, whom I saw on Jan. 30th, 1902, in consultation with Dr. T. Kerr. These were the days of the John L. Sullivan fight, when the papers were full of disgusting details of the brutal encounter. It was quite natural, therefore, that the reading of these, apart altogether from the usually harmless, sometimes wholesome, pugilism of school days, should inspire their re-enactment by the youth of the country; and the following case resulting therefrom is an evidence that the much-vaunted freedom of the press is not an unmixed blessing, and that a wise censorship might, by cutting out the murders and prize-fights, etc., save the lives and brains of readers whose minds are nearly always in unstable equilibrium. This boy had thus engaged in single combat with another of superior weight, and

came home with bruised face and swollen head in a dazed and stupid condition, from which he never wholly recovered. This was followed by a gradually increasing melancholia of the religious type, with occasional epileptiform convulsions.

When first I saw him, in the tent of the Western Hospital, he was lying in the posture of a typical and hopeless melancholic, such as may be seen in any asylum in the land. While his muscles were tense he was mentally apathetic and paid no attention to any questions, not even opening his eyes in recognition of them. On being roused he merely grunted his dissatisfaction. As, however, the grunt seemed to me to be nasal in tone, I asked for a mouth-gag and examined his post-nasal space, which was full of adenoids. Yet he had not the adenoid facies.

A few days later I removed the adenoids under an anæsthetic, and was both surprised and delighted to find an immediate and radical improvement in his mental condition. He spoke rationally on the night of his operation and was soon up and about, helping the nurses in the wards and taking walks in the grounds. The improvement, however, was short-lived, and in less than six weeks he gradually relapsed into his former melancholic and filthy condition.

Now, the mental symptoms of children suffering from adenoids—the stupid look, the mental ineptitude, more particularly the “aproxia,” or lack of ability to concentrate the attention, which, it is to be feared, often brings upon them undeserved punishment at school—are due not so much to the narrowing of the respiratory passages as to interference with the anastomotic circulation between the pharyngeal, meningeal and cerebral veins and lymphatics through the basis cranii. Passive congestion is thus caused and is not relieved by anastomosis with the angular veins and lymph vessels, so that there is a resultant thickening round the inner canthi and an apparent flattening of the bridge of the nose. Hence the removal of these growths, followed so rapidly by normal breathing, an intelligent expression and quickened perception makes this simple operation one of the most satisfactory in surgery.

The change thus wrought in this melancholic seemed to offer a clue to the cause of the cortical degeneration, or, if not to its cause, at least to a concomitant condition of mechanical pressure from venous congestion and the obvious suggestion that such might be relieved by trephining.

Accordingly, on March 20th, I trephined over his motor area, his muscles in tonic contraction and the presence of Babinski's sign indicating the site. I removed an elliptical piece of bone with its long axis over the motor area and was again gratified by hearing him speak and answer questions intelligently on the night of his operation.

The wound healed by first intention and he was soon able to return home. His mental operations were never rapid nor of a very high order, but he was able to look at picture books, to be useful about the house and in the garden and to go to neighboring stores on errands for his mother. He was even able to attend Sabbath School, but never returned to the public school.

With slight remissions, that did not confine him to bed, he continued well for about a year, but once more the intellect became clouded and he relapsed as he had formerly done.

One other incident in his history, however, seemed to demonstrate the connection of the cerebral lesion with increased intracranial pressure. I was hurriedly sent for on May 30th, 1903, and found that he had become violent and had beaten the trephined wound with his fist so severely that it was bruised almost to the point of suppuration. Palliative measures were of no avail; the scar broke down with the exception of about an inch at the summit of its arch and there was a very free discharge. Coincidentally with the flow there was a distinct improvement in his mental state. Before the wound had quite closed, however, the gloom finally settled down over what remained of an intellect, the typical melancholic posture and behaviour were again resumed and he died in July. Unfortunately no autopsy was possible.

Did we always see the end from the beginning we might allow certain conditions to take their natural course. Yet neither of the operations involved much pain, they saved him from being taken to the asylum, which had been originally proposed, and which his parents wrongly dreaded, and gave him a measure of mental health and domestic usefulness which were much prized where these were most missed. I feel, therefore, that on the whole, the most radical operation was justified.

The mother of H. R., aet. 27, came to me on Jan. 23rd, 1903, in great distress, asking whether I could not get him admitted to the asylum. He had become passionate and disagreeable in the home. He had also developed such an inveterate habit of scribbling and talking while engaged in his duties as cutter in a wholesale clothing factory that he had lost one situation after another. Every little while he would furtively withdraw a paper or envelope from his pocket, hurriedly make an apparent memorandum, and then return it. On closer inspection his writings consisted of figures and disjointed phrases without obvious continuity of thought or purpose. His general bearing and conversation were of the same type. Restless of eye, he never remained long in one position. He answered questions quite intelligently and could explain all the details of his daily work, but readily digressed into paths which led nowhere. His conversational wandering had sometimes a philo-

sophic, sometimes a socialistic trend, as if he had been reading along these lines, but his various utterances taken together showed an utter lack of either cohesion or sequence of ideas, and, though occasionally promising great things, invariably stopped short of the promised goal; that is, they were merely excito-motor promptings and not intellectual conc.pts. From my own short experience of him I could easily understand how the limit of even a long-suffering home toleration would be reached and that the keeping of a situation being impossible the only outlook would be institutional treatment.

The few facts of his history worthy of mention are that his father was a brewer, who was apparently of bibulous habits and who, as might be surmised, died of cerebral hæmorrhage, though it must also be mentioned that his grandmother on the same side came to the same end. The first child of the family was born after a tedious labour, terminated by forceps delivery, and his head was much distorted thereby. While not vicious he has always been hard to manage. His mental equipment is below par and his volitional powers decidedly so.

His only symptom was a continual fulness of the head, of which he had complained since childhood, and physical conformation of this was made by the ophthalmoscope, his retinal veins being distended and tortuous. The congestion was therefore passive in character.

His symptoms were so purely motor from some rhythmically discharging lesion of centres closely grouped together—speech and writing, together with general muscular restlessness—that I felt he was entitled to possible relief by trephining.

On February 6th, at the Western Hospital, I trephined over his hand centre and worked downwards with the DeVilbiss punch towards the speech centre. The dura was firmly adherent to the skull over nearly this whole area.

His recovery was uneventful, the temperature and pulse being almost normal from the time of operation. There was one exception to this, however. On the evening of the 12th, when all danger of ordinary wound infection was past, another patient in the same ward became delirious and violent. This so greatly alarmed mine that his temperature at once shot up to 103°. I was in despair lest, after all, sepsis had occurred. Within twelve hours, however, it was normal again and the chart showed one solitary peak in the plain of a normal temperature. It was evidently due to purely nervous disturbance of the heat regulating centre and was akin to the general rise of temperature seen on hospital visiting days, especially in children's hospitals.

After leaving the hospital he went to work on a farm for some months, as I thought outdoor physical labour would suit him best. He has been at work ever since his return to the city, part of the time in

business for himself, so that a more satisfactory result could scarcely be desired. While he will never be strong mentally, his conversational and scribbling aberrations have not endangered another situation, and he has never since complained of the old fulness of the head.

Mr. J. D., aet. 37, married, with two healthy children, was only a few weeks in this country when I saw him first, on May 14th, 1904. He had been advised by his physician in Glasgow to come to Canada in the hope that the voyage and change of climate might relieve him of certain nervous symptoms from which he had been suffering.

A tailor by trade, he had always been sober, industrious and of good character; moreover he was a Mason of high degree. But he had become subject to convulsions with a simultaneous change in his whole mental state. From being kind and considerate in the home he had become harsh and overbearing, especially to the children, while his usual quiet demeanour had darkened into a morose taciturnity that never prompted a question and would scarcely answer one. His epilepsy was of the Jacksonian type and showed a progressive invasion of the motor cortex. The first seizure began in his right hand while he was tying up a parcel, so that he had to desist. He did not then become unconscious and the arm was not involved. In the next, which occurred about six months after the first, both hand and arm were convulsed. Later attacks, in which he fell and was unconscious, affected progressively the right side and whole body.

A few days before I saw him he had become greatly excited while out seeing a procession, was convulsed on the street and was quite threatening next day. I had him admitted to the Western Hospital, gave him the usual treatment with the bromides, ordering at the same time an ice-cap for the head and a mild mustard plaster for the abdomen to relieve his cerebral circulation as much as possible. While he never had another convulsion his mental condition remained about the same; indeed, if anything, he was gloomier than before. While there was no suggestion of anything specific in his history it was thought well to change the bromide for antispasmodic treatment for a time.

As there was no sign of improvement in his mental condition at the beginning of July I showed him at the Clinical Society of the Western Hospital and the general opinion was that operation should be undertaken. On July 5th I trephined him, removing a button of bone from over his hand centre, whence the first convulsion emanated. Beyond a strongly adherent dura nothing was found. The wound healed by first intention and everything went well till the tenth day, which was too far removed from the operation for sepsis. His evening temperature then went up to 100°. For a few days his morning temperatures were normal, his highest afternoon temperature being 101.6, and his pulse

during that time ranging from 80 to 114. These were associated with involuntary motions. Fearing lest, after all, there might be specific mischief he was again put on antispasmodic treatment for a short time. He soon began to improve, though very slowly. He was more cheerful and would answer questions, but, being a Scot, never became communicative. It was therefore encouraging to find on the chart for Aug. 10th, a note by the nurse, "Patient reading newspaper to-day." What was most satisfactory of all, however, interest in his home revived and he asked for his children. The last I heard of him was that he was again working at his trade. As he has left the city I have lost track of him.

I might add that in these last two cases, as in the first, Babinski's sign was present and the reflexes were markedly increased.

I have also to acknowledge the kind advice of Dr. J. Ferguson and Dr. W. J. Wilson before, and their assistance at, these operations.

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THE TREATMENT OF TUBERCULAR FISTULA IN ANO.

The March issue of the *Maritime Medical News* contains a paper by E. O. Witherspoon on the above subject. He concludes by stating:—

Excision and incision by means of the cautery, the latter appeals more to me for several reasons. First, it does not require anything like the length of time to perform that the excision operation requires, thus necessitating less anæsthetic, and the anæsthetic is a very serious proposition in the majority of these cases, especially those patients who have other manifestations of tuberculosis. Second, you have an open wound to deal with which can be easily cleaned and dressed. Thirdly, and principally, you are not running the chances of infection from the germ present that you are in the excision operation, as the cautery seals up the tissue as it passes through them, leaving no exposed areas. Fourthly, there is no hemorrhage from the cautery operation. On the other hand, in the excision operation, should the fistula have more than one branch there is danger of cutting into the tract itself, thus rendering the whole field liable to infection, also there is more hemorrhage. The question of hemorrhage, however, should be of very little concern in these days of surgery, as it is so easily controlled in these operations as not to figure as any factor of importance.

QUEBEC MEDICAL NEWS

Conducted by MALCOLM MacKAY, B.A., M.D., Windsor Mills, Que.

Special efforts are being made in Montreal at the present time to secure a purer milk supply during the coming summer than there has been for years past. Special visits have already been made, and will again be made, to dairies in the vicinity of Montreal, for the purpose of inaugurating inspections that will lead to the usual milk supply being more satisfactory. A member of the Hygiene Committee is to bring a drastic proposal before the city council. It is to the effect that stations should be established in different parts of the city which will be in charge of the corporation, where milk cans, when empty, can be sterilized. Such a custom is being inaugurated in New York and other cities in the United States.

It is contended by the aldermen in question that the milk supply of the city can never be properly safeguarded until there is a civic cleansing of the cans. It is shown that there are very few farmers who have at their disposal the proper outfit for sterilizing cans. The contention is that such stations would cost but a trifle to operate, while the greatest of good would accrue from them. Figures have been compiled, showing that the city has a most unsatisfactory death rate among infants during summer months. There are weeks in summer when as many as one hundred and fifty infants pass away. How large this mortality is can be judged from the fact that the total average weekly mortality among all classes and ages should not be higher than one hundred and twenty. In this connection an amendment to the by-law concerning milk inspection is to be taken into consideration. It reads as follows: "No person shall sell, or offer for sale, or have in his possession for sale, in the city, adulterated or unwholesome milk, or milk produced from diseased cows, or cows fed upon substances deleterious to the quality of milk, or milk being the vehicle of contagion or infection, whether the source of contagion be animal or human subjects, or milk, the quality of which shall not come up to the following standard: three and a quarter per cent. butter fat and twelve per cent. of total solids, and a specific gravity of from 1029 to 1053 at a temperature of 60° Fahrenheit."

The Provincial Board of Health is also active in Montreal matters, and recently sent to the city council a strong letter of protest against the erection of unhealthy buildings. The communication, which is as follows, shows that in many new buildings there are what is termed "dark" rooms, which do not allow the entrance of a ray of sunlight: "The Provincial Board of Health calls your attention to the number of

unhealthy dwellings which are built in Montreal, and to the disastrous results they will have on the health of their occupants, the sanitation of the newest wards of the city being imperilled thereby. Not only the entrance of light and sun is prevented by long stairs, which lead to upper storeys, and which hide a considerable part of the frontage of houses, but even dark rooms, having no communication whatever with the exterior air, are provided in new buildings. To give but one example, let it suffice to say, that one individual has built, during the last two years, sixty tenements or flats, of which the only bedroom each flat contains is a dark room, and, moreover, we are informed that this same individual intends to erect this season a new series of twenty-seven lodgings similarly unhealthy." The board goes on to say that there is a by-law which covers the case exactly, and requests that action be taken in regard to it immediately.

For the past five weeks Montreal has been suffering from the epidemic of measles which has been affecting the surrounding districts, and in that time some 155 cases have been reported. There is still quite a lot of typhoid fever about, especially in St. Henry and St. Cunegarde, but, on the whole, late reports have been more encouraging. As these wards have been lately added to the city, the inspection is as yet inadequate, but it is hoped that new inspectors will be appointed shortly.

At the Montreal Medico-Chirurgical Society the following cases were reported: Dr. Took showed two living case of excision of the lachrymal sac. The result of the operation was excellent, and the cosmetic effect almost perfect, the small linear scar being practically invisible. These are certainly among the first cases to be done successfully in Montreal.

Drs. Mackenzie and Armstrong read a paper on "Pulmonary Gangrene and Abscess," and Dr. Craig one on "Cerebral Complications from Nasal Disease." Drs. Archibald and Keenan read a case report of a nephrectomy for malignant tumor in an infant.

Some important changes in the by-laws governing the Sherbrooke Protestant Hospital have come into force.

Henceforth any physician in the city or district may take patients to the hospital and treat and attend them, with the liberty of using the operating room, if operation is necessary. Hitherto patients, taken to the institution by physicians, not on the attending staff, had to be handed over to one of the staff physicians. This staff has been increased from six to eight, and, in case of major operations, a member of this staff must always be present.

Other changes have been made in relation to government, and the control of all matters in connection with the hospital is placed entirely in the hands of the executive and governors.

CURRENT CANADIAN MEDICAL LITERATURE.

The Canadian Practitioner, April, 1906.

SUPRA-CLAVICULAR LYMPH NODES IN GASTRIC CARCINOMA.

Dr. H. B. Anderson, of Toronto, directs attention to the literature upon the subject of the occurrence of secondary involvement of the cervical lymph nodes in cases of gastric ulcer. The infection travels by way of the thoracic duct. Enlargement of these lymphatic glands is of importance in the diagnosis of gastric cancer. The following conclusions are laid down:—

1. Enlargement of the left supra-clavicular glands occurs in about 15 per cent. of the cases of cancer of the stomach.
2. The thoracic duct is the route of the infection.
3. This symptom is a valuable positive one of gastric cancer, though its absence is not of any value against the existence of cancer.
4. The enlargement may occur in cancer of other abdominal organs, and in some microbic infections.

HYPERNEPHROMA.

Dr. F. G. Bushnell, of Brighton, England, gives an excellent description of a case of this morbid growth. He describes the appearance of the growth and its pathological history fully. He states that the name "hypernephroma" was given to these growths by Birch Hirschfeld, as signifying any tumor of adrenal genesis. Some of these growths resemble carcinoma and others sarcoma. In 1883, Gravitz claimed that they were adrenal in origin, and described them as lipomata. The proofs are cited in detail for the opinion that these growths are of adrenal origin. These growths should be distinguished from those arising from the Wolffian bodies, which may be retro-peritoneal. Adrenal rests are common in the development of the urogenital tract.

NASAL ACCESSORY SINUS DISEASE.

This excellent paper is from the pen of Dr. John Hunter, of Toronto, and is the one which he gave before the staff and graduates' association of the Toronto Western Hospital. An account is given of these sinuses and the symptoms of disease in them. The maxillary, frontal, splenoidal sinuses, and ethmoidal cells are discussed. The infection

of influenza, the exanthemata, syphilis, tuberculosis, and vascular, digestive, respiratory and renal diseases are causes.

The treatment of nasal accessory sinus disease must be carried out along the well-defined surgical lines of cleanliness and efficient drainage. When the discharge has free egress, the antiseptic sprays and washes render effective service. A soft rubber catheter, closed at the end, but with perforated sides, is very useful. It is inserted well back in the nostril and then attached to a fountain or other syringe. After a thorough cleansing the affected region may be swabbed with a solution of argyrol (20 grs. to oz.).

Every form of obstruction in the way of hypertrophied turbinates, deflection of septum, polypi, etc., must be removed so as to secure free vent for the respiratory process. In these patients every function of the body should receive as much care as if the case were one of incipient tuberculosis. In the treatment, as in the diagnosis of sinus disease, it may be repeated again that intelligent and eternal vigilance must be the physician's talisman.

When occlusion of the opening has taken place, relief must be obtained by a surgical operation. Time will permit of only the briefest possible reference to this. The antral sinus may be opened through the socket of a molar tooth, the canine fossa under the upper lip, or the wall of the inferior meatus. It may be necessary to enlarge the opening in the canine fossa, in order to explore the whole cavity, to remove diseased tissue with the curette, and to pack with gauze.

The frontal sinus may be entered after enlarging its duct with a suitable drill, or burr, or through an external opening made at the inner end of the orbital arch. Diseased cells in the ethmoidal labyrinth may be reached by probe or curette after the removal of the middle turbinated bone. The opening in the sphenoidal sinus may be explored with a probe passed upward and backward through the narrow slit between the septum and middle turbinated. Great care must be taken in using the probe or curette lest it enter the cranial cavity through the thin roof of this sinus.

Whilst these operations are quite easily described on paper, yet the proximity of the sinuses to the orbital and cranial cavity, the need of artificial light, the limited area in which to work, the troublesome hemorrhage, and the use of special instruments make many of them to rank amongst the most difficult and hazardous operations the surgeon is called upon to perform. When the general practitioner has made a correct diagnosis and instructed his patient as to the proper course to pursue, he may very justly claim that it is his duty to leave the operation to the specialist.

The Dominion Medical Monthly, March, 1906.

HERNIA OF THE BLADDER.

Dr. R. B. Nevitt, of Toronto, contributes an interesting account of this condition and reports a case. He refers to the history of the subject and states that, "Albucasis in the twelfth century, Sala in the thirteenth, Guy de Chauliac in the fourteenth, have mentioned cases, and Verdier, in 1769, wrote a classic upon the subject." The literature of the later writers is examined as to the frequency of the condition. It is contended that the diagnosis is difficult, and hernia of the bladder may readily be overlooked, unless the parts are very carefully explored. It is held that the bladder is found involved in about one per cent. of the cases of inguinal hernia.

In some instances the contour of the bladder may be made out by filling it with fluid, or by the careful use of a sound. If the bladder is wounded in an operation for hernia, the fact may be detected by the escape of fluid, though this may clearly resemble that from the peritoneal cavity. If the bladder is wounded, suture is the best method of healing the accident.

PERSISTENT VOMITING IN AN INFANT.

A case of this kind is reported by Dr. E. A. Hall, of Victoria, B.C. The patient was seven months of age and well developed. All nourishment was rejected within ten minutes. The stomach was not enlarged, but peristaltic waves could be recognized after feeding.

Obstruction of the pylorus was diagnosed, and a posterior gastroenterostomy performed. The stomach was normal in size, but the transverse colon greatly distended. The child died 24 hours after the operation. The post mortem revealed a severe condition of catarrhal gastritis with blocking up of the pylorus with tenaceous mucus. The obstruction must have lasted for some time, as there was not a vestige of food in the bowels.

The writer remarks that the occurrence of such cases of severe vomiting are not rare. He says that there is no means of positively distinguishing between atresia and obstruction of the pylorus from inflammatory products. In persistent vomiting in an infant, with no passage of normal fæces, an operation should be undertaken.

MEDICAL THOUGHTS DURING LEISURE HOURS.

Dr. James S. Sprague, of Stirling, writes in a humorous way regarding the nurses' bill, and all sorts of "doctors" as V.S., etc. He rather facetiously remarks that the graduation hood of the nurse might

represent a chamber pot. Dr. Sprague is of the opinion that so many classes calling themselves profession, and doctors, is tending to lower the dignity of the medical profession, by creating so many classes with doctoral titles.

The Montreal Medical Journal, March, 1906.

A PLEA FOR THE NEURASTHENIC.

In his elaborate article, on the neurasthenic, Dr. D. A. Shirres gives an excellent review of the literature on the subject, and quotes extensively from writers as to the influence of the mind over the body and its functions. In dealing with functional diseases the statement is made that they are nearly always congenital in origin, though the person may go through life without having an unstable nervous system unbalanced.

The opinion is advanced that it is very hard, if not impossible, to draw a hard and fast line between neurasthenia and hysteria, as both states are due to an exhausted state of the brain. There are many cases which can be classified as the one or the other. In the typical neurasthenic we find insomnia, inability to concentrate thought, defective memory, restlessness, fretfulness, irritability of temper, hyper-sensitiveness, discomfort about the head, exaggerated reflexes, feeble pulse of low tension. There is also a very slow progress towards recovery. In hysteria the ideas control the body and produce morbid changes in its functions. The medical profession should not neglect these states and so-called functional diseases. This is the field for Christian science, osteopathy, etc.

On the subject of hysteria the statement is made that it is a disease of the central nervous system, and that the person cannot prevent the attacks occurring, as the malady is a real one, and beyond the influence of the patient's will. It is no longer regarded as a disease of women, and the opinion is almost universal that it is primarily a disorder of cerebral function. It is also frequently associated with other diseases, as tuberculosis, arthritis, etc. The symptoms of real disease are frequently painted in a hysterical background. The chief features of a hysterical brain are explosiveness, want of control, and proneness to exhaustion. The symptomatology is due to an exhaustion, or want of sufficient nerve energy in the central nervous system. This is liable to occur in those with a congenital tendency.

If a strong, healthy person, say a doctor, be over-fatigued and lose too much sleep, he would show, under examination, a loss of memory and an irritability not natural to him. Each neurone to do its

work properly must have stimulation, nourishment, controlling influence, and continuity. Stimulation or impulses must pass from one neuron to another. These neurons must be under proper control, and there must be continuity of action. Derangements of these functions give rise to the various motor and sensory symptoms of hysteria.

The main feature in treatment is physical rest. These diseases may occur alone, or along with other diseases, which must be sought for. In these organic diseases, such as tabes, dorsalis, there may be a hysterical or neurasthenic admixture. In general the method of Weir Mitchell is of great value. Patience must be shown these patients. It will not do to hurry away from them. As to drugs, begin with mild measures. Valerian and assafœtida are useful, so are tonics. Bromides should be employed with great caution, as they tend to increase the exhaustion. New methods must ever be tried, as our drugs lose their effect.

DEFICIENT HUMIDITY IN THE AIR.

T. A. Starkey, M.D., D.P.H., in his article refers to the bad effects of too dry an atmosphere on the respiratory organs. In most houses the air is kept warm enough in winter, but too dry. It tends to cause hyperæmia of the mucous membrane of the respiratory passages, chiefly that of the nose and pharynx. This is a factor in the causation of tuberculosis. This condition of too dry an atmosphere in houses must be regarded as insanitary, and has a good deal to do with bronchitis, pneumonia, asthma, etc. When the air in a room contains enough moisture for the temperature, by raising the latter the former should also be increased; or, in other words, raising the temperature is equivalent to lowering the moisture, unless more be added. Saturated air is unbearable, and too dry air is unpleasant. The best condition is where the humidity is from 70 to 75 per cent.

“Stiffness of the nose and throat, a feeling of tension between the eyes, and irritation spreading through to the ears,” were descriptions given by persons living in too dry an atmosphere. The case is given of children in a house where some slept in a room with open windows, and were well; whereas some slept in a room with closed windows and a low state of moisture, these suffering with congested mucous membrane in the nose and throat. On keeping the window open at night some, these symptoms disappeared. The opinion is advanced that an unduly dry state of the atmosphere in houses during the winter time, due to furnaces and closed windows, is the cause of much of the nasopharyngeal trouble met with among children. In like manner, the same condition will cause disease in the lungs.

THE COMPOSITION OF CYSTIN CALCULI.

This paper is by Drs. W. McKim Marriott and C. G. L. Wolf, of Cornell University Medical College. The paper is based on the study of a collection of cystin calculi in the museum of McGill University. The paper is of a purely technical and scientific character, and does not admit of useful abstraction. It is worthy, however, of study by those who are interested in such a subject.

POISONING BY ORTHOFORM.

A. Schmidt, M.D., Montreal, reports a case of painful varicose ulcer on which he used orthoform as a dressing. It relieved the pain of the ulcer, but in two weeks there developed a rash of pinkish-red papules on the extremities and body, pink wheels on face, erythematous patches on the neck and chest. The pulse ran up to 120, and temperature to 102.4°. The ulcer continued painful. The orthoform had been used freely.

APPENDICITIS RESEMBLING TUBAL PREGNANCY.

Dr. Laphorn Smith gives the report of a case of appendicitis very closely resembling tubal pregnancy. The patient was 35 years of age, and had always been delicate. When six weeks over her regular period, began to have occasional hemorrhages. She was taken with severe pain and fever, the pulse being 100 and temperature 103°. The pain was much lower down than is usual in appendicitis, and tubal disease was suspected. There was a round tumefaction two inches below McBurney's point, it was tensely fluctuating, and the muscles were not very rigid. By bimanual examination a round sausage-shaped swelling could be made out on the right side, at the bottom of Douglas' cul-de-sac. Taking all the circumstances into account the possibility of tubal pregnancy was suspected. She was placed under careful treatment for a few days to improve the general condition, when the abdomen was opened and a gangrenous appendix found. The tubes were normal. A portion of the small intestine was also in a very unhealthy condition. The appendix ruptured in the attempts at removing it. The peritoneal cavity was not flushed out, but all the pus was carefully mopped up, the general cavity being walled off by hot towels. Drainage was effected by a rubber tube through the vagina. The preference is given to a large rubber tube with many side openings over gauze drainage. The abdominal opening was closed. The patient was then placed in bed, with the upper portion elevated to favor drainage. She made a good recovery.

CHOREA IN A CHILD TWO YEARS OLD.

Dr. Ridley Mackenzie reports the case of a child two years old who had suffered from scarlet fever, with rheumatic and cardiac symptoms. Shortly afterwards the choreic movements came on.

The Maritime Medical News, March, 1906.

CÆSAREAN SECTION WITH REPORT OF NINE CASES.

This paper was read by Dr. H. L. Reddy, of Montreal, at the meeting of the Canadian Medical Association. The cause for the operation, the writer speaks of, as absolute and relative. The absolute causes are the presence of tumors, and contracted or deformed pelvis, that prevent delivery occurring. The main question to consider is not so much the size of the pelvis, as its relationship to the size of the head. If the labour is strong and the head does not engage the pelvis in an hour or two, the necessity for intervention should be considered. Among the relative causes might be mentioned failing strength on the part of the mother, such as from heart or lung disease, placenta prævia with a long cervix, etc. The operation may become necessary in eclampsia.

The three operations of choice are: Remove the uterus, the Porro's operation; tying or resecting the tubes so as to sterilize the patient; or leaving uterus and tubes undisturbed. Judging from statistics it would appear that the Porro operation seems to be the safest. But the writer of the paper does not think the uterus should be removed unless infected; and, in such cases, he would tie off the tubes and treat the uterus by packing twice a day. In case of cancer of the cervix or a fibroid tumor, the Porro operation is to be preferred. Removal of a portion of the tubes may be required to render the patient sterile; but this must be decided by the patient after the facts have been fully explained.

Dr. Reddy discusses when the operation should be performed. As a rule wait till labor has set in, though this is not necessary. The advice of Dr. Williams is a good one to follow, namely, that if, after one hour of second-stage pains, the head does not engage in the pelvis, and there is evident obstruction, the operation should be performed. This avoids too great exhaustion of the patient.

The operation preferred is thus described. The usual preparation for an abdominal operation. The anæsthetic may be chloroform, ether, or these combined with alcohol. The incision is from $2\frac{1}{2}$ inches above the umbilicus to $3\frac{1}{2}$ inches below it. The uterus was brought outside the abdominal cavity, and a rubber tube passed round at the neck

with which hemorrhage could be controlled. The intestines are kept out of the way by means of hot towels, and the uterus packed round with them to prevent discharges entering the abdominal cavity. In some cases the uterus is so large it may not be possible to bring it out. The opening is made in the uterus from a point between the level of the fallopian tubes as far down as the contractile ring, or about six inches. The uterus is opened rapidly, the presenting part of fœtus seized and delivered, the cord is clamped and cut. Aseptic ergot is injected into the buttock, and the elastic tube relaxed. The uterus contracts and there is usually but little difficulty with the placenta. Care should be taken that the cervix is open for drainage. The uterine wall is closed by braided silk, No. 4, at one-quarter inch apart. The peritoneum covering the uterus is brought together by Lembert sutures. The peritoneal cavity is then dried out and filled with normal saline. The abdominal walls are closed by three layers of sutures.

Of the nine cases, one mother died of heart failure, and one child of conditions affecting it before the section was performed.

FUNCTIONAL MURMURS.

Dr. J. H. Gray discusses the subject of functional heart murmurs. He quotes the opinion of Lænnec that persons may present heart murmurs during life and the heart be found normal after death. The statement of Sir W. H. Broadbent is also quoted to the effect that murmurs may occur without organic disease of the heart.

As to the diagnosis of these murmurs and their differentiation from organic murmurs, the writer lays down the following rules as formulated by Dr. Rudolf, Toronto:—

1. Functional murmurs most commonly occur during adolescence and early life.
2. They are more common in males than females, although there are many exceptions to this; and chlorotic girls are very prone to have them.
3. They always occur in systole of the ventricles, either accompanying or immediately following the first sound of the heart; that is they are always systolic in time. Certain diastolic murmurs are described by Cabot, but they are so rare as to be of little interest. It would take a great deal to diagnose a diastolic murmur as functional.
4. While functional murmurs may occur over any of the cardiac areas, by far the most common is the pulmonary area, and a little below this, say about the third left costal cartilage. A murmur occurring away from this point, and unaccompanied by one here should not be diagnosed as functional, unless for some very special reason.

5. A pulmonary systolic murmur, due to organic disease, is very rare, except congenital. When due to organic disease, other signs, such as cyanosis, stunted growth, clubbed fingers, are usually present, and the pulmonary second sound is not accentuated.

6. The bruit du diable and arterial bruits heard in the neck are always functional, except in aneurism where such cardiac murmur is associated with vascular ones; there are considerable reasons for believing it too functional. On the other hand there is no reason why organic valvular disease should not be associated with functional ones, and this is often found to be the case. The functional will clear up in time, the organic persists.

7. Functional murmurs as a rule are soft in character, and accompany rather than replace the first sound. They may, however, be loud and rasping, and the pulmonary one especially apt to be harsh in character.

8. Functional murmurs are not so widely conducted as organic ones and are seldom heard in the axilla.

9. Functional murmurs vary much more under different conditions than do organic. They are louder after exertion and during expiration and are markedly increased in the supine position; in fact, may only be heard when lying down.

10. The pulmonary second sound is early accentuated, and this sign may occur before any murmur is audible. In true pulmonary stenosis no such accentuation is present.

11. In functional murmurs there is little sign of hypertrophy or dilatation of the heart, and the apex is not much displaced. A certain amount of cardiac dilatation and displacement of the apex beat is quite common; the apex being displaced upward and to the left.

12. Cardio-respiratory sounds are sometimes mistaken for cardiac murmurs.

13. Functional murmurs tend to disappear as the patient improves in health. Not so with organic, as they become louder as the heart's action strengthens.

14. Signs of breaking down of compensation are rare in functional cases, and such breaking down should suggest organic disease of the valves or heart muscles.

TRACHEOTOMY FOR ŒDEMA GLOTTIDIS.

Dr. W. H. Irvine reports a case of œdema of the glottis, for which he performed a tracheotomy. The œdema subsided so that the tube could be removed and the wound healed by granulation. The œdema was due to syphilis and specific treatment was pushed.

CURRENT MEDICAL LITERATURE

MEDICINE.

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

DEATH RATE IN NEW YORK CITY.

The death rate of New York City for the year 1905 is certainly encouraging to the friends of healthy urban development. It was the lowest in the city's history, and but slightly higher than in the rural districts. In 1890 it was 26.7 per 1,000; in 1900 it was 21.3; in 1905 it was only 18.7. When one compares these figures with those of the census for the eight States in which deaths were registered during the above-mentioned years the showing is quite favorable. Throughout the registration area the death-rate in cities fell from 21.0 to 18.6, a decrease of 2.4 as against 5.0 in New York up to 1900. In that year the rural death-rate in the registration area was 15.4, the city rate 18.6, and the New York rate 21.3.

A CASE OF TRAUMATIC ENDOCARDITIS.

The Journal of the American Medical Association, March 24th, 1906, reports a case of endocarditis, due to a fall, in the practice of Dr. Herzfeldt, of New York. The patient, a boy aged 9, had always enjoyed fair health and suffered from no constitutional taint, though, during the winter previous to the accident, he had had a slight attack of pneumonia, at which time the heart and urine were normal.

While running, he fell violently on the chest, becoming immediately unconscious, the face and extremities were cyanotic and covered with a cold perspiration. Respiration was superficial and rapid, temperature subnormal, pulse small and fast, 170 to 180, of very low tension. On inspection the whole side of the thorax appeared to be pulsating, and the heart action was so rapid that it was impossible to differentiate between systolé and diastolé. There was a continuous murmur heard over all the valves, but its time relation could not be made out, there was no sign of fluid in the pericardial cavity, the area of heart dullness was the right border of the sternum, the third rib, the mid-axillary line and the epigastrium, and the apex beat seemed to be between the anterior and mid-axillary lines in the seventh interspace.

Treatment consisted in cold application to the precordium, opium and digitalis in small doses. After four days there was considerable improvement, the rate was 140, the action regular, there was a loud systolic murmur over the mitral valve, the other valve sounds could be made out, though not quite clearly. In twenty days the boy was able to sit up, the mitral sound continued, the other sounds were clear. In three months more there appeared a loud diastolic murmur and a faint systolic over the aortic valve, the rate was 120, and heart smaller. During an attack of influenza, some months later, there was marked dyspnoea. He was restless and showed a tendency to choreic movements, the apex beat was in the sixth space and in the anterior axillary line, there were the arterial signs of aortic incompetence, and the blood pressure was 70-80 mm. (Gärtner).

About nine months after the original injury he was struck by another boy on the chest, and, when seen by the doctor, was in a condition much like that described after the original injury. On this occasion treatment had not much effect and the patient died in twelve days, with signs of cardiac insufficiency. There was no autopsy.

There is a difference of opinion among the authorities as to the exact cause of the injury in such cases; the majority inclining to the belief that it is caused by the impact of a column of blood under hydrostatic pressure. Violence to the chest, causing a compression of the thorax, increases the blood-pressure in the interior. In the case described the injury must have been of the nature of a contrecoup, as there was no external injury apparent. Statistics show that the site of the injury is most frequently the left side, though rupture of the muscle is more common on the right. In Barie's record of 38 cases there was injury to the aortic valve in 19, mitral in 16, and tricuspid in 3; the form of injury most common was tearing of the chordæ tendinæ or papillary muscles. The injuries of the endocardium are usually followed by endocarditis. In the view of some authorities the seat of the injury forms a nidus for micro-organisms, which, in turn, induce endocarditis and the changes in the valves.

CURE FOR THE WHISKEY HABIT.

It is claimed that a person cannot take the following and drink whiskey at the same time, i.e., it will cure the whiskey habit if a patient will use it.

R. Apomorphine, gr. ij.
 Strychnine, gr. ss.
 Fowler's solution, ʒ ss.
 Tinct. cinchona comp., q. s. ad ʒ ij.

M. Sig. One teaspoonful every three hours.—*Burnett Med.*

Summary.

HUMAN BLOOD PRESSURE AND PULSE AS AFFECTED BY ALTITUDE.

The Medical Record, March 10th, 1906, reports studies on this question undertaken by Drs. Gardiner and Hoagland, of Colorado Springs, to determine the effect that life, at an altitude beyond that at which the standard measurements have been made, would have upon circulatory conditions. Only healthy individuals were experimented with, the investigations were carried on in a city 6,000 feet above sea level, and at Pike's Peak, 14,000 feet altitude.

The instruments used were two Riva-Rocci with 5 c.c. cuffs, a new Janeway with a 12 c.c. cuff, and a modified Janeway. Measurements were made several times in each case, by four observers, and with three instruments to obviate individual differences; the average was taken and each case was measured several times on different days, the pulse rate was taken with the same detail. The results are divided into groups.

Group No. 1.—Average pulse and blood pressure in men and women of all ages resident at 6,000 feet altitude over one year.

In averaging a large number of individuals we came to the conclusion that, as a rule, blood pressure was slightly lower than that given as the normal at sea level, while the pulse rate did not show the increased rapidity said to be present in altitude dwellers.

Group No. 2.—Average pulse and blood pressure in men who had lived at 6,000 feet altitude for over 25 years.

Fifty males were now measured who had lived at least 25 years at 6,000 feet altitude, and a number 30, in two cases 44. We found that in these cases that, considering age, the blood pressure was certainly lower than that given for sea level, while the pulse was normal. Evidently prolonged residence at 6,000 feet altitude had not increased the blood pressure in these individuals; but too much importance must not be attached to this, as these may represent the remainder who were not easily affected, others having given up residence in this part on account of such increased pressure.

Group No. 3.—Effect of muscular exertion upon college men.

First determining the normal blood pressure, we then had our men exercise violently at football, running, etc. The result differed very little from similar experiments conducted near sea level. Pressure was, as is usual, increased by muscular work at first and at last returned to normal.

Group No. 4.—Effect upon blood pressure and pulse upon twenty-two men and women taken from 6,000 to 14,000 feet.

The individuals comprising this group were tested a number of times and their average pulse and blood pressure estimated at 6,000

feet. They were then taken up to 14,000 feet on the Pike's Peak Railroad in a private car without any muscular exertion, were measured while in the car on the summit, and again after three and one-half hours at 14,000 feet. Some returned sooner to 6,000 feet, and all were again tested on their return to 6,000 to note any possible effects of the change in altitude. While work on this group was interesting and showed some peculiar phases of blood and blood pressure due to changes in altitude, we did not feel that our results were accurate, or our averages as scientific as we had determined to have them. The personal element as a factor entered too largely into the calculations, while the marked differences in age, occupation and mental disturbances were not, in our opinion, sufficiently guarded against. We therefore for another year perfected ourselves in technique and tested a large number of people under different conditions, and in June, 1904, we felt we could venture on some reliable work.

Group No. 5.—Effect upon pulse and blood pressure in twenty-two college men taken from 6,000 to 14,000 feet, and the effect of three and one-half hours at 14,000 feet.

We selected twenty-two students from Colorado College of nearly the same age and occupation, and for some weeks in the Science Laboratory estimated their individual and average pulse and blood pressure. Our normal pressure obtained in this way we compared with the work of O. Z. Stephens, M.D., of Chicago, Ill., on twenty-two college men. We found that our group at 6,000 feet altitude had a lower blood pressure and a slower pulse rate, blood pressure average being 126 mm. at 6,000 feet, 130 mm. at sea level; pulse at 6,000 feet, 80; at sea level, 82. The men were now taken by special engine and private car to the summit of Pike's Peak, and on arrival were taken to a room in the hotel; all excitement and exertion were thus avoided. They were then tested, using same technique as employed in the laboratory at 6,000 feet. Results showed an average pulse of 86 and blood pressure of 121, a gain in pulse rate of 15 and a reduction of blood pressure of 5 mm.

After three and one-half hours at 14,000 feet, the men were again examined. The pulse rate had now gone up to 99 per minute, and the blood pressure fallen to 118 mm. Some exercise, such as walking, had, however, been taken by all the individuals of this group during the three and one-half hours at 14,000 feet altitude, and should be remembered in estimating results in this series. No doubt an equilibrium is established in time, and the pulse rate and blood pressure return more nearly to a normal standard. How long this takes probably varies in different individuals. From examination of some employees at the summit who had lived at 14,000 feet altitude for two months, we judge this equilibrium does not take more than a few days, but that the tension after compensation has taken place is always lower than the

tension of that individual would be at sea level or at a lower altitude, in almost all cases.

The men were examined during several days after their return from this trip and nothing unusual was noted.

We found a rough ratio between pulse rate and blood pressure; the more rapid the pulse, the lower the blood pressure. It was also noted that when a pulse rate was but little affected by an altitude of 14,000 feet, the blood pressure was also more constant; that cases of mountain sickness were accompanied by a fall in blood pressure and a rapid pulse rate.

From this work upon the pulse and blood pressure we feel justified in offering the following suggestions: Although we found the average pressure of the blood was not lowered more than from 8 to 10 mm. of Hg. in a diminished atmospheric pressure of 8,000 feet altitude, and that this change in pressure in the blood is a small one in healthy young adults, it can easily be seen that such a change from the normal, continued for a considerable time, especially in many diseased conditions, would be a positive and possibly a serious interference with the mechanism of the human circulation, an interference that under given conditions might be a strong influence either for good or ill.

In cases in which (due to changes in the heart muscle) the blood tension is abnormally lowered, a further reduction would be dangerous, and in such cases, taking the tension at sea level, one could possibly determine the danger of the effect of altitude in further lowering it; while in other cases, as in some forms of aneurysms, with high tension, and in some forms of valvular disease of the heart, the effect of altitude would be decidedly beneficial, and such cases have indeed come under the observation of the writers. It must, however, be remembered that the effect of altitude upon the circulation of the blood in human beings is at best a complex subject. We know that in healthy persons the arterial pressure in the main blood vessels is lowered in response to the diminished atmospheric pressure upon the body, as the elevation above the sea is increased, but we know very little as yet as to the effect of diminished atmospheric pressure upon the venous system. It is highly probable that the right side of the heart and venous system play a more important part in the phenomena of altitude effects than we are at present in a position to verify. The smaller, or capillary, blood vessels, on the surface of the body, and on exposed mucous membranes, are enlarged when atmospheric pressure is diminished, and this is seen by examination of the blood, and by bleeding from mucous surfaces. As to a resulting lowering of pressure in the capillaries of internal organs due to the external hyperemia, we as yet know nothing positively, and it is by the further study of the pressure in the venous system that altitude effects upon human circulation will yield the most valuable results in the future.

GYNÆCOLOGY.

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

AN OPERATION FOR LARGE RECTOCELE.

In the February number of the *Surgery, Gynecology and Obstetrics*, we find Dr. George H. Noble, of Atlanta, Georgia, has described the technique of an operation for large rectocele. The steps of the procedure as described were:—

1. Thorough dilatation of the anus and recleansing of the rectum.
2. Denudation of a wide collar, as it were, the ring around the neck of the rectocele, beginning high up in the vagina, and extending near to the promontory of the rectocele. It is unnecessary to remove the mucosa over the last point mentioned, as it is cut away in the resection. By proceeding with the denudation, from within outward, the veins of the recto-vaginal septum are cut through at the high point and secured with compression forceps, and the necessity of repeatedly cutting the same vessels in the process, as in repairing a wound, is avoided.
3. Two fingers are placed upon the promontory of the rectocele, carried into the vagina and out through the anus, forcing the rectocele ahead of them, and in this way completely everting it through the anus. It is seized with a pair of forceps at the point where it protrudes, and is gradually drawn down step by step until all lax portions have been secured and a feeling of tenseness is felt. If, in drawing the anterior rectal wall down, the normal parts of the rectum do not come as low as the levator ani, the rectum should be liberated by dissecting it from the vagina, which will permit of further descent, and allow of all the overstretched tissues to project beyond the anus.
4. A light pair of compression-forceps is then placed upon the neck of the rectocele, which is external to the anus, for the purpose of holding it in position.
5. Two sutures, preferably medium-sized kangaroo tendon, are passed through the unruptured portion of the perineum close to the sphincter ani muscle, after the manner Emmet inserts his tension sutures in perineorrhaphy. These two sutures, in passing across from side to side, should take up the prolapsed portion of the anterior wall of the rectum. When tied they closely approximate, and anchor sound or healthy rectum to the levator ani muscle and rectal vessels in the deep pelvic fascia.
6. The vaginal side of the wound is completed by doing a perineorrhaphy.

7. The protruding rectocele is amputated about three-quarters of an inch external to the clamp, and its edges closely sutured with continuous suture of catgut. The case should be treated then as an ordinary perineorrhaphy, except a wet dressing is placed over the protruding stump. The stump retracts within the anus in a week's time and takes care of itself.

The author reported five cases in which he did this operation with very satisfactory results.

INTRAPERITONEAL SHORTENING OF THE ROUND LIGAMENTS.

Dr. J. M. Baldy, of Philadelphia, writes on this subject for backward displacement of the uterus, in the April 14th number of the *N.Y. and Phil. Med. Journal*. In his method the broad ligaments are perforated from their posterior surface by forceps, which, on emerging on the anterior surface, are made to grasp the round ligaments, which are then drawn through to the posterior surface with the forceps. The round ligaments are brought together, and sutured both together, and to the uterus low down on its posterior surface (at about the position of the internal os). This accomplishes three things: —1. The tilting forward of the uterus to a normal anterior position. 2. The lifting up of the whole pelvic floor from its sagging position. 3. The uplifting and support of the ovaries and tubes. The three results are of a necessity a part of each other, and one is as constant as the other. The most important of all, the uplifting and support of the ovaries, is absolute and sure; and the result is accomplished without the slightest pressure of these delicate organs.

FATAL PERFORATION OF THE UTERUS IN A CASE OF CRIMINAL ABORTION.

Schoenbeck reports: A midwife, aged 35, a quartipara, in the third month of gestation, under the guidance of her finger, passed a catheter, soaked in lysol, into her external os, where it escaped her control and disappeared. Purulent peritonitis supervened and was fatal. A broken elastic bougie, 13 cm. long and 3 mm. thick, was found a hand's breadth below the liver under some coils of intestine four days after the induced abortion had been completed in the clinic.—From *The British Gynecological Journal*, February.

FATAL INTRAPERITONAL HEMORRHAGE FROM A UTERINE MYOMA.

Stein, Heidelberg reports an instance of the above. The source of the bleeding was found in ruptured varicose veins on the surface of the myoma.

VAGINAL CYSTS.

Cullen (*Johns Hopkins Hosp. Bull.*,) from an examination of 53 specimens classifies them etiologically as follows:—1. In 26 the origin was clearly the result of a perineal tear or perineal operation. 2. Four seemed to originate from vaginal glands. 3. Eleven were derived from Gärtner's duct. 4. Three were situated close to the external orifice of the urethra. 5. In eight it was impossible to determine the origin. The inclusion cysts are due to small portions of the vaginal mucosa being included in the stroma. Such are small, and occur most frequently on the posterior wall. The most common position for cysts originating from Gärtner's duct was in the anterior vaginal wall behind the urethra. In two cases the cysts probably originated in urethral glands. Cullen considers that "gas cysts," found in the vagina during pregnancy, are analogous to those found in the liver, and due to a gas-producing organism. Echinococcus is a rare cause of vaginal cyst.—*Edin. Med. Jour.*

REPEATED PREGNANCY IN THE SAME TUBE; TWINS.

Michin Charcow reports a case in which an extrauterine pregnancy was removed by opening the gestation sac from the posterior vaginal vault. A year later a pregnancy in the same tube with two embryos was removed by laparotomy. The case offers a reason for operating radically in every instance of ectopic gestation.—*British Gynecological Journal.*

TREATMENT OF ACUTE DIFFUSE SEPTIC PERITONITIS.

At the December meeting of the Western Surgical and Gynecological Association, Dr. Donald Macrae, Jr., of Council Bluffs, Iowa, read a paper with this title, and he comes to the following conclusions:—

1. The so-called Fowler position should be established in all suspected case of peritoneal infection, local or general.
2. The primary cause of the infection should be removed, if possible.
3. The cavity should be thoroughly wiped out with hot normal salt gauze.

4. A large soft rubber tube, one inch in diameter, should be inserted immediately above the symphysis pubis to the bottom of the pelvic cavity (Knott).

5. The tube should be sucked dry as often as necessary.

6. A half-inch tube should be inserted over the seat of the primary pathology, through a stab wound in the belly.

7. No gauze should be used, except in case of hemorrhage, or to render a part extraperitoneal, and then should be covered with rubber tissue.

8. Flushing the cavity with fluid is unnecessary, and may cause harm.

AN OPERATION FOR PYOSALPINX.

W. D. Kelly, St. Paul, Minn., (*Journal A.M.A.*, April 7-14) describes the operation for pyosalpinx, which he has performed for a number of years, as follows:—The patient is placed in the Trendelenburg position; the bowels, relieved from adhesions, if necessary, are pushed back, and the field of operation walled off with one or two large strips of gauze. Bleeding, if any, should be sought for, and the finger is invaginated between the ligament and the mass, and the tube partially freed at the distal end. The index finger is then forced between the broad ligament and the tumor. A cutting needle, half curved, with No. 3 pyoktanin catgut, is passed between the mass and the broad ligament on to the finger, and the broad ligament is tied off. Scissors are used to sever the tissue between the broad ligament and tube. The finger is still further advanced and an overthrow provisional suture, which usually includes the ovarian artery, is taken in the broad ligament. The mass is further separated by advancement of the finger; application of another provisional suture, and the severing of the mass from the broad ligament with the scissors, a little at a time. Immediately on severing the tissue the provisional overthrow suture is tightened, thus preventing hemorrhage. In most cases it is well to put in the provisional Billroth suture before severing the artery. The finger is still further advanced toward the uterus, and the broad ligament is severed as before described, following the provisional suture until the horn of the uterus is reached. The provisional suture is placed in the uterus, an elliptical incision is made, and the tube is removed from the uterus and the suture tightened. Another suture, if necessary, is imbedded in the uterus and tied. The uterus is then grasped with the hand and elevated, if possible. If this elevation is not possible, an attempt is made to separate the adhesions directly behind the uterus, and in this way gradually to shell out the mass from before backward. It may be necessary

to tie off some omentum or bands of adhesion. Kelly claims that this operation is almost bloodless and can be performed without the use of ligatures or artery forceps. Drainage is almost never necessary, and no counter openings should be made. He finds that abortion and gonorrhœa are the most frequent causes of pyosalpinx, and that it is most common between the ages of 16 and 40. The mortality from operation is less than two per cent. In most cases it occurs either in the ampulla or the distal end of the tube, and is accompanied by cystic ovary and almost always by a pelvic or general peritonitis. Appendicitis is a frequent complication, but the two conditions are usually easily differentiated. Extratubal or peritubal abscess is frequently found, in which the walls are made up of bowel, or omentum, tube, broad ligament, sigmoid, uterus or bands of adhesions. This condition is frequently mistaken for rupture of the tube (which is rare) or abscess of ovary or tube, as it is impossible to separate it or to encroach on this abscess without opening it. Many cases of operation are reported.

OBSTETRICS AND DISEASES OF CHILDREN.

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

THE PELVIS IN OBSTETRICS. A NEW INSTRUMENT FOR MEASURING ALL ITS DIAMETERS IN THE LIVING WOMAN.

Sidney D. Jacobson illustrates and describes an instrument the use of which he advocates for the measurement of all the important diameters in the pelvis of the living woman. This instrument also enables the physician to determine the shape of the pelvis, and in the case of abnormalities the available room for the passage of the child. It is constructed of steel and consists of two branches hinged together at one end and in the form of calipers. There is an outer semicircular branch and an internal irregularly S-shaped branch, each one being attached to a handle. A movable gauge slides on a grooved track and can be fixed in any part of this track by a set screw. The movable branch is attached to its handle by a pin and socket, and has a loop on each side, into which a sliding catch can be made to slip, which will securely hold the inner branch, whether it points toward or away from its fellow. The upper tips of the branches can be separated about twelve inches, the distance being indicated on the sliding gauge. A graduated leather belt accompanies the instrument. The fixed branch always remains outside of the body, while the other is used internally. The writer then gives detailed instructions for the employment of this instrument.—*Medical Record*, March 31, 1906.

INFANTILE SCORBUTUS.

Of the fifty cases analyzed by J. L. Morse (*Journal A.M.A.*, April 14), seven were developed under his own personal observation, six patients were brought to his office, nine were seen in hospitals, and twenty-eight in consultation, only five of the latter having had the real nature of the trouble recognized. They were about equally divided between the sexes, and nearly three-fourths were in the second half-year of life. The youngest was four months and the oldest twenty-one months old. Analysis of the food showed unsuitable feeding. The lack of freshness and the heating of food seemed also to play a part. Improper diet seemed to be able to produce scurvy without necessarily impairing the digestion. There were signs of rickets in all but nine of the children, but no apparent relation existed between the severity of rickets and that of scurvy. The symptoms are analyzed in detail. The most general one was tenderness on handling. Next in frequency came paresis, followed in order by inflamed gums, swelling, hematuria, pallor, ecchymoses and hemorrhage from the bowels, mouth or orbit. Hemoglobin and a number of red corpuscles were reduced in the two cases examined, and there was also a slight leucocytosis. Pain on motion of the extremities was present in 43 cases. The hematuria cases form a special group, and was the only symptom of scurvy in two and preceded the symptoms in two other cases. Blood was present in some cases in large amounts and the urinary albumen was in proportion to the blood. As regards the diagnosis, he remarks that the first symptom is usually loss of color, often associated with loss of appetite, but the first symptom to call attention is likely to be tenderness on handling, more frequently in the legs than the arms. Treatment consisted in insuring proper diet. One patient was given lemon juice. The others received orange juice, which was very effective. Lovett considers at least one tablespoonful a day as necessary and two tablespoonfuls, or the juice of half an orange daily, ample to produce a rapid cure.

FEVER IN THE NEWBORN.

W. J. Butler, Chicago (*Journal A.M.A.*, April 14), emphasizes the importance of the observation of temperature during the early days of infant life and discusses the literature. The chances of infection in the newborn are numerous, to wit: By the contact of infectious material to the eyes, nose, or mouth, traumas incident to forceps delivery, unclean surroundings or attendants, and the always possible source of infection, the navel. He reports an interesting series of cases of infection of the respiratory tract in the newborn, the exact source of which was not

demonstrable. The disease was confined to one ward in the hospital and contact transmission seemed highly probable. The symptoms were rather uniform, but not specially characteristic. The temperature was high and remittent and there was evidence of acute rhinitis and laryngitis. In the one fatal case the child apparently died of uremic poisoning. The cases demonstrated the susceptibility of the newborn to infection of the respiratory passages, and illustrated the rapidity of conveyance and briefness of incubation in infection with the *Micrococcus catarrhals* and with the pneumococcus, and the contagiousness of what might ordinarily be called 'a cold'. The treatment was mainly symptomatic. The treatment of this condition generally must be primarily prophylactic, strict asepsis at delivery and subsequently.

INDICATION AND TECHNIQUE OF CÆSAREAN SECTION.

Dauber (*Ztschr. f. Geburtch. u. Gynäk.*, Stuttgart, Bd. liv.), reports on thirty cases performed in Hofmeier's clinic in fifteen years—one case in 251 labours. Of the thirty cases, sixteen were conservative, fourteen Porro's operation. Of the latter, six were typical and eight sub-peritoneal. The indication for operation was contracted pelvis in twenty-six—86 per cent. Of the twenty-six, rickets was the etiological factor in fifteen, osteomalacia ten, Naegele pelvis one, myoma was the indication in three cases, eclampsia in one. Dauber would replace the induction of premature labour by section. The uterus should be removed: (1) When the uterus is infected; (2) if myomata are likely to require removal at some subsequent period; (3) osteomalacia; (4) atonic bleeding. Dauber does not favor Fritsch's fundal incision, and the operation may be performed before the onset of labour.

ENURESIS IN CHILDREN.

Barnes (*Am. Med.*), discusses the etiology of this affection, which is so often the despair of the family physician. There may be organic causes, such as malformation; inflammation, nervous abnormality; disturbed nutrition. Or the causes may be functional, such as lack of education and training; an undeveloped mental state; autointoxication; a neurasis; hyperemia; local reflex irritation; remote inflex irritation. One must remove the cause wherever possible. There must be careful feeding with tonic medication, regulated exercise, and, where possible, an appeal to the child's sense of shame. (Of course, where there is irritability of hyperemia, an anodyne rather than a tonic plan of treatment would be indicated.)

OPHTHALMOLOGY AND OTOTOLOGY.

Under the charge of G. STERLING EYERSON, M.D., C.M., Professor of Ophthalmology and Otology Medical Faculty of the University of Toronto.

THE EFFECT OF PROLONGED LACTATION UPON THE EYE.

Dr. H. Moulton, Fort Smith, Ark., in *Oph. Record* March, 1906, says that the effects of prolonged lactation on the eye are properly effects of anæmia and toxæmia. Exhaustion and anæmia are prompted by the flow of milk, care and anxiety, loss of sleep, and lack of exercise and fresh air. Asthenopia is frequently produced by poor blood supply both to itself and the brain. Near work is impossible or difficult. There may also be concentric narrowing of the field of vision, paroxysmal loss of vision, syncope and blindness. Most troublesome is the asthenopia produced by errors of refraction and muscular imbalance. In many cases properly adjusted glasses will relieve the eye-strain and headaches. Pallor or congestion of the conjunctiva is present. Another symptom is œdema of the eyelids. Very slight abrasions of the cornea degenerate into ulcers. Blindness in nursing women arises from anæmia of the retina. Hemorrhages of the retina sometimes occur. Neuritis, retro-ocular neuritis, and atrophy are probably toxic in origin. Prolonged lactation and nursing a baby for more than a year are given as causes.

The treatment should consist of weaning the baby, calomel, iron and bitter tonics.

THE TREATMENT OF DETACHMENT OF THE RETINA.

A. Maitland Ramsay, *Report of Oph. Soc. of United Kingdom*, Jan., 1906, read a paper on this subject, based on a record of fifty consecutive cases. The active treatment consisted in sub-conjunctival injections of 5 to 20 minims of bi-cyanide of mercury with an eight per cent. solution of sodium chloride, the pain being mitigated by one per cent. solution of cocaine. The injection was repeated at intervals of five or six days. If no decided improvement was observed, pilocarpin diaphoresis was induced. If possible, the subretinal fluid was always evacuated. Patient was kept in bed with careful attention to diet, etc. One or two per cent. solution of dionin was sometimes used to increase effect. Of the 50 cases treated, 10 showed decided improvement, 13 moderate improvement, 7 relapsed at intervals of from two weeks to four years. The method of treatment was simple, applicable to all cases and, as far as experience went, did no harm, but many were benefited.

SEPTIC THROMBOSIS OF THE CAVERNOUS SINUS.

Mr. Simeon Snell, *Report of Oph. Soc. for United Kingdom* Jan. 1906, reports a case. On May 1st, 1895, a medical man pricked a small vesicle on the upper lip with a gold scarf pin, which had been previously used to open an abscess, and which was thought to be clean. The next day there was swelling and redness. On the 5th, condition was worse, and the blush extended to the left cheek and orbit. This was followed by proptosis and swelling of conjunctiva, which eventually extended to the right side. The movements of the eyeballs were interfered with and there was paralysis of the right facial nerve, and deafness of right side, also dullness and effusion on right side of chest. The patient died 14 days after the commencement of the illness. No post-mortem was allowed.

THE SURGICAL TREATMENT OF OTITIC FACIAL PARALYSIS.

Giuseppe Gradenigo, Turin, Italy, *Laryngoscope*, Jan., 1906, states that facial paralysis may be brought about either by a morbid process, or by the surgeon himself during an operation. When a nerve trunk only is damaged, paralysis may be completely recovered from, but when entirely divided or in part removed or destroyed the resulting palsy will remain during the patient's life. The remedy for this lasting paralysis is suturing the free ends of the facial nerve, or the peripheral end of the facial to the proximal end of some other nerve, either the glosso-pharyngeal or the spinal accessory. The results, up to the present, have been uncertain.

SUBNORMAL ACCOMMODATION AND PREMATURE PRESBYOPIA.

George M. Gould (*American Medicine*) believes many failures to cure eye-strain diseases are due to non-recognition of insufficient or parietic accommodations, or premature presbyopia. He reports illustrative cases in which the clinical histories dated back from 6 to 14 years. From a careful study of these cases he concludes :

1. Subnormal, parietic, or insufficient accommodation, or premature presbyopia, even paralysis of the accommodation, of a functional or reflex nature, not dependent upon organic disease, exists in a certain, probably much larger than suspected, proportion of young or middle-aged persons.

2. It is usually permanent or ingravescent.

3. It may be caused by such degrees and kinds of ametropia as compel the renunciation of the accommodative function, especially high hyperopia or astigmatism, etc.; monocularly; glare of footlights; the use of magnifying glasses in engraving, etc.; long-continued abuse of the eyes; a direct inhibiting reflex to the accommodational mechanism.

4. It is of all degrees and varieties, and may even differ in amount in the two eyes.

5. It may complicate the condition of head tilting, torticollis, etc., with secondary spinal curvature, due to a peculiar axis of astigmatism in the dominant eye. The pathogenic results of dextrocularity and sinistrocularity should not be forgotten.

6. The pathognomonic symptoms are persistence of common eye-strain reflexes (such as migraine, headache, indigestion, intestinal fermentation, constipation, nervous disorders, dermatoses, etc.) after proper correction of the ametropia and muscle imbalance, and especially an inability to carry on continuous near-work.

7. The diagnosis is impossible by any of the ordinary tests. The loss of power has come on so slowly or has been so long present that the patients have no suspicion that the print is not clear, and it is usually possible for them to read even the finest letters with ease, and for a short time. The comparative rarity of the cases also throws the oculist off his guard, and routine begets carelessness. Abnormally wide pupils of one or both eyes, the demand of high corrections for distant vision, certain occupations, certain forms of ametropia and anisometropia, high heterophoria, unrelieved reflexes, photophobia, etc., are suggestions that there may be accommodation weakness.

8. It is an active cause of heterophoria, adding to the proof of the common dependence of muscle imbalance upon ametropic and optical causes.

9. The treatment is by means of bifocal spectacles which accurately neutralize the error of refraction for distant, and the deficiency in accommodational power for near vision. Success depends upon the amount of damage done before the appropriate therapeutic measure is found. Usually relief is sudden and striking.

STRICTURE OF THE LACHRYMO-NASAL DUCT.

Ibgers believes that the condition is more common than is usually supposed, and that in the majority of instances it is due to diseases of the nasal mucosa, to deviations of the nasal septum, and occasionally to errors of refraction. Not infrequently a course of probing is rapidly cut short by a more careful examination of the nose.—*Northwestern Lancet*.

LARYNGOLOGY AND RHINOLOGY.

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

TREATMENT OF A "COLD."

In speaking of the treatment of a "common cold" Dr. Leonard Williams, in the *Clinical Journal*, London, uses this expression for a catarrhal condition affecting the nasopharynx, larynx or the larger bronchial tubes, in that cold or chill is supposed to be the principal factor in the causation. However, the author thinks that cold has nothing to do with the causation of the condition, but that it is due to irritation of the air passages from bacterial invasion.

The therapeutics of this condition consists in aborting it by washing the microbes out of the nasopharynx by douching and gargling. After filling the nasal douche with an antiseptic solution, the patient should be directed to introduce the solution into one nostril and at the same time keep the mouth open. In this way the solution will flow out of the other nostril instead of into the mouth. If the mouth is kept closed it will find its way into the larynx and esophagus. Therefore, the patient should always be directed to keep the mouth open when using the nasal douche. The author recommends that the solution should be warm and of a temperature not below 98 F. He prefers zinc sulphocarbolate in weak solution as follows :

℞.	Zinci sulphocarbolutis.....	gr. vi	40
	Aquæ dest. q. s. ad.....	ʒ iii	90

M. Sig. : To be used , warm, in the nasal douche.

A nasal catarrh, as suggested by the author, may be the beginning of whooping cough, and in this treatment the best measures are to be carried out to cut short the attack and to prevent grave sequelæ. So important is this form of treatment in the early stage of whooping cough that it is grave neglect when it is even delayed until the whoop has begun.

The following combination is recommended as a very efficient antiseptic used as a nasal douche :

℞.	Acidi boracici.....	ʒ ii	8
	Or		
	Acidi carbolicci.....	gr. x	65
	Glycerini.....	ʒ ss	15
	Infusi rosæ acidi q. s. ad.....	ʒ viii	240

M. Sig. : To be used as a nasal douche.

When the irritation is lower down in the air passages, in the larynx, the treatment can not be carried out so successfully. The most successful treatment here consists in the use of antiseptic oils such as eucalypt-

tus, vaporized and inhaled frequently. In addition to this local treatment, mild purgatives should be given to keep the bowels well open, and a hot bath or hot wet pack given to increase the elimination from the skin. If headache is present, with a slight rise in temperature, a moderate dose of opium at bedtime is the best remedy. When administered early in influenza, the author regards opium as almost *specific*, and in ordinary colds its effect on the inflamed mucous membrane and irritated nervous system assists greatly in relieving the symptoms.

As a tonic after a cold no preparation is more beneficial than quinin, and it is recommended prescribed in the liquid form, as the powder is not so reliable in its action and has a greater tendency to disturb the stomach. When once there is failure in aborting the attack and active inflammation of the mucous membrane has set in, with a feeling of constriction, accompanied by a dry, hard cough, the proper treatment then consists in the administration of sedative or depressing expectorants and not stimulating expectorants. For this purpose the following combination is recommended :

R.	Vini antimonii			
	Vini ipecacuanhae, $\bar{a}\bar{a}$	m. x		65
	Spts. etheris nitrosi.....	m. xxx	2	
	Liq. ammon. acetatis.....	$\bar{5}$ ii	8	
	Syr. limonis.....	$\bar{2}$ i	4	
	Mist. amygdalae q. s. ad.....	$\bar{5}$ i	30	

M. Sig. : To be taken at one dose and repeated in four hours, or half the quantity every two hours.

The foregoing combination should not be given when a valvular disease of the heart is present, as ipecacuanha and antimony are both very powerful heart depressants. After the congestion of the mucous membrane has subsided, stimulating expectorants are indicated, and for this purpose the following is recommended :

R.	Ammon. carb.....	gr. v		30	
	Tinct. camph. co. (B.P.).....	m. xx	1		30
	Syr. scille	m. xxx	2		
	Syr. toluani.....	$\bar{2}$ i	4		
	Infusi senegae.....	$\bar{5}$ i	30		

M. Sig. : To be taken at one dose and repeated every four hours.

Opium is one of the best remedies in aborting a cold, according to Yeo in *Clinical Ther.*, and it acts best when combined with other diaphoretics. Its effects on the capillary circulation of the respiratory passages is very beneficial in the initial stage of the attack.

In those patients who are inclined to disturbances of liver function opium preparations should be avoided and other diaphoretics substituted as follows :

R.	Spts. etheris nitrosi.....	$\bar{5}$ iv	15	65	
	Liq. ammon. acetatis.....	$\bar{5}$ ii	60		
	Salicini.....	gr. xl	2		05
	Vini ipecacuanhae.....	m. xl	2		65
	Aquae camphorae q. s. ad.....	$\bar{5}$ viii	240		

M. Fiat mistura. Sig.: One tablespoonful every four hours.

After the first twenty-four hours quinin is recommended, given in the form of the following effervescing mixture:

R. Potass. bicarb.			
Sodii bicarb., ā ā	ʒi	4	
Ammonii carb.	ʒss	2	
Syr. aurantii	ʒss	15	
Aquæ q. s. ad.	ʒviii	240	

M. Fiat mistura.

R. Quinina sulph.	gr. xii	75
Pulv. acidi citrici	ʒii	8
Sacchari lactis	ʒi	4

M. et divide in pulv. No. vi. Sig.: One powder dissolved in water and mixed with one-sixth part of the mixture and taken three times a day. (Large doses of quinine so frequently used to abort colds are responsible not infrequently for many cases of incurable nerve deafness.—P.G.G.)

As to local remedies to cut short an attack of coryza the following is recommended in the form of an inhalation:

R. Liq. ammon. fortis	ʒi	4
Spts. vini rectif.	ʒii	8
Acidi carbonici	ʒi	4
Aquæ	ʒii	8

M. Sig.: A few drops of the mixture to be dropped on absorbent cotton and the vapor inhaled. Or:

R. Olei pini	ʒii	8
Camphoræ	gr. xl	2
Liq. ammon. fortis	ʒi	4
Spts. rectif.	ʒi	30

M. Sig.: To be used in the form of an inhalation.

As an anodyne spray, Shurley recommends the following:

R. Mentholi	gr. i	06
Alcoholis	m. v	30
Calc. phos. precip.	gr. v	30
Aquæ q. s. ad.	ʒii	60

M. Sig.: To be used as a . . .

As a sedative and astringent the following is of service:

R. Cocainæ	gr. v	30
Alumini	gr. x	65
Aquæ mentholi	ʒi	30

M. Sig.: To be used locally as a spray.

Kyle recommends in some cases the following oil spray:

R. Camphoræ	gr. i	06
Mentholi	gr. iii	20
Acidi carbonici	m. ii	12
Liq. albolene	ʒi	30

M. Sig.: As a spray.

As an inhalant the ordinary tincture benzoini comp. is very efficient; one teaspoonful is floated on a pint of hot water and the vapors inhaled.

Crosote may be used in the same manner, using from ten to fifteen drops (.65-1.00) to a pint of hot water.

Bartholow recommends the following combination :

R. Acidi carbolici.....	ʒi	4	
Tincture iodi.....	ʒss	15	

M. Sig. : From ten to fifteen drops in a pint of hot water as an inhalation.

As an abortive remedy the following is of service, but must be prescribed with care :

R. Cocaine hydrochlor.....	gr. viii		50
Mentholi	gr. iv		
Salol.....	gr. lxxv		5
Acidi boracici	ʒiv		

M. Sig. : A small amount to be insufflated into the nares three or four times daily.

As a spray the following is recommended :

R. Mentholi.....	gr. viii		50
Camphore	gr. v		
Liq. petrolati.....	ʒi		30

M. Sig. : To be used in the atomizer as a spray after thoroughly washing the affected areas. As a vapor to be inhaled the following is recommended :

R. Mentholi	ʒiss		6
Eucalyptol.....	ʒi		
Liq. albolene.....	ʒi		30

M. Sig. : A few drops to be floated on a small amount of water, placed over a spirit lamp and inhaled.—*Jour. A. M. A.*

A STUDY OF THE LARYNX IN TABES.

Crossley Green examined sixty cases of tabes with reference to the following points:—(1) To find the proportionate number affected with paralytic and other disturbances of the larynx. (2) The nature of such disturbances. (3) The period of their occurrence in the course of the disease.

(1) Out of the sixty cases examined, 15 per cent. presented laryngeal complications, 10 per cent. showed undoubted paralysis of one or both vocal cords, 12 per cent. were affected with laryngeal crisis, three of these without evident paralysis of either cord, and one presented a jerky movement of the cord, in moving from the middle line.

(2) The only form of paralysis found was of the abductor type. Of the six cases, five were unilateral and one was bilateral.

Laryngeal crises occurred, as a symptom, in conjunction with abductor paralysis, in four cases, and without paralysis in three cases. These crises were characterized by pain or a sense of irritation in the larynx, followed by a cough, dyspnoea, and loud inspiratory stridor. In mild cases the attack simulates whooping-cough, as disturbances of sensibility in the larynx, hyperæsthesia and anæsthesia were noticed.

(3) Laryngeal crisis, when present, occurred among the earliest symptoms. In two cases, the crisis led to an examination of the larynx and subsequent detection of the disease of the nervous system. *Boston Medical and Surgical Journal*.

PERSISTENT EPISTAXIS.

A very curious case is reported by Martin-Wechamps *Rev. Hebdomadaire de Laryngologie et de Rhinologie*, (May 6, 1905). A child of 11 years suffered for three days from free nasal hæmorrhage, so persistent that the anaemia was very marked. The bleeding developed shortly after having taken a bath in a neighboring river. Nothing could be seen by anterior rhinoscopy, while posteriorly no view could be made, owing to restlessness. The bleeding continuing, a further examination was made, and two leeches were found at the back of the tonsils. It is supposed they got into the nose while the boy had his head under water.

CHRONIC FRONTAL SINUSITIS.

The principle which Guisez has adopted in case of chronic frontal sinusitis is that the ethmoidal sinus is always involved in the process. This necessitates thorough evacuation of its contents. He accomplishes this by turning back a flap, made by an incision in the upper third of the eyebrow, extended .5 cm. below the inner angle of the orbit. The flap thus made can be replaced without leaving a trace, while it allows ample access to the sinus. The frontal sinus is trephined. The results have been very satisfactory in 18 cases in which he has operated by this technic. The only drawback is that the nasal fossæ become enlarged by it. He overcomes this by injection of paraffin afterward. The skin wound heals in a week or two, but the intranasal healing is a slower process, requiring treatment for a time. Cure is not complete until all traces of exudation, scabs and crusts have vanished.—*Jour. A.M.A.*

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EDITORIAL.

OSTEOPATHY AND VISIONS.

Dr. C. T. Still originated osteopathy. In his autobiography he gives the following account of how he became possessed of the new system of treatment :

"Twenty-four years ago, the 22nd day of June next, at ten o'clock. I saw a small light in the horizon or truth. It was put in my hand, as I understood it, by the God of Nature. That light bore on its face the inscription: This is my medical library, surgical and obstetrics. This is my book with all directions, instructions, doses, sizes, and quantities to be used in all cases of sickness and birth, the beginning of man; in childhood, youth, and declining days. I am something of what people call 'inspired'."

It would be interesting to know what is meant by "the horizon of truth." We would like this "inspired" Dr. Still to show us the "light" which was put in his hand, and let us read the "inscription;" for "seeing is believing." This "inscription" was a library on "surgery and obstetrics." We would like to learn something about the "doses, sizes, and quantities to be used in all cases of sickness and birth."

This seeing of visions is sometimes an important event. Mahomet saw visions; so did Swedenborg. Most alienists would regard these visions as hallucinations, and be evidences of an unsound state of mind. It might very well be said that this is true of "osteopathy." It has no scientific basis to rest upon, and is a sort of mechanical therapeutics applied by those who do not understand the anatomy of the body. It must have come within the knowledge of many physicians to have known of cases of much harm having been done by this "method" of so-called treatment.

In Senator Hinman's bill, before the New York State Legislature, osteopathy is defined in these terms: "That science or system of healing which treats diseases of the human body by manual therapeutics for the stimulation of the remedial forces within the body itself, for the correction of misplaced tissue, and the removal of obstructions or interferences with the fluids of the body, all without the internal administration of drugs or medicines."

Now, in this there appears to be considerable departure from the vision, the "light," the "inscription," the "directions, instructions, doses, sizes, quantities, etc.," vouchsafed the founder of the "system."

What is of use in "osteopathy" has long been known to medical science. Massage, passive movements, electricity, etc., are not new discoveries; and they did not come into the world through the said Dr. Still and his wonderful "light."

THE ETIOLOGY OF TABES DORSALIS AND GENERAL PARALYSIS.

On several occasions we have pointed out the relationship existing between syphilis and locomotor ataxia and general paralysis. The solution of the etiology of these diseases is of much interest and importance, and will do much to prevent two of the most incurable of diseases. On former occasions, we have gone the length of stating: "No syphilis, no tabes;" and almost the length of saying: "No syphilis, no general paralysis." We think both these statements will yet be proven to be true, and that syphilis will stand as the sole primary and necessary cause of both diseases.

Other factors may play an important role, as secondary causes, such as cold, excessive sexual indulgences, injury, a tendency in the nerve tissue to degenerate, and the effects of over-exertion while debilitated. But these alone, or in combination, do not appear capable of causing either tabes dorsalis or general paralysis without the prior aid of syphilis.

The medical world has for many years regarded David Ferrier as one of its greatest authorities upon neurology. Within the past few weeks he has given to the world the benefit of his studies upon the subject. He comes to the conclusion that syphilis must be regarded as the real cause of these two fatal diseases. He marshals his arguments in a most convincing manner. They are, in brief:—

1. Syphilis can be proven in 90 per cent. of all cases of tabes, and in the remaining 10 per cent. there is the history of exposure in most instances. Then syphilis may run a concealed course.

2. It is always found to have been present in all cases of juvenile ataxia.

3. In all instances of several examples of ataxia occurring in the same family syphilis can be proven to be present.

4. In positive syphilitic affections, such as gumma, it is not possible to discover a history of syphilis in more than 90 per cent. This is the same as in ataxia.

5. No ataxic has ever been known to have a chancre, or secondary sores, going to show that these have occurred at some former time. Some ataxics would show primary lesions, if syphilis was not the cause years ago.

6. Juvenile dementia paralytica are all syphilitic.

7. Those suffering with dementia paralytica cannot be infected with syphilis.

8. Ataxia and general paralysis have never been known among people where syphilis is unknown; while, on the other hand, they occur among all races where syphilis prevails.

Dr. Ferrier then states that while arguments could be multiplied there is little need of doing so, and there is "in my opinion little room for doubt that tabes and general paralysis are in all cases syphilitic, and that tabes *per se* is as much a proof of syphilis as a gumma of the skin."

He then quotes from Fournier to the effect that: "Treat syphilis well and there will be few cases of general paralysis or tabes dorsalis." What is meant efficient treatment is, "the administration of mercury continuously for two years, and intermittently for several years longer."

SPIROCHÆTA PALLIDA SYPHILITICA.

Since Schaudinn and Hoffmann made known this important discovery of the spirochæta of syphilis, in February, 1905, at least one hundred investigators have arrived at exactly similar findings. The characteristic organism is found always in the primary and secondary lesions of syphilis, and in the blood, deeper fluids, spleen, liver, kidney, etc.; and always in the bodies of children with inherited syphilis, or who die of it. The organism has not yet been found in the incubation period of the disease, nor in tertiary lesions.

Lately, Schaudinn has discovered a flagellum at each end of the spirochæta. This would necessitate its being regarded as a distinct species of protozoon. The names spironema and treponema have also been suggested.

But the investigations have gone much further than the mere study of syphilitic lesions on the human subject. An extensive series of observations have been conducted on the monkey. In every instance the organism has been found. But another form of evidence has been brought out, namely, that the spirochæta is always absent from every form of lesion not syphilitic. It is therefore pathogenic of syphilis.

One evidence alone is lacking. It has not yet been obtained by pure culture, from the disease it has produced. Enough has been done, however, to make the conclusion almost a certainty, that at last the infective agent in syphilis has been discovered. Further knowledge as to its life habits will soon be forthcoming.

THE CONDITIONS OF TORONTO'S GRANT OF \$200,000.

There has been a good deal of discussion over the grant of \$200,000 to the proposed new General Hospital by the council of Toronto.

One of the clauses in the bill, now before the Legislature, was subjected to a considerable amount of adverse criticism. The clause is as follows:—

“The trustees shall allow or permit all patients paying sufficient to cover all the cost of the trustees of their maintenance and support while in the hospital the right of employing their own surgeon or physician, subject to the regulations of the trustees.”

It appeared that the cost in the Toronto Hospital is about \$10.50 per week, and many thought that this was too high a price to place the above right at, and asked the council to seek better terms.

Mr. J. W. Flavelle, chairman of the Hospital Trust Board, wrote to the mayor offering some semi-public ward accommodation at \$7.00 per week, and with the right to the patients to select their own medical attendants in these wards. On the receipt of this letter the Board of Control made the following recommendation to the council:—

“Every phase of the question has received careful attention on the part of the Board, and it is recommended that the Act drawn be not opposed in view of the proposal indicated in the letter from Mr. Flavelle.”

This recommendation of the Board of Control was adopted on 26th March, 1906.

The new hospital trust was not created by statute at the date of these negotiations. There will be the statute on one side that patients must pay the full cost of maintenance to enjoy the right to select their own medical attendants, and on the other side Mr. Flavelle's letter to the effect that some accommodation at \$7.00 shall be provided with this privilege. We hope that the offer, as contained in the letter, and the conditions laid down in the bill will not conflict. There is, no doubt, ground for misunderstanding in the future.

PATENT MEDICINES AND HEADACHE POWDERS.

We would advise our readers to write to W. J. Gerald, Deputy Minister of Inland Revenue, for a copy of Bulletin No. 113, containing the report of the chemical analyses of a number of patent medicines and headache powders.

Many liquid mixtures are examined, and the percentage of alcohol stated. The amount of alcohol in Peruna is regarded as so high for the amount of solids it contains that the statement is made: “It becomes

a question as to whether it can be legally sold by druggists without a liquor license."

With regard to another, the statement is made: "Since this article contains a substance whose properties are the opposite of those indicated by the name, its sale would appear to be illegal under section 2 of The Adulteration Act."

Thirty examples of headache powders were analyzed. Antifebrin forms the active principle in most of these powders. Phenacetin is found in about half a dozen of them.

It would be well if the members of the medical profession obtained copies of this bulletin, and became thoroughly posted upon the composition of these liquid mixtures and powders.

A MUNICIPAL SANATORIUM FOR CONSUMPTIVES.

For a number of years the question of a municipal sanatorium for consumptives has been before the people and the council of Toronto. Three years ago the people voted \$50,000 for the treatment of consumptives in some suitable sanatorium. There can be no doubt but that the vote was understood as being for a municipal institution, but for three years efforts have been made in certain quarters to divert the money into some other institution than one under the control of the municipality. This we always felt to be a violation of the intention of the vote, and a great wrong to the people.

After much unnecessary delay the council came to a decision upon the question. Ald. Dr. Noble moved, seconded by Controller Jones, that the council ask for legislation for power to issue debentures for the \$50,000 voted for a consumptive hospital, and that the proceeds be used to establish a municipal sanatorium for consumptives, according to the act passed by the legislature for that purpose.

Ald. Noble claimed that there should be no difference of opinion as to what the money was meant for. The motion carried on the following division:

Yeas.—Controller Jones, Ald. Hay, McBride, Keeler, Vaughan, Dunn, Geary, Noble and Stewart.

Nays.—Controller Hubbard, Graham.

With authority to use this sum the promoters of the civic sanatorium will be in a position to go out and solicit subscriptions from the charitably disposed citizens.

One of the great difficulties in the way was the fact that the council did not apply the sum voted by the people for the purpose of a municipal sanatorium. The Local Board of Health did not move in the matter by naming a committee which could act as recipients of donations.

One condition of the vote was that the city only pays over one-half when a similar amount is raised by voluntary contributions. Until the city acted no contributions could be secured. This caused a serious delay in the good work.'

Donations will, no doubt, be forthcoming for this most worthy object. As soon as these amount to \$25,000 the city will pay over \$25,000, or half the amount voted by the people. The remainder is paid over gradually as other donations come in.

This will assure the success of a sanatorium for consumptives for Toronto. There never was a more worthy object placed before the people. Consumption causes more deaths than any other disease. In some cases it is curable, but, in most, preventable. In this latter respect a sanatorium for the city would be of incalculable value.

THE CHARGES AND PRIVILEGES IN THE TORONTO HOSPITALS.

Within the past few weeks the subject of the charges made by the various hospitals, and the privileges enjoyed by the patients in the different kind of wards, has been under discussion. This has arisen out of the demand made by the chairman of the Toronto General Hospital that, unless the city council paid over the \$200,000 on the understanding that patients must pay the cost of maintenance before they could secure the right to select their own medical attendants. It transpired that the cost of maintenance in the Toronto General Hospital was about \$10 per week. After much discussion it was agreed that some wards would be set aside at \$7 per week, in which patients could engage their own medical attendants. It will, no doubt, be interesting to know the rules of the various hospitals on these points.

1. The Hospital for Sick Children. In this institution there are two ward charges, namely, \$3.50 and \$9.00 per week. In all the public wards, at \$3.50, the patients have no voice in the selection of their medical attendant, either on or off the medical staff, regardless of whether under a city order or paid for. The member of the staff who attends cannot make any charge for his services, even though patient is paid for. With regard to the wards at \$9.00 per week, the patients may make a selection, but it must be confined to some member of the staff. If the patient is able to pay for such attendance the doctor in charge of the case may charge. No member of the profession, not on the staff, can attend any patient in the Hospital for Sick Children.

2. St. John's Hospital for Women. In this hospital there are public wards at \$3.50, semi-private wards at \$7.00 to \$10.00, and private wards at \$12.00 and upwards per week. If a patient pays in a public or semi-private ward she may be attended by her own physician, under the permission of some member of the staff, who is really responsible for the case. In the private wards, patients can have their own doctor, if introduced by a member of the staff. The privilege of members of the profession, not on the staff, is one of courtesy, through a member of the staff. No ward is open to the profession except as introduced by one on the staff.

3. Grace Hospital. In this hospital there are public wards at \$3.50 per week. All patients in the public wards are assigned to members of the staff for attendance. These patients, whether under city order or paying for themselves, have no choice as to who shall attend them. But the member of the staff who attends a pay public-ward patient may charge for his services, if the patient is able to pay. There is no rule against charging such patients. In some instances public ward pay patients are placed under a certain member of the staff by request. If the patients pay \$8.00 a week, or more, they may select their own attendant, whether one of the staff or not.

4. St. Michael's Hospital. In this hospital there are public wards at \$3.50 per week. All patients in the public wards are assigned to members of the staff. If these patients pay for themselves, the member of the staff in attendance may charge if the patient can afford to pay. There is no rule to debar a member of the staff from charging a pay public ward patient. If patients pay \$7.00 a week, and upwards, they may select any member of the profession to attend.

5. The Emergency. There are two classes of wards, the public, at \$3.50, and the semi-private, at \$6.00 per week. In the former the patients have no privileges as to the selection of their medical attendant, whether they pay or are under city order. If they pay \$6.00 a week, they may make their own selection of attendant, either on or off the staff.

6. The Toronto General Hospital. All patients who pay only \$3.50 per week, or are under city order, are placed in public wards, and are attended by the staff of the hospital. In no instance is a member of the staff permitted to make any charge for his services to a public ward patient, even though he pays his way and may be able to pay a fee. There are some semi-public wards at \$7.00 a week, in which the members of the profession, not on the staff, may attend their patients. In the semi-private and private wards the general profession have the right to attend.

7. The Isolation Hospital. There are three kinds of wards in this hospital, the public at \$3.50, the semi-private at \$7.00, and the private at \$14.00 per week. Every bed in the hospital is at the disposal of the profession, provided the patients pay their way in any of the foregoing wards.

8. The Toronto Western Hospital. This hospital has beds at prices ranging from \$3.50 a week and upwards, as public, semi-private and private wards. Every bed in the hospital is at the disposal of the medical profession, excepting such as are occupied by the city-order cases. These patients are under the control of the staff. There is no rule to prevent a doctor from charging a pay patient in a public ward.

It will be seen from the foregoing that the Toronto General, the Emergency, and Children's hospitals give free medical and surgical attendance to all public ward patients. They go further, and forbid a member of their own staffs charging pay public ward patients, even though these might be quite able to pay for such professional services as they receive.

We contend that this is entirely wrong. A hospital should do nothing that would deprive any member of the profession of a fee. No hospital should undertake to furnish free attendance upon patients who can pay. Many well-to-do people will select a public ward because it entitles them to free attendance. If they pay for their hospital accommodation, it should be left an open question as to the attendance they receive and what they may have to pay for it. It is quite a mistake to compel a member of any hospital staff to give his services free to a rich patient, simply because such person prefers a public to a private ward, in order that he may obtain free attendance. This is one of the lingering hospital abuses that must be corrected, but like many another abuse, dies hard. It is most likely to find its remedy through other hospitals, which adopt a wiser policy towards the profession.

It is not many years ago when the private wards were closed against all members of the profession who were not on the staff. Then the private wards were opened to the profession and later on the semi-private. For a doctor, not on the staff, to attend his own patient, that patient must pay \$6.00 a week in the Emergency, \$7.00 per week in the General, \$7.00 per week in St. Michael's, \$8.00 per week in Grace, and \$3.50 in the Western. No privileges are accorded the general profession in the Children's Hospital, and only by courtesy of a member of the staff in St. John's Hospital.

PROPRIETARY MEDICINES.

That proprietary medicines are under the search lights just now there can be no doubt. It is generally the case that abuses in any given affair of life has to reach a considerable degree in amount before much attention is paid to them. This is the case with proprietary medicines at the present moment. The abuses of very many of the proprietary medicines on the market at the present day are very great, and the total amount of harm that is being done by them is incalculable. It would appear as if this state of affairs had to come to pass before a remedy would be forthcoming.

Alcohol in some, cocaine in others, opium in a third, impotent stuff in a fourth, no alcohol advertised in a fifth, and yet full of it, etc., etc., is the every-day experience of every doctor. But, then, we are told that a certain mixture will cure consumption, that another never fails in fits, that asthma is easy for a third, and that Bright's disease is one of the most curable of diseases, by another every form of germ will disappear from the system as dust before the tempest. Shades of truth and science, where are we? How long shall this foul swindle be allowed to go on. When will the law limit the desire to deceive the people as nature has limited the tide?

But the first difficulty to be overcome is met with in the press of the country. The regular medical profession does not advertise much, whereas the proprietary medicine men do. Millions of dollars a year are poured into the columns of the press to induce the people to buy these nostrums, much of the proceeds in turn going back to the press again. Whether any legislation be placed on the statute books this session or not, it is only a short time until such will be the case, regulating the sale of proprietary medicines.

In the editorial columns of *The Globe*, of 4th April, we read that, "They have become possessors of their discovery in a legitimate way. They have spent a great deal of money in bringing its remedial value to the attention of purchasers, and to the extent that it is a cure for the ailments for which it is intended they have done a public service. Why should they be compelled to communicate their knowledge to the whole world, and have the property which they have created and built up confiscated?"

When a great paper can talk such utter rubbish to its readers, the medical profession may at once realize that the regulation of proprietary medicines by law is not going to be an easy task. The sale of proprietary medicines is like nothing else. They are for the treatment of disease, and the public have a right to know what they contain. It is also folly to speak about the value of these discoveries. Every doctor knows that formulæ can be prepared for such mixtures

in a few minutes. With regard to the bringing of their values to the attention of the public, it should be remembered that this is done, not to cure the people, but to get the people's money, a process in which the public press shares. But *The Globe* goes further by stating that "The man who sells a beneficial compound of drugs has as much right to protection in his property as the owner of a patent device, and the only real protection he has is in the secrecy of the mode of preparation."

This reasoning is fallacious in every aspect. Medicines are not on the same level at all as a patent. If a man gets hold of a formulæ for a mixture for whooping cough, and then places it upon the market, it is absolutely necessary that its composition should be made known. The medical profession is then in a position to inform its clientele of the safety, or otherwise, of such a mixture.

But *The Globe* again states that "If there are preparations containing ingredients which induce the forming of a pernicious habit, there are ways of dealing with that phase of the question without resorting to measures such as Mr. Pratt's bill provides, which would punish the innocent and penalize the public." Now, we would like to know how one is to deal with these mixtures unless their composition is known. A certain catarrh cure is advertised containing cocaine; but how can any one put a stop to this, or take any action in the matter? Would *The Globe* point out the "ways of dealing with that phase of the question?" Who is to put the law in operation, when there is no legal procedure laid down? The thing is impossible, and is only newspaper special pleading.

The World, of 5th April, makes the suggestion that patent medicine makers "deposit their formulæ, under seal of secrecy, with the Government." This would make matters worse than they are, for these makers would claim that they were operating under Government authority, and yet the public would know nothing of the nature of what was being sold it for this or that ill. A million formulæ might be registered with the Government, and not one of them would be interfered with, however injurious they might be. A patent is not a secret. It is made public, but protected. Patent medicines should also be made public.

If one sells two feet for a yard he is defrauding the public. If another guarantees a cure for consumption he is equally deceiving the public. No such guarantee can be given. Both should be proceeded against by the Crown. If the Attorney-General's Department was as anxious to do its duty in this, as in some other things, many of the advertisers of patent medicines would be called upon to show cause why they might be allowed to go on advertising in the terms they have been.

The medical profession, which has ever sought the public weal in all sanitary and healthful measures, must bestir itself in this matter. It must be brought home to the attention of legislators that much harm is being done by the sale of proprietary medicines as a class. The remedy for this evil, as for most others, is *light*. Let the people know that in some much vaunted mixture they are paying a high price for some very common or valueless drugs, and the sale will come to an end.

DEBATE ON PATENT MEDICINES.

During the debate on the second reading of the bill regarding proprietary and patent medicines, Mr. Pratt, the mover of the bill, said in effect:—

No meaner frauds were perpetrated on the public than the frauds under the guise of medicines of the class mentioned. The report of the Dominion analyst on some of these medicines showed them to contain a large proportion of alcohol. In the United States some of these medicines could not be sold except under liquor license. In addition to alcohol, chloroform and opium were largely used in many patent and proprietary medicines. Others, for which large prices were charged, were worth a few cents; were, in fact, valueless; others contained poisons of a deadly nature. Mr. Pratt held that the press was guilty of complicity in the frauds perpetrated on the people under the guise of these medicines. He quoted from an editorial in *The Globe* in which it was stated that experience had shown that some proprietary medicines reached the right spot. An examination of *The Globe* of the same issue showed 26 patent medicine advertisements, and this, he inferred, was the foundation for the editorial.

He afterwards contended that the contributions made by patent medicine establishments to municipal and provincial revenues were so small that there could be no objection to provincial regulation. Mr. Pratt argued strongly for the adoption of that part of his bill which provided that companies manufacturing and selling such medicines should be compelled to put the formula on the bottle, so that the people would know just what they were getting for their money.

Dr. Lewis, in support of the bill, said:—

That with the principle of the bill everyone should heartily agree. Every medical man knew the effects on the constitution of a long course of patent medicines. From his experience he knew how disease was aggravated through such means. The formula of a patent medicine could be got very cheaply. The money was all spent in advertising. Mr. Fulford's formula was bought for \$500 from Dr. Jackson, who

refused at first to patent it. The millions were spent in advertising. As a temperance man by conviction he favored the measure. He instanced a medicine stated to be purely vegetable and containing no alcohol, which actually contained 41.6 per cent. of alcohol. He thought the press were not responsible, for they knew nothing of what these medicines contained. A cancer cure stated to contain radium came under his observation. He was sure if they were aware of its contents the press would not help the sale of such a nostrum.

THE NURSES' REGISTRATION BILL.

With this bill medical men will, no doubt, very largely agree. It does not make the nursing profession a close corporation, but will steadily make for a higher standard of it. Graduates of the various training schools are eligible for membership for a period of two years. A council is created under the bill with power to hold examinations and grant a certificate of qualification. This, of course, is quite optional, but many nurses will avail themselves of the opportunity of securing a provincial qualification. We look upon the bill as one calculated to raise the nursing profession very considerably, both educationally and socially. In some states of the Union such a law exists, and the effect has always been beneficial.

SECTION OF MEDICINE, BRITISH MEDICAL ASSOCIATION.

President, Sir Thomas Barlow, Bart., K.C.V.O., M.D., London; Vice-Presidents, Professor Alex. McPhedran, M.B., Toronto, Professor James Stewart, M.D., C.M., Montreal, Alex. Napier, M.D., Glasgow, Wm. Calwell, M.D., Belfast.

The following subjects have been selected for discussion as a provisional programme:—

Tuesday, August 21st.—A discussion on "Blood Pressure in Relation to Disease." The subject will be treated under the following headings: (a) "Physiological Introduction," by Dr. Dawson, Baltimore; (b) "Clinical Methods of Investigating Blood Pressure," by Dr. G. A. Gibson, Edinburgh; (c) "Pathology and Therapeutics of Morbid Blood Pressure," by Sir Wm. Broadbent. The following will also take part: Dr. MacKenzie, Burnley; Sir James Barr; Dr. Janeway, New York, and others.

Wednesday, August 22nd.—A joint discussion with the Physiology Section on "Over-Nutrition and Under-Nutrition, with special reference to Proteid Metabolism," to be opened by Prof. Crittenden, of Yale.

Thursday, August, 23rd.—Papers on “Heart Block,” by Dr. MacKenzie (Burnley), Dr. G. A. Gibson, Dr. Erlanger, Prof. Osler, and others.

Friday, August 24th.—Papers in the section.

The honorary secretaries for the section are:—Robert Dawson Rudolf, M.D., M.R.C.P., 396 Bloor St. W., Toronto; John Taylor Fotheringham, B.A., M.D., 20 Wellesley St., Toronto, and Robert Hutchison, M.D., 22 Queen Anne St., London, W.

CONCERNING BACTERIA.

Bacteriology deals with the life habits of bacteria, and is one of the most interesting, as well as useful, of all the scientific studies of the day. Some bacteria are useful to man, aiding him in the arts and sciences, while others give rise to some of his most fatal diseases. In the middle ages it was conjectured by some that certain diseases were caused by living organisms. In 1675 the first definite step was taken forward, when a Dutch naturalist, by the name of Leeuwenhoek, discovered some forms of germs in water and the fæces, and described their shapes and motions. He used a single lens. Müller, in 1785, aided by a compound microscope, made some additional and important discoveries regarding the “invisible world.” But the real birth of modern bacteriology dates with the researches of the immortal Pasteur. What he did on the silk-worm disease, on chicken cholera, on rabies, on anthrax, on the grape-vine disease, on vinous fermentation, etc., reads like the most attractive romance. Of his work it may be said, “Truth is stranger than fiction.”

Now, many diseases are known to be due to definite organisms, which can be identified and cultivated, so that their life habits can be studied. Our whole conceptions regarding consumption have been entirely changed since the discovery of the tubercle bacillus in 1882 by Robert Koch. Even if this knowledge has not yet brought a cure, yet it has placed preventive medicine on a sound basis so far as consumption is concerned. So also of cholera and typhoid fever and other diseases. In this field of medicine it is pre-eminently true, “That knowledge is power.”

But the study of various minute organisms is of immense value in the industrial and agricultural worlds. Proof of this is found in the preservation of the vineyards against blight, the silk-worm from disease, the sheep flocks from anthrax, horses from tetanus, cattle from tuberculosis, grain from the various forms of claviceps, etc.

Some bacteria cannot grow in an air containing oxygen, and are called anaerobic; others are ærobic, and grow in an oxygen-containing medium; while others can grow in either media. If stab cultures be

made on some solid medium, and the growth of the organism is on the surface, it shows that it prefers oxygen; if it grows at the bottom of the stab, or down in the solid medium, it indicates that oxygen is injurious to it; whereas if it grows on the surface and down in the solid medium as well, it is evidence that the organism is at once aerobic and anaerobic. Some germs grow on dead matter, the saprophytes, while others infest the living tissue and are parasitic.

Bacteria are very selective in their habits of living, and if placed under conditions they do not like, generally die. Sunlight is specially harmful to all germ life. There is much difference among germs as to the cultures in which they will multiply. This is shown in the living animal. Cattle, pigs, and man are liable to tuberculosis, but the goat is not. Man and the horse are ready victims of the tetanus bacillus, but fowls are not. Cholera attacks man readily, but not the lower animals. These are examples of natural immunity. Negroes and some native tribes are immune to yellow fever, malaria, and typhoid fever. On the other hand some families have a marked proclivity to contract certain diseases, as pneumonia, typhoid fever, scarlatina, tuberculosis, etc., nearly all the members of these families, at some time or another, contracting the disease to which the family exhibits a proneness.

This natural immunity throws much light upon the question of acquired immunity. The goat does not contract tuberculosis, and man rarely, indeed, contracts scarlatina a second time. There is something in the goat's blood that is uncongenial to the tubercle bacillus; and one attack of scarlatina leaves something in the system that makes it an unsuitable culture ground for the scarlatina germ a second time. When measles first reached the South Sea Islanders, it was a very fatal disease, because there was no racial experience with it, and no acquired immunity.

Most germs multiply by division, or fission; but some by sporing, such as anthrax. One bacterium may multiply to 15,000,000, or 20,000,000 in twelve hours. It has been calculated that if this continued undisturbed the descendants of one bacterium would weigh thousands of tons in four days. Bacteria can withstand low temperatures for a length of time, but frequent short freezings and thawings kill them. In like manner, continued boiling, or frequent short boilings, destroy their vitality. Bacteria produce toxins, which, apart from the bacteria themselves, may prove fatal, lethal doses of the pure toxine being rapidly fatal.

COMMERCIALISM, PROFESSIONALISM, ETC.

We are much indebted to the editor of the *St. Louis Medical Review* for a copy of the reprinted editorials on the above topics which

appeared in the journal a short time ago. These articles should be in the hands of every medical practitioner. With regard to them Dr. W. Osler wrote as follows to the editor: "If you reprint those articles on Commercialism do send me a couple of reprints. They are excellent in every way." We say the same.

The distinction is well drawn between commercialism and true professionalism, in that the former follows a given avocation for "what is in it," while the latter thinks primarily of the good of the others first, and is not first-selfish, as in the case of those who are governed by the commercial spirit. The suggestion is made that the true ideal condition would be to have the profession salaried, and in this way remove the tendency or temptation to enter or follow it merely for gain, or to increase one's income as the main object of life. The effect of making one's income from fees tends to bring the profession more and more under the spirit of, and into line with, the commercialism of the age.

In speaking of inventions made by members of the medical profession the suggestion is thrown out that they ought to be patented, and the patent held in trust by some medical body; the gain from such inventions going to the relief of members of the profession or their families, where such relief is required. This would obviate these inventions falling into the hands of the purely commercial person and the benefits passing away from the profession. There is a good deal more than the conventional grain of truth in this idea.

With regard to the prescribing of proprietary preparations, the position is taken that they should not be employed unless their composition is known. In this way alone can the doctor determine for himself the results he is obtaining, or correct any untoward effects.

Coming to the subject of the so-called patent medicines it is held that the medical profession should discountenance their use by the people until their composition is known. The position is laid down that all the active ingredients in patent medicines should be made known, but the method of preparation, flavoring, and making them palatable may remain with the manufacturer. In this way, both the manufacturer and the public would be protected. This is a good suggestion.

THE DISCOVERY OF GERMS.

In the following paragraphs from Dr. Ward's "Oration on Medicine," at the centenary meeting of the Medical Society of the State of New York, we have an excellent resume of progress:—

"The last twenty-five years have seen most radical and important advances in both the science and art of medicine, and notably in the methods of *preventing* disease rather than of *curing* it.

"The discovery that many diseases were the result of the introduction into the body of minute microscopical organisms—protozoa and bacteria—outranks in far-reaching importance any other medical discovery of the Christian era. As early as 1849 the bacillus of anthrax was seen in the blood of animals dead of splenic fever. In 1863 Rayer and Davaine proclaimed this organism to be the cause of the disease, but it was not until 1876 that Koch isolated and cultivated it. Then followed the discovery of the amœba dysenteriæ (1871) by Loesch; of the spirillum of relapsing fever (1873) by Obermeier; of the actinomyces (1877) by Bollinger; of the gonococcus (1879) by Neisser; of the plasmodium malarix (1880) by Laveran; of the trypanosoma evansi (1880); of the bacillus of malignant œdema (1881) by Koch, though this was identical with the *vibrio septique* which Pasteur had seen much earlier; of the bacilli of tuberculosis, typhoid and cholera (1883), all by Koch; of the bacillus pneumoniae (1883) by Friedländer, by whom also, working with Weichselbaum (1884), the diplococcus pneumoniae was shown to be the cause of lobar pneumonia, although the organism had been previously isolated by Sternberg and Pasteur (1881); of the organism causing diphtheria, first grown in pure culture by Loeffler (1884); though it had been observed early in the 70's by Klebs, and hence is known as the Klebs Loeffler bacillus; of the bacillus proteus (1885) by Hauser; of the meningococcus (1887) by Weichselbaum and Jaeger; of the bacillus of tetanus (1889), isolated by Kitasato, though previously observed by Nicolaier (1885); of the proteus fluorescens, causing Weil's disease (1890) by Jaeger; of the bacillus of influenza (1891) by Pfeiffer; of the bacillus pestis (1894) by Kitasato and Yersin, and of the bacillus dysenterix (1902) by Shiga. To this list will probably be added an intracellular protozoön, described by Councilman (1904), as causative of smallpox; a protozoön, by Mallory (1905), causing scarlet fever; and the spirocheta pallida, causing syphilis, by Schaudinn (1905).

"To Koch more than to any other man belongs the credit of having initiated scientific proof of the causative relation of bacteria to disease. He first showed that it was possible to isolate these organisms in pure culture, to cultivate them indefinitely, to produce in healthy animals a given infectious disease by the injection of the proper pure culture, and by continuous inoculation from a diseased to a healthy animal to continue the process at will. The use of the aniline dyes, first suggested by Weigert, was an invaluable aid in conducting these investigations.

"One objection advanced against the germ theory of disease is the fact, which we must all admit, that while the opportunities for investigating the acute exanthemata have always been, and still are, most abundant, and they present clinically all the features commonly attributed to germ diseases, yet the causative germs have not been

isolated and demonstrated to the satisfaction of all. I do not suppose, however, that there is any one in this audience who does not believe that these germs will also be discovered, sooner or later, and that when they are the reasons for the delay will also become perfectly apparent.

"Not long after the establishment of the germ theory of disease came the most important therapeutic discovery of antitoxins. In December, 1890, the first experiments on this line were published. Time forbids our going into details; but the saving of life by their administration is simply incalculable. To Behring, Roux and Kitasato most credit is due.

"It is true that Finlay, many years ago, suggested that yellow fever was conveyed by the mosquito. But theories and suggestions do not carry much weight; what is demanded nowadays is proof, followed by practical results. The whole history of medicine tells of no more logical, satisfactory and brilliant piece of work than that done by Reed, Carrol, Agramonte and the lamented Lazcar, in 1901, proving beyond cavil that the *stegomyia fasciata* was the intermediate host and carrier of the yellow fever germ. The identity of the germ has not yet been discovered; but all the details of its transmission have been laid bare; the disease was banished from Havana, and the means of saving thousands of lives and millions of dollars made clear. Verily, we have great reason to be proud of belonging to a profession which has produced such men and such results."

PERSONAL AND NEWS ITEMS.

Dr. E. R. Frankish, who has been home in Toronto for a few days, returns to England via the Cedric.

Dr. W. D. Smith has decided to leave Sherbrooke in the near future for the Northwest.

Dr. Freeman Keith recently sold out at Kingston, Kings Co. He is going to Western Canada.

Dr. Roy Nasmith, of Stratford, has left for Flenning, Sask., where he will take charge of a doctor's practice there for a few months.

Dr. M. J. C. Naftel, who has been practising at Sudbury during the winter, has left for Toronto to spend some time in the hospitals.

Dr. C. D. Carder, who has been spending the last year in London, England, has returned, and is visiting Mr. and Mrs. M. D. Carder, of Linden street, Toronto.

Dr. J. E. King, who for the last twelve years has been doing a large and successful practice in Thistletown, has sold out to Dr. J. M. Standish, of Georgetown.

Dr. Henry Gordon, wife and children, of Winnipeg, are on their way to Scotland, where the doctor will take a course at Glasgow University.

Dr. C. H. Thomas, who has been appointed chief house surgeon of the Great Northern Central Hospital, London, England, is a son of R. F. Thomas, of 259 Gerrard street east, Toronto.

Dr. R. J. Manion, of Fort William, has left for Toronto and Ottawa, where he will spend a two months' vacation, after which he will return to Fort William and will locate there permanently.

Dr. Colin A. Campbell, who has just returned from an extensive period of post graduate study in London, has located at 55 College street, Toronto, and will confine his practice to the eye and ear.

Dr. W. T. Hamilton, B.A., who has been practising in Dutton for two years, has decided to remove to High River, Alta., where he will take up the practice of a physician who is retiring on account of ill-health.

Dr. A. W. Beatty, of Arcola, Man., returned to town a few days ago and brought back his bride, Miss Maud Mills, of Winnipeg. The popular doctor and his bride are the recipients of congratulations from everybody in the locality.

The marriage of Dr. A. F. Demary, of East Toronto, to Miss Mabel Armstrong, only daughter of Mr. and Mrs. Robert Armstrong, was prettily celebrated in the home of the bride's parents, 342 Carlton street. Rev. Alfred Gandier, of St. James' Square Presbyterian Church, officiating, a couple of weeks ago.

Dr. Wm. Osler has suggested that a Clinical Museum, at which rare and interesting cases can be exhibited, should form one of the features at the meeting of the British Medical Association. The secretaries will be glad to hear of any cases that members would care to exhibit, and would be glad if members would communicate with them about such cases.

Mr. J. P. Downey's pharmacy bill was again considered by a special committee of the Legislature. An amendment was added providing that instead of all the members of a company being registered chemists, the majority of the directors must be qualified druggists, and one of them must manage the drug department of the business. None of the names of the unqualified members shall appear in the corporate name of the company.

Dr. E. B. O'Reilly, of Hamilton, who has been at Baltimore the past month, writes home that it has been nothing but hard work in the great hospital there ever since his arrival. As soon as he completes the object of his visit to that institution he will leave for Germany, where he will spend some time in Berlin, take in a Rhine trip, and then

go to Switzerland, where he expects to put in some time with the great Swiss surgeon Kocher. From Switzerland he will go to Paris, London, Edinburgh, Glasgow, Dublin, and thence home.

There is no more important department of medical affairs than that of medical transfer. When a physician desires to sell his property and practice it is of the utmost importance that it should be done with a minimum of publicity and a maximum of speed. The system adopted by Dr. Hamill, who conducts the Canadian Medical Exchange, is at once efficient and prompt and offers every possible security to vendors, and we advise our readers to take advantage of his many years' experience when they are thinking of selling their practices. A partial list of the practices he has for sale will be found among our advertising columns every month, the complexion of which changes from time to time.

Hon. Dr. Pyne becomes, for the moment, a prominent figure on the horizon of Provincial education. Hon. Robert Allan Pyne, M.D., LL.D., became a member of the Provincial Legislature in 1898. He is a native of the United States, having been born at Newmarket, N.Y., October 29, 1855. His father was Dr. Thomas Pyne, and his mother Hester Jane Roberts, cousin of Field Marshall Earl Roberts. Both parents were of Waterford, Ireland. Hon. Dr. Pyne is Minister of Education in the Whitney Cabinet, Registrar of the College of Physicians and Surgeons of Ontario, and has been Chairman of the Toronto School Board and Toronto Free Library Board. The Minister sits for East Toronto.

A feature in connection with Queen's medical convocation was the conferring of the honorary degree of Doctor of Laws upon Dr. C. K. Clarke, superintendent of Toronto Asylum for the Insane. Dr. Clarke was presented to Chancellor Fleming by Prof. Shortt, who eulogized the life work of Canada's leading alienist. In addressing the graduating class Dr. Clarke pointed out that the aim of the graduate of medicine should be to acquire a broader culture than is ordinarily the case with Canadian physicians. Graduates were urged to become broad-minded physicians before specializing as surgeons. Regarding Government aid to Queen's, Dr. Clarke said that merely improved the position of Toronto University. There should be no petty bickerings, he said, in the discussion of broad educational policies.

In connection with the controversy as to whether immigrants are allowed to come into Canada in a diseased condition, or without money, Medical Health Officer Sheard has prepared a statement refuting the claim that all immigrants admitted have been reasonably healthy and fairly well supplied with money. Dr. Sheard states that from the first of last year until April 1st, this year, 67 immigrants were sent to the

city hospitals on orders of the Health Officer, and 350 immigrants were fed and given other assistance by the City Relief Officer. None of these were more than three months in the country, and many were sent to the hospital before they were here a fortnight. The Health Officer further said that fully fifty per cent. of those at the House of Industry were new arrivals.

The President again desires to call the attention of members of the Ontario Medical Association to the annual meeting for 1906. As was announced some time ago the meeting will be called at 8 p.m. on Monday, August the 20th, the evening preceding the inauguration of the British Medical Association's meeting, and will take the form of a purely business session. The prestige of the greater meeting to follow should not diminish the sense of responsibility of the members to their local society. Such important business as the closing of the business of the year and the intelligent preparation for a successful meeting in 1907 demands a wide and sympathetic interest in the welfare of the Association.

At the special committee meeting of the legislature to deal with the bill to incorporate the Graduate Nurses' Association a large number of nurses were present in its support. Hon. Dr. Willoughby presided at the meeting, and Mr. Preston moved to strike out the clause providing that no one not a British subject, and a resident of Ontario, should be eligible to the council, which is to consist of fifteen members. The motion was defeated by one vote. The change of the name to "The Ontario Registered Nurses' Association" was approved, and a clause added providing that the council shall name three places in the province at which examinations of those desiring to qualify as nurses will be held. The clause providing that nurses resident in Ontario prior to the passing of the act, with diplomas from their place of training, should be eligible for the association was approved. The time for application was extended to two years, and the bill passed the committee with few other amendments.

Thirty-five of the ex-house surgeons of the Toronto General Hospital dined at the King Edward on 9th April and organized themselves into an association with the following officers:—Hon. President, Dr. Chas. O'Reilly; President, Dr. R. B. Nevitt; First Vice-President, Dr. W. P. Caven; out-of-twon Vice-Presidents, Drs. McAlpine, of Lindsay, Third, of Kingston, Hillary, of Aurora, A. Ardagh, of Orillia, Middlebro', of Owen Sound, Mullin, of Hamilton, Acheson, of Galt, D. Armour, of London, Eng., Barker, of Baltimore; Sec-Treas., Dr. J. N. E. Brown; Council, Drs. J. F. W. Ross, H. A. Bruce, P. E. Doolittle, W. N. Barnhardt, W. B. Hendry. The meetings of the association will be yearly, at which one of the ex-house surgeons will deliver an address.

Dr. L. F. Barker was elected to deliver the first address. The next meeting will probably be held on the 25th of August, following the meeting of the British Medical Association. The dinner was a very successful event. Dr. P. E. Doolittle was chairman and Dr. F. Winnett was secretary of the committee.

The American Mosquito Extermination Society held its third annual convention in New York a couple of weeks ago. President W. J. Mathewson, of New York City, in his opening address, said that a large percentage of the population of this country yearly lose their lives or are incapacitated by disease from mosquitoes. *The Mosquito Brief*, designed to convey to laymen information regarding mosquitoes, was discussed and adopted. Some of its declarations are: "There are over 100 species of mosquitoes in the United States. Mosquitoes require one to three weeks to develop from eggs to winged insects. Some species lay as many as 300 or 400 eggs at a time. Only few mosquitoes live a month. Rigid tests prove that certain species are the only natural means of transmitting malaria and yellow fever. Other diseases are known to be conveyed by mosquitoes. Of the domestic variety the dangerous malarial mosquitoes are among the most widely distributed. They never seem to travel far, only a few hundred yards. Mosquitoes are known to bite more than once, and, are a needless and dangerous pest, Their propagation can be prevented."

The National Association for the Prevention of Tuberculosis held its annual meeting in Ottawa in the end of March. The following officers were elected:—President, Hon. W. C. Edwards; Vice-Presidents, Chief Justice Fitzgerald, P.E.I.; Dr. Wm. Bayard, St. John, N.B.; Sir Jas. Grant, Geo. H. Perley, M.P., and John Manuel, Ottawa; Executive, Bishop of Ottawa; Dr. Hodgetts, Toronto; Dr. Lachapelle, Montreal; Dr. Lafferty, Calgary; Dr. Fagan, Victoria, B.C., Hon. F. A. Lawrence, Colchester, N.S.; Dr. Simpson, Winnipeg; Dr. Seymour, Regina; J. E. Wyatt, Summerside, and Dr. Stockton, St. John. Reports of various kinds were adopted, favoring action on the following line:—Incorporation of the Association; seeking a grant from the Federal Government; ascertaining the possibility of Federal law respecting admission of consumptives into Canada; substitution of leather or other non-absorbent material for plush coverings and linoleum for carpets in public conveyances; compulsory by-laws against expectoration; supervision of sanitary conditions of schools, and medical inspection of school children. A resolution was passed urging upon the Provincial Governments the necessity of erecting and maintaining sanatoria, and requesting financial aid towards their support from the Dominion Government.

Queen's Medical College has issued the list of graduates and passmen. There are 47 graduates, comprising the following:—A. E. Baker, Black Falls, Sask.; W. H. Ballantyne, Kingston; J. A. Barnes, Kingston, Jamaica; A. M. Bell, Moscow; E. Bolton, Phillippsville; F. J. Brandock, Northport, N.S.; H. Cochrane, Sudbury; G. L. Cockburn, Sturgeon Falls; C. B. Dean, Bridgetown, Barbadoes; D. G. Dingwall; W. F. Gavin, Lancaster; G. D. Gordon, C. W. Graham, B.A., Kingston; J. Johnston, B.A., Combermere; W. G. Leadley, C. A. Lawlor, Kingston; S. L. Lucas, Kingston, Jamaica; F. E. Lowe, Adelphi, Jamaica; S. McCallum, M.A., Brewer's Mills; J. P. McCormick, Ottawa; D. J. McDonald, Whycomagh, N.S.; A. G. McKinley, Chapelton, Jamaica; D. McLellan, Forrester's Falls; F. R. Nicoll, B.A., Kingston; F. J. O'Connor, Long Point; W. M. R. Palmer, Northcote; R. K. Paterson, Renfrew; W. E. Patterson, Newburgh; W. R. Patterson, L. L. Playfair, C. A. Publow, Kingston; H. O. Redden, Ernesttown; J. Reid, Renfrew; A. D. C. Robb, Nashville, Tenn.; B. A. Sandwich, Whitstable, Eng.; F. F. Saunders, Rhinebeck, N.Y.; S. S. Shannon, Kingston; S. H. Smith, Chambers; J. B. Snyder, Lancaster; W. E. Spankie, Wolfe Island; J. R. Stewart, B.A., Waba; E. M. Sutherland, B.Sc., B. C. Sutherland, Montreal; W. J. Taugher, Beachburg; C. P. Templeton, Napanec; J. J. Wade, Balderson; D. M. Young, Briston, Que.

MEDICAL MEN OF SASKATCHEWAN.

These are the days of beginnings and organization in Saskatchewan, and in keeping with the times the medical men of the province gathered in the town a short time ago to form an association for the province, a medical council to direct affairs pertinent to the profession, and to renew acquaintances of other days and make new ones in these. Representatives came from all the various parts of the province, and during their stay of a day transacted considerable business, and enjoyed the hospitality of the local practitioners at a banquet in the evening.

Among those present were: Drs. A. B. Stewart, Rosthern; G. A. Charlton, Regina; T. C. Spence, Prince Albert; J. D. Lafferty, Calgary; J. W. Kemp, Indian Head; A. C. McKean, Rouleau; M. M. Seymour, Regina; H. T. Nibblett, Abercrombie; W. Henderson, South Qu'Appelle; A. J. Dixon, G. R. Peterson, H. D. Weaver, J. E. Bromley, H. E. Monroe, P. D. Stewart, S. Dickey, J. W. J. McKay and J. A. Valens, of Saskatoon.

The work of organizing the profession in the province was proceeded with, and a constitution and by-laws adopted.

Sanatoria and Hospitals.—A resolution by Dr. Seymour, of Regina, seconded by Dr. Spence, of Prince Albert, was adopted, and the associa-

tion will memorialise the provincial government to take steps for the establishing of a sanatorium for the cure of tuberculosis patients, and to enact regulations for the prevention of tuberculosis contagion. Dr. Kemp, of Indian Head, seconded by Dr. Seymour, of Regina, introduced a resolution asking the provincial government to empower municipalities to issue debentures for the establishment of hospitals at the principal places in the province, and further to amend the present Hospital Act. This motion met with the approval of the convention.

The Banquet.—At the close of the business session the visitors were entertained to dinner by the local medical men, who had also invited a number of citizens. The repast was an excellent one, and was spoken of by the speakers later as most enjoyable.

Dr. P. D. Stewart was toastmaster during the early part of the programme following dinner, and was later assisted by Dr. J. E. Bromley. The toast of "The King" was duly honored with the National Anthem.

Dr. J. A. Valens proposed the toast of "The New Province and its Legislature," and in doing so referred to the great wealth and bright outlook before Saskatchewan. Mr. J. A. Aikin responded, making reference to the vast needs of the province, the heavy tasks of its legislators, and to the active interest usually taken in politics by medical men.

"The Medical Council and Medical Education," was proposed by Dr. H. E. Munroe in a thoughtful and effective address, dealing with the improvement in and the security of the profession as the result of the old Medical Council's labors.

Replying to the toast Dr. Lafferty, for years a leading spirit in the Medical Council of the Northwest Territories, said an agreement had been reached by which the \$28,053 belonging to the old Territorial Medical Council was to be divided equally between the medical councils of Alberta and Saskatchewan. The councils would seek legislation in both provinces to have a medical act passed suitable to present conditions. During the past year 343 men had registered with the Territorial Medical Council.

Dr. Stewart, of Rosthern, the youngest member of the Medical Council, amused his hearers by his remarks on the physician as an immigration agent, and his important work in building up his community.

Dr. Seymour cordially complimented his hosts, and would recommend others to convene at Saskatoon, where the banquet habit had reached so perfect a development.

Dr. Henderson said the half had never been told him of the beauty and hospitality of Saskatoon. The advantage of a medical association was that men might get to know each other better. Good medical men did not need any medical act for their protection, but the public did

need one. The profession needed men who were morally clean as well as those being intellectual and clever, men in very deed. Dr. Kemp proposed "The Doctor" in an address bright with Irish wit and humor. Dr. Spence, in a reminiscent mood made some clever remarks about the antitoxine treatment of diphtheria.

"Saskatoon" was proposed by Dr. Jordan, of Estevan, in a neat and complimentary address, which was responded to by Mayor Clinkskill in happy terms. He referred to Saskatoon as a recent discovery, and of a place whose beauties and advantages had been overlooked, but one that from provincial considerations alone, apart from any selfish motives of its citizens, should be chosen as the place for the Saskatchewan capital. Saskatoon was widely known and highly thought of, not merely because it had been advertised, but because of its real worth now becoming known. A feature of the life of this town was the harmony and unity in action of all its citizens.

"The Ladies" were toasted in a pretty speech, and a high tribute was paid them by Dr. Weaver, Mr. Symington responding.

Dr. Stewart, of Rosthern, proposed a rousing response to our hosts, dilating upon the excellence of the entertainment, the good fellowship of the profession, and the hospitality of the people of Saskatoon.

Officers Elected.—The officers elected for the ensuing year were as follows: Hon. President, M. M. Seymour, M.D., Regina; president, J. W. Kemp, M.D., Indian Head; first vice-president, A. B. Stewart, M.D., Rosthern; second vice-president, H. E. Nibblett, M.D., Abercrombie; third vice-president, H. Eaglesham, M.D., Weyburn; secretary-treasurer, G. A. Charlton, M.D., Regina; executive committee, A. B. Stewart, M.D., Rosthern; A. W. Allingham, M.D., Broadview; A. W. Henry, M.D., Yorkton. Standing committees were elected for a term of years as follows:—Committee on credentials: W. J. McKay, M.D., Saskatoon; W. R. Sparling, M.D., Battleford; A. R. Turnbull, M.D., Moose Jaw. Committee on public health, etc.: A. C. McKean, M.D., Rouleau; P. D. Stewart, M.D., Saskatoon; J. D. Connell, M.D., Indian Head. Committee on legislation, two to be elected annually: H. E. Monroe, M.D., Saskatoon; H. E. Nibblett, M.D., Abercrombie; W. Henderson, M.D., South Qu'Appelle; D. Low, M.D., Regina; J. R. Bird, M.D., Whitewood; A. W. Allingham, M.D., Broadview. Committee on publication: W. Elliott, M.D., M.L.A., Wolseley; A. G. Denmark, M.D., Langenburg; R. G. Stephenson, Moosomin. Committee on by-laws: J. A. Deyell, M.D., Alameda; A. S. Shadd, M.D., Knistino; T. A. Patrick, M.D., Yorkton. Committee on ethics: G. R. Peterson, M.D., Saskatoon; A. C. McKean, M.D., Rouleau; D. R. Davis, M.D., Estevan.

The next meeting of the association will be held this fall at Prince Albert, the date not being as yet definitely settled.

OBITUARY.

A. THOMPSON, M.D.

The citizens of Strathroy were greatly shocked to hear of the sudden death, from heart failure, of Dr. A. Thompson, which occurred on the 31st of March. Although not feeling well the day before he was around as usual in the afternoon attending to his practice. During the night he was taken with a sinking spell, when his son, Dr. A. S. Thompson, and Dr. McCabe, were hastily sent for and were with him till the end. He was 69 years of age, and was one of the best-known physicians in that part of the country, enjoying a very large practice at one time. He was a staunch Liberal and belonged to the Presbyterian Church. He was also a member of the Grand Executive Board of the Sons of Scotland, and a member of the Provincial Board of Health. He leaves a wife, a grown-up family, who are Dr. A. S. of Strathroy, Dr. A. B., of Grand Rapids, Mich., Dr. Septimus, at present in New York, and Hugh, of Winnipeg.

W. J. DOUGLAS, M.D.

The exceedingly high estimation in which Dr. W. J. Douglas was held, was evidenced on the 31st of March, when people assembled from all parts of the county to attend his funeral. Among relatives and personal friends from a distance were his father, Mr. Alexander Douglas, Norham, a former reeve of Percy township; Mr. Jas. Douglas, Chicago, brother; John H. Douglas, ex-M.P.P. for East Northumberland; Judge Geo. B. Douglas, Dunnville; Donald Douglas, Chatham; Walter Douglas, Colborne; Dr. Carlaw, Campbellford; Mr. Barclay, Toronto; W. H. Macklin and A. M. Macklin, Brighton. Near relatives in town are:—Mrs. Dulmage, Dr. Dulmage and Mr. R. Macklam. There were present from Toronto, Mr. W. R. Riddell, K.C., Mr. C. C. James, Deputy Minister of Agriculture, Mr. J. S. Skeaff. The pallbearers were:—Mr. Alex. Douglas, son; Mr. Jas. Douglas, brother; Dr. Henderson, partner of deceased; Dr. Dulmage and Mr. A. M. Macklin, brothers-in-law; Mr. W. J. Crossen. The members of the counties council attended the funeral in a body. They also passed a resolution of sympathy, in which they conveyed to Mrs. Douglas and family their heartfelt sympathy. The Independent Order of Foresters have expressed their sorrow and sympathy by a similar resolution.

W. J. Douglas was born near Norham in 1853, being a son of Mr. Alexander Douglas, an estimable citizen of Percy township. He graduated from Trinity Medical College, taking the gold medal for that

year, when but 21 years of age. He practised for some years at Castleton, and then went to Edinburgh and London for a post-graduate course, taking his degree at Edinburgh and standing first in his class. He came to Cobourg some 16 years ago. Dr. Douglas was a member of the Medical Council of Ontario and of the Provincial Board of Health.

He married Miss Martha Macklin, daughter of Mr. Robert Macklin, of Brighton township, who, with one son, Alex. Macklin Douglas, Toronto, survives him. Telegrams and expressions of sympathy have been received by deceased's family from friends and members of the medical profession throughout the province, but nowhere is sorrow felt as it is here.

CHARLES EDWIN JAKEWAY, M.D.

At Stayner, on 1st March, while Dr. Jakeway was feeding his horse his lantern exploded, igniting the hay and straw, and smothering him in the loft. The body was recovered shortly after, the hands and face being only slightly burned.

MURDOCH M'GREGOR, M.D.

The death of Dr. Murdoch McGregor occurred at his home, Riverport, Lunenburg Co., on the night of March 6th. Dr. McGregor was born 77 years ago in Ross-shire, Scotland. He came to Nova Scotia when 13 years of age with his father, settling in Cape Breton. He was a teacher for a number of years, but later went to Harvard University, where he entered the medical class, graduating in 1863. He was appointed surgeon to the Union army and saw considerable active service, being with his corps at the battle of Gettysburg. After the war Dr. McGregor came back to Nova Scotia and located at Lower LaHave, and had resided there until his death, a period of 41 years. He was a prominent church worker and was superintendent of the Sunday School at LaHave for the last 40 years.

BOOK REVIEWS.

THE EXAMINATION OF THE FUNCTION OF THE INTESTINES BY MEANS OF THE TEST DIET.

Its Application in Medical Practice and its Diagnostic and Therapeutic Value. By Prof. Dr. Adolf Schmidt, Physician-in-chief of the City Hospital Friedrichstadt, in Dresden. Authorized translation from the latest German Edition, by Charles D. Aaron, M.D., Professor of Diseases of the Stomach and Intestines in the Detroit Post-Graduate School of Medicine; Clinical Professor of Gastro-enterology in the Detroit College of Medicine; Consulting Gastro-enterologist to Harper Hospital, etc. With a frontispiece Plate in Colors. Crown octavo, 91 pages, extra cloth. Price, \$1.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry street, Philadelphia.

This little volume covers many very important topics, such as the best diet, the examination of the fæces, pathogenic findings in the fæces, functional examination, intestinal disturbances due to the stomach, liver and pancreas, independent disturbances of the intestines, both organic and functional. The book is written in a clear and concise style. But the important thing about the book is the information it contains. On the many points taken up by the author many useful suggestions are thrown out. This is a very much neglected subject, and this book is just what is needed.

A TEXT-BOOK ON THE PRACTICE OF GYNECOLOGY.

For Practitioners and Students. By W. Easterly Ashton, M.D., LL.D., Fellow of the American Gynecologic Society; Professor *Gynecology in the Medico-Chirurgical College of Philadelphia*; Second Edition, Revised. Octavo of 1079 pages, with 1046 original line drawings. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$6.50 net; half morocco, \$7.50 net. Canadian agents, J. A. Carveth & Co., Limited, 434 Yonge street, Toronto, Ont.

The fact that two editions of Dr. Ashton's new work have been required in the short period of six months indicates beyond a doubt that the medical profession was quick to appreciate the practical merits of the book; indicates that the general practitioner wants a treatise on gynecology that does not assume him to be an expert gynecologist, but rather describes in detail, not only what should be done in every case and emergency, but also precisely how to do it. Owing to the short time that has elapsed since the appearance of the first edition, and also from the thorough manner in which Dr. Ashton handled his subject originally, the changes in this edition are necessarily few in number and limited chiefly to the correction of a few typographic errors and the alteration of several of the illustrations. In reviewing this new edition we cannot refrain from again speaking of the very practical illustrations. There are 1,046 of them, all original line drawings made especially under Dr. Ashton's personal supervision, from actual apparatus, living models, dissections on the cadaver, and from the operative technics of other authors. All superfluous anatomic surroundings are eliminated and the operations and procedures are detailed step by step with a clearness and accuracy we have never before seen. Certainly, the success the work has won is well deserved and fully to have been expected.

THE OPERATING ROOM AND THE PATIENT.

By Russell S. Fowler, M.D., Surgeon to the German Hospital, Brooklyn, N.Y. Octavo of 172 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$2.00 net. Canadian agents, J. A. Carveth & Co., Limited, 434 Yonge street, Toronto, Ont.

In Dr. Russell Fowler's admirable work we have a book that has long been needed, one, that to our knowledge, is unique in that it is the only work on the market devoted entirely to operative technic, with the pre-operative procedures of sterilization and preparation. Written by a surgeon of rich clinical experience for the use of surgeons, nurses assisting at an operation, and hospital internes, it clearly describes the preparation of material of all kinds, indicates the instruments required for the various operations, details the preparation and care of the patient before and after operation, and the methods of anesthetization, describes and illustrates the position of the patient for different operations, and contains all other information a knowledge of which is necessary to produce the highest efficiency. Indeed, it is a most excellent and most valuable work for practical use, and the operating surgeon will find it of additional value as it furnishes him a guide to which he may readily add his own variations of technic.

A REFERENCE HANDBOOK ON THE DISEASES OF CHILDREN.

For Students and Practitioners. By Prof. Ferdinand Fruhwald, of Vienna, Edited, with additions, by Thompson S. Westcott, M.D., Associate Professor of Diseases of Children in the University of Pennsylvania. Octavo volume of 553 pages, with 176 illustrations. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$4.50 net, half morocco, \$5.50 net. Canadian agents, J. A. Carveth & Co., Limited, 434 Yonge street, Toronto, Ont.

To those of the medical profession who are acquainted with Professor Fruhwald's work in the original German, it is hardly necessary to speak of the extremely valuable service the W. B. Saunders Company has performed in presenting this English translation. It must be said, however, that the translation possesses an advantage over the original—though it be the work of a leader amongst leaders in pediatric knowledge—in that the editor, Dr. Westcott, has incorporated much valuable matter, the results of his own valuable experience. With a view to making it of special service as a practical reference book, the individual diseases have been arranged alphabetically, with numerous cross-references. This is a novel feature of untold value to the busy practitioner who wishes information quickly. Special consideration has been given to symptomatology, and the prophylactic, therapeutic, and dietetic treatments have been elaborately discussed; especially is therapy treated according to the latest discoveries. The illustrations are practical and therefore excellent, nearly all being reproductions of original photographs and drawings representing cases from Professor Fruhwald's own clinic. Indeed, we can foresee for this work the same great success in this country that it has achieved in Germany.

DISEASES OF THE EYE.

A Handbook of Ophthalmic Practice. By G. E. deSchweinitz, M.D., Professor of Ophthalmology in the University of Pennsylvania. Fifth edition, revised and enlarged. Octavo of 894 pages, 313 text-cuts and six chromolithographic plates. Philadelphia and London: W. B. Saunders & Company, 1906. Cloth, \$5.00 net; half morocco, \$6.00 net. Canadian agents, J. A. Carveth & Co., Limited, 434 Yonge street, Toronto, Ont.

Dr. deSchweinitz's work on the eye is so well known that anything but a mere mention of the new edition seems superfluous. The success it has achieved is readily accounted for if one but glance through its contents. In this edition, enlarged by the addition of new matter to the extent of some one hundred pages, there have been added, amongst other subjects, chapters on the following: X-Ray Treatment of Epithelioma, Xeroderma Pigmentosum, Purulent Conjunctivitis of Young Girls, Jequiritol and Jequiritol Serum, X-Ray Treatment of Trachoma, Infected Marginal Ulcer, Keratitis Punctata Syphilitica, Uveitis and its Varieties, Eye-ground Lesions of Hereditary Syphilis, Macular Atrophy of the Retina, Worth's Amblyoscope, Stovain, Alyphin, Motais' Operation for Ptosis, Kuhnt-Muller's Operation for Ectropion, Haab's Method for Foreign Bodies, and Sweet's X-Ray Method of Localizing Foreign Bodies. Other chapters have been re-written. The excellence of the illustrative feature has been maintained and thirty-three additional text-cuts have been added. Dr. deSchweinitz's work was long ago recognized as an authority and this new edition goes a long way in strengthening its reputation, if any strengthening be needed.

A TEXT-BOOK OF MATERIA MEDICA, THERAPEUTICS, AND PHARMACOLOGY.

By George F. Butler, Ph.G., M.D., Associate Professor of Therapeutics in the College of Physicians and Surgeons, Chicago. Fifth edition, thoroughly revised by Smith Ely Jolliffe, M.D., Ph.D., Professor of Pharmacognosy and Instructor in Materia Medica and Therapeutics in Columbia University (College of Physicians and Surgeons), New York. Octavo of 694 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, \$4.00 net; half morocco, \$5.00 net. Canadian agents, J. A. Carveth & Co., Limited, 434 Yonge street, Toronto, Ont.

For this fifth edition Dr. Butler's text-book has been entirely remodelled, rewritten, and rest, bringing it in accord with the new (1905) Pharmacopœia. All obsolete matter has been eliminated, and special attention has been given to the toxicologic and therapeutic effects of the newer compounds. We notice with much satisfaction that the general arrangement of the book has been so changed that those drugs the predominant action of which is on one system of organs of the body are grouped together, thus suggesting their therapeutic as well as

their pharmacologic alliances. We believe this classification to be more thoroughly practical and useful than any other. By use of a more compact type the work has been reduced in size. It is a pleasure to us to recommend this book to the profession, for it is, no doubt, the most thorough, and in every way the best on the subjects it includes.

A TREATISE ON SURGERY.

In two volumes. By George R. Fowler, M.D., Examiner in Surgery, Board of Medical Examiners of the Regents of the University of the State of New York; Emeritus Professor of Surgery in the New York Polyclinic, etc. Two imperial octavos of 725 pages each, with 888 text illustrations and four colored plates, all original. Philadelphia and London: W. B. Saunders Company, 1906. Per set: cloth, \$15.00 net; half morocco, \$17.00 net. Canadian agents, J. A. Carveth & Co., Limited, 434 Yonge street, Toronto, Ont.

We have been looking forward to the appearance of this work with the greatest expectations, for Dr. Fowler's endeavors in the field of practical surgery have been such as to stamp his writings with unquestionable authority. It is not too much, indeed, we feel it is too little to say, that our expectations have been fully realized. The work is a masterpiece. It is an accurate, up-to-date treatise on surgery, skilfully presented. This entirely new work presents the science and art of surgery as it is practised to-day. The first part of the work deals with general surgery, and embraces what is usually included under the head of principles of surgery. Special attention is given to the subject of inflammation from the surgeon's point of view, due consideration being accorded the influences of traumatism and bacterial infection as the predisposing and exciting causes of this condition. Then follow sections on the injuries and diseases of separate tissues, gunshot injuries, acute wound diseases, chronic surgical infections (including syphilis), tumors, surgical operations in general, foreign bodies, and bandaging. The second part of the work is really the clinical portion, devoted to regional surgery. Herein the author especially endeavors to emphasize those injuries and surgical diseases that are of the greatest importance, not only because of their frequency, but also because of the difficulty of diagnosis and the special care demanded in their treatment. Throughout special attention has been given to diagnosis, the section on laboratory aids being unusually excellent. The text is elaborately illustrated with entirely new and original illustrations, and evidently neither labor nor expense has been spared to bring this feature of the work up to the highest standard of artistic and practical excellence.

NURSING IN THE ACUTE INFECTIOUS FEVERS.

By George P. Paul, M.D., Assistant Visiting Physician and Adjunct Radiographer to the Samaritan Hospital, Troy, New York. 12mo of 200 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, price \$1.00 net. Canadian agents, J. A. Carveth & Co., Limited, 434 Yonge street, Toronto, Ont.

It is evident to us that Dr. Paul has written his book on Fever Nursing especially for the nurse and with a knowledge of the subject that can have been gained only by intimate association with routine hospital work. The care and management of each fever has been accorded special attention, as these subjects are of particular interest to the nurse. The author has divided his work into three parts: The first treats of fevers in general; the second of each fever individually; the third deals with practical procedures and information necessary to the proper management of the various diseases discussed, such as anti-toxins, bacteria, urine examination, poisons and their antidotes, enemata, topical applications, antiseptics, weights and measures, etc. Altogether, it will be found that Dr. Paul has rendered a valuable service, not only to the nursing, but also to the medical profession, as much of the information given is not without the frequent needs of the general practitioner.

PROGRESSIVE MEDICINE, VOL. I, MARCH, 1906.

A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and *Materia Medica* in the Jefferson Medical College of Philadelphia. Octavo, 304 pages, with seven engravings. Per annum, in four cloth-bound volumes, \$9.00; in paper binding, \$6.00; carriage paid to any address. Lea Brothers & Co., Publishers, Philadelphia and New York.

The subjects considered in this volume are: (1) The Surgery of the Head, Neck and Thorax, by Charles H. Frazier, M.D. (2) Infectious Diseases, including Acute Rheumatism, Croupous Pneumonia and Influenza, by Robert B. Preble, M.D. (3) The Diseases of Children, by Floyd M. Crandall, M.D. (4) Rhinology and Laryngology, by D. Braden Kyle, M.D., and (5) Otology, by B. Alexander Randall, M.D.

Proceeding along anatomical lines Dr. Frazier gives, in a masterful way, a synopsis of all that is best in the literature of the past year on the varied conditions, from elephantiasis of the scalp to massage of the heart. The result is a treasure-house of research collected by months of labor among foreign journals, books and other periodicals. The brief summaries are attractively presented after being judiciously culled. On brain tumors the abstracts are particularly striking. On

epilepsy the present-day knowledge is conservatively given and forcibly expressed. So with the X-ray treatment of malignant growths. The section concludes with a table of thirty additional cases of wounds of the heart supplementing similar tables of 1903, 1904 and 1905.

Dr. Preble, in the next section, calls attention to the fact that much has been written in the last year to accentuate certain facts in regard to perforation in typhoid fever. The report of the U. S. Commission appointed to investigate this disease, as it appeared among our troops during the Spanish-American War, gives a mortality of 7.61 in over 20,000 cases. At the Pennsylvania Hospital, in the past four years, among 1,948 cases the mortality has been 7.8. Many new facts have been condensed in relation to cerebro-spinal meningitis, diphtheria, rheumatism, etc. From "Insect transmission of disease" to "Yellow fever" the text is of great interest and practical value.

Dr. Crandale devotes twenty-eight pages to pediatrics. He believes that one of the greatest needs of the present day, in relation to this subject, "is a more intelligent knowledge on the part of practitioners of dietics and a better understanding of the conditions of health and growth." Infant feeding is given special attention.

Dr. Kyle, in dealing with his specialty, reviews the many modifications of operations for the correction of septal deformities which have recently been suggested. He directs attention to the best procedures and gives practical reasons why they should be so considered.

Under rhinology: ozena, the accessory nasal sinuses, and the relation of ethmoidal inflammation to asthma are considered.

Under laryngology: tonsillectomy, tuberculosis of the tonsil, the treatment of laryngeal tuberculosis and the effect of tobacco upon the throat, etc.

Dr. Randall indorses the conservative treatment of otitis media as recommended by Dr. C. J. Blake, while the results of many hundreds of radical operations are given. The complications following the acute exanthemata are graphically described as well as the prophylactic measures for preventing them. This section concludes with a *resumé* in regard to instrumental aids to hearing.

Practice makes perfect in the art of assimilating only the very best from a vast amount of material. It follows, therefore, that as all the contributors to *Progressive Medicine* have profited by their experience in the past, their readers are enabled to learn in an hour what it has taken them months to acquire.

The general get-up of the book, the paper, print and indexing, are of a solid and enduring quality, and make its use not only profitable but pleasurable.