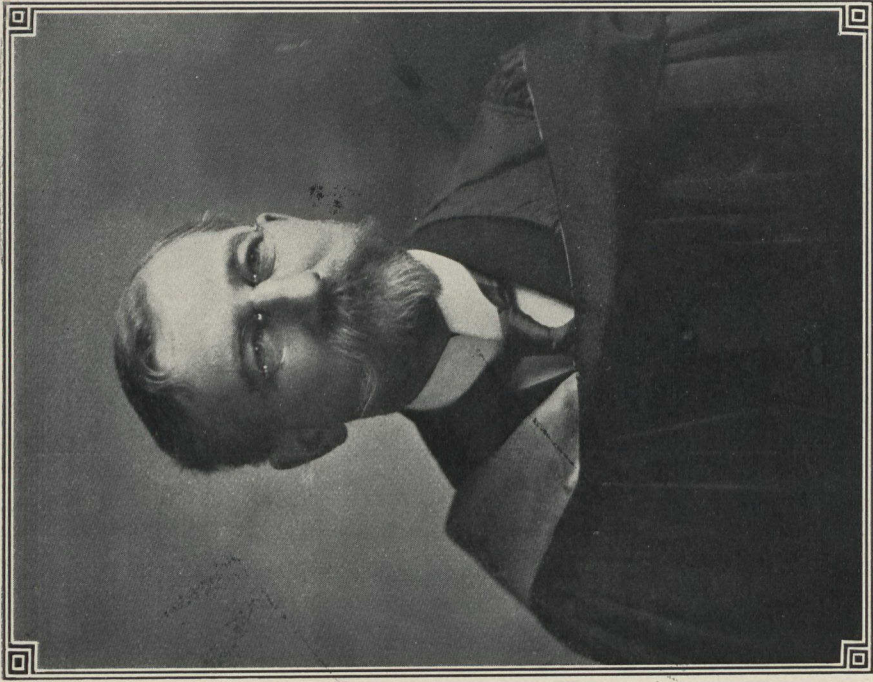




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EXPERIENCES IN THE TREATMENT OF PELVIC DISEASES IN THE FEMALE INSANE.*

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GENTLEMEN,—I have selected the subject of the treatment of pelvic disease in the female insane as one that will be of great interest to all who are engaged in the general practice of medicine. I have nothing new to bring before you. I simply wish to lay before you the results of personal experience in this work, as I believe the function of a medical society is that of sifting the evidence given by individual practitioners, passing judgment upon it, rejecting what is useless, and retaining that which appeals to them as satisfactory. My first attempt in this direction was some five years ago. A married lady, aged 35, a former patient, had been committed to the asylum for the insane during my absence in Europe. I received permission from her husband to examine her. At that time she had been in the asylum two years and eight months, and was considered one of the worst cases of acute mania in the Institution—was frequently so unmanageable that she had to be placed under restraint. She was not allowed to wear her artificial teeth for two years on account of her biting everything she came in contact with. She was considered a hopeless case of mania. The medical superintendent considered her case hopeless. With the co-operation of that gentleman and a local physician. I examined the patient under chloroform, and found the right ligament was thickened, the left ovary prolapsed and enlarged, uterus immovable, and the perineum partly ruptured. Upon this finding I recommended operative treatment. She was removed to a private house, and placed under the care of two trained nurses. After dilatation and curetting, I found the right ovary enlarged and cystic, with tubal adhesions; the left ovary adherent in the culdesac. The appendages were removed. The operation was brief, practically bloodless. The stitches were removed on the twelfth day. The mental condition remained unchanged for some days. She continually endeavored to sit up in bed, to tear the bed-clothes, to bite and scratch the nurses. I was obliged to tie her hands on either side to the bed, and place a heavy

*Read at the Whatcome County Medical Society, Washington.

bandage over the body. On the fourteenth day after the operation she became quieter and recognized her mother. On the seventeenth day she appeared a little more rational and took some interest in the surroundings. The following day I allowed her to see her daughter, now a bright girl of eleven years, whom she had not seen since entering the asylum. The meeting was not one soon to be forgotten. Day after day, after the physical strength increased, the mind became more capable of extended effort. Thirty-five days after the operation, accompanied by the nurse, I dined with the patient in her own home. It is now five years since. She has become restored to her family and friends, and has become a useful member of society. I herewith present her photograph. Such is the brief history of one who was considered a "hopeless case of insanity," "was not fit for operation," and who would have been doomed probably to this living death until the end of the chapter. This most satisfactory result was the means of my being privileged to examine not a few cases—in all 105.

My next case—a lady of 57 years of age, who had been confined in the asylum for two years—presented a slight degree of prolapse, and laceration of the perineum. She had suffered from pain in the back and side for six months. I found upon opening her abdomen intense varicocele of the tubo-ovarian plexus. I curetted and removed the appendages. Improvement followed, so much so that she was cared for by her children, not having to return to the asylum.

The third case—a lady, aged 52, who had suffered from ovaritis several years previously; had never been pregnant; had been in the asylum for three years. Examination showed uterus immovable, retroversion, and general pelvic adhesions; also adhesions of the clitoris with retention of the smegma. I freed the adhesions of the clitoris, removed the left appendage, and replaced the uterus, but failed to find the right ovary on account of the density of the adhesions. Insanity was completely cured. She had been restored to her home, and has been a satisfactory housewife ever since.

One more case, as illustrating the borderland variety of which we see so many. Case No. 65, Mrs. —, never pregnant, had complained of pain in her side for six years, for several years suffered from mental confusion previous to and during menstruation, would throw away her clothing, scream loudly, threaten suicide, etc. She had passed through the usual ordeal of treatment for misplacement, etc. Examination showed masses upon both sides of the uterus with dense adhesions. Operation showed right ovary enlarged, cystic, and containing a mass of hard blood clot, the size of a marble; left ovary enlarged, tubes disorganized by inflammation, universal adhesions. Convalescence normal; immediate mental recovery.

I have selected a few photographs of specimens removed which will be of interest to you. The first (case 21) is from a married woman who passed through a severe attack of sepsis following confinement. From the history given, I have reason to conclude that the gonococcus was the active agent. She was insane ten years, nine of which were spent in a Canadian asylum. She was considered a hopeless case of melancholia. No pelvic examination had been made previous to, or during her stay in the asylum. I found general pelvic adhesions, retroversion, and an enlarged ovary. Curettage, removal of the appendages, and ventrofixation was followed by recovery.

Case 26, Miss. X. aged 19, marked delusions with suicidal attempts, well defined history of appendicitis and more recent gonorrhoeal salpingitis. The appendages, matted with inflammatory adhesions, were removed with the indurated appendix. Recovery.

Case 65, Mrs. M., married seven years, no children, pre-menstrual delusions for several months. Myometritis, retroversion, double haematoma of ovaries with dense adhesions. Curettage and removal of diseased structures were followed by mental recovery.

Case 68, Mrs. Z., insane three years. In asylum three years. Deep cervical tear, cystic ovaries. Amputation of cervix, resected right and removed left ovary. Slightly improved, but relapsed and was returned to the asylum.

The post operative treatment in these differed little from that of ordinary cases. Occasionally, a patient requires to be strapped to the bed, but in the vast majority of cases the nurse can control the patient's actions with very little trouble. The nurse should be strong in mind and body, and possess sufficient tact to enable her to cope with, conquer and dispel the slightest indication of the patient's return to former abnormal habits of thought or expression. I consider strong suggestion a valuable adjunct in the treatment of these cases.

It is not necessary to continue the repetition of cases, all of which in themselves being more or less interesting. Let us now endeavor to learn from the work here presented some direct lessons that may assist us, and if possible, to evolve principles that may be applicable in cases that may be presented to us. I have no arbitrary statements to make, only to lay before you the result of a few years work, and some thoughts upon the same, hoping that you will handle me without gloves, for we are anxious only to know the truth, for as expressed by one of your humorists "What is the use of knowing so much, if what you do know is not true?"

The question of relationship, existing between the sexual organs and psychic phenomena, still invites investigation, and yet remains with-

out a fully satisfactory answer. During the last three years it has been demanding more and more attention in all countries where scientific medicine obtains, and is passing from the hands of the physiologist into those of the surgeon and pathologist. It is now a subject for clinical study and post mortem findings.

Before proceeding further, it will be necessary to define the terms "mental" and "pelvic disease." First, pelvic disease. I include under this term all pathological conditions of the pelvic organs of the female, that, in the opinion of our ablest gynaecologists, would be capable of producing discomfort, pains, functional, or systematic disturbance in those who possess normal mentality. With reference to such disputed points as movable, retroverted uterus, rare as it is, I am personally disposed to consider it abnormal, as there must necessarily be tension or pressure on surrounding parts. Very slight lacerations, without cicatricial tissue, I do not consider of much significance.

What constitutes mental disease or insanity is very difficult to determine. I shall give a definition evolved from the study of the cases under my care. In order to have a basis, I will postulate that there is something within us primarily greater than physical product, not conditioned, except in expression, by the physical mechanism—the Ego. To the extent that the Ego directs the activities and controls the reflexes, to that extent is the ideal human life exhibited. The ideal life, as distinct from that of the mere animal, is exhibited only when the activities of the organism are less the result of reflex action than those resulting from the direction and domination of the Ego. So long as the organic structure is intact, so long as the system is free from disease, so long are the reflexes normal, but with a diseased periphery, nerve tract, or center, we expect abnormal reflex results. When this diseased arc is confined to those parts of the body which are not intimately concerned in psychic phenomena, we have but abnormal physical reflex, as shown in the exaggerated knee jerk of lateral sclerosis, but if the reflex arc includes the basal ganglia whose function is to exhibit psychic reflex, and if there be organic disease at any point in the continuity of this arc, then we must expect abnormal psychic reflex. The exaggerated knee jerk we call a symptom of physical disease, but we call the abnormal psychic result insanity, while in reality it also is a symptom of physical disease, differing from the former only as the functions of the parts diseased are different.

As the Ego can realize that exaggeration, or absence of the knee reflex is abnormal, so also it is capable to a limited extent of recognizing abnormal psychic reflex.

In the early stages of mental disease, hallucination is conspicuous in which the patient is still conscious of the unreality of the psychic reflex ; in the second, delusions, in which the Ego is limited and clouded, but yet exerts a measure of mental control ; in the third, definite insanity in which the Ego has been completely subjugated by the intensity of abnormal reflexes. *The insanity is the psychic sum of the physical abnormalities.* The focus of irritation may be in any of the large ganglia, or at the periphery of the sympathetic system, in any of the large cavities, or in fact wherever nerve tissue is found.

1. To recapitulate, we may conclude that insanity exists when the Ego is dominated and controlled by the influence from a diseased peripheral nerve tract or centre.

2. Since disease is subject to variation of intensity, a patient may oscillate between sanity and insanity as the Ego dominates and controls the organism, inhibiting abnormal psychic reflex, or is dominated and controlled by the intensity of such reflexes

3. Since the intensity or degree of the abnormal psychic action is the measure of the sum of the physical abnormalities, the removal of a small part of the physical disease might result in the restoration of the balance of power to such an organism and diminish, if not remove, the abnormal psychic phenomena.

As to the examination of cases—up to the present time I have examined 105 cases of women suffering from various degrees of insanity. Only in acutely maniacal and in very obstinate cases was anesthesia used. There was no apparent difference in the effect of the anesthesia in the examination of these than in ordinary cases. Out of the number examined, I found well marked abnormalities in all but nine cases, or in 91 per cent. The conditions varied from fibroid uterus to adhesions of the clitoris. In less than 20 per cent. was there any knowledge of pelvic disease on the part of either patient or friends. In about 50 per cent. there could be traced a history of inflammatory action or pelvic pain. In one case of dementia of ten years standing which recovered subsequent to operation, there was a direct history of gonorrhoeal infection, and, in several others, such infection was very probable. Several gave a history of sepsis following miscarriage. Thirty-nine of these cases were subject to operative measures, with a mental recovery of 17, or 43 per cent. ; mental improvement in 12, or 30 per cent. ; unimproved 9 ; one not heard from. Three deaths followed the operations, one from uræmia, the two others from meningitis—the latter which existed undetected before the operation. The cases that made the most rapid recovery were those of cystic and adherent ovaries and tubes. Next in order in

recovery were fibroid conditions of the uterus with myometritis. But few of the cases which I have examined either complained of, or gave indications of, pelvic trouble sufficient to call the attention of friends, nurses, or physician. A statement was made recently by the superintendent of an eastern hospital that pelvic disease could not be frequent in these cases since they rarely complained. The experience of those who have worked for some time in the gynæcological field is, that the vast majority of the cases that suffer from uterine or ovarian disease are led to consult a physician on account of radiated pain, reflex, or general systemic disturbance. Dr. Fenwick, of London, states that in the woman's hospital only 10 per cent. of the cases under treatment there complained of symptoms directly connected with pelvic organs, the remainder giving histories of troubles which they considered wholly distinct from, and in no way dependent upon the pelvic organs. If this be the case with normal mentality, how much more would we expect the symptoms to be suppressed when not only the body is diseased but the mind clouded.

In the *American Journal of Obstetrics* for June, Dr. Palmer states that but 25 per cent. of insane women have pelvic disease, basing his statement upon "a careful inquiry of the superintendents of insane asylums." That there are superintendents capable of making examinations, I am willing to admit. One provincial hospital is more than fortunate in this respect: but there are parts of our Dominion less fortunate. If Dr. Palmer's informants were not more skilful diagnosticians than some who have been placed in position of responsibility in Canada, it would be folly to expect accuracy in this matter, and accept the statements of such superintendents relative to matters of pelvic diagnosis. Again, a somewhat striking comparison is shown relative to the social condition of our asylum commitments. I mention this by the way, as it has but an indirect bearing upon the subject in hand.

The number of married women committed is double that of single women, and the number of single men, double that of married men.

Since this relation does not exist in the whole population, does it not lend suggestion to the possibility of the abuse of alcohol, sexual abuse and excess, the prevalence of venereal disease among young men, and the strain of childbearing, with its consequent train of contusions, lacerations, and infections, the exhaustion of lactation, and the ravages of gonorrhoea upon the married women, as being factors in the production of psychoses.

The more recent the case the higher is the recovery rate. The duration of the insanity of those whose recovery followed operative treatment was less than one half of that in those whose condition remained slightly improved or unimproved. It is only fair here to state that the recovery rate in well regulated state hospitals where gynaecological treatment is practically nil, is frequently higher than the recovery rate which I can present. This arises from the fact that the hospital has the advantage of the recent cases in which the recovery rate is comparatively very high.

It is not my purpose to endeavor to show, in the cases in which recovery followed the treatment, that the pathological condition removed, was the primary source of the mental disturbance. No doubt it was one of the many combining causes. In any given case of insanity, the mental condition is the psychic result of the sum of the physical abnormalities, and the restoration of a small part of the organism to its normal condition may result in the restoration of the balance of power to such organism.

The particular nerves, through which the higher centers are affected by chronic disease of the pelvic organs has been thoroughly outlined by Dr. Byron Robinson, and I can do no better in this connection than to quote him.

“Irritation from diseased pelvic organs goes to the vaso-motor centers of the cord and medulla by two routes. It goes up the ovarian and hypogastric plexus of nerves of the abdominal brain. Then it is recognized and sent up along the pneumogastric to the dominating center in the medulla, when it is reflected all over the body. It can also go up the lateral chain from the coccyx, especially by the way of the hypogastric plexus.”

Dr. Robinson found in his dissections, that, “especially the female, the lateral chain of ganglia were strongly and literally connected with the hypogastric plexus by large thick nerves. By carefully studying patients, one can see the immediate and remote effects of pelvic disease. The immediate effect may be observed to be from the localized, tangible, gross pathology. Inflammatory processes may deposit contracting cicatricial tissue which dislocates the genitals, compromising circulation, and traumatizing nerve periphery. It may be pressure troubles, septic trouble, or otherwise. But the remote effect is through the sympathetic nerve, or, rather, through malnutrition. A slight, unnoticed, irritable focus begins in the pelvis (it may be endometritis). Months and years go on. Irritations accumulate in the abdominal brain, and may radiate out on all its various plexuses. Nutrition is insidiously impaired

through the months and years: unbalanced reflexes gather in the abdominal brain, which, in turn, disturb the normal, functional rhythm of viscera. Accumulated energies, begotten of long continued pelvic disease, are not controlled by the abdominal brain, but irregular, stormy forces are emitted over the plexuses to the viscera, which unbalance their nutrition. The woman with genital disease becomes an object of wretched despair, and a miserable invalid. The days of her life are passed between pain and sadness. Our amateur operative gynaecologist has forgotten that all her troubles started from a lacerated cervix, or endometritis, five years ago. He is sure to extirpate her ovaries, which should not be done: and lo! how disappointed he is if she does not get well in a month. Such a woman will not get well from extirpation of normal organs. The only benefit of extirpating the ovaries was that she was compelled to lie still for a month—a dear method of purchasing a few weeks' rest. The proper method to follow in this numerous class of women is, to hunt for the old cause, and remove it; and, then, gradually nourish the woman back to the normal. Such women are called hysterical, but there is generally some pelvic pathology, some provocative agent, that precedes hysteria, before the abdominal brain suffers derangement."

Questions of more than passing interest arise out of the consideration of this subject, two of which I shall state and particularly request your opinion upon the points.

(a) Given a case of insanity occurring in a woman of excellent heredity, who has previously complained of abdominal pain or pelvic discomfort with a negative examination under anesthesia, and with every part of the system interrogated without the discovery of any physical disease, is the surgeon then justified in making an exploratory vaginal or abdominal incision?

(b) The second question is: In such a case as previously stated, the abdomen having been opened, or in any case, with or without a vicious heredity, in which the abdomen has been opened for the purposes of removal of diseased parts or other necessary manipulations, is the surgeon justified in rendering the patient sterile?

To each of these questions I answer in the affirmative. The life risk of simple abdominal exploration in the hands of competent surgeons is little more than that of the anesthetic, the pathological conditions that cannot be determined by external examination, and the surprises that all surgeons of experience have encountered justifies this method of examination in the presence of a disease that renders the patient not only physically but mentally incompetent, and may possibly consign her to a fate worse than death itself. As to the latter question, although but

few of the cases that have come under my observation have an ascertainable neurotic or insane family history, we should not be deceived by concluding that such heredity does not exist. We all realize how difficult it is to obtain a complete history of our ordinary every day cases, and especially is this the case if there be an element that might reflect in any way upon the family. I consider that it is in the interest of the State that the production of the defective and degenerative should not be encouraged. With the consent of the husband or friends, I consider the removal of the tubes a justifiable procedure. With the general conception of insanity as the product of heredity and strain, while we may be deficient in our control of the environment, we have in this procedure a definite method of dealing with a possible potential of the future.

In the light of foregoing statements, is it not adding injustice to misfortune when we commit this class of patients to the state hospital without first exhausting our professional resources in an effort for their relief.

There is a large number of women whose personal environment brings an extra burden to life's toil and grief. Society, instead of sharing the load, adds the spurs of fashion and custom. Let disease supervene and the overworked nervous system becomes deranged, peripheral impressions are magnified, reflexes become uncontrollable, and mental aberrations appear. The physician is called in, and too frequently adds to the burden and intensifies the irritation by prescribing brick walls, grated windows, and uniformed keepers.

We must admit that the environment afforded by the best of our hospitals for the insane is not restful to wearied bodies, soothing to jaded nerves, nor tonic to deranged minds. Suppose a case having a personal bearing, who of us would choose such care for a sister, wife, or mother, while there remained the slightest chance of recovery by natural means, or relief by therapeutic measures? Sympathy, honor and professional ambition should impell us to make the most thorough and minute examination of each case submitted to our investigations, before we make the humiliating admission that science cannot locate, nor skill remove the cause of the derangement, and we at last reluctantly give our dictum, that one more unfortunate must be added to the thousands committed to a separation regarded by friends as almost worse than death.

I make no criticisms regarding *your* State hospitals, but I know of a country not far away where the position of Hospital Superintendent is too often the award for party loyalty without any consideration for those of fitness, experience or scientific qualification. It is satisfactory to know that my own province of British Columbia is in this respect an exception.

Realizing the necessity of more thorough work in this department in our Provincial Institution, several years ago I made the suggestion to our Government that a Medical Consulting Staff should be associated with the Medical Superintendent of our Hospital, who could meet once a quarter, and examine all recent commitments, to co-operate with the Medical Superintendent and outline a treatment, but this suggestion was not acted upon. After due consideration, I have come to the conclusion that an excellent method of dealing with this subject is the establishment of a Nervous or Psychopathic Hospital or special wards in connection with general hospitals, which would stand as an intermediate station, where those who have developed abnormal psychic conditions to the extent that home treatment is impossible or inadvisable, could receive appropriate treatment until it could be satisfactorily shown that the underlying physical lesions were beyond the probability of early removal either by the natural forces or by medical or surgical measures. Those giving indications of chronicity or undue violence should be removed to the State Institution. As it is at present constituted, the class of cases that would receive the greatest benefit from this arrangement would in the opinion of the writer, judging from his limited experience in the treatment of these unfortunates, be (1) puerperal, toxemic, irritative from pelvic lesions, as cystic inflammation, ovaritis, adhesions, fibroids, retro-displacements, etc., or, in general terms, all those classes of cases in which the expected recovery rate is 75 per cent. Upon the other hand, it would be worse than folly to detain in this psychopathic suspect station, idiocy, senile dementia, or general paralysis.

We are being continually reminded of the alarming increase of insanity, the lack of accommodation, and the fact that a serious problem is confronting us in this direction. The establishing of psychopathic hospitals would to a great extent lessen the congestion, and since experience has shown that recent cases are more amenable to treatment than those in which the measures for relief have been delayed until the abnormal metabolism of the cortical cells has become somewhat of a mental habit, many of these cases could be returned to their homes, that under the present system drift hopelessly to utter dementia and death.

The existence of such an institution would also tend to keep before our minds the fact too often forgotten, that many cases of mental trouble are within the province of the physician, and thereby could greater attempts be made to investigate and relieve the underlying physical lesion. In looking over the report of some of our large State hospitals I find no mention of any attempt to utilize the large amount of material

which is at the disposal of the medical authorities, either in thorough physical examination, or in post-mortem, that at least some light might be thrown upon the underlying pathological condition. Can any other department of medicine show such negligence? With abundant evidence of the application of the simple principle of surgery to the class of cases, it is criminal to pursue a course of inefficiency and negligence.

Before concluding, I will give a short account of the last cases which have been submitted to operative treatment.

Miss——, aged 27, of excellent heredity—in fact, of an unusually intelligent family—with a personal history of hysterical manifestations, dating from the commencement of menstruation, dysmenorrhoea with an unusual amount of blood loss, was confined to bed for a few days each month. Some five years ago, a gradual change was detected in her disposition during the period previous to menstruation. These periods lengthened, delusions developed, until she was pronounced insane and committed to the provincial hospital, where she remained two years. The insanity was of the sexual type, attributing evil motives to men, and harboring delusions of pregnancy.

Examination showed erosion of the cervical mucous membrane, with the uterus slightly enlarged. I curetted a few fungosities, amputated the cervix, opened the abdomen and resected three-fourths of the right ovary which was cystic. I noticed that the labia majora were hypertrophied and granular in appearance, but not having any history of self abuse I did not interfere.

The after mental condition was a decided improvement, but far from satisfactory. With a fuller personal history my suspicions of self abuse were confirmed, the vice being indulged in nightly.

Six months after the first operation, I removed the labia majora and minora and the mucous membrane of the vestibule to the meatus, including the clitoris; also resected the pudic nerves—or more particularly the external and internal superficial perineal branches, at the posterior part of the vagina along the outer wall of the ischio-rectal fossa directly below the pudic artery. This secondary operation was performed but two months ago. The result has been very satisfactory. She has had a period of two weeks sanity, and each month the condition seemed to improve, but recently she grew worse.

In consideration of these matters we are justified in the following conclusions:

(a) That pelvic disease in the insane is not infrequent.

(b) That in a certain percentage of cases the removal of the physical disease is followed by the restoration of the mental faculties.

(c) That the recovery rate is sufficient to encourage us :

1st. In the further investigation of the subject.

2nd. That pelvic disease in the insane should receive operative treatment.

3rd. That a clouded mentality is no excuse for the neglect of a physical abnormality.

4th. That it is advisable that either special detention hospitals or special wards be provided in our general hospitals, where recent cases of insanity may receive appropriate treatment ; and that the Lunacy Act be amended so as to allow the commitment of suitable cases for trial treatment in such detention hospitals, to be subsequently removed to the state hospital should such treatment prove insufficient.

5th. The advisability of recommending that a competent gynaecologist be associated with all state hospitals for the insane.

P.S.—Since writing the above I have operated upon three additional cases : (1) Delusions of a mild type with dread of complete mental failure ; conditions present, lacerated cervix, retroversion, subinvolution. (2) Delusions, threatened homicide, intermittent intense dislike for child, ovarian cyst, floating kidney. (3) Puerperal insanity, delusional and suicidal, with periods of excitement : curetted pieces of placenta, repaired cervix. All three cases progressing favorably, but too early to report upon.

LARGE DOSES OF HYDROCHLORIC ACID.

In the *Pacific Medical Journal*, May, 1903. Perry discusses a method for giving large doses of hydrochloric acid in cases in which it is deficient. The writer claims that lack of this acid as the cause of many cases of gastric insufficiency, and that the doses ordinarily given are inadequate inasmuch as the body daily forms 12 grammes absolute HCl. The plan advocated is the digestion of beef with strong acid, in which way an organic combination is formed and the acid combination requires for 100 grammes boiled beef, 3.10 grammes of absolute HCl, this in such a state of combination that it reacts, acid with litmus and neutral with dimethylamidoazobenzyl. It has no corrosive action on the teeth and is able on the addition of pepsin to dissolve 65 per cent. of the beef with which it is combined, and an additional 40 per cent. with which it is mixed, still retaining an acid reaction to litmus. To prepare it, take 1 part strong liquid HCl, 50 parts of water, 16 parts of boiled beef ground to a coarse, moist powder, heating a few hours until a paste is formed ; prepared in this way it contains about 7 per cent. strong liquid HCl.

THROMBOSIS OF THE FEMORAL VEINS FOLLOWING ASEPTIC LAPAROTOMY.*

E. R. SECORD, M. D., Brantford.

It is my purpose to report the following case, not on account of any peculiarities associated with the diagnosis or treatment, but entirely because of an unexpected and unpleasant complication, occurring after convalescence had become well established.

Mrs. V., act., 35, consulted me in November, 1902, regarding a double hernia.

The history that she gave indicated that the rupture on the left side had been present for twelve years, during which time she had worn a truss, which had only imperfectly retained the protrusion, especially during heavy work. On the right side the hernia had only been present a few weeks, was gradually becoming larger, and was the seat of considerable pain.

On examination a condition of bilateral oblique inguinal hernia was found, the mass descending easily on both sides during straining efforts, and being as easily returned.

Excepting this condition the patient was in perfect health,—there was no discoverable cardiac, renal or pulmonary lesion, no anaemia, nor were there any varicosities of the superficial veins of the lower extremities. Operation was advised, but owing to extraneous causes was not carried out until the third week of January in the present year.

At that time, Bassini's operation with Macewen's treatment of the sac was done on both sides under one etherization. The round ligaments were found large, and inseparably blended with the sac wall. They were accordingly dissected from their pubic attachments, and puckered up with the sac.

Contrary to my expectations, the operation on the right side proved much the more difficult, the sac being more adherent to surrounding structures, and a small part being divided off by a septum to form a small hydrocele with insignificant fluid contents. For these reasons there was much more handling of the tissues, and more extravasation of blood on the right side than on the left,—the time occupied being quite twice as long.

The whole operation was carried out under the strictest aseptic technique, including the use of rubber gloves. A flat table was used and there was neither Trendelenburg position, nor flexion of the knees or hips.

* Read at the Canadian Medical Association, London, August 25th, 26th, 27th, 28th, 1903.

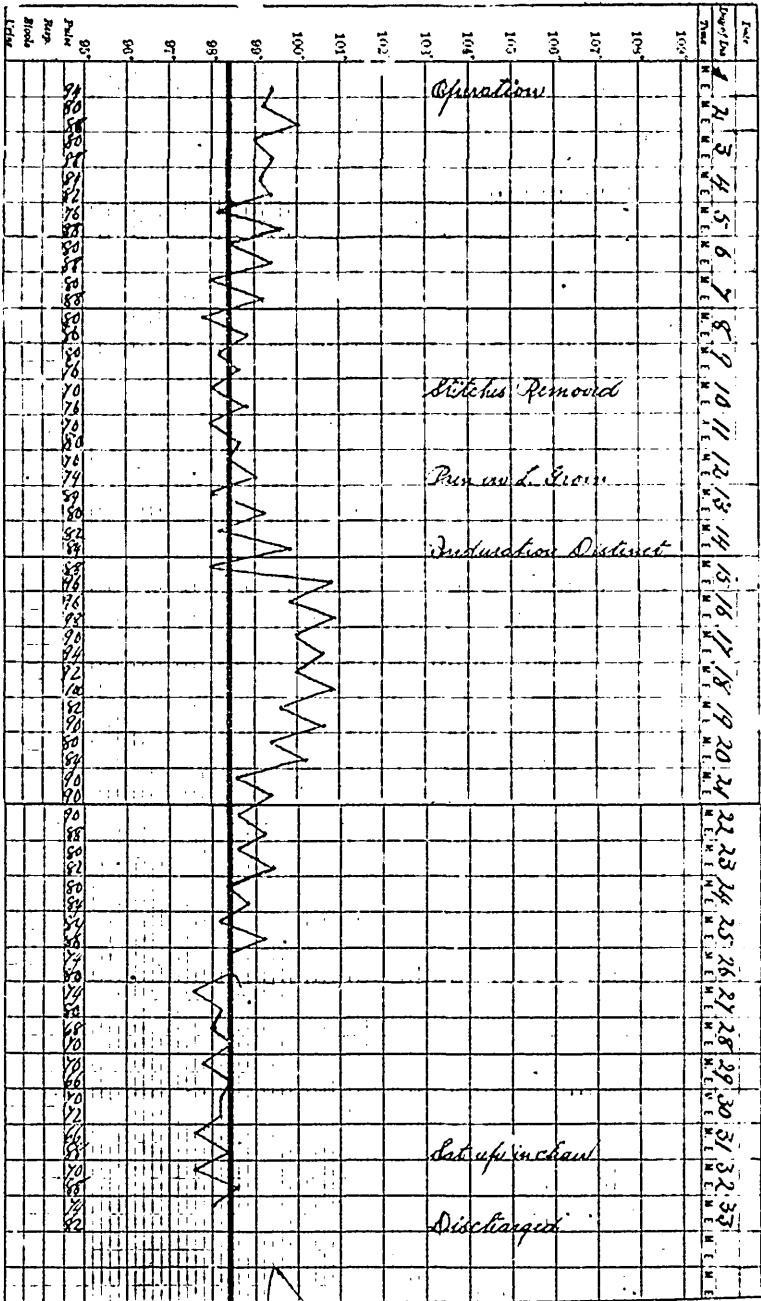
A moderately firm double spica bandage was applied but as this caused some little irritation it was replaced after the first day by a many-tailed bandage simply pinned firmly across the hips, and this, owing to its tendency to slip, was changed for adhesive strips.

Early convalescence was entirely uneventful, the temperature never went above 100 deg. F., nor the pulse above 90. The wounds were not dressed until the tenth day when the stitches were removed, primary union having occurred throughout on both sides in the most satisfactory manner. I may be pardoned for emphasizing the fact that there was absolutely no redness, induration nor tenderness around either of the wounds. On the next day, some slight pain was complained of in the right groin but it disappeared without treatment.

On the twelfth and thirteenth days, considerable sharp shooting pain was complained of in the left groin, popliteal space and calf of leg. On the fourteenth day, a hard, indurated, tender cord could be made out, occupying the position of the upper end of the long saphenous vein. A diagnosis of venous thrombosis was made, the leg elevated, and moist heat applied to assist in the establishment of the collateral circulation. Up to this time, there had been absolutely no fever, on this day, however, the temperature rose to 99½ degrees F., and on the next to 101 degrees, at which height it was maintained for nearly a week. The pulse rate was increased in proportion but was not elevated before the temperature, as Singer's¹ investigations would tend to show occurs in phlegmasia alba dolens. The condition ran a more or less benign course, the temperature becoming normal on the twenty third day, but considerable pain and stiffness in the leg persisted for some weeks longer. During the height of the process there was considerable oedema in Scarpa's triangle but at no time was there any at the ankle.

The condition was then, in short, an extensive venous thrombosis, involving the left saphenous and femoral veins, following two weeks after an aseptic operation, with typically aseptic wound healing. Moreover it occurred on the left side, where the less extensive operation had been done, where there was less handling of the parts and less haemorrhage, but where a truss had been more or less constantly worn for twelve years.

It is not my intention to go into an extensive discussion of the various theories to explain venous thrombosis, which have been advanced from time to time, as for instance by Hunter, Virchow, and Brücke; but, on looking into the literature of the subject, I find that there are a few articles dealing specifically with this special condition, such as those of Schenck², Willy Meyer³, Coe⁴, and Van der Veer⁵ in English; and



of Lennander⁶, of Upsala, Strauch⁷, of Moscow, Wyder⁸ and Leopold and Mahler⁹, in German.

All of these authors consider more or less briefly the question of the special etiology of this condition, aside from the question of the etiology of thrombosis in general.

Infection, mechanical obstruction to the circulation, as by tight bandages, loaded bowels, flexed thighs, etc., Traumatism during operation, as by retractors causing the formation of more or less extensive haematomata, are among the commonest causes on which special stress is laid.

Strauch, after considering his cases, remarks: "It appears therefore that the specific working of the ether plus the high pelvis position has brought about this unpleasant complication."

Lennander believes that the possibility of compression of the respective veins by the dressing, as also the possible coagulation of blood in the veins of the lower extremity as the result of constipation, should be avoided. He further considers that the condition is partly at least due to mechanical obstruction of the circulation, and advises elevation of the foot of the bed after operation, and maintenance so during the whole time of convalescence, as a preventive measure.

The majority of the writers on the subject consider that infection is the most probable cause, although, as Meyer puts it, "the infection need not start from the operative field, but may originate elsewhere, especially in the intestinal tract." Schenck concludes that "the facts that they have not followed pus cases, and that the condition occurs occasionally after operations on the appendix, gall-bladder, or right kidney, cases in short where the site of operation is more or less removed from the site of the thrombosis, are points difficult to explain under the theory of infection." This criticism may be offered of Schenck's conclusion, that the very cases he sites as illustrative of the improbability of infective origin, are themselves often infective. Thus, in both Willy Meyer's appendix cases, more or less acute peritoneal inflammation was present, and Meyer consequently agrees with those who consider infection to be a causative factor of the complication under discussion, and he points out the possibility that a few bacteria coli, or staphylococci may have lain dormant in adhesions, and been stirred into life by the manipulatory efforts connected with the operation.

In speaking on this point, it is interesting to note that at a discussion recently held before the Paris Society of Surgery¹⁰, Mons, Jalaquier, and Mons. Brun both reported three cases of left femoral thrombosis occurring in the course of appendicitis, and connected not

with the operation itself, but with the condition calling for operation, since in two cases the only operative measures used were the evacuation of abscesses. The Editor of the *New York Medical Journal* says¹¹, in this connection, "left femoral thrombosis may yet come to be regarded as of diagnostic significance in obscure cases in which only the possibility of appendicular inflammation can be affirmed."

In a large percentage, however, of the cases to which I refer, neither wound infection nor inflammatory disturbance in other parts of the body, enters into the subject, since nearly all the wounds follow a typically aseptic course, as in the case reported, and in many at least, there is no evidence of infective conditions elsewhere. In the above case also the fact that the pain and induration caused the diagnosis to be made, before there was any distinct elevation of temperature shows that an infective origin is improbable. The bowels had been well cleared out and were maintained so after the operation, so that distension of the sigmoid with faecal matter and absorption therefrom is not probable as a cause. Again, the fact that out of Schenck's forty eight cases only four occurred before the tenth day, would seem to cast doubt on any infective nature, since we should expect this to manifest itself earlier.

Moreover, that the elevated temperature is not in itself evidence of an infective origin is pointed out by Meyer in these words: "In the case of a thrombosis, changes in the blood within the thrombosed vessel, as well as in the tissues immediately surrounding it, may have set in and from these areas poisonous albuminoid substances may be absorbed by the system and thus produce rise of temperature and increased action of heart."

In considering Schenck's cases, one is struck as he was, by the large percentage following operations for the removal of tumours, especially since, as he says, these are not the cases in which there is the most traumatism, the most loss of blood, or the greatest chance of infection. Twenty-eight of his cases, or fifty-eight per cent. followed the removal of large tumours, myomata or ovarian cystomata, while in addition five followed radical operation for carcinoma uteri, and one including a hysterectomy for pelvic inflammatory disease, a total of thirty-four cases where it is possible to conceive that there was very distinct alteration in the pressure relations before and after the operation. Of the total this represents seventy-one per cent. Feeling that this change of pressure might have some causative influence in at least a share of the cases, I have so far as possible looked up the reports with the following results:—

Author.	No. of Cases.	Condition.	Side.	Result.
Schenck	4	Perineal Repair.	10 right	Recovery.
	19	Hystero—Myomectomy		“
	9	Ovarian Cystomata	{ 2 bila- teral	“
	5	Hysterectomy for Carcinoma	36 left	“
	3	Suspension		“
	4	“ with Repair		“
	1	Hysterectomy for Inflammation		“
	3	Miscellaneous		“
Lennander	5	Appendectomy		“
Willy Meyer	2	Appendectomy	Left	“
Strauch	1	Hystero—Myomectomy	“	“
	1	Rt. Ovarian Cyst	“	“
	1	Large Tumour of Left Ovary	“	“
Van der Veer	1	Angioma of Lobus Spigelii	“	“
	1	Large Bilateral Ovarian Tumours	“	“
	1	Large Fibroid Filling Pelvis	“	“
	1	Recurrent Appendicitis	“	“
Coo	1	Perineal operation with removal of both adnexa		“
	1	L. Oophorectomy, Appendectomy		“
	1	Cyst of L. Ovary Appendectomy		“
	1	Left Dermoid Filling Abdomen		“
	1	Cysts of Ovaries		“
	1	Operation for Inversio Uteri		“
	1	Trachelorrhaphy		“

69 cases, divided as follows:—

Appendectomy—eight; perineal—five; for the removal of abdominal tumours, whether benign, malignant or inflammatory, there were forty-four or sixty-four per cent.

The reports of Wyder and of Mahler and Leopold were also consulted, but they are concerned rather with the occurrence of post operative pulmonary embolism, arising from erural and pelvic thromboses, most frequently the latter.

In this connection, I must recall the fact that, in the above reported case, a truss had been worn for many years, and was only permanently removed at the time of the operation. Again the bandages owing to some degree of restlessness on the part of the patient were only lightly held in place and exercised no pressure over the wound. Adding then this case to the above there are seventy cases, forty-five of which or sixty-five per cent. followed conditions of decreased pressure.

If however we subtract from these seventy cases those in which, as for instance the appendix case, there was undoubted infection in other parts of the body, we have left sixty-two cases of which forty-five or seventy-three per cent. were dependant on operations which brought about conditions of lessened local tension.

All of the writers on this subject have emphasized the late occurrence of this complication. Of Schenck's cases, twenty-five occurred between the twelfth and the sixteenth day, and this perhaps may be taken as the average period.

Mahler and Leopold, in their article, call attention to the fact that when a large neoplasm is removed the intra-abdominal pressure sinks and the pelvic veins become dilated. This condition cannot but predispose to the formation of thrombi in these veins since all the surroundings are favorable, injured vessel walls from trauma, and slowed current from the dilatation. Hence we may suppose that thrombi form, and gradually spread from smaller to larger vessels, until either the internal or the external iliac vein is involved. It would of course take some considerable time for this condition of slowly spreading thrombosis to reach the larger vessels, hence the usual late occurrence of the complication.

Another hypothesis which might be advanced would be that the decreased pressure allowed the exudation of large amounts of serum and blood into the tissues, which former coagulated and finally became organized thus producing a secondary or late pressure on the veins.

Regarding the treatment of this state when it arises, nothing new can be offered. Elevation of the limb, and moist heat to favour the formation of the necessary collateral circulation seem best to meet the indications. Lennander's suggestion as to prophylaxis by elevation of the foot of the bed would seem difficult to carry out. Moreover it would assuredly make nine hundred and ninety-nine patients uncomfortable in order that one might have a little better chance of escaping this complication. Again, Van Buren Knott¹² reports 326 cases of Laparotomy treated post-operatively by elevation of the head of the bed (Fowler's position) without any increased tendency to phlebitis. If

however the above quoted facts are of any value, and if deductions can be safely drawn therefrom, it would seem advisable to support the abdomen rather more definitely than is usually done, especially after the removal of large tumours. After hernia operations it would appear to be well to exercise a certain degree of direct pressure over the wound area, probably most comfortable carried out by a well applied spica of crinoline.

From a consideration of the above statements it is probable that the following conclusions may be safely drawn:—

(1.) No one etiological factor is alone responsible for the occurrence of this complication.

(2.) The role of infection in otherwise non-infective cases, does not appear to be an important one.

(3.) Conditions of sudden decrease of pressure dependant on the operation, probably have a causative influence.

(4.) Treatment should be prophylactic, as by avoidance of unnecessary traumatism, of haemorrhage, or of suddenly decreased tension, as by having the wound area well supported by firmly applied dressings.

(5.) So far as I am aware there has been no mortality in the reported cases, but the occurrence of pulmonary embolism in a certain proportion warns us that this termination is not an impossible one.

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DISCUSSION ON TUBERCULAR PERITONITIS. *

By A. B. ATHERTON, M.D., LL.D., Fredericton, N.B.

WHEN invited to take part in a discussion on tubercular peritonitis at this meeting of our association, I took it for granted that the intention was that each one who participated in it should base his remarks mainly on his own personal experience, and, with such a view, I have undertaken my task.

I have seen, I believe, thirteen cases of the disease. Twelve of the number occurred in females, two of these being mulattoes, which is a larger portion than would be expected from the proportion of the negroes to the rest of the population. The ages of twelve, ranged from twenty-two to forty years. One was a female of twelve. Three were treated medically, with one death. I saw her once in consultation only a few days before she died. The other two recovered, one under tonics and the application of a large abdominal plaster of extract of belladonna and iodine, the other under the use of iodoform ointment externally and the administration of this drug internally. The latter treatment seemed to act well in the case of this child, but I have not found it so satisfactory in that of an adult, in which I tried it. Dr. Burney Yeo, of London, was, I believe, the first to recommend this treatment, and he speaks very encouragingly of it.

In one case, where the woman had been ailing for nine months, and had been told she had an ovarian tumor, I tapped with a medium-sized trocar, and drew off 160 oz. of serous fluid. This was followed by a marked improvement in her general condition, but the ascites soon appeared again. I repeated the tapping in about four months, removing 130 oz. After that some fluid accumulated once more, though to a less extent. In a few weeks it all disappeared, and in six months from the date of the first operation she was perfectly well and her weight had increased 40 lbs.

The remaining nine cases were subjected to an abdominal section. Three of them died from seven weeks to five months after the operation. In one of the fatal cases a foul abscess was found at the time of the operation, subsequently communicating with the rectum. In another, a bad cough developed and she could retain no nourishment, wasting away to a skeleton before she died. The wound had healed kindly and well. In the third, the patient had run down very much before operation, having been ill nine months. The uterus, tubes, and ovaries were badly diseased, and I removed the last two. She did not seem in a condition

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to stand a hysterectomy, even if I had thought it better to do it. She quickly recovered from the operation, and was able to leave for her home, in the country, before the end of the fourth week. I never saw her afterwards, but learned from the husband that about six weeks after getting home an abscess burst through the abdominal scar and the discharge continued until her death, five months after operation.

The only male I operated on was very much emaciated when sent to me, and had an uncontrollable diarrhoea for weeks. After operation, all his symptoms improved and, for two years, he worked at his trade as a carpenter. Then his lungs became affected and he died in five or six months from the time the pulmonary symptoms developed.

In reviewing my cases, I find scarcely any one symptom present in every instance. Among the most constant were: (1) Abdominal pain and soreness. (2) Enlargement, either from serous fluid or pus, or from distended coils of bowel. (3) Pain in micturition. (4) In females, more or less immobility of the uterus, with indurated, tender swellings in its immediate neighborhood, and closely connected with it. (5) As a rule, more or less loss of flesh. (6) Not infrequently, a period of impaired health preceded the abdominal symptoms.

In about forty per cent of my cases a family history of tuberculosis was obtained. Two of them had always had rather delicate health. In three there had been pleurisy, either accompanying the peritonitis or preceding it. In two, there was a chronic cough. Nausea and vomiting was a somewhat prominent symptom in a few. One clearly dated her abdominal trouble from a fall upon the sidewalk, which severely hurt her side. In another, an acute attack of pain and vomiting, coming on in the night, a few hours after eating freely of apples, ushered in the disease, the symptoms following immediately without her ever getting up from her bed and going about again until operated on. I saw her in consultation three months after the onset of her illness, being brought on a bed forty miles to the hospital for operation. She recovered speedily and remains well after more than seven years. In her case there was a dry adhesive inflammation, and I merely separated a few adherent coils of bowels. Some hold the opinion that these cases of dry adhesive peritonitis are unfavorable ones for operation, but none of mine made a more rapid or better recovery.

In the ascitic form one is apt to mistake tubercular peritonitis for an ovarian cyst. I witnessed a distinguished London surgeon make the opposite error a few months ago. He had diagnosed the case as one of tubercular disease, but it turned out to be a cystic tumor.

Generally speaking, the pain and tenderness of the abdomen, coupled with a somewhat fixed uterus and tender masses in its neighborhood, would serve to distinguish a case of peritonitis. Also, I have found that usually one could get more or less change in the position of dulness by varying the decubitus of the patient, although sometimes we have to wait a little while for the fluid to settle to the lowest point, probably because of the adhesions present. If the fluid is encapsuled, then of course this symptom will not be obtained.

The larger caseating tubercular masses, sometimes met with, are liable to be mistaken for malignant growths, and, in some cases, we can only clear up the diagnosis by an exploratory incision. In one of my cases, in which a hardish swelling was found in the right hypogastric region, and apparently so closely connected with the fundus uteri as to seem an enlargement of that organ, I was much in doubt as to the character of the disease, especially as two sisters had died from cancer before forty years of age, in one of whom the uterus was affected, while in the other the breast. Her father also was just about dying from cancer of the rectum. Operation showed it, however, to be one of tubercular peritonitis. The uterus, ovaries, and bowels were covered completely over by a false membrane, about two quarts of serum lying between it and the parietal peritonium in front. The patient has much improved since the operation three months ago. The swelling about or in the fundus uteri is all gone. It could be readily felt extending half way up to the naval before operation, but it is not at all recognisable now. The general abdominal enlargement is also entirely gone, and the pain and soreness have about all left. In this case there were unmistakeable signs of intestinal obstruction, both previous to operation and to a slighter degree after it. This was the only one in which I observed obstructive symptom. Severe paroxysmal attacks of pain would come on now and again in the epigastric region with some vomiting and the appearance of distended coils of bowel. After a few hours they would subside.

As regards the temperature, in chronic cases it may be normal or at times below. As a rule, however, there is a rise of a degree or two every evening. In the more acute cases it is always above the normal.

When we come to consider the *treatment* of tubercular peritonitis we find, as one might expect, that the tendency of the physician is to lay stress on the value of medicinal measures used for a somewhat lengthened period, while the surgeon is inclined to resort more early to operative procedures. I think for a few weeks, or even months in the more chronic cases, we should ordinarily give medicinal treatment a

trial. This should include all the usual means, medicinal and others, to build up the general system, together with the administration of creosote and cod liver oil. The oil, however, has not been often well borne by my patients, as their stomachs were upset by it. If the condition of the sufferer admits of the delay, one might also give the iodoform treatment a trial. After an abdominal section has been done in these cases, I think it is advisable to carry out a similar line or lines of treatment, as a large proportion of them are slow in returning to a condition of full health and strength.

One exception should be made to any postponement of abdominal section, and that is where the Fallopian tubes or appendix caeci are primarily affected. One of my patients, whose father had died of phthisis, was out-of-sorts for a few weeks and then began to complain of pain and soreness in the left hypogastric region. Ten days afterwards I was consulted, and felt a tender mass on the left of the uterus. I advised operation, and removed a much thickened tube and a cystic ovary. The tube was as thick as the thumb, and its walls infiltrated with purulent matter, the lumen being almost obliterated. In separating it from adhesions it was so friable that with but little force it was torn away at the uterine corner. The right tube and ovary were healthy, and there was no general infection of the peritoneum. She made a quick and full recovery, remaining well at the present time, about four years since the operation.

In those cases where there is a large collection of ascitic fluid, I would try tapping with an ordinary trocar before resorting to the more formidable abdominal section, as I did in the case previously alluded to. I fancy that the removal of the liquid by means of the trocar would be more effectual than the use of the aspirating needle for this purpose, as it would set up more disturbance of the peritoneal cavity, acting more like an abdominal section in causing a hyperaemia of the membrane and a consequent change in, and absorption of, the tubercles. Such is, it seems to me, the most reasonable explanation of the way in which a section leads to a cure of the disease, rather than the more hypothetical one that the exposure of the peritoneum to sunlight or air is the cause of the improvement produced by operation.

In any case it is unfair to the surgeon to allow the patient to reach the last stage of the ailment before he is called to operate. Even in the most desperate case, however, it is probably only proper that the slim chance of benefit to be got from abdominal section should be afforded, seeing that recovery has sometimes followed under such an unpromising condition of things.

I have myself generally washed out the peritoneal cavity with a weak solution of bichloride of mercury, but judging from the reports of other surgeons, it seems doubtful whether the use of this or any other solution is necessary. I have never used a drain except in the foul-smelling pus case. If used in any other, I should fear that it might lead to tubercular infection of its track. As to removal of the Fallopian tubes or uterus, I think where the peritoneum is also seriously involved it is better not to disturb them.

When the disease appears in the form of hard masses in the abdominal cavity, or the bowel walls are seriously affected, it is perhaps advisable to dust in some iodoform before closing the wound.

Judging from my own experience, abdominal section is followed nearly always by a temporary improvement, even though the patient afterwards suffers a relapse.

THE COUNTRY DOCTOR.*

By JAMES S. SPRAGUE, M.D., Sirling, Ont.

THERE is no composition in music which so pleasurably affects the soul of man as that termed a medley, provided such includes selections, although not classical according to modern ideas, that we heard in earlier days, those dear old melodies, such as our mothers were accustomed to sing and our fathers delighted to hear. The memory of the good old times is awakened thereby. The present moments freed from despondency, less dismal do they appear, and the future is made fair and bright; and projects of "pith and moment" seem to have no barriers towards being consummated or hopes, and future achievements, to lose their brilliant coloring.

Brief sketches in medical literature or other writings serve equally to give us a pleasurable and instructive hour when relaxation is sought, often demanded by us, who have bared our breasts and kissed the rod in the endeavor to show to our patients conclusively and clearly, that "Death is a stupid blunder merely, and not a necessity of our lives." With these metaphors or similitudes as introductory, it would appear as desirable that for our title, Medical Medley, were better, for there are those who prefer that we designate or distinguish ourselves not as Doctors, but Physicians, Clinicians, Practitioners, Practicians, Therapeutists and other highly elaborated names, which philologic research does not in every particular claim or clearly sanction. Therefore, "The Country Doctor" as our headlight for this paper will remain, and our authority for its adoption is, that the title of Doctor of Medicine was first given in 1324 by the University of Astic in Italy.

*Read at the Canadian Medical Association, August, 1903.

It is admitted that he who selects to write these chronicles, these "segments from the swirl of Time and Tide," should be one of those whose aspirations, virtues and impulses, he has studied many years. The same ambitions that possess the soul of the recent graduate, are such as we held in early days.

They have not, however well planned, been realized in many instances, the prizes have been few, the blanks have been too numerous, illustrating too forcibly that "our wills and fates do so contrary run that our devices still are overthrown, our thoughts are ours, their end none of our own."

The Country Doctor is he whose early life was that of the country or village; as a rule, he is the best gift of a highly honored and self-respecting family of sturdy yeomen, especially chosen to give honor to his name and family, and to be the equal in merit and nobility of the family Doctor who lives in a nearby village. Such are the incentives which arouse the young man. An experience of a few years as a public school teacher enables him to be self-reliant and to develop personality. (really an Egotism). Such preparatory work is rivalled only by attendance during a few years, or better still, the full course of years required for the degree of Bachelor in Arts or in science, self-reliant, methodical, really sober in judgment, self-respectful and studious, fearless and tireless is he; he should be set apart for medicine is the opinion of the family Doctor, and the die is cast.

The "pale, sickly and pious" brother is evidently called to serve the Lord. Both bend their necks to the yokes as easily as they contracted croup in early life.

This introduction of the future spiritual adviser or "leader of faithful souls and guide of those who travel to the skies," is employed to serve as an illustration of the life work of these brothers, whose lives are directly associated with the people, whose lives in consequence of this co-mingling or association are recognized as chief factors in the advancement and maintenance of sanitation and morality. The future clerical personage has been presented as pale, sickly and pious, such an assertion is not applicable or desired, although, too commonly believed as worthy of this definition.

No profession calls for greater vigor or moral worth than they should possess who are to assist the Country Doctor; co-workers in many enterprises, in fact for the wrongs that need resistance or causes that need assistance, the highly educated clergy. The poorly educated among such men, and such are too numerous, are the enemies of progress, *in fact*, our enemies. Someone has said, "such minds have no liv-

ing message for any one, they are merely speaking tubes through which the past comes down to us, God help those who have to rely on what they have to give."

This world with its sunshine and flowers, God's word in the stars ; the progressive development of man's goodness, abundant evidences of increasing philanthropy and practical benevolence are too seldom announced from the pulpit. Too much of his eloquence is employed to preserve moss covered creeds, and dogmas, apparently too full of crudities and cruelties. Shorn of such tendencies, this "*vir pietate gravis*," this co-worker of ours would help more noticeably in the progress of civilization, and more and more would our professions conduce to each other's interests, not only to our interests, but to those of the dear people whose servants we are.

Should not such a friendship and mutual and uplifting interest exist between us as held by Nisus and Euryalus, or Pylades and Orestes ? If so, saying where three medical men are assembled, two of them are atheists would be untenable, or incapable of proof.

The preparation for the long sought for degree of Doctor in medicine having been fulfilled, our young Doctor thoroughly disciplined thereby, advances to the foot-lights, the whole profession in some respects, and those in his field of labor, act as the audience, his destiny is to see that "Life's a varied light illusion, joy and sunshine, light and shadow," and that no illiberal thought or motive should characterize his doings, he learns and has been taught it, at least, if he has been properly taught that.

Catholicity reigns supreme in medicine, that whatever is administered as best is best, our only limitations in regard to Therapeutics being the sun, the air, the earth and its fulness thereof. Such is the liberality of our profession, while upholding, yes venerating the honored teachings of Hippocrates, Celsus, Galen, Eristratus, Heraphilus, Heraclides-not unmindful of the labors of Boerhaave, Cullen and others, not less illustrious, whose services are memorable, our young Doctor, contrasted with his brother, the clergyman, is free to accept or reject such teachings and yet be termed regular in practice, he learns and is learning constantly that his mission on earth is a struggle, an unceasing progressive struggle, to find truths, medical truths, and to live by them. It is his to have the "keen spirit which seizes the prompt occasion, makes the thought start with instant action, and at once plans and performs, resolves and executes." To him his profession is and ever will prove a philosophy, which never has rested and never can rest, it knows no other law than that of progress. He learns too frequently, that a point which but yesterday was invisible, is its goal to-day and will be its starting point to-morrow.

History reminds us that new worlds have arisen and that we have lost old nations, equally can the same changes be adduced in respect to the numerous theories and schools of the past ages and the introduction of new ideas, but he who "beholds the bright countenance of truth in the quiet and still air of delightful studies," and finds encouragement in the thought that some loved theory may be either abandoned or be recast, or modified, can and will ever be able to keep a warm heart in and for his profession and otherwise escape that condition which may justly be termed mental fossilization, a condition too frequently observed and antagonistic to the spirit of the age.

I now introduce the Country Doctor, who, possessed of such nobility of soul, such glowing aspirations, would be able, in other and more or less honored fields of labor, to advance himself to the highest and most useful point obtainable, but such is not his destiny; his work is and will be such as requires much honor apart from professional services; no more useful citizen or benefactor, or confidential adviser could be named. I speak as one who has full authority to make these statements, as one who for more than three decades has been very closely associated with such men, not only with men in this, my native province, but in early professional life with colleagues, Country Doctors in a far distant state. Those days were days not only of perils but of discomforts, and disadvantages, our faithful and tireless bronchos conveyed us and our saddle bags to widely scattered homes:—

"I scarce can think those days are gone,
And yet like dreams they are no more."

Those were the times in which we respected our seniors, who taught us much, not only in practice but in Ethics, fraternal relationships then were stronger, and we well knew if consultations were necessary that our consultant would not try to rob us of our patients. To-day the consultant has to be carefully watched in too many instances, and the newly fledged doctor too frequently is ignorant of professional honor for his elders.

It is an admitted conviction, that in our staunch adherence to a code of moral law, and in the general and intelligent honesty of our members, we, although subjected to every form of temptation, many, great and constant, can find few illustrations of violation of our code or principles of Ethics, or of honor. No other occupation among men offers more abundant material for development of all that is best, that is useful and that is noblest.

When it is considered that no teachings during the collegiate life are given on the subject of medical Ethics, it is evident that a high grade of morals has either been inherited or has been acquired in practice by the average doctor. Although our profession is in keeping of

able men, yet, many dangers exist and are appearing which threaten our best interests. While the expenses of living and the demands for our offices have greatly increased, have we arranged our fee Tariffs to such changes? Are we not capable of being aroused to recognize that we are becoming more and more enslaved by several widely known Pharmacal Companies? Are we not able to note that our Medical Journals, fortunately not all of them, are greater friends to such companies than they are to us? Is it not time that our Provincial or State Medical Boards—name such Journals, whose columns and advertising pages have the almanac characters? While these so-called Pharmacal Companies are announcing their so-called Ethical goods to us too frequently, is the poor and struggling doctor called to pay out his hard earned money for these, and learns, probably, too late that if he had studied his *Materia Medica* and other works on medicine relative to this subject in preference to price lists of such companies, he would have served his patients far better.

The evidences furnished that old medicines are not totally abandoned, but becoming more studied and used, are many and encouraging. Should not we possess qualifications in *Materia Medica* equal to, if not superior, to those demanded of Pharmacists? If so, is such the case? Would it not be advisable that we adhere strictly to the employment of such medicine and their compounds as are named in our standard works on medicine, and not encourage preparations, praised by the Pharmacal Co. and a few well paid officials, connected with Medical Journals? We should prepare our own tablets and compounds, if not, our local druggist can do such work, and by so doing the interests of each other would be the better conserved.

Opportunities for the study of qualifications of medical students in their primary work are being afforded me in the position of examiner in *Materia Medica* and Pharmacology for our College of Physicians and Surgeons.

These reflections, or shall I mean them suggestions, are introduced for our best consideration, heart to heart talks such as I so humbly present, are what we of the country and of the walled city so earnestly need. Although each life is an existence viewing itself too much through a single medium, it is well for us to observe that medicine is a very jealous mistress, and the most difficult of all arts to acquire, and at such annual gatherings of this association, is it not but right to make confession by naming our sins of omission and commission; to view the past, consider our present interests, and to make attempts to look into the glorious future? For Cicero says that questions of any importance have the past, the present and the future to consider, (*tria esse omnino genera quas disceptationem cadere possint quid fiat factum futurum vesit.*)

What greater birth right can any intelligent or ambitious man claim and cherish than that his name is in the list, the long list of the *Æsclepiadæ* of the Healers of men? "A list," says Oliver Wendall Holmes, "which stretches unbroken to the days of Gods and of Demigods until its earliest traditions blend with the story of the brightest of the ancient Divinities." Can crowned heads claim a lineage more noble? Can the church, with its apostolic succession traditions, its lives of patriarchs, of apostles and martyrs, claim a greater or more honored progeny? Are not such reflections and the statements that coronets have been placed on the heads of many of our learned brethren, quite enough to fill our cup of ambition? Who then among us is not, or has not been ambitious to be the least among them, the Country Doctor?

In the words of William Cullen Bryant:

" We seek not the praise on the love-written record,
The name, and the date inscribed on the stone,
The things that we do, let them be our story,
Ourselves be remembered by what we have done."

These words are equally expressed by the immortal Hufeland, and more directly appropriate to our profession. 'Thine is a high and holy office, see that thou exercise it purely, not for thine own advancement, not for thine own honor, but for the glory of God and the good of thy neighbors. Hereafter thou wilt have to give an account of it. The Country Doctor having time for reflection recognizes these truths amid surrounding disadvantages and trials, lights and shadows, and like virtue, a country practice is its only reward.

Along the village streets where maples lean,
Together like old friends about the way,
A faithful pair oft and anon were seen,
He and his nag, both grown old and gray,

What secrets lurked within that old soul's breast,
Of mother-love, of throb of pains and ills,
All safely kept beneath that buttoned vest,
Receptacle of powders and of pills,

Thrice happy he when some fond mother's eyes
Grew moist with love unspeakable to find,
Snuggled in her breast her babe, whose paradise
Within her soul and bosom were entwined,

How oft he held the wrist to mark the slow
Pulsation of the feeble fluttering heart,
While his kind words, soft murmuring and low,
Essayed to calm the mourner's pain and smart,

He was to all a father, brother, friend;
Their joys were his, their sorrows were his own.
He slept for years where yonder willows bend
Above the violets that kiss the stone.

GUNSHOT WOUND OF THE UPPER ARM WITH NON-UNION
OF HUMERUS AND DESTRUCTION OF THE MUSCULO-
SPIRAL NERVE—OPERATION—SIX MONTHS
LATER RECOVERY.

By HADLEY WILLIAMS, F.R.C.S.

MR. PRESIDENT AND GENTLEMEN,—This patient, twenty-two years of age, on the 20th November, 1901, received, quite accidentally, a lacerated wound of the right upper-arm from a No. 12 breach loading gun, the muzzle being but a few inches from the inner side, midway between the axilla and elbow. Examination four months later, revealed an inch and a half shortening, the humerus was fractured about the centre and had not united, a sinus was discharging on the outer side at the insertion of the Deltoid and there was a typical musculo-spiral paralysis.

The arm was perfectly useless and the patient considered an amputation necessary. The next day, March 22nd, four months after the accident, the following operation was performed. With the assistance of Dr. E. Seaborn, who had referred the case to me, a long incision was made from the foot of the Deltoid to the front of the elbow. The lower end of the musculo-spiral, involved in dense fibrous tissue was dessected out and held aside. Going higher the central end was found embedded in the same manner in the position of the old groove in the bone. The two extremities when freshened were separated two and a half inches. The ends of the bones were then cleaned, a ring of dead bone being removed, together with numerous shot. Two inches of the fractured ends were then sawed off and fastened with silver wire. By a little stretching of the central divided nerve, and this amounted to about one-half an inch, the ends were easily brought together, the blood oozing quite freely from the cut surfaces; a No. 2 silk ligature was inserted through the body of the nerve, one-half inch from the ends and tied to act more as a tension suture for the other, a No. 1 silk, which was placed quite close to the ends to insure apposition. (It was feared that merely passing the ligature through the sheath of the nerve would be insufficient for any subsequent tension, and that cat-gut was too absorbent). Some of the overlying tissue was brought up between the nerve and bone to prevent involvement by callus, which seems a precaution worthy to be taken. Drainage was used on account of the old sinus, by packing lightly with gauze. A week later a small abscess formed at the old site of the entry of the shot. Two months after the operation there was no sign of a bony union, so the arm was incased in plaster of paris from shoulder to

*Read at the London meeting of the Canadian Medical Association.

wrist. On July 22nd, two months later, and eight months since the accident, the bone had refused to unite. Without being discouraged, but afraid of trying the wire again, (which in my experience, cuts through bone nearly as well as a saw), it was decided to attempt union with a silver plate made especially for the occasion. (It is rectangular in shape, two inches in length; and one wide, slightly curved in its width to fit the shaft of bone, and with an oblong piece taken out of the centre to allow room for the callus and so prevent the plate from being pushed aside and the screws loosened.

At each corner is a hole for a screw, which is long enough to penetrate to the opposite wall of the medullary canal to insure a safe grip. Four other small holes are made, two on either side for silver wire which is passed around each fragment, about one-half inch from each end and twisted to further bind the plate in position). On July 30th, with an incision five inches long and keeping away from the nerve, which was not seen during this second operation, the ends of the bones were laid bare, the silver wire removed and the silver plate fixed in position. Open treatment of the wound was adopted by gauze packing, and the whole of the arm from shoulder to wrist again enclosed in plaster.

The wound granulated rapidly. On September 10th, not quite six weeks, firm bony union had taken place and the patient was able to move the arm in any direction. One screw worked its way out in three weeks and another in five weeks. An x-ray photo at this time showed the plate in position with its wire fastening, and shot could be seen scattered in various directions through the tissues. On September 10th, (six months and four days after the nerve suture), movements first appeared in the fingers, and five days later the wrist could be partially extended, though abduction and extension of the thumb were impossible. Three weeks later, all the movements were nearly complete, until, as can be seen, the patient can perform any and all, even the intricate movements, such as writing and the like, which he had previously been accustomed to perform.

On December 12th, (eight and one half months after the first operation, the silver plate was removed and the wound healed quickly.

Two cases of musculo-spiral paralysis have come under my notice recently, the result of fracture of the humerus.

In looking over the literature of nerve suture, the field is remarkably limited in those cases where bone has been resected. Mann, *Lancet*, 1893 (page 59) speaks of such a case, and also Wheeler, 1894, page 939. There are doubtless many more. Primary suture of nerves is far more successful than secondary. Howell and Huber of eighty-four cases had

forty-two successful ones. Willard in secondary cases out of one hundred and thirty, only eighty per cent. were more or less improved. But Petersens' table shews twelve secondary and of these only eight showed signs of improvement with no case completely recovering. The ordinary method of procedure is to remove the bulbous ends of the divided nerve and sufficient stretching to bring them together. This however is fraught with danger from the tension and subsequent separation of the nerve.

Many plans are tried when the ends are too widely separated. Among others are a nerve graft from a chicken or rabbit, or from some limb amputated in an adjoining theatre; the use of strings of cat-gut to fill up the space; pieces of tendon or fascia in the vicinity or even splitting the nerve itself to join the peripheral end. Of ten cases collected three only were successful, six partially so, and one a total failure. The literature is full of unsuccessful cases treated by one or the other of the preceding methods. It is advised by some to render the parts bloodless but it seems much better to forego this plan for one can then see the oozing of blood from the nerve ends and be assured of their requisite power of union. Taking results of secondary nerve suture perhaps not more than 30 per cent. are partially successful and when one considers the enormous disadvantage paralysis of the musculo-spiral is to a patient for the rest of his life, every means should be tried to get union early without tension.

Time seems to be a potent factor in nerve suture, the longer the period the less successful the result to be anticipated, yet a year and more are not to be considered a bar to operation. The average time for sensation to return seems to be about six weeks and motion nine or ten months. There is scarcely any doubt that the success of this case depended upon the following: (1) Enough bone was resected so that the freshly cut and bleeding nerve ends were accurately brought together without tension. (2) Two sutures through and through the nerve substance rather than the sheath, ensured opposition. (3) The tissue which separated the fracture from the nerve preventing involvement in callus.

Since the musculo-spiral is a most important nerve, its paralysis leaves the arm for all practical purposes perfectly useless and even when the bone is intact the condition is but little better. Therefore it seems like folly to attempt experiments in such cases, experiments of grafting and the like. And why? because the graft dies. A fresh section of spinal cord, of sciatic of rabbit, or chicken, or amputated limb becomes but as a piece of fascia as far as any nerve elements are concerned. Where

tumors are present or in extensive laceration of an important nerve, with the ends widely separated such might well be repaired by resection of bone in suitable cases. The argument will be, no doubt raised that one is deliberately adding a compound fracture to an already serious condition. With all due respect, it seems to me, (other conditions being favorable) that the surgeon should not hesitate to do so in these advanced days of aseptic surgery.

AN UNUSUAL CASE OF EMPYEMA OF THE MAXILLARY ANTRUM.*

BY PERRY G. GOLDSMITH, M.D., C.M. Belleville.

Oculist and Aurist Ontario Institute for Deaf and Dumb, Laryngologist National Sanitarium Association, Fellow British Laryngological Rhinological and Otological Association.

MRS. T. age 35, family history unimportant, consulted me 2½ years ago for right nasal obstruction with nasal and post-nasal discharge. There was a history of a gradual failure of health for some years, accompanied by so much muco-purulent expectoration that she was supposed to be suffering from consumption, though no definit lesion had been found. Pus was noticed coming from the middle meatus of the right nostril, in which situation were also found many small granulations and polypi. Transillumination showed a somewhat dull light beneath each eye, but very much more marked on the right side. An exploratory puncture through the inferior nasal meatus showed foul pus in the right antrum. The middle meatal region was then cleared of granulations and polypi. As the patient lived some thirty miles from my office and was unable to remain in town but a few days, alveolar drainage was decided upon which necessitated sacrificing a healthy tooth. Lavage of the cavity was preformed by the patient daily for two weeks, using an indifferent antiseptic fluid resulting in a permanent cure of her nasal trouble with marked benefit to the post-nasal discharge. I might also add that for several years before I saw her she had been having polypi removed, but as the antral mischief was untouched they readily recurred.

I did not again see the patient until about nine months ago, when following an attack of what she called grippe, associated with severe facial neuralgia, considerable purulent discharge was noticed in her left (that is opposite) nostril. The purulent expectoration very rapidly increased. I diagnosed a purulent sinusitis in this side, probably an acute exacerbation of a chronic and comparatively quiet case. When I first

*Read at the Ontario Medical Association, June, 1903.

saw this patient, there was nothing to make me think a purulent focus existed in her left antrum, nor were there any evidences now on rhinoscopic examination other than the purulent discharge to lead me to suspect antral disease. The middle meatal region could not be thoroughly inspected, owing to a deviation of the septum. Transillumination, however, showed a marked difference in the two sides, the left now being the dark one while exploratory puncture through the nose allowed foul pus to be washed out.

My patient having cured her other side so easily wished to treat this one by alveolar lavage also. The third molar, normal in every respect, was removed and after considerable difficulty, owing to the thickness of the bone, communication was gained with the antrum. A spiral wire drainage tube with a small shoulder was inserted and the patient returned to her home. Her trouble, however, instead of being about over had really only begun. All went well for a few days, when her husband undertook to irrigate the antrum for her. He succeeded in pushing the drainage tube, the shoulder of which came off, into the antrum. On learning how matters stood I advised her to return immediately so that I might remove it. She did not come however until five weeks later. Since the tube passed into the antrum the discharge had very materially increased, though she was irrigating the cavity through the alveolus, the opening of which was now quite small. It was perfectly clear that the metal tube was and always would be an irritant and should be removed. A small plate of bone was therefore removed from the canine fossa, permitting thorough exploration of the antrum. The haemorrhage was very free but was controlled by gauze packing and adrenalin. I expected to find the tube quite easily but after searching the cavity very thoroughly I could not find it and was at loss to know where it had gone. A very rare condition of the antral cavity was found, viz., a large polypus attached to the inner wall. This was removed but unfortunately lost so that I cannot say as to its exact structure. There was an opening in the posterior wall of the antrum a quarter of an inch in diameter and another in the external wall somewhat smaller in size. On passing a cotton tipped probe into either of these openings blood and pus would be forced into the naso-pharynx, showing clearly the sinus communicated with the zygomatic fossa and from there into the naso-pharynx. A probe passed into the opening of the anterior wall could be felt by post-nasal palpation. It then occurred to me that the tube had probably passed backwards, but where it was I could not determine. The mucous membrane having been thoroughly curetted, a gauze packing was passed into both sinuses and antrum, the external wound being left open. A

counter opening, as usually made into the nose from which the cavity is dressed, was not made because actual inspection was necessary to pack the sinuses.

Three days after the operation the patient brought me the tube, it having passed back into her throat. On one subsequent occasion I packed the sinus and antrum rather lightly, owing to the tight packing being painful. Eight hours afterwards, she came to my office saying there was something in her throat and on looking into her mouth, the gauze strip was hanging behind the palate and the entire piece was removed through the naso-pharynx and mouth. On passing the tip of an irrigating tube into the opening of the external antral wall all the fluid would return through the opposite nostril. The nasal and post-nasal discharge rapidly practically ceased as well as the constant expectoration of muco-purulent matter. The patient said she felt much better in every way, having lost a dull heavy feeling that had for years existed in her head. It was essential in this case to keep the opening in the canine fossa patent so that a dental plate with the tube was attached to a tooth. Daily irrigation was carried out by the patient for three months and as all discharge had stopped, it was removed.

At a recent meeting of the British Laryngological, Rhinological and Otological Association, Dr. McIntyre, the president showed a case in which the tube had passed into the antrum, and remarked that had a gold tube with a well beaten flange been used the accident would not have occurred.

THE TREATMENT OF INEBRIATES.*

By A. M. ROSEBRUGH, M.D., Toronto.
Secretary Prisoners' Aid Association of Canada.

AT the meeting of the Canadian Medical Association in 1898, a paper was read "On the Treatment of Inebriates." In this paper a plan was outlined for the economic treatment of indigent inebriates without the establishment of public inebriate hospitals. The question was referred to a special committee and this committee at the meeting in 1899 reported in favor of the plan proposed. The scheme was subsequently submitted to the Premier and Provincial Secretary of Ontario, and, at their request, a bill was drafted in which the various features of the plan proposed, were incorporated. The bill was drafted conjointly by a committee of the Public Health Committee of the Ontario Medical Association and a committee of the Prisoners' Aid Association of Canada. It

*Read at the London meeting of the Canadian Medical Association, August, 1903.

was submitted to the Premier during the session of 1901, but from whatever cause, the bill has not as yet been brought before the Legislature, although, so far as known, no objections have been taken to any feature of the proposed bill. The members of the Government freely admit the great need of scientific treatment being afforded to indigent inebriates, and that the present method of sending inebriates to jail is neither deterrent nor reformatory, but nevertheless they unfortunately allow the matter to be deferred from year to year.

As the title of the proposed bill indicates, it is "An Act to Promote the Treatment of Pauper Inebriates by Municipalities, Benevolent Societies and Individuals." The principal features of the bill are as follows:

1. Placing all cases of drunkenness, except the confirmed jail "rounder," experimentally on probation or suspended sentence, and under the supervision of a probation officer.
2. Imposing a fine and permitting the fine to be paid by instalments to the probation officer.
3. In cases in which the inebriety has become a disease, the probation officer given authority to place the dipsomaniac for a few weeks' treatment in a cottage hospital, or in an inebriate department in a general hospital.
4. The cost of treatment to be considered as a loan, to be repaid after treatment and while still on probation.
5. Cases of able-bodied inebriates, not reformed or not reformable by these simple and inexpensive methods, to be sentenced to prison on cumulative sentences.
6. Old and feeble confirmed inebriates to be provided for in county or city poorhouses.
7. A special per capita Government grant made to hospitals to promote the treatment of dipsomaniacs.
8. A medical officer appointed by Government to organize inebriate wards in general hospitals, and special cottage hospitals for the treatment of dipsomaniacs in Ontario where such hospitals are necessary, to provide for and supervise the medical treatment in said hospitals, and also to provide for home medical treatment for probationers in proper cases.
9. Three physicians of standing in the Province to be appointed as a committee of consultation to co-operate (without salary) with the medical officer.

Many years ago the Ontario Government inaugurated a very wise policy with respect to the destitute poor of the Province. For the purpose of promoting the humane care of these unfortunates, a substantial bonus is given to each county in which a house of refuge is established. We desire the same principle introduced for the purpose of promoting the treatment of indigent inebriates. The Government is not asked to establish a provincial institution with the large expense involved in construction and maintenance; neither is the Government asked to defray the principal expense involved in the practical working of the bill. The

Government is simply asked to take such action as will stimulate municipalities and the benevolent public to undertake the treatment of the unfortunate class for whose benefit the bill is designed.

The bill, as drafted, has been endorsed by the Ontario Medical Association, the Toronto Medical Society and a number of other public bodies. It has also been endorsed by the medical press, including the quarterly Journal of Inebriety. In the October number for 1902 of the latter Journal, the editor speaks of this bill as follows: "We are confident that this bill will lead all the world as a new economic movement to diminish the misery and crime which associate and follow alcoholic drinking . . . its success is simply a question of the men to carry out its provisions."

At the meeting of the Ontario Medical Association held in June last a representative committee was appointed to co-operate with other public bodies in promoting the adoption of this bill.

As the underlying principle of this bill has been endorsed by the Canadian Medical Association we trust the members may be able to see their way clear to aid the movement by taking action similar to that of the Ontario Medical Association, viz., by appointing a representative committee for co-operation. Furthermore, we respectfully request that every member of the medical profession, who is in a position so to do will kindly give the undertaking a helping hand.

DR. CONNELL MADE DEAN OF QUEEN'S MEDICAL FACULTY.

The trustees of Queen's University met October 16th and appointed Dr. J. C. Connell, M.A., as dean of the medical faculty in succession to the late Dr. Fife Fowler. The appointment will be received with great satisfaction.

Dr. Connell is a native of Dundas, Ont. He graduated at Queen's as M.A. in 1885, taking the medal in mathematics. Three years later he took his medical degree. Then he studied in the large United States hospitals in eye, ear, throat and nose diseases. For the past thirteen years he has been practising his profession in Kingston. For some years past Dr. Connell has been a professor in the Medical College. His thorough knowledge of university affairs, his ability as a medical man and his popularity well fit him for this, the highest position the faculty of Queen's can offer.

CURRENT MEDICAL LITERATURE.

MEDICINE.

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

DISTURBANCES OF RESPIRATION IN THE NEW-BORN.

In the *Archives of Pediatrics* for September, Wilson describes various forms of dyspnoea that may attack the new-born, viz.: dyspnoea of pneumonia, marked by the absence of paroxysmal attacks; the increase in the signs and symptoms and the advancing somnolence: stenotic dyspnoea, accompanied by spasm, unaltered voice and labored crowing inspiration; dyspnoea due to enlargement of the thymus gland, due rather to reflex irritation than to actual pressure effects, the symptoms may appear suddenly and become fatal: dyspeptic dyspnoea, where signs of interthoracic origin are wanting, and other significant signs of indigestion, etc., are present. This form is toxæmic, with quickened and weakened pulse. Besides these forms one might mention asphyxia and atelectasis, which, however, are important, chiefly from the obstetrical aspect.

INJURIES AND INFECTIONS OF NEW-BORN CHILDREN.

In the *Archives of Pediatrics*, September, Snow calls attention to the large infant mortality during the first month, amounting, according to Eröss' European statistics, to 9.5 per cent. of all children born, while in Buffalo it is 9.30. That this is not a normal mortality is shown by comparison with Norway, where the mortality is 8.38. The number dying during the first week is almost double that in Europe, which would seem to suggest that here more children die of accidents of parturition, while in Europe the majority die of infection. The chief cause of this early mortality, the author believes, is intercranial hamorrhage, due to injuries to the skull and its contents during parturition, either from forceps, pressure or natural shaping of the head; and he claims that many of the deaths classed as dying of immaturity, insufficient vitality, asphyxia, etc., are really due to this cause. The writer recites a number of cases which support this position.

ORAL AND RECTAL TEMPERATURES.

In the *British Medical Journal*, October 24th, 1903, Kelynack and Williams, of Mount Vernon Hospital for Consumption, give the results of a study of the relative values and the variations between oral and rectal temperatures. Their conclusions are as follows:—

(1) Temperatures carefully taken in their mouth during rest form a reliable guide in the management of phthisical cases under conditions of sanatorium life.

(2) Temperatures taken in the mouth during or shortly after exercise cannot be considered trustworthy unless registered with such precautions as militate against their general practical applicability.

(3) Temperature taken in the rectum during rest, generally speaking, register higher than in the mouth, but do not, otherwise, usually afford any special assistance in the management of phthisical cases.

(4) Temperature taken in the rectum during or shortly after exercise in both health and phthisical subjects register a temperature considerably higher than that in the mouth, and whilst in the non-tuberculous the return to normal is more rapid than in the tuberculous. No special direct advantage for the phthisical appears especially to accrue from this method.

(5) For practical purposes for the management of phthisical cases undergoing so-called sanatorium treatment, the registration of temperature by the oral method, when taken during rest and with due care, affords reliable guidance.

SOILS IN THEIR RELATION TO HEALTH.

In the volume of the *Reference Handbook of the Medical Sciences*, just issued, Professor William Oldright discusses the relation of soil to health, as (1) direct, by their component parts and immediate products being taken into the organism; (2) indirect, by their influence in modifying other surrounding conditions. The direct influence may be excited (a) chemically, (b) by introducing pathogenic micro-organisms, (c) by acting mechanically on the tissues. Among indirect influences may be mentioned: those upon the ground water, the influence upon water supplies, the ground air and the temperature of the air, and the effect upon insolation. The vegetation and configuration of the land markedly affect the air in any germ locality.

EXAMINATION FOR LIFE INSURANCE.

In the *Medical Times*, November, 1903, Pratt discusses the qualifications of an examiner for life insurance and the points to be emphasized in such an examination. In determining the relation of the use of alcoholic liquors to the eligibility of the candidate, it is noted that English statistics seem to show that the mortality is less there among moderate drinkers than among teetotalers; but the chief importance attaches to the question as to the effect that alcohol may have had upon the system of the applicant, and his habits—"refuse a policy to one who acknowledges drinking before breakfast," and, of course such as show functional or other evidence of its effects.

In the examination of the urine, it is important that the examiner should use apparatus and reagents beyond suspicion and that he should be able to interpret the results of chemical or microscopical investigation. The possibility of physiological albuminuria and glycosuria must be admitted, but when albumen or sugar is found the case should be refused insurance until it has been positively ascertained that there is no pathological significance in the symptom and that it has been of only a temporary character. It would be well to postpone the examination for a year. If the applicant is over fifty, the company, if insuring him at all, should make a high rate.

It is inadvisable to issue policies except upon very high rates to persons suffering from chronic suppuration of the middle ear; the symptoms of importance being the duration, the condition of the meatus, the nature of the discharge and the presence of pain, tenderness, giddiness, etc.

With regard to heart lesions: consider (1) the character of the murmur and position of its greatest intensity; (2) the time of its occurrence; (3) the position of the apex-beat and evidence of cardiac enlargement or alteration in the position or shape of the heart; (4) the symptoms that point to disturbance of the circulation; (5) the character of the pulse as regards force, irregularity, intermittency; (6) the antecedent history of the case, questions of rheumatism, gout, or syphilis or other taint.

NARCOLEPSY.

In the *Medical Times*, November, Fitch discusses this peculiar malady, describing a number of cases, and concluding as follows: It will be noted the neuropathic element was not prominent in the larger per cent. of these cases, although the narcolepsy was pronounced in all:

Age cannot be considered as having any special influence based upon these observations ;

Sex seems to have some bearing, as of twelve cases but one occurred in a female ;

When occurring in young subjects there is often improvement, or the narcolepsy may even entirely disappear during adolescence ;

Obesity, gouty and hepatic diseases are apparently factors of more or less prominence ;

This disorder may disappear with or without treatment, to reappear when the general health of the individual is below the normal standard ;

It seems impracticable, from evidence thus far deduced, to arrive at a satisfactory conclusion as to principal etiological factors, little being apparently accurately known of either etiology or pathology ;

No method of treatment thus far suggested directed toward relief of the disease, *per se*, appears to have any appreciable affect, but amelioration not infrequently follows the correction of other systemic irregularities, *e.g.*, cardiac, digestive, assimilative, gouty, lithemic, malarial.

SURGERY.

Under the Charge of H. A. BEATTY, M.B., M.R.C.S., Eng.,

Chief Surgeon Canadian Pacific Railway, Ontario Division, Surgeon Toronto Western Hospital.

THE TREATMENT OF FRACTURES.

J. B. Taulbee in the *Medical Age*, October, advocates mobilization in contradistinction to immobilization in the treatment of fractures of the long bones. This method has been for many years regarded by the French surgeon, Lucas-Chapionnière, as ideal. The writer considers the treatment of fractures to be the most difficult branch of surgery to practice successfully and creditably, as no other requires more vigilance and attention or a more enlarged experience. An unsuccessful result continually reminds the surgeon of his bad luck, neglect, or want of practical skill, and is a standing menace in this day of merciless prosecutions for malpractice.

Taulbee urges that after the fragments have been carefully adjusted preferably under an anæsthetic, the limb should be placed in a form of splint which will leave the site of injury exposed. This is of especial advantage in compound, comminuted or complicated fractures. In some cases it is well to incise over the seat of fracture and remove from about the fragments all spiculae and clots which may interfere with the process of repair.

After three or four days, gentle massage is commended. Thereafter the dressing is removed daily and appropriate massage and mobili-

zation employed. This will quicken the circulation in the part, help the absorption of the extravasated fluids, relieve the pain, restore the normal condition of nutrition, and stimulate the process of repair. For this massage and mobilization the surgeon should be his own masseur. In ordinary fractures, the massage ought to be made in the direction of the venous circulation to help empty the congested tissues. It should be as nearly as possible painless, and should begin on the sound tissues above the point of injury and gradually descend to the congested part. It ought to be soft and light at the commencement and become more vigorous towards the close. An unguent should be used, and only the soft, smooth part of the hand applied. The massage should last for five or ten minutes.

Massage and mobilization should be practiced from twelve to four-days, when in most cases it will be found that the inflammation and swelling have disappeared. Mobilization should now cease and absolute rest of the fragments be maintained. Massage is still applied daily and assists in mending the callus which has been thrown about the fracture, and in hastening the firm reunion of the fragments. At the end of three weeks, a fixed dressing can be safely applied and the patient himself can begin to exercise the limb.

LOOSE CARTILAGE IN THE KNEE.

"The Formation of Loose Cartilage in the Knee Joint," is the subject of a paper by E. A. Codman in the *Boston Medical and Surgical Journal* for October. The writer does not include injured or displaced semi-lunar cartilages under this title, but confines his remarks to those cartilage-like bodies, varying greatly in size, which exist either free in the joint or held by a pedicle or light adhesions to the capsule. The presence of such bodies may in some cases cause no trouble, but usually painful locking of the joint occurs, or chronic synovitis is set up. When such cases come to operation, a small incision is made in the capsule, and the loose body is "popped out." The result is usually a perfect cure.

In considering the formation of these bodies, the writer mentions the three commonly-accepted theories of origin. One explanation is that the process of formation is one of concretion, comparable to the formation of biliary or cystic calculi—that the nucleus is a clot of fibrin, a bit of torn fringe, or a fragment of semi-lunar cartilage. Another view is that such bodies are originally osteophytic growths on the lips of the articular surfaces and become broken off. A third view considers them actual bits of cartilage set free by trauma

This latter theory, the writer thinks, clearly accounts for the vast majority of cases of loose cartilage, although occasionally a case from one of the other causes may occur. This view seems to be confirmed by the scars which he has observed on the articular surface of the internal condyle, to some of which the loose bodies have closely corresponded. In one case he found the little piece of cartilage still attached by its margin to its former bed, into which it exactly fitted. In the great majority of loose bodies, one side is of cartilage and the other of modified spongy bone, and the usual site of origin is the articular surface of the internal condyle—the external condyle is almost completely protected by the patella when the knee is flexed and so usually escapes injury.

Dr. Codman concludes, from the experiments on the cadaver, that the life-history of the loose cartilage comprises two injuries—one to depress it, and one to free it, though frequently the first is forgotten.

The continued growth of the osteo-cartilaginous chip is explained by the rational hypothesis that adhesions are formed with the capsule.

POST OPERATIVE OR INCISIONAL ABDOMINAL HERNIA.

In the *Pacific Medical Journal* October, Winslow Anderson discusses "Post-Operative or Incisional Abdominal Hernia." A careful consideration of a number of cases leads him to the following conclusions:—

1. A lateral incision is more frequently followed by hernia than a median incision.
2. Hernia follows the through and through suture more frequently than the layer to layer method.
3. Bulging of the abdominal walls is more frequent in suppurating wounds, such as suppurating appendicitis, than in aseptic wounds, on account of the necessary opening for drainage.
4. "Destructive innervation" of the muscle and fascia is a factor in post-operative hernia.
5. Allowing a patient to sit up and go about in eight or ten days after a colliotomy is responsible for many a ventral hernia.
6. Inaccurate apposition of the belly walls will weaken the resulting cicatrix.
7. Too early removal of the abdominal sutures will leave the union weak.
8. The use of ordinary catgut which absorbs in a few days is a predisposing cause of hernia.
9. Long incisions are more prone to separate than short ones.
10. In a lateral incision the layers of the abdominal fasciæ should be divided in the direction of the thin fibres and not cut "across," that is, the external oblique should have its fibres divided from above, downwards and inwards, and the internal oblique from below, upwards and inwards, and the transversalis transversely. Such wounds are practically self-

closing. The layers should then be sutured together *separately* with chromocized, cumulized catgut which does not absorb for 21 to 28 days, by which time union is firm. 11. Median incisions, especially in pendulous abdomens, or after abdominal hernia, are best treated by means of the overlapping or "double-breasted" method of suture. 12. Suppurating wounds that heal by granulation should have the fasciae firmly united by means of a "double-breasted" suture as soon as there is the slight indication of bulging of the walls. 13. There is no strength in the muscle fibres. It is the fasciae covering the muscles which must be firmly united after an incision. 14. Diabetes and constitutional dyscrasias will militate against firm union. 15. It is necessary to support an abdominal cicatrix for three months by a suitable abdominal belt to prevent stretching of the scar.

OPHTHALMOLOGY AND OTOLOGY.

Under the charge of G. STERLING RYERSON, M.D., C.M.
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AN OLD TIME EYE QUACK.

Brown Pusey, *Journal of American Medical Association*, gives extract from "the life and extraordinary history of Chevalier John Taylor, Ophthalmiater," published by his son, John Taylor, Oculist, 1761. Taylor seems to have been a highly successful quack and, had he lived in the present century, might have been a doctor of refraction, or Doctor of Optics. As it was, he was an Ophthalmiater, which sounds much bigger. Among his publications was "an accurate description of 243 different diseases to which the eye and eyelids are exposed." The particular copy, reviewed by Brown Pusey, had been presented to a relation by Taylor with a letter from which the following is copied: "If it has intrinsic value so much the better; if not, keep it lying about where your patients can see it. It looks so learned you can charge without hesitation in two languages." The text is in German and Latin.

The Chevalier pursued one plan when he was finally located in England, which modern quacks do not use and which appears to his advantage. This plan is brought to the notice of the reader in the back of the third volume of his "History." He calls attention to the great suffering of the poor in England from eye diseases, and suggests to the prosperous of the notion that each subscribe two guineas yearly, and all who do this are entitled to send, during the whole year, the poor thus afflicted to Taylor's son's house, where the Chevalier himself will gladly assist.

PROFESSOR PANAS.

Panas' life history is encouraging to young and unknown practitioners, apart from the fact that he is one of the group of men to whose energy and ability is due the great advances of modern ophthalmology, in contrast with men of the Taylor type. Born at Cephalonia, Greece, the son of a physician, he was sent to Paris at seventeen to commence his medical studies. From the outset, he showed great ability for work and assimilation. House Surgeon at twenty-two, he received the gold medal of the faculty of Medicine the following year, 1855. He applied himself to surgery and became prosector of anatomy in 1861, when he published his thesis on "The anatomy of the nasal fossæ and of the lachrymal passages"—a subject which he was destined to study most successfully in later years. The word ophthalmology was hardly known in France at this time. Everyone treated diseases of the eye in the surgical clinics and the rest was left to a few specialists, chief among whom were Sichel and Desmarres. From 1859 to 1863, Panas devoted himself to teaching, giving anatomical and operative surgical courses at the Ecole Pratique. In 1863, he received his fellowship degree and served successive terms as surgeon at various hospitals. His days of probation having passed, practice came to him rapidly. Everybody smiled on the young surgeon, so devoted to his art and possessed of a charming manner. During the war of 1870, Panas was surgeon to St. Louis Hospital and, at the same time, took up military duties at St. Martin's Hospital. After the war, he received the cross of the Legion of Honour. The war had called the attention of the French to the numerous flourishing chairs of ophthalmology in Germany, and Panas, who had organized special services at St. Louis and afterwards at Lariboisière hospitals, was, in 1873, requested by the Faculty to give a course of lectures. It was at Lariboisière that the writer first met Panas, and followed his course of instruction in 1875 and 76. He had a clear, incisive, and almost epigrammatic way of putting facts, which greatly impressed the student. Add his charming and courteous manner, and you have an ideal teacher. In 1879, when the chair of ophthalmology was created, Panas was chosen to fill it. From this time, he spent much time at the Hotel Dieu and devoted himself exclusively to teaching ophthalmology. With Landolt and Poncet de Cluny, he founded the "Archives d'Ophthalmologie," in 1881. By the authority of his teachings, the great value of his investigations, and the increasing number of visiting foreigners, Panas soon established himself as the head of the French School of ophthalmology. In 1898, he was elected president of the Academy of Medicine and presided over its sessions with notable charm

and authority. He deserved all these honours, because of his great intelligence and the conscientious performance of his duties. He was a most skilful surgeon, possessed of extraordinary manual dexterity. His after treatment was most careful, for he changed the dressings himself and was one of the first in France to adopt Lister's methods. In cataract operations, he showed a marvellous dexterity, making the corneal incision with a single movement of the knife. It would be impossible with the space at my disposal to give a complete account of his scientific works, but a short analysis may be attempted. They may be divided into two parts, first, those on anatomy, physiology, and pathology; and, secondly, those on ophthalmology. His surgical studies were especially directed to the joints, to abdominal surgery, genito-urinary disorders, and the nerves. His ocular work involved experiments in connection with sympathetic ophthalmia, parenchymatous keratitis, glaucoma, etc. He was one of the earliest advocates of intraocular lavage after cataract extraction. His book on diseases of the eye appeared in 1894, and was the crowning work of his life. He applied to everything the motto of the Surgical Society "La vérité dans la science, et la moralité dans l'art;" and his own life was a striking illustration of it. It remains only to be pointed out that diligence, ability, rectitude brought this young Greek, a stranger and a foreigner in France, to the highest honours both in his adopted country and abroad. He died on January 6th of this year. In the *Ophthalmic Record* from the *Archives d'Ophthalmologie* by E. A. Shumway.

PREVENTION OF OPHTHALMIA NEONATORUM.

Rosner, *Med. Blatter, Annals of Oph.*, states that Credè, in 1881, published his method of preventing this disease. After enumerating the various attempts at opposing this method, especially by Carl Schröder, Professor of Obstetrics at Berlin, the author comes to the conclusion that a ten per cent. solution of protargol is the best substitute for silver nitrate. The drug is just as efficient as silver nitrate and does not possess irritating effects. Protowski used protargol in 1030 consecutive cases of new born infants, with no percentage of blenorrhœa.

PROVINCE OF QUEBEC NEWS.

Conducted by MALCOLM MacKAY, B.A., M.D., Montreal.

THE opening meetings of the Montreal Medico-Chirurgical Society have been particularly well attended, and, thanks to the President's remarks in his address to the members, the discussions have become more general, and consequently more interesting. The method adopted of showing living cases and pathological specimens between 8.30 and 9 p. m., before the regular meeting opens, has been a great success, for not only can a close examination be made and questions asked, but also a great deal of time is saved in the subsequent presentation of the case reports.

Among the pathological specimens exhibited were two kidneys demonstrated by Dr. Martin. They were obtained from a young man 18 years of age, who gave a history of having had measles when 7 years old, and consequently suffering from what was called diabetes,—at all events an increase in the quantity of urine passed. Until six months previous to his admission to the Royal Victoria Hospital he had been in fairly good health, but from that time he had failed rapidly, and, after being in the hospital for a few days, died in uræmic convulsions. While under observation the patient passed about forty ounces of urine per diem. Its specific gravity was 1008, and it contained a large quantity of mucus and from four to five grains of albumen to the litre. No casts could be found, but quite a number of pus cells were invariably present. A post-mortem examination of urinary organs was made and the kidneys were found to be exceedingly small, with practically no cortex; the calices and pelvis were dilated, and although the ureters were normal the bladder showed marked hypertrophy of the wall with well marked cystitis.

Dr. Armstrong showed a specimen of early carcinoma of the bowel which had been resected in order to relieve obstruction. The patient entered the General Hospital complaining of vomiting, constipation, and loss of appetite, and gave a history of having received a blow on the abdomen seven months before, which had been followed by constant pain in the left side. One week previous to admission the vomiting and constipation commenced, and was followed by abdominal distension and visible peristalsis. No blood or mucus had been passed in the stools. Enemata and purgatives were tried for thirteen days without

success, and operation was then advised. On opening the abdomen a tumor was found in the sigmoid flexure, and two or three enlarged glands could be seen in the mesentery. One of these glands was excised and examined at once by the pathologist, who reported that no signs of carcinoma could be found in the sections examined, but as the patient's condition was bad a lateral anastomosis was made and the wound closed temporarily. At a second operation the tumor and glands were removed and the patient made an uneventful recovery. The tumor was found to be a carcinoma, but Dr. Armstrong thought that there was such a slight involvement of the glands excision was the best treatment.

At the same meeting, Dr. Birkett showed a large salivary calculus and Drs. Abbott and Fry a specimen of a cleft palate in a new born child. Dr. Mackay also showed a brain riddled with air cavities caused by the bacillus welchii. Dr. Adami read a most interesting and entertaining paper on 'Appetite juice,' containing a survey of the recent work of Pawlow on the digestive tract of dogs, and comparing it with the results obtained by Beaumont with Alexis St. Martin.

Dr. Laphorne Smith presented a specimen of a tumor which he removed from a young woman suffering from indefinite abdominal symptoms. The tumor, which was about the size of a cocoanut and contained clear fluid, intimately associated with the kidney and was in fact enclosed in its capsul. In removal the renal vessels had to be ligated, and consequently the kidney came away with the tumor, leaving its capsul behind. The patient showed no ill effects and in fact was relieved of her abdominal symptoms. Dr. Archibald suggested that the tumor in all probability was formed from the remains of the Wolffian body.

Dr. Garrow brought before the society a living case of congenital dislocation of the hip treated by the so-called bloodless method. The result was particularly good, there being less than one cm. of shortening and the gait absolutely normal. The case was a particularly favorable one as there was a good acetabulum and muscles were lax. One point of special interest was the short time occupied in obtaining the result, for nine months after operation the child was walking without any artificial support. Dr. Monod congratulated Dr. Garrow on the result and pointed out that in girls an apparently better result was obtained simply from the fact that they wore skirts and were able to conceal any slight defect. Dr. Garrow also reported a case of congenial absence of the fibula with deformity of the femur in a child of three months. The photographs and skiagraphs very plainly showed the bowing of the femur and absence of the fibula, as well as the perfect condition of the tarsal bones.

Dr. Elder read a paper on the treatment of ventral hernia, advocating the overlapping of the denuded recti muscles, joining them with mattress sutures, and then closing the wound, after sewing up the sheaths; stating that he did not think that the operation was well known and that as he had operated successfully in this way in four cases he thought it well to bring it up for discussion. Dr. Laphorne Smith said that he had obtained satisfactory results by simply joining the edges of the recti muscles, but could see the advantage of this method in certain cases. Drs. Keenan and Garrow thought that the operation had been in use for ten years at least, and they reported cases in which the result had been excellent.

Plans for the new contagious disease hospital at Montreal have been accepted, and the new Alexandra Hospital, as it is to be called, will soon be erected on Charron St., Point St. Charles. The design shows the administration building in the centre, measuring 96 by 44 feet. The chief wards for measles, scarlet fever, and diphtheria, are 125 by 40 feet, and the erysipelas and observation wards 60 by 32 feet. The buildings will be two stories in height and the cost will be in the neighborhood of \$100,000. The three divisions for the treatment of measles, diphtheria, and scarlet fever, have been placed to the east, south, and west respectively, of the kitchen, which occupies the centre and measures 34 feet square. The erysipelas ward is placed to the east of the administration building, between the street and the measles ward, and an observation ward for the receiving and treatment of doubtful cases occupies the space immediately to the west of the administration building. Thus each ward is a separate unit in the general plan, and, though isolated, is still connected with the administration block and kitchen department by covered corridors.

A room for the changing of clothes on the arrival and departure of patients is found just outside each ward, and a patient whose disease has been diagnosed may be taken directly to the proper building without coming into contact with the approaches of any other ward or department. An addition which will be appreciated by the students is an examination room for the diagnosis of cases, for in the past proper opportunities have not been afforded them for studying infectious diseases. This ward will be reserved for doubtful cases and will have a separate isolated approach.

Each building has its ward for male patients on the ground floor, and for female patients on the first floor, and instead of a stair-case or elevator, an inclined plane is provided. Over each first floor and approached by an isolated stair-case is the accomodation for the nurses

on duty, consisting of a dining-room, sitting-room, pantry, three double bedrooms for nurses, an attendant's room, bath room and box room.

The administration quarters contain rooms for the resident physician, matron, trustees, etc., as well as a dispensary. Provision has been made in the plan for two additional wards of the larger size when they may be required.

The annual report of the Notre Dame Hospital has just been published, and in it the Medical Superintendent states that 2,433 patients were treated in the hospital wards, with a mortality of 7.6 per cent. In the out door department 21,245 consultations were held and over a thousand ambulance runs were made. The financial condition was satisfactory there being a balance of \$4,731 on the right side. It was stated positively at the annual meeting that the contagious hospital would be erected in the spring, and that the new Notre Dame General Hospital would follow. The plans for this structure are ready and a site on the Lafontaine Park has been selected. It is to be four storeys high, built in the shape of a cross, with the main entrance on Sherbrooke St. On the ground floor will be placed the dynamos, steam apparatus, and engineers' rooms, as well as the kitchen, laundry, and servants' apartments. The first floor will be occupied by the sterilization, anæsthetic, ophthalmological, and gynæcological hall, besides an amphitheatre, room for patients after operation, private rooms, and pharmacy. The second and third flats are to be similar to the first: each containing operating rooms and quarters for the sisters and nurses. On Sherbrooke Street is to be constructed a handsome terrace and roof garden for the use of convalescents.

The contagious section will be connected with the main hospital by a tunnel and large covered corridors will afford communication with the nurses' and attendants' pavilions.

Dr. John W. Scane has been appointed Registrar of the Faculty of Medicine at McGill in succession to Dr. Von Eberts, who has resigned the position after filling it to the entire satisfaction of the Faculty for twelve months, on account of the increasing pressure of his hospital and private practice engagements.

Dr. Scane is a graduate of McGill of the class of 1893. For some years he held a position in the Royal Victoria Hospital, and has more recently been an assistant to the professor of physiology at McGill. He practised for some time in Westmount and afterwards at Ste. Therese.

UNIVERSITIES AND COLLEGES.

THE HOSPITAL FACILITIES FOR CLINICAL TEACHING IN THE CENTRES OF MEDICAL EDUCATION.

TORONTO.

1. TORONTO GENERAL HOSPITAL.

This hospital has now 425 beds, and during the year the number of in-patients has varied from 250 to 300. During the year over 3,300 patients are treated in the wards, and 16,000 in the out-patient department. Most of the cases are of an acute character and, therefore, well suited for clinical teaching. Clinical instruction is given in the lecture theatre and in the wards on medicine, surgery, gynaecology, obstetrics, and diseases of the eye, ear, nose, and throat. Surgical operations are performed on Tuesday and Friday afternoons. The theatre is capable of seating 600 students. The additions recently made to the Hospital, afford excellent scope for out-door clinics. A physician and a surgeon are in attendance on this part of the work every day. In the emergency branch of the Hospital there are unusual opportunities for the study of injuries, and classes are permitted to avail themselves of this material. In the Pathological Department, autopsies are performed at stated hours of the day. The opportunities afforded for this part of a student's studies are particularly good.

2. THE VICTORIA HOSPITAL FOR SICK CHILDREN.

This Hospital, with 160 beds, is entirely devoted to the diseases of children. This Hospital furnishes exceptionally good facilities for the study of children's diseases, and students are allowed every opportunity for a personal examination of all cases.

3. ST. MICHAEL'S HOSPITAL.

This Hospital has a bed accommodation of 160. It is conducted as a general hospital, and admits medical, surgical, and obstetrical cases. A member of the Hospital Staff are also members of the University Medical Faculty and give clinics in the Hospital. Post-mortem examinations are conducted systematically so that students may avail themselves of this material.

4. THE TORONTO WESTERN HOSPITAL.

This Hospital has now accommodation for 100 beds. At a recent meeting of the hospital corporation it was decided that students might be admitted under certain conditions to be agreed upon.

This Hospital is a general one, and offers many opportunities for the study of medical and surgical cases.

In all of the above hospitals, graduates are appointed as resident physicians and surgeons.

5. THE ASYLUM FOR THE INSANE.

Mental diseases are taught clinically in this institution, which contains about 700 cases.

It will be seen from the above that there is hospital accommodation in Toronto for 845 beds at the disposal of clinical teachers.

MONTREAL HOSPITALS.

THE history of the hospitals in Montreal dates back to the 17th century, when the Sisters of St. Joseph, under Mademoiselle Mance, established the Hotel Dieu at the cost of forty thousand livres. This was the only general hospital in the city until 1819, when a small building suitable for receiving twenty-four patients was rented and called the Montreal General Hospital. From this time the hospital accommodation has been extended with the increasing population, and in fact is becoming greater in proportion to the number of citizens year by year, as more patients are taking advantage of free advice. The pendulum of popular prejudice against hospital treatment is swinging far to the other side. People who can well afford to pay a physician, patronise the outdoor departments and dispensaries, and are encouraged rather than discouraged by those whose lust for large figures in the annual report seems to overcome their sense of justice. This is particularly true of the specialist's departments. Patients know that they will have to pay a specialist a good sum for a consultation, and to save expense they prefer to drive to the hospital in a cab, wait their turn, and get their remedy free, having faith enough to believe that the result will be equal, if not superior, to that which would be obtained from a private interview.

The necessity for Hospital extension is still more urged upon the authorities by the demand for public-ward beds by the middle classes, and as a result the Hotel Dieu and Royal Victoria Hospital each added a new wing last year; and the governors of the Notre Dame, Western, Montreal Maternity, and Contagious Diseases Hospitals, have in their hands accepted plans for new buildings which are to be erected immediately.

1. THE HOTEL DIEU DE ST. JOSEPH.

The Hotel Dieu de St. Joseph is the oldest hospital in Montreal, having been founded in 1644 by the liberality of Madame de Bullion. It consists of a large main building with three wings, one of which was

enlarged in 1902, chiefly for the purpose of increasing the accommodation for the out patients and for new operating rooms. The large dispensaries, x-ray room, and operating rooms have been finished in the best style and the addition has been a valuable one to the students of Laval University who receive part of their training at this institution. The main part of the hospital contains three large wards with room for 44 patients in each, and a number of smaller wards, which, together with the private rooms in the new building, brings the number of beds close upon 300.

2. THE NOTRE DAME HOSPITAL.

The Notre Dame Hospital is the second large general hospital supported by the French Catholic section of the community. It was founded in 1880 and contains some 150 beds. Situated as it is in the centre of the business portion of the city, it rivals the Montreal General Hospital in the number of accident cases brought in from the wharfs and factories in the vicinity. Three ambulances and six horses are kept constantly in requisition for this important branch of the hospital service, and over 1000 runs were made last year. The students of Laval have thus ample opportunity of studying acute cases, and assisting in emergency work. During the year it is customary to have more than 2000 cases admitted to the wards, and the out door consultations range between 20,000 and 25,000 per annum.

The nursing in both of these hospitals is carried on by nuns, although this year for the first time a trained nurse graduated from the Notre Dame Hospital and a regular school has been established.

The Laval students receive their instruction by means of ward clinics and attendance at the operating theatres, and in addition the out-door departments of both hospitals are at their disposal, as well as L'asile de la Providence, and Le Dispensaire St. Joseph. Clinics in all the special branches, ophthalmology, laryngology, nervous diseases, pediatrics, gynæcology and skin diseases are held at one or another of these institutions, and mental diseases are taught at Longue Pointe Asylum.

3. THE MONTREAL GENERAL HOSPITAL.

The Montreal General Hospital consists of a Surgical, a Medical, and a Pathological Department.

The Surgical Department has two large pavilions containing four wards, 135 feet long by 35 feet broad, with an intervening and connecting building in which is a large operating theatre capable of seating over 350 students. In connection with this are preparation, etherising, instrument, and smaller operating rooms. The old part of the hospital, which was completely rebuilt and remodelled a few years ago, forms the

Medical Department, and contains four wards, 100 feet by 40, arranged for 150 beds. In this building there are wards for gynaecological and ophthalmological patients, a number of private wards, and the laboratories for clinical chemistry. There is also a medical amphitheatre and gynaecological operating room, capable of seating 150 students. The central part of the old building is for administration purposes. The out-door department is situated on the ground floor, and there is ample accommodation for the various special departments as well as large rooms for general medical and surgical patients. The pathological department contains the post-mortem theatre and rooms for microscopical and bacteriological work, also a mortuary and chapel.

Last year's report shows that over three thousand medical and surgical cases were treated in the wards, and the great proportion of these were acute cases, as may be gathered from the fact that the average duration of residence was only 24.02 days. Besides this there are upwards of 40,000 consultations annually in the out-door department.

4. THE ROYAL VICTORIA HOSPITAL.

The Royal Victoria Hospital was opened in 1894, and was designed to accommodate between 250 and 300 patients.

It is composed of three main buildings connected by stone bridges; an administration block in the centre, and a wing on the east side for medical patients, in connection with which is the pathological wing chapel and mortuary, and a wing on the west side for surgical patients.

The administration block contains rooms for the resident staff, nursing staff and domestics. To the north of this block has been erected a large out-patient department in which are special rooms for minor surgery, ophthalmology, laryngology and gynaecology.

The medical wing contains three large wards, each 123 feet long by 26 feet wide, one ward 40 by 26 feet, and 15 private and isolation wards, also a medical theatre with a seating capacity for 250, and several rooms adjacent for clinical chemistry. In the pathological department, besides the chapel and mortuary, there is a post-mortem room designed for 250 students, and laboratories for students, post-graduates, and those conducting special research.

The surgical wing contains three large wards, 123 by 26 feet, and four smaller wards, 40 by 32 feet, together with private wards, operating rooms for 250 students, and numerous preparation and instrument apartments. There are separate rooms for x-rays, static electricity, hot air treatment, and photography, while behind the main building there is an isolation pavilion for infectious cases.

The number of patients admitted last year was 2,814, and the number of consultations in the out-door department, 21,950.

The students of McGill University are granted exceptional privileges in both of these hospitals, for they are allowed free access to all the wards, with liberty to examine any of the patients from 10 a. m. to 4 p. m. on every day of the week except Sunday; and again from fifteen to twenty vacancies on the resident staff are filled annually by members of the graduating class. The appointments last from one to three years and some of them carry with them a small salary.

In order to facilitate the work and prevent confusion, the classes are divided into two groups; one attending the General Hospital and the other the Royal Victoria, during the second term the divisions change places so that each group has the advantage of seeing the work and comparing the views of the different men.

The group at each hospital is sub-divided into two parts, one taking surgery, and the other medicine. Beds are assigned to each student who examines his patient, writes up a complete history of the case with diagnosis, prognosis, and treatment, and who may be called upon at any time to read his report before the whole group, and have it discussed and commented upon by the professor in charge and his fellow students. At least ten medical and ten surgical cases must be reported in this way. Ward clinics in each department are conducted daily, when small groups receive bedside instruction, and in addition the whole division attends the general theatre clinics both in medicine and surgery, which are held three times a week. Small groups of from four to six attend the clinics in the special departments of which there are two in each department weekly, the clinical material in ophthalmology, neurology, and dermatology, being particularly plentiful.

In the junior years special divisions receive clinical instruction in the out-door departments, and members of the senior years are given cases to diagnose and treat, under the direction of the medical and surgical assistants.

In the pathological department students are required to take active part in the autopsies, and demonstrations are given on Saturday mornings when pathological material of interest collected during the week is discussed.

Mental diseases are taught at the Ver 'un asylum.

The students of Bishop's College attend the General Hospital and the Western Hospital. The latter institution receives most of its patients from St. Henry and Ste. Cunegonde, and has a large out-door service. It was founded in 1875 and can accommodate 50 patients. An extension had been contemplated for some time, and a large sum has already been contributed to this end.

The general hospitals in Montreal refuse maternity cases, as they are well provided for by separate institutions set apart for this work. L'Hospice de la Maternite founded in 1845, contains over 300 beds, of which 200 are devoted to maternity cases alone. The Woman's Hospital founded in 1874 contains 50 beds, and the Montreal Maternity 22 beds. Plans for a new building for the latter have already been designed, and a suitable lot selected, so that shortly a building more worthy of the work will be commenced. Students have free access to these hospitals, and obstetrics are taught in a practical way under the supervision of the physicians in charge, in addition outside cases are assigned to those who have obtained a certain proficiency.

A number of other institutions supported by public and private subscription are doing good work among the poor of the city, as the Montreal Ophthalmic Institute with 50 beds, the Samaritan Hospital with 14 beds, the Homeopathic with 55 beds, and the St. Margaret's home for incurables with 55 beds.

The Montreal Isolation Hospital with 100 beds, and several branches in the city where infectious cases are received, is one which has struggled for years with inefficient financial support. Fortunately, this state of things will soon come to an end, as two new infectious hospitals will be constructed under the direction of the Protestant and Catholic Hospitals. A description of the Alexandria Hospital for Protestants is to be found in another page of this issue. The Catholic institution is to be built in connection with the new Notre Dame Hospital.

THE KINGSTON HOSPITALS.

1. THE GENERAL HOSPITAL.

At the close of the war of 1812-15, Kingston found herself overrun with a most undesirable class of immigrants. They were poor, and work was to them neither a privilege nor a source of pleasure. Their poverty soon found an ally in filth, and one of the numerous progeny of this unholy alliance has ever been disease.

But pain begets sympathy. There are few exceptions, and certainly this was not to be one.

A few citizens banded themselves together under the name of "The Kingston Compassionate Society," their avowed object being to relieve distress and suffering among these unhappy sojourners and others.

The society's work and responsibilities soon increased. The "wandering population" have ever been keen to appreciate their opportunities, and to avail themselves of the lavish charity of well-meaning but ill-advised people.

Many a clean bed in a hospital ward has been occupied for weeks at a time during the winter season by these pestiferous parasites—sexual inverts or worse—suffering it may be from a small varicose ulcer that never heals.

This ought not so to be. Hospital superintendents throughout the province have a duty to perform in this connection.

And so it happened that in the year 1821, at the age of three and a half years, "The Kingston Compassionate Society" found itself with the same lofty ideals as before, but with a depleted treasury. The work was then taken up by "The Female Benevolent Association"—a much more powerful organization. To this society belongs the credit of making the first successful appeal to the government for a General Hospital at Kingston.

In 1832, after many discouragements and much luke-warm support, representations were made, through the efforts of this society, to the legislature of Upper Canada for an appropriation, and a guarantee given that the amount would be largely supplemented by private subscriptions. Early in the following year, a grant of £3,000 was made, and three commissioners were appointed to carry out the project.* These commissioners appointed a deputation consisting of Dr. Sampson, Dr. Armstrong and Thos. Rogers Esq. architect, to proceed to Montreal to inspect the hospital there.

Their expense account reads as follows :

	s	d
Kingston to Williamsburgh	£3	0 0
Extra stage from Williamsburg to Montreal.....	£10	0 0
Return trips	£13	2 6
Extras		7 6

Dr. Sampson explains that the extra stage was absolutely necessary as the regular coach proceeded but $4\frac{1}{2}$ miles per hour. There does not seem to have been volunteered any explanation for the extras amounting to 7s. 6d. but any one, familiar with the expenses, extras etc. of modern deputations, will not cavil long over a bill of extras amounting only to 7s. 6d.

The contracts for the work were let June 17th, 1833, and the building was completed, July 10, 1835.

But what too frequently happens in the management of mendicant institutions in our own day occurred here: the erection of the palatial building reduced the institution to the verge of bankruptcy. The interior was still unfinished. However, in 1837, a further grant from the Legislature of £500 rendered the building habitable.

*At present there are eleven governors of the hospital appointed by the legislature.

But these were troublous times. The country was in the throes of a rebellion. Muckenzie, Dr. Rolph and Dr. H. H. Wright (then a med-student) had met disappointment but a few weeks before at Montgomery's tavern. (They were all rebels then.)

Troops had been ordered to concentrate at Kingston, and Lt.-Col. W. H. Bonnycastle, of the Royal Engineers, was sent in advance to procure a suitable building for a military hospital. On his advice the building recently completed for a General Hospital was used as a military hospital from May, 1838, until June, 1839. For a time the doors were closed. In 1841, at the request of Lord Sydenham, the building was modified to some extent and the United Legislature of Canada met there until 1844. The damage done the building by the noisy legislators was assessed at £236 10s., which amount was paid over to the commissioners of the hospital in 1845.

"The Female Benevolent Society" now asked for and received permission to send their sick indigents to the hospital, and a small grant was made by the legislature towards their maintenance. From that time to the present over forty thousand patients have been treated in the institution.

The hospital at present has 200 beds, divided about as follows:

Infectious department (diphtheria, scarlet fever, measles, etc.), 40; obstetrical and gynaecological, 30; private rooms (general), 25; general wards, including "shacks" for tuberculous patients, the balance.

Last year there were treated in the institution 1,470 interns and 1,200 externs.

The main operating theatre is a modern semi-detached structure—the gift of the late Dr. K. N. Fenwick. His untimely end came but a few months after its completion.

The floor is of slate and the surrounding wall of marble. It is lighted from the ceiling and has a seating capacity of 100. Adjoining, and of easy access, are the anaesthetic, the recovery, and the instrument and x ray rooms. The clinics are held in this amphitheatre, or in the wards, from 9 to 12 each morning. There is also a private operating room in the main building.

The gynaecological building has a small but well-appointed operating room of its own.

2. THE HOTEL DIEU.

The Hotel Dieu is one of the best conducted hospitals in the province. It has but a hundred beds, but these are always occupied. There were 1475 patients admitted to the wards of this institution last year.

About two years ago, a new surgical amphitheatre was erected, and it would be difficult to imagine anything more nearly perfect. The floor is of glass and all basins have pedal action. It has a seating capacity of 100. The clinics are held in the morning. The sterilizing room, one of a suite of three adjoining the operating theatre, is equipped with all the modern sterilizing apparatus, both for instruments and dressings.

While the work of this institution is primarily the relief of suffering, every faculty is afforded the earnest student in the prosecution of his studies.

LONDON.

1. THE VICTORIA HOSPITAL.

In 1899, the London General Hospital was completely rebuilt and the name changed to the Victoria Hospital. It contains 170 beds. It is the official hospital of the City of London and the County of Middlesex, and draws its cases from a population of 100,000. Patients also come from all the Western Counties. The wards are large, well-lighted, and ventilated. The operating rooms are of the most modern character and meet all the requirements of present day surgery. The public operating room is so arranged that all the students can see the details of the various operations.

2. ST. JOSEPH'S HOSPITAL.

This hospital has been very much enlarged. It has a new and well equipped operating room. There is accommodation for at least 100 patients.

3. THE LONDON ASYLUM.

Students have access to this institution, which at present contains over a thousand patients.

4. MEDICAL CHARITIES.

There are a number of medical charities in the city which afford much material for practical instruction. The advanced students have the privilege of attending at these institutions. The principal charities are: Mount Hope Orphan Asylum, the Protestant Orphan Home, the Convalescent Home, and the Aged Peoples' Home.

5. OBSTETRIC WARDS.

There are maternity wards in the Victoria and St. Joseph's hospitals.

A special feature of the clinical teaching is that it is given to small classes. By this means, the students are brought into direct contact with the cases.

WINNIPEG.

1. THE WINNIPEG GENERAL HOSPITAL.

This hospital is situated close to the Medical College, and affords the student abundant material for clinical study. There is in connection with it a Maternity Hospital, and an Isolation Hospital. There is accommodation for 215 beds. It is one of the best equipped hospitals in the Dominion. The new addition is devoted entirely to surgery and has an excellent operating room, with well arranged seating, whereby the students can view operations to great advantage.

2. ST. BONIFACE HOSPITAL.

This hospital has 200 beds, 160 being general and 40 for isolation cases. Every opportunity is afforded students for clinical study.

FEDERATION PLAN FINALLY PASSES.

The Ontario Government has placed its stamp of approval on the proposal to federate Trinity and Toronto Universities. At a meeting of the Cabinet, an order-in-Council was passed approving of the terms of the agreement upon which Trinity will be taken into the fold of the State university. The Cabinet also authorized the issuing of the necessary proclamation making the order effective.

UNIVERSITY OF TORONTO SEEKING BETTER HOSPITAL FACILITIES.

The medical faculty of the University of Toronto and the boards of trustees of the principal hospitals are at present negotiating with a view to arranging for accommodation and regulations to secure better hospital facilities for medical education. A need along these lines has been felt for some years and the union of the two medical faculties has paved the way for concerted action by the University and the teaching branch of the medical profession. A committee was appointed consisting of the Vice-Chancellor, Chief Justice Moss, President Loudon, Mr. Irving Cameron, Dr. Primrose, Dean Reeve, Dr. Bingham, Dr. McPhedran and Dr. J. F. W. Ross (Chairman). They drew up a statement embodying the changes and improvements desired and presented them to the boards of the General and St. Michael's Hospitals. At the meeting with the Board of the General Hospital interest in the proceedings was increased by the presence of Mr. Rose Bradford, an eminent physician of the University College, London, England, who addressed the board upon hospital work in London.

The proposals dealing first with the subjects of house staffs were, briefly, as follows:—That the house staff be large enough to carry on the work efficiently, that one member of each staff be detailed to do clinical laboratory work exclusively, that the staffs be divided into seniors and juniors, and the seniors retire every six months; that the duties of the house staffs be defined by new rules, that no fees be paid any members of the house staffs by physicians or patients, that each hospital board should appoint an official anaesthetist.

Then with a view to increasing the material for clinics, it was urged that all patients in public wards be placed in charge of a clinical staff. The material at present available, the committee stated, for bedside clinics, was deplorably limited. It was proposed that a committee be appointed by each staff to supervise hospital admissions.

Closely related to the question of clinical material is the out-patient department. The report stated that a committee of the faculty recently visited New York, Boston, Philadelphia, Chicago, Montreal and Baltimore, and reported fully on the value of well equipped out-patient departments. The out-patient departments connected with the Toronto General and St. Michael's Hospital lack proper organization, and must be considered as valueless in their present state. In the General Hospital the rooms are too small, the facilities for handling patients are too meagre, and the heating in winter is so poor that the health of the patients, the students and the staff is endangered thereby.

Better facilities for the study of pathology were asked by the taking of pains to increase the number of autopsies and the keeping of proper records.

In the Children's Hospital it is said nearly all the regulations asked for have been in force for a considerable time.

SANMETTO IN ENLARGED PROSTATE COMPLICATED WITH CYSTITIS.

Dr. J. M. Minick, of Wichita, Kansas, President of the Kansas State Board of Health, reporting his experience with Sanmetto, says: "I do not explain the action of Sanmetto from any ulterior motive or for publication any further than I believe it is a god-send to men who are afflicted with enlarged prostate gland complicated with chronic cystitis, with a constant desire to micturate, especially at night."

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EDITORIAL.

THE ETIOLOGY OF CANCER.

Until the etiology of a disease has been ascertained, all attempts at treatment are empirical. When the etiology has been discovered, the empirical element may not disappear from the treatment, but it then has a definite object in view, the finding of some agent, or means, of dealing with the disease from the standpoint of its origin. This is especially true of cancer. The etiology has not been yet revealed, and all we know from the many efforts at curing the disease, is that early and thorough removal alone yields any chance of saving the patient from the ravages of the disease. So far this is all that can be done. If, however, it was known that the etiological factor in carcinoma is some form of living organism, vegetable or animal, and that it had been isolated, so as to study its life habits; or, that it is some degenerative disease that is set up in the epithelial tissues, perhaps of some chronic inflammatory nature, and the result of irritation or traumatism; or that it is a neoplasm, arising from some new activity in the cells of the part, whether embryonic, or not, or, that it is due, in some way, to the loss of nerve control over the tissues of the part affected, then a definite step would have been taken onwards.

Reasoning by analogy, there is strong evidence for regarding the etiology of cancer as some form of living infection. There is nothing known in pathology to justify the theory that it is of a nervous origin. This may be safely and definitely set aside. It cannot be regarded as a growth. There are wanting the features of growth or hypertrophy of tissue. It is quite true there may be an increase in the size of the part; but this is always accompanied by the certain tendency to break down and ulcerate and necrose. There is no form of disease which acts thus, unless there be a parasite, or living organism, present. True growth of tissue, whether embryonic or developed, does not show these characteristics. On the other hand, there is no ground for supposing that the cause is some form of chronic inflammation, apart from an organism.

There is absolutely no warrant for the theory that some injury to the part gives rise to a chronic inflammation, with changes in the

arrangement of the histological elements of the part, and finally leading to the breaking down of these elements, unless there be some activity at work that has a vital continuity about it. An inflammation, without a germ, does not infect a distant part, nor cause destruction of tissue as is the case in cancer.

Clinical reasoning alone can sometimes form a strong chain; and in the case of cancer, this chain would appear to be capable of standing the strain put upon it. In the case of syphilis, the germ enters at the seat of the chancre, and in due time the adjacent glands become involved, and later the entire health suffers. Let the tubercular bacillus find an entry, by way of the tonsil, and subsequently the cervical glands will caseate. In leprosy there is a point of entry, and thence it spreads, hither and thither, throughout the body.

In the case of cancer, injury, improper diet, habits of life, irritation of the part, may play an important rôle in the etiology of the disease; but only as an associated etiology, not the real etiology. Excise the seat of infection in syphilis, in leprosy, and in tuberculosis, while it is still local, and there is a time when such is the case, and you have an end of these dread diseases. Excise cancer at a time while it is still local, and the best clinical experience of the world has proven that a cure is possible.

But allow cancer to have its way, and watch the picture as it gradually develops on the canvass. There is a local disease; some enlargement of the part, perhaps; an extension to the glands in the vicinity; the appearance of general contamination and poisoning of the whole body; the presence of temperature changes; and the almost complete failure of nature to arrest the process. It would seem, in the face of all the facts, that, on clinical grounds alone, there is no other possible view than that of a *contagium vivum* as the cause of cancer. The arguments that are now being set up against this view were set up against the germ etiology of leprosy, syphilis, and tuberculosis.

The fact that the germ has not yet been isolated does not prove that there is none. The fact that the results of inoculation experiments have not yielded much evidence, does not prove that there is no germ. These things only prove that we do not know the germ and its habits of life. But when the causes of chronic inflammation are studied, still further proof is forthcoming that cancer is something more than these. These causes are a foreign body in the tissues; obstruction to the free exit of the secretion of a gland; continued pressure on a part; deposits from the blood, as in gout; states of the blood, as rheumatism; some morbid material, as in syphilis; and tubercle. These are not, excepting the two latter, the processes we can discover in cancer.

On the matter of ulceration, a number of causes are readily detected. Among these may be mentioned some fault in the tissue, a deranged condition of the circulation, disturbed innervation, continued and repeated irritation, tension or local conditions in a sore, general conditions of health as diabetes, or scurvy. Here again it can be boldly affirmed that the above causes for ulceration, sloughing, and necrosis of tissue are absent when these processes are due to cancerous disease. There must be something more than the above causes: and that something more, as in tubercle, syphilis, and leprosy, will likely be found to be an organism. Further evidence of the microbic origin of cancer may be found in the cases where infection seems to play a part. The upper lip has been infected from the lower, one labium from the other, the lower part of the peritoneal cavity from the upper by fragments breaking off and falling down, the penis from a cancerous uterus, inoculation of one animal from another, the opposing wall of the urinary bladder from the other wall and instances of attendants and surgeons contracting the disease. Then again there is the evidence to be deduced from the fact that some localities yield many cases of cancer. This cannot be a mere coincidence. There must be some endemic cause, and it is hard to imagine any other than a micro-organism. A strong case has been made out for some degree of contagiousness, and endemic nature. The only possible explanation for all these facts is that cancer is microbic in origin. It was once argued that tuberculosis, leprosy, &c., were not microbic. We know now that they are.

SYPHILIS IN RELATION TO ATAXIA, DEMENTIA PARALYTICA, AND ANEURISM.

Fournier, in 1876, showed in a most convincing manner the close relationship existing between syphilis and locomotor ataxy. Gowers and Erb followed with similar proofs in 1879, to the effect that a very large percentage of the cases of ataxia were preceded by syphilis. It is now proven beyond a doubt that a definite history of syphilis can be obtained in at least 80 per cent. of all cases of tabes dorsalis. Of the remaining 20 per cent., while no history of syphilis can be discovered, there can be traced the risk of contracting syphilis, as the patients have had gonorrhoea, or some form of venereal sore, or the exposure to the disease because of the admission of sexual intercourse, in 17 per cent. Thus there is left only 3 per cent. of all ataxies, in whom there is no history either of syphilis, or exposure to its contraction in the ordinary way. We all know that there are accidental and inherited cases, where the existence

of the infection is wholly unknown to the patients; and, further, that there are cases that run a very concealed, or larvata course. Moreover, it has been determined that inherited syphilis is the sole cause of the juvenile form of locomotor ataxy. From these facts, it may be said that syphilis is almost, if not quite, the entire factor in the etiology of the disease. But it should be borne in mind that ataxy is not due to a syphilitic lesion; but to a post syphilitic, or para-syphilitic, degeneration.

Turning to general paralysis of the insane, or dementia paralytica, there is found the same array of facts to prove the causative relationship of syphilis to the disease. Dr. F. W. Mott has found a distinct history of syphilis in 80 per cent. of his cases. David Ferrier, after a wide experience, states that he regards it as always of syphilitic origin. Dr. Wigglesworth claims it to be by far the most important cause. Krafft-Ebing inoculated 8 cases of general paralysis, who showed no signs of syphilis, with the virus of syphilis; and, though he kept them under observation for 180 days, none of them contracted the disease, proving prior immunity. When we turn again to the juvenile form of general paralysis, it is discovered that nearly every case gives a history that goes to establish the relationship of syphilis. Here, as in locomotor ataxy, the possibility of concealed syphilis must be recognized. Krafft-Ebing's 8 cases must be borne in mind. These cases yielded no signs, and, yet, careful attempts at inoculation with syphilitic virus failed. The doctrine of civilization and syphilization as stated by Krafft-Ebing is well nigh universal. Syphilis is common enough among savages, and without general paralysis. On the other hand, civilization alone without syphilization appears to be incapable of causing the disease. Syphilis among the civilized may therefore be taken to be the real etiology of that cruel and relentless disease—dementia paralytica.

In the matter of aneurism it has been shown that a clear history of syphilis can be made out in at least 80 per cent. of the cases. The investigations of Malmsten and Satterthwaite abundantly verify this.

It would appear from the study of the above three diseases, that in about 20 per cent. of them, a history of syphilis cannot be made out with certainty. On this point, it is well to remember the words of that eminent dermatologist, Radcliffe Crocker. He states that in only 80 per cent. of absolutely certain syphilitic skin diseases could he obtain a history of infection. Other high authorities also state that of undoubted cases of brain syphilis, a clear history of syphilis cannot be obtained in more than 80 per cent. There are taken certain conditions of certainly syphilitic origin, for which careful search only reveals infection to the

extent of 80 per cent. It is safe to conclude, that about 20 per cent. of infected persons, yield a very obscure history, and few, or no signs.

With regard to the three diseases, locomotor ataxy, dementia paralytica, and aneurism, it may be said that syphilis is almost the sole cause. The fact that we can neither obtain a history of infection, nor discover signs, does not exclude this cause. Krafft-Ebing's 8 cases of general paralysis, without a history, or signs, and yet immune, go a long way to settle that matter in favor of Ferrier's statement, that syphilis is the cause. In a recent paper in the *Edinburgh Medical Journal*, Prof. Byrom Bramwell states that he has obtained a clear history of syphilis in 75 per cent. of his cases of ataxia, and general paresis, and in 50 per cent. of his cases of aneurisms.

THE ETIOLOGY OF TUBERCULOSIS.

The time was when it was thought that heredity explained everything in connection with the causation of consumption. Then came a period when many of the most careful observers began to doubt the all sufficiency of this explanation, and began to regard the disease, both in man and the lower animals, as communicable, to some extent, from one to another. Later, in 1882, Robert Koch gave to the world his great discovery of the tubercle bacillus—the germ of the disease. From that date to the present, the opinion has been rapidly gaining ground that the disease is of an infectious nature; and, in most instances, in some way or other, is conveyed from the sick to the well—from animals to man, and vice versa.

Recently, however, there has been an effort, in high quarters, to throw doubt upon some of the views generally held upon its contagiousness. In 1901, Koch startled the medical world by declaring that tuberculosis was not communicable from man to bovine animals; and, *per contra*, from these to man. He held that it was scarcely necessary to take precautions regarding tuberculous meat and milk. These teachings stimulated investigation, and a considerable amount of reliable information is now to hand that animals can be infected by tuberculous matter from man, and that man can contract the disease from bovine sources. These investigations go to throw discredit upon the investigations of Koch and Schütz.

About two months ago, Professor Behring has announced the rather sweeping statements that the communication of pulmonary consumption to adults by contagion had not been proven; that human and bovine tuberculosis is the same disease: nearly all cases of tuberculosis are due

to the inception of the germ in infancy through milk, and that later in life these germs develop if the soil is suitable. He makes the statement that about 96 per cent. of all persons over 30 years will react to the tuberculin test, which means that nearly everyone, by that age, has been infected and has tubercles in the body. His view is that the germ is of much less consequence than the soil; for, if the resistance is sufficient, the germs will do but little harm. He declares, however, that the utmost care should be taken over all milk supplies.

But this is not the end of the confusion. Professor Ferdinand Hueppe, in the Harben Lectures, which he delivered in London during October, contends that most persons are infected at some time or other, the great majority escaping, that the germs are often found in the bodies of perfectly healthy persons, that predisposition is the most important factor, and that many made a recovery, showing the resisting power of certain persons against the germ. He contested Koch's view regarding the non-communicability of human and bovine tuberculosis. Cattle had been rendered immune to tuberculosis by being treated with bacilli of human origin. Another statement made by Professor Hueppe of great importance is that the tubercle bacillus is not an obligatory parasite, but has been cultivated outside the body on glycerinated media. If it can be shown that the bacillus can grow free in nature, outside the animal body, a new source of infection of vast importance will come before the scientific world. So far, however, the cultivation has been difficult, and the probabilities are all against the view that there is any danger, apart from infected man or animals. Professor Hueppe also contended that the germ might enter by the respiratory or digestive channels, and affect any organ of the body, attacking the *locus minoris resistentiæ*. Thus, the lungs might be diseased through the digestive canal, or the glandular system through the respiratory.

The complications have been increased still further, by a recent article from the pen of H. Charlton Bastian, emeritus professor of medicine in University College, London. He takes the position that tuberculosis may arise *de novo*. He states that, "If good hygienic conditions and improved vitality will lead to the cure of the disease, then low vitality and bad hygienic conditions may have sufficed to produce it." Again he states, "We might then return to something more like the sober views that prevailed concerning the etiology of phthisis, only a few years ago, when the affection was freely recognised as generable in the individual, altogether apart from contagion, and contagion was supposed to take only a limited share in the production of the disease. This seems the more rational and most warranted view to be taken."

One of Dr. Bastain's arguments against the contagion theory is that the bacilli are found in glands, bones, joints, etc., and no clear explanation is possible as to how they got there. It is much easier and far more scientific to grant that they got into these places by means of the circulation, than to suppose that they just began there from nothing. They are found in such places, and they did not come from nothing. We fear that Dr. Bastain must be left alone with his transcendental theories.

Far nearer the truth, indeed *the truth*, are the words of Professor Osler, that tuberculosis is a case of seed and soil. Sometimes the seed falls by the wayside and perishes, sometimes it falls in stony ground and produces a weakly crop, and sometimes it falls in good soil and produces an abundant crop. In spite, therefore, of the learned arguments of Koch, Hueppe, Behring, and Bastian, it comes back to a question of seed and soil. No matter how favorable or suitable the soil may be, without the seed there can be no crop. However laudable it may be to maintain a high standard of vitality, it is absolutely obligatory to destroy the germs as they come from the infected person; and thus prevent the seed from alighting in any other person, whether of the type of the wayside, the stony ground, or the good soil. Destroy the germ wherever found and keep on destroying it. The soil we must always have with us. It is the seed alone which we may hope to control. The world will always be full of the poor, the dirty, the weakly; but the world need not always be full of the tubercle bacilli.

HYPERCHLORHYDRIA.

Hyperchlorhydria is regarded by some eminent observers to be the most frequent gastric trouble met with in private practice. It is held by many that when 100 c. c. of gastric juice requires 20 to 40 c. c. decinormal NaOH solution to neutralize the free hydrochloric acid contained therein, during the height of digestion, it contains too much of the acid; and that if the same quantity of gastric juice requires 45 to 65 c.c. of the same sodium solution to neutralize the combined hydrochloric acid, the gastric juice contains too much combined acid.

Nervousness, chlorosis, chronic constipation, gastric ulcer, pyloric stenosis, simple gastrectasis are the most usual causes of the severest forms of hyperchlorhydria. Simple acid catarrh of the stomach, the over free use of spices, and the abuse of alcohol and tobacco must be borne in mind as causes. Among the unpleasant results of hyperchlorhydria may be mentioned gastric ulcer, painful sensations on taking food, and a progressive emaciation of the patient, and a growing nervousness.

The pain on taking food leads the sufferer to avoid one article of diet after another, until he is on the verge of starvation. In the diet of these cases, great care must be taken to avoid dieting for any one symptom. A number of high authorities, however, recommend the free use of fats.

When hyperchlorhydria is the result of some disease or ill state of health, the treatment should be directed to this disease or condition. Its successful treatment will cause the hyperchlorhydria to disappear. As hyperchlorhydria is so often caused by chlorosis, nervousness, worry, constipation, ulcer of the stomach, gastrectasis, &c., fresh air and exercise are of much importance in the treatment of the trouble. Small doses of a mixture of bicarbonate of soda and calcium carbonate are useful for the relief of the pain. Mild natural saline waters have found much favor with some, over the stronger alkaline waters.

One authority says that the treatment must be based on the genesis of the disease. He urges a bland diet of milk and vegetables with a little egg, but no meat. For medicine, he gives magnes. ust., bismuth subnit., aa ʒʒ; ext. belladon., 0.25 : one knife pointful three times a day, one hour after meals. Gastric lavage with 1-1000 nitrate of silver, or with an alkaline water has been found very helpful. The employment of the faradic and galvanic currents have been of considerable advantage in restoring the lost tone to the gastric walls. Five to 10 grains of sodium bromide after meals find favor with some, as this treatment appears to allay the nervous disturbance so often present. Atropia, gr. $\frac{3}{16}$ may be combined with the sodium bromide.

In some of the most rebellious cases rest in bed, rectal feeding, intra-gastric faradization, and massage of the entire body, except the abdomen, effect a cure. Demulcent drinks are soothing to the irritable gastric mucous membrane, and lessen the flow of gastric juice. Of the demulcents that may be used, slippery elm bark is one of the best, and linseed or marsh-mallow combined with borax may be tried. In cases with almost complete loss of appetite, or repugnance to food, the plan of forced feeding, gavage, has been resorted to with decided advantage. The foods that may be used in this way are raw meats, eggs, milk, whey, and oils.

A method of electric treatment highly recommended is as follows : A high frequency battery is used and a metal plate placed upon the tongue and a metal bulb within the rectum. The current passes along the line of least resistance, namely, along the moist mucous membrane of the entire digestive canal. There is no pain in connection with this plan of treatment. In addition to stimulating the muscular action of the digestive tract, it decidedly lessens the secretion of hydrochloric acid.

THE ETIOLOGY AND TREATMENT OF ECLAMPSIA.

Dr. W. E. Fothergill, of Owens College, Manchester, in a recent issue of the *British Practitioner* reviews the modern literature upon this subject. To begin with, every one seems to have given up the opinion that eclampsia is due to renal disease. It is now conceded that it is caused by the circulation in the blood of some poison, or poisons. These poisons may come from one of the two sources: They may enter the blood stream by absorption from the digestive canal, or they may be due to the changes taking place in the tissues, known as metabolism. In the pregnant condition, the woman has to deal with her own and the waste products of the foetus. Any derangement in the actions of the liver, thyroid or other glands, may throw an extra share of the defence or eliminating action upon the kidneys. They may succeed in keeping the blood clear, or they may in time become irritated and injured. Subsequent to this, the poison is left in the blood stream, together with a certain amount of urea which the injured kidneys fail to eliminate. The next phase in the case is the appearance of albumen in the urine.

Two main theories have been advanced to account for the presence of these poisons in the blood. One of these has been advocated by Drs. Müller and Albert. It is to the effect that there is an intra-urine microbicinfection causing an endo-metritis. This would account for the three features of in eclampsia, namely, the nervous symptoms, the injury to the kidneys, and the fever. On this theory there is a relationship between eclampsia and puerperal fever. The other theory has been urged by Drs. Nicholson and Hergott. This theory contends that the symptoms of the eclampsic state is best accounted for on the ground of thyroid gland inadequacy. The thyroid gland is enlarged in normal pregnancy. This normal enlargement of the thyroid gland can be removed by giving the patient thyroid gland extract. Iodothyrim favours metabolism and increases the excretion of urea. In eclampsia this is strikingly diminished. Owing to a deficiency of iodothyrim the metabolism of nitrogenous substances stops short of the formation of urea, and at a point when the products are highly poisonous. A typical attack of eclampsia resembles the condition produced in animals by the removal of the thyroid gland.

This latter theory is borne out by the good effects of rest and a milk diet which lessen the demand for thyroid gland secretion, while on the other hand exertion and a meat diet exaggerate the tendency to eclampsia. It has been noted that many attacks of eclampsia follow the ingestion of nitrogenous foods, or over exertion. The pre-eclamptic state is marked by such features as vomiting, constipation, headache, nervous

irritability, disturbances of vision, abnormal pigmentation, high arterial tension, and diminution in the quantity of urine and urea. Later on albumen may appear. These symptoms should receive attention.

The prophylactic treatment is rest in bed, a milk diet, purgation, and the washing out of the lower bowel with copious injections. The employment of thyroid gland extract has been found very valuable. It rapidly reduces arterial tension, and increases the amount of both the urine and urea. In one case of eclampsia the writer gave 45 grains thyroid gland extract on the first day, and 35 grains on the second day. The patient then began to pass urine freely. Before the treatment began there was complete anuria. It seems that thyroid extract acts in a manner similar to morphia, veratrum viride, free bleeding, active purgation, or the introduction of saline solutions into the circulation. If the patient cannot swallow, liquor thyroidei must be injected hypodermically.

In the management of eclampsia, it seems that a general consensus of opinion favours the wet pack to pilocarpine, lavage of the bowel to croton oil, and morphia has largely taken the place of chloroform, bromides and chloral. Bleeding has increased in favour, and excellent results have followed the intra-venous injection of saline solutions, as advocated by Dr. Robert Jardine.

With regard to obstetric interference it seems that experience leads in the direction that if labour has commenced, gently aid it; but if the convulsions begin first, treat these and do not induce labour. Labour may be induced, however, as a prophylactic.

THE TREATMENT OF EPILEPSY.

The above subject was fully discussed at a recent meeting of the medical society of London, Dr. J. S. Risien Russell said, the treatment was dietetic, hygienic, medicinal, and surgical. But to apply these lines of treatment intelligently, it is very desirable, as far as possible, to obtain clear views on the etiology of each case. There are some who hold that epilepsy is due to source micro-organism. For this view there does not appear to be sufficient ground. Again, others regard the disease as due to auto-intoxication. But, against this view, we must recognize the fact that auto-intoxication must be much more common than epilepsy. There are others who regard the disease as the result of a degenerative process in the cerebral cells. There is, however, no consensus of opinion whether the degenerative changes, found in the brain of epileptics, are the cause of the attacks, or the result of the nerve

storms. There would seem to be some inherent instability in the brain cells, and, thus being present, a number of exciting causes may induce the attacks. There are no doubt some cases which are due to the irritation of some portion of the brain by pressure, or the injurious effects of some lesion caused by previous inflammation.

With regard to the diet of epileptics, there seems to be a pretty well settled opinion among those who have most to do with the treatment of these cases, that they do best when allowed very little meat. Some go the length of saying that epileptic fits are met with only among flesh eating animals. Animals and human tribes that live exclusively upon vegetable foods do not suffer from epilepsy. It is very certain that animal food should be reduced to a minimum, if not entirely excluded, from the dietary of epileptics.

Many years ago, Dr. J. Hughlings Jackson laid great stress on the importance of reducing the amount of table salt. It is a well known clinical fact that small doses of the bromides will control the disease, when the chloride of sodium is reduced, or largely withdrawn from the diet list.

There should be no compromise in the matter of alcoholic beverages. As Dr. Sims Woodhead has very clearly shown, the tendency of alcohol is to seize upon the oxygen in the blood, and so prevent oxidation of the tissues. This interferes with the nutrition of the nerve elements, and renders them less stable. This is the tendency of alcohol, whether in large or small quantities. The amount of injury is, however, in proportion to the amount of alcohol consumed, and the instability of the brain cells.

The general hygienic care of these cases is of much assistance in their treatment. Regular hours, abundance of sleep in a well ventilated room, a life in the open air, and the avoidance of excitement, are valuable aids in treatment. Epileptics have been known to induce attacks by going to the theatre, or by indulging in angry altercations with others. The last meal of the day should always be light and digestible in its character. On no account should meat, or salt be taken at this meal.

With regard to drugs it was the opinion of Drs. Tuke, Turner, Beevor, Ormerod, Langdon-Down that the bromides still hold the first place. Silver, zinc, borax, belladonna, arsenic, and digitalis have all been extensively tried; and have been found, at times, of undoubted service. But it must be admitted that a good deal of the failure, attributed to the bromides, is due to the method of its administration. The proper exhibition of the bromides in epilepsy is a matter of the most careful study. Enough must be given to control the attacks. There

does not appear to be any advantages in the bromides of camphor or strontium, over the bromides of potassium, sodium, or ammonium. In all cases of nocturnal epilepsy, a single large dose should be given an hour before bed time. When the hour at which the attacks come on can be ascertained, a dose should be given two hours in advance of them. For the status epilepticus, a hypodermic injection of morphia is very useful, but reliance ought to be placed mainly upon hyoscyne hypodermically, or on chloral in large doses for rectum. The bromides must be continued for a long time. The drug is in no sense so injurious as the attacks of the disease. In cases where the bromide of potassium proves too depressing, some of the other bromides should be employed. The addition of arsenic to the bromide mixture often adds to the effectiveness of the latter and lessens some of its evil influences. If the attacks assume the hysteroid type, the combination of digitalis with the bromide is of much service. Belladonna is very useful in children, and in *petit mal*.

As to the surgical treatment of epilepsy, Sir Victor Horsley remarked it may be said that in all cases where the convulsions are localized the advantages of operative treatment should be accorded the patients. In idiopathic epilepsy the convulsions may be localized, and the area of the cortex primarily affected may in this way be possible of location. In Jacksonian epilepsy, due to injuries or growths, there is usually localizing symptoms. Surgical procedures will benefit a certain number of these cases. If the lesion to the brain is frontal, or occipital, the prospects are not good. There are a few cases of reflex epilepsy. Surgery may be able to do something for these cases by removing pressure or irritation from the affected nerve.

Dr. Fletcher Beach, calls attention to the importance of correcting all errors of refraction: and watching for causes of internal irritation, as indigestion, the presence of worms, constipation, the abuse of alcohol. He does not think it has been proven that the chlorides affect the disease, and that they cannot be withdrawn too freely, as the health will suffer. The combination of the bromides is preferred, or the ammonium bromide. When the attacks come on during the night a double dose should be given at bed time; or if they come on in the morning, a dose an hour before rising. When the bromides fail the administration of gr. v. antipyrin with them is often of much value. Meats must be reduced to the lowest amount possible. The patient should live a quiet life, and an open air employment is beneficial. Cold baths, or sponging, does good. The results of treatment in colonies are gratifying. Medicinal treatment must be kept up for at least two years after the fits have ceased.

THE CLINICAL SIGNIFICANCE OF ARTERIOSCLEROSIS.

Dr. Reginald H. Fitz, published in the *Boston Medical and Surgical Journal*, the address on this subject, which he delivered at the Hampden Medical Society. The address contains many excellent thoughts. It has long been recognized that the arteries of the brain, heart, kidneys, spleen, and extremities might show alterations similar to those found in the aorta. This knowledge has grown into the modern views of arteriosclerosis.

The disturbances produced by arteriosclerosis are due to the change in the caliber and elasticity of the arteries of the part affected. There results a loss of nutrition, which may be slow or sudden, in onset. The patient suffers from predominant affection of the brain, heart, kidneys, or extremities. It is well to recognize that there is an arterio-sclerotic encephalitis, myocarditis, or nephritis, as the prognosis may depend largely upon the basis for this arteriosclerosis.

The arteries are cordlike, resistant, tortuous with ribbed or granular surface. The tension of the pulse is high. The heart gives evidence of hypertrophy of one or both sides by an increased area of dullness, a more powerful apex beat and an accentuation of the aortic second sound, provided the aortic valve is sufficient. There may be visceral arteriosclerosis of the internal organs without the cordlike quality of the superficial arteries; and this quality of accessible arteries may be present without visceral arteriosclerosis. But it is a very significant sign, and usually indicates general arteriosclerosis. Tortuous, or ribbed, arteries are not so significant as cordlike arteries. In like manner there may be high pulse tension from other causes than arteriosclerosis. The hypertrophy of the heart and the accentuation of the aortic second sound may be absent in arteriosclerosis, or present in chronic nephritis, without arteriosclerosis.

Arterio-sclerosis may be divided with three forms: the central, the peripheral, and the visceral. In the central form the aorta and the large primary branches are affected, excepting these of the heart and kidneys. The diagnosis is made from the age of the patient, and the inspection and palpation of the innominate, subclavian, carotids, femorals and iliacs. There may be a concurrent dilatation of the heart.

In peripheral arteriosclerosis the condition of the accessible arteries is the chief agency in the diagnosis. There may be severe pain and numbness in the extremities, and the muscles may be easily fatigued, or cramps induced.

The symptoms in visceral arteriosclerosis are often indefinite. There are three principal types: the cerebral, the cardiac, and the renal. Some

recognize intestinal and pancreatic types. In the cerebral type there is usually headache, vertigo, wakefulness, loss of memory, convulsions and lesions due to arterial rupture, thrombosis, or embolism. In the cardiac type there is weak heart action, palpitation, bradycardia or tachycardia, arrhythmia, angina, cardiac asthma, epileptiform attacks, unconsciousness, passive congestion of various organs, dropsy, Cheyne-Stokes breathing, dysprosia, and finally, dilatation and heart failure. In the renal type the condition is that of chronic fibrous nephritis. Arteriosclerosis of intestinal vessels may cause pains, embolism, thrombosis, ulceration, or gangrene. In the case of the pancreas, diabetes may result. When the above visceral derangements are present, together with a sclerosed condition of the accessible arteries, a diagnosis of arteriosclerosis may be made as their cause.

There are no drugs that remove arteriosclerosis. The chief benefit of the early discovery of arteriosclerosis comes from the opportunity it gives of warning the diseased person of the necessity of a change of habits, of avoiding mental, moral and physical strain upon the blood vessels which already show signs of weakness.

AMERICAN CONGRESS ON TUBERCULOSIS.

Arrangements are being rapidly completed for a very influential gathering in October, 1904, at the World's Fair and Universal Exposition at St. Louis. Gentlemen of high standing, both lay and medical, will take part in the proceedings. A movement is also on foot for the organization of an International Congress on Tuberculosis, to be held at the same time and place. The management of the World's Fair and the United States Government are giving every assistance to these two organizations.

When one has regard to the importance of the matters that must come before such gatherings, they need few words of commendation from us. There were strong suspicions in the minds of many scientists, prior to the discovery of the bacillus tuberculosis, that consumption in some way or other was a communicable disease. These suspicions became certainties when, in 1882, Prof. R. Koch gave to the world his discovery of the bacillus. It is now proven beyond the possibility of a doubt that without the bacillus there can be no cases of tuberculosis. What the scientific world has to deal with is the bacillus, its modes of spread, its habits of life, and how it can be rendered harmless. These are the problems that will form a large portion of the deliberations of the congresses on tuberculosis. The population of the United States,

Canada, and Great Britain aggregate about 120,000,000. Taking the annual death rate at 18 per 1,000, there will be a total death loss of 2,160,000 a year, and one-eighth of this will be due to tuberculosis, or 270,000. This is a terrible loss of life from any one disease and that disease almost entirely a preventable one. It is when the death loss is thrown into such figures as the above that the importance of any movement looking towards the prevention of tuberculosis becomes so distinctly attractive. It is safe to say that each life is worth to the state at least \$6,000 on an average. The loss of 270,000 lives at this estimate is a total loss of \$1,620,000,000 to the United States, Canada and Great Britain. Those who are doing so much to lead the public thought towards taking steps to lessen this terrible loss of life, are doing more for these countries' wealth than the great trusts and money kings.

It is within the memory of the present generation that to talk of the infectious nature of consumption and to advise methods of prevention would only beget ridicule, and brand the person as a crank. The writer can recall an incident in the year 1884, when he urged such views at a large medical convention, and was regarded as visionary, being told by some that in a few years he would not hang such heavy weights on such slender threads, referring to the weakness of the arguments and proofs advanced. The threads have stood the strain and are now carrying heavier weights than was even then thought of. With proper preventive measures, there need be practically no consumption ten years hence.

THE CANADIAN MEDICAL PROTECTIVE ASSOCIATION.

A little over two years ago, at the Winnipeg meeting of the Canadian Medical Association, the Canadian Medical Protective Association was organized. Its work was endorsed at the Montreal meeting, and again this year at the London meetings of the Canadian Medical Association. Since the organization of the Canadian Medical Protective Association, it has rendered excellent service. This year, the Association has successfully defended Dr. Watts, of Moore Creek; but the costs were heavy, amounting to \$252. Now the Association is engaged defending a well known practitioner for an action brought against him for tetanus following vaccination. The Association has no other source of income except the annual fee of \$2.50 from its members. We shall have more to say upon this subject in our next issue. In the meantime we strongly recommend the Association to our readers.

PERSONAL AND NEWS ITEMS.

Dr. J. C. Mitchell has been appointed head of the new epileptic asylum, Woodstock.

Dr. Blackader, of McGill Medical Faculty, has returned from Saratoga much improved in health.

Dr. James Rogers, of Hamilton, and Miss Florence Atkinson, of Gananoque, were married in the latter part of October.

Dr. W. J. Robinson, formerly of Arthur, has been appointed medical health officer of Guelph, in succession to Dr. Howitt, resigned.

Dr. W. H. Gaskell, professor of physiology in Cambridge University, and also a member of the Mosely Commission, also paid a visit to Toronto.

Dr. Young, of the provincial asylum, Manitoba, has left for the east to spend a well-merited holiday. His work will be looked after by Dr. Woolard.

Dr. Charles Daniel Parfitt, of Gravenhurst, was married on 31st October, at Plainfield, N.J., to Miss Caroline, third daughter of Mr. Lewis V. Fitz Randolph, of that city.

Dr. Douglas G. McIlwraith, of Binbrook, formerly house surgeon at the Hamilton Hospital, and Miss Ida Howard, a graduate nurse of the same hospital, were quietly married on 3rd November.

Dr. Oskar Klotz, a graduate of Toronto University, and until recently house surgeon at the Ottawa Isolation Hospital, has been appointed to the fellowship of pathology at McGill University.

Dr. D. E. Mundell, a professor of Queen's Medical School, has just issued a 500-page book on "Anatomy Applied to Medicine and Surgery." The book is well illustrated by W. C. Brown, a clever student.

The ashes of the late Dr. Donald McLean, of Detroit, cremated after his decease, were deposited in Cataragui cemetery on Saturday. A handsome monument has been erected to his memory by his wife.

Dr. Charlton, formerly medical superintendent at the Isolation Hospital, Ottawa, has been sent to Europe to conduct investigations for the Rockefeller Institute, of New York, in regard to infectious diseases and the methods of treating them.

Dr. W. W. Ogden, of Toronto, whose experience as a member of the Public School Board extends back more than 30 years, has been urged by many electors to become a candidate for the new Board of Education, and has finally consented to do so.

Dr. Law was completely vindicated as the result of Judge MacTavish's investigation into the charge made against Dr. Law, city medical officer, that he accepted a bribe of \$5 from Pullan, a junk dealer, to influence his report on Pullan's premises.

Dr. Thompson, of Coboconk, received painful injuries on 1st November while driving, his vehicle being run into by a farmer's team and wagon. The mixup was a severe one, the doctor being thrown out and trampled upon while unconscious. He is recovering.

Dr. Dixon, of Sydney, Australia, called upon Deputy Minister of Education, Mr. John Millar, recently, in search of information regarding the requirements of the practice of medicine in Ontario. The information is for the benefit of the Medical Council of Sydney.

Dr. Llewellyn H. Barker, of Chicago, was married on 22nd October to Miss Lilian Haines Halsey, daughter of the late William J. Halsey, of Chicago. The bride was given away by her brother, Dr. J. T. Halsey, of McGill University. Dr. Barker is a native of Ontario.

Dr. George Ewart Wilson, who has for some time been on the house staff of physicians at Grace Hospital, has left that institution to take the George Brown memorial scholarship in medical science, and for a year he will do research work in the medical department of the University of Toronto.

Captain C. A. Hodgetts, M.D., of the army medical corps, has received his certificate conferring the position upon him of honorary associate of the Order of St. John of Jerusalem in England. The honor was granted to Captain Hodgetts in recognition of his services in connection with the Red Cross Society during the Boer war.

According to the figures prepared by the Provincial Health Department, the number of deaths from tuberculosis shows a decided falling off during the last few years, due, no doubt, to the improved sanitary regulations. The figures for the past six years are as follows.—1897, 3,154; 1898, 3,291; 1899, 3,405; 1900, 3,484; 1901, 3,243; 1902, 2,694—Total, 19,371.

The American Public Health Association recently considered the subject of infection of human beings with animal tuberculosis. In discussing the subject, Dr. Mazyck P. Ravenel, of Philadelphia, regretted the disinclination of Federal and State authorities to permit criminals condemned to death to be inoculated with the tuberculous germ in the interests of science

Professor Rose Bradford, professor of medicine in University College, London, England, who is a member of the Mosely Commission, was in the city for a few days. He was entertained by the medical faculty at luncheon in the University dining-hall. Quite a large number of prominent members of the medical profession in Toronto were present. Dr. R. A. Reeve, dean, presided.

The Students and faculty of medicine of the University of Toronto are gradually becoming settled in the new medical building. The faculty report considerable difficulty in getting everything adjusted properly to the new conditions and, as a result, they have not had the usual amount of time to devote to independent research work. It is hoped, however, that everything will be running smoothly very soon.

A deputation composed of Dr. Barrick, Eugene O'Keefe, Dr. J. E. Elliott and Dr. S. G. Thompson waited on the Board of Control of Toronto to ask that the question regarding the contribution of \$50,000 by the city towards the erection of a municipal consumption sanatorium be submitted to the qualified electors in January. The board unanimously approved the submission of the question on the same terms as last year.

Premier Ross and Hon. Richard Harcourt had a discussion about university finances a short time ago with President Loudon, Dr. John Hoskin and Principal Hutton. The estimates of the university for the coming year are in the hands of the Government, and they were carefully gone over yesterday. It is understood that the university will need from \$150,000 to \$160,000 for its arts department, \$50,000 for medicine and \$40,000 for engineering.

Dr. Hodgetts, Provincial Medical Health Inspector, has returned from Kaladar, Hungerford and Tweed, where he has been examining into the smallpox outbreak. He reports that there have been 29 cases in eight houses. One death has resulted, probably due to the disease. The outbreak is supposed to have originated from a woman who visited at Dale's Corners, with her children, who had what was termed eczema. The cases have now all been isolated and everything is being done in the way of general vaccination and other precautions to prevent the spread of the disease. It is felt now that the outbreak will be easily checked.

A meeting of the Executive Committee of the Ontario Medical Library Association was held recently in Toronto to discuss a plan which the association has of obtaining a suitable building in which to establish the library. They have in view a house in Queen's Park, and it is the

intention to have on file there all current medical journals, as well as the most recent medical books. A medical reference and circulating library will also be establish there. Although there is no intention at present of forming a medical club, the house will be a gathering place for the medical fraternity. The committee in charge of the matter consists of Dr. J. F. W. Ross, President, and Dr. H. J. Hamilton, Dr. A. Macdonald, Dr. H. T. Machell, Dr. J. T. Fotheringham, Dr. W. J. Greig, Dr. H. B. Anderson, Dr. H. A. Bruce, Dr. R. A. Reeve, Dr. N. A. Powell, Dr. R. A. Pyne and Dr. A. McPhedran. The committee decided to meet again at the call of the President.

BOOK REVIEWS.

A DICTIONARY OF MEDICAL SCIENCE.

Containing a full explanation of the various subjects and terms of Anatomy, Physiology, Medical Chemistry, Pharmacy, Pharmacology, Therapeutics, Medicine, Hygiene, Dietetics, Bacteriology, Pathology, Surgery, Ophthalmology, Otology, Laryngology, Dermatology, Gynecology, Obstetrics, Pediatrics, Medical Jurisprudence, Dentistry, Veterinary Science, etc., by ROBLEY DUNGLISON, M.D., LL.D., Late Professor of Institutes of Medicine in the Jefferson Medical College of Philadelphia. New (twenty-third) edition, thoroughly revised, with the pronunciation, accentuation and derivation of the terms, by THOMAS L. STEDMAN, A.M., M.D., Member of the New York Academy of Medicine. In one magnificent imperial octavo volume of 1,224 pages, with about 600 illustrations, including 85 full-page plates, mostly in colors, with thumb-letter index. Cloth, \$8.00, net; leather, \$9.00, net; half morocco, \$9.50, net. Lea Brothers & Co., Philadelphia and New York.

Dunglison's Medical Dictionary has been before the medical profession for seventy-five years. It has taken its place with the highest authorities on lexicography, and, especially, medical lexicography. The very name *Dunglison* is synonymous with the very best of its kind. This work is now in its twenty-third edition. From the date of first edition, each successive edition has shown the care with which it has been revised. A perusal of these many editions reveals the marvelous progress that medical science has made. Medical terms are being coined at the rate of two a day, or over two thousand since the previous edition. The definitions are models of accuracy, clearness, and brevity, and the derivations are always given. The illustrations are very superior in every way. The present edition has been brought out under the editorship of Dr. Thomas L. Stedman, who has had much experience in medical lexicography. Professor Leonard Pearson revised the veterinary terms, and Dr. H. H. Burchard those in dentistry. We can say of this work what we can say of very few—that no one can possibly be disappointed who purchases a *Dunglison's Dictionary*.

A TEXT-BOOK OF CLINICAL ANATOMY.

For Students and Practitioners. By Daniel N. Eisendrath, A.B., M.D., Clinical Professor of Anatomy in the Medical Department of the University of Illinois (College of Physicians and Surgeons); Attending Surgeon to the Cook County Hospital, Chicago, etc. Handsome octavo of 515 pages, beautifully illustrated with 153 illustrations, a number in colors. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$5.00 net; Sheep or Half Morocco, \$6.00 net.

The subject of anatomy, and especially clinical anatomy, is so closely allied to practical medicine and surgery that it is absolutely impossible for a physician or surgeon to practice his profession successfully unless he have an intimate knowledge of the human structure. In his preface the author states that the primary object of his work is to serve as a bridge for both the practitioner and the student from descriptive anatomy, as it is usually taught in the first two years of a medical course, to its daily application at the bedside, in the clinic, or in the operating room. The entire subject is discussed with a thoroughness and precision that springs from experience. The method of illustrating the subject is novel, special attention having been given to surface anatomy. The illustrations themselves are the result of a great deal of painstaking study, outlines having been marked upon a normal artist model, and then photographed. They are reproduced in the highest style of art, and show far better than any we have seen the relation of anatomic structures from a clinical standpoint, presenting to the practitioner a picture as met at the bedside, with the skin covering the tissue. The work is indeed magnificent text, illustrations, paper, typography, and binding being of unusual excellence.

AIDS TO PHYSIOLOGY.

Aids to Physiology by Peyton T. B. Beale, F.R.C.S. Eng., Examiners in Physiology to the Society of Apothecaries; Lecturer in Physiology and Histology, Women's Department, King's College; Demonstrator of Histology (late Physiology) King's College, London. Baillière, Tindall & Cox, 8 Henrietta Street, Covent Garden, London; 16 Lincoln Place, Dublin. 1903. Price, paper, 3 shillings; cloth, 3 shillings and 6 pence.

This little book of 240 pages is one of the well-known aid series of Messrs. Baillière, Tindall and Cox. This is an entirely new book, though based on the work of Dr. Lowne in the same series, and issued some years ago. This is an excellent little book. We have examined it with much care, and can speak of it in terms of high praise. Though brief, it is not dry, but, on the contrary, quite interesting. It is worthy of a wide circulation. It would also be an excellent book for nurses and teachers to study, as it is much better than many of the small manuals in use.

A TEXT-BOOK OF OBSTETRICS.

Fourth Edition, Enlarged and Thoroughly Revised.

By Barton Cooke Hirst, M.D., Professor of Obstetrics in the University of Pennsylvania. Handsome octavo, 900 pages, with 746 illustrations, 39 of them in colors. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$5.00 net; Sheep or Half Morocco, \$6.00 net.

In revising this work for this edition, the author has spared no pains to make the book reflect the latest knowledge on the subject. He has even described and illustrated the method of using the "Neumann-Ehrenfest Kliseometer." His perfect familiarity and extensive experience with diseases of women is shown in the careful and minute manner in which he describes the various methods of treatment. As most all the diseases of women are the consequences or complications of childbirth, their preventive treatment at least is in the hands of the obstetrician, and the physician in general practice must be equally well informed in both branches of gynecology. The specialist in obstetrics must be an expert in the surgical treatment of all diseases of women. Even a specialist who confines his work entirely to this treatment, must at least have served a long apprenticeship in practical obstetrics, and have mastered its science to be adequately prepared for his work. From the glimpse we have obtained of Dr. Hirst's knowledge of diseases of women, we wait anxiously for his new work on that subject. In this present work every page has been altered and bettered in some way. More attention has been given than in the previous editions to the diseases of the genital organs associated with or following childbirth, and this we think, is an excellent improvement. Many of the old illustrations have been replaced by better ones, and there have been added besides a number entirely new. The work treats the subject from a clinical standpoint, the author ever keeping in mind that the aim of all medical literature is to cure.

HOME NURSING.

By Barnard Myers, M. D., C. M., M.R.C.S., L.R.C.P., etc.. Lecturer and Surgeon to St. John Ambulance Association. London: Baillière, Tindall and Cox, 8, Henrietta St. Covent Garden, 1903. Price 2/6 net.

This is an exceedingly pretty little book; and it is as useful as it is pretty. Such a book should be in every home. It would be a boon to the sick were the knowledge about the nursing of them obtained from such a book, rather than from some of the unreliable ones afloat in the market. We cannot speak too highly of it for the purpose for which it is intended.

AMERICAN TEXT-BOOK OF SURGERY.

Fourth Edition, Thoroughly Revised and Greatly Enlarged.

For Practitioners and Students. Edited by William W. Keen, M.D., LL.D., F. R. C. S., (Hon.), Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia; and J. William White, M.D., John Rhea Barton Professor of Surgery, University of Pennsylvania, Philadelphia. Fourth edition, thoroughly revised and greatly enlarged. Handsome octavo of 1363 pages, with 551 text-illustrations and 39 full-page plates, many in colors. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$7.00 net; Sheep or Half Morocco, \$8.00 net.

Of the three former editions of this work nearly 40,000 copies have been disposed of. Its sale, indeed, has been the wonder of the medical publishing world. In this present edition every chapter has been extensively modified, and many of them have been partially, and some entirely, rewritten. Notably among such chapters are those on Surgical Bacteriology, Tumors, the Osseous System, Orthopedic Surgery, the Surgery of the Nerves, the Joints, the Abdomen, etc. The most recent researches of Monks on the Intestines, Crile and Cushing on Shock and Blood Pressure, Matas on Neural Infiltration and Aneurysm, Edebohls on Renal Decortication, etc., have been included. The use of paraffine in nasal deformities, the methods of spinal and local anesthesia, and the newer anesthetics have also been described. And this is but an illustration of the completeness and thoroughness of the entire work.

Besides the extensive revision and amplification of the old matter, there have been added six new chapters of the utmost importance, written by men whose positions and experience especially fit them to speak with authority. These chapters are Military Surgery, Naval Surgery, Tropical Surgery, Examination of the Blood, Immunity, and Surgery of the Pancreas. Though there was a brief chapter on the Pancreas in the third edition, in this present edition it has been expanded so greatly that it really is wholly new, the modern surgery of the Pancreas having been created since the last edition. A number of the old illustrations have been replaced by better ones, and, in addition, there have been added a number entirely new. In fact, we know of no single volume work that is its superior in the expounding of the advanced and practical principles of modern surgery.

 THE MEDICAL NEWS VISITING LIST.

The Medical News Visiting List for 1904 is to hand. It is bound in limp leather, containing pocket, and many very useful tables. It can be recommended to all requiring a pocket visiting list. Price, \$1.25.

PROGRESSIVE MEDICINE.

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, &c. ; assisted by H. R. Landis, M.D., Assistant Physician to the Out-Patient Medical Department of the Jefferson Medical College Hospital. Vol. III., September, 1903. Diseases of the Thorax and its Viscera, including the Heart, Lungs, and Blood Vessels—Dermatology and Syphilis—Diseases of the Nervous System—Obstetrics. Lea Brothers & Co., Philadelphia and New York. Price, \$2.50.

The contributors to this volume are William Ewart, M.D., F.R.C.P., of London; William S. Gottheil, M.D., of New York; Richard C. Norris, M.D., of Philadelphia, and William G. Spiller, M.D., of Philadelphia. Dr. Ewart takes the section on diseases of the thorax; Dr. Gottheil, diseases of the skin and syphilis; Dr. W. G. Spiller, diseases of the nervous system; and Dr. R. C. Norris, obstetrics. In these sections the progress of the quarter is carefully and fully reviewed. The present volume is well illustrated, and is a fit companion for the others in this excellent series.

A TEXT-BOOK OF OPERATIVE SURGERY.

Covering the Surgical Anatomy and Operative Technic Involved in the Operations of General Surgery. Written for Students and Practitioners. By Warren Stone Bickham, Ph.D., M.D., Assistant Instructor in Operative Surgery, College of Physicians and Surgeons, New York; Late Visiting Surgeon to Charity Hospital, New Orleans, etc. Handsome octavo of 984 pages, with 559 illustrations, entirely original. Philadelphia, New York London: W. B. Saunders & Company, 1903. Cloth, \$6.00 net; Sheep or Half Morocco, \$7.00 net.

This work completely covers the surgical anatomy and operative technic involved in the operations of general surgery. It is constructed on thoroughly new lines, the discussion of the subject being remarkably systematized and arranged in a manner entirely original. A feature of the work to which we would call especial attention, and for which alone it is well worth the price, is the wealth of magnificent illustrations. There are 559 of them, all entirely original. They depict the progressive steps in the various operations detailed with unusual clearness, and at the same time represent the highest artistic excellence. The text is fully abreast of the latest advances in surgery, all the recent improvements along the line of technic being adequately discussed. Another feature distinguishing it from other works on operative surgery, is the treatment of the anatomic side of the subject in connection with the operative technic. The illustrations will be found of particular assistance in this connection, the muscles, bones, etc., being clearly indicated, together with the lines of incision. It is a magnificent work, and we have yet to see its equal.

A TEXT-BOOK UPON THE PATHOGENIC BACTERIA.

Fourth Edition, Rewritten and Enlarged.

For Students of medicine and Physicians. By Joseph McFarland, M.D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College, Philadelphia; Pathologist to the Philadelphia Hospital and to the Medico-Chirurgical Hospital, Philadelphia. Handsome octavo volume of 629 pages, fully illustrated, a number in colors. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$3.50 net.

This work gives a concise description of the technical procedures requisite in the study of bacteriology, a brief account of the life histories of the important pathogenic bacteria, and sufficient description of the pathologic lesions accompanying micro-organismal invasions to give an idea of the origin of symptoms and the causes of death. Although but a short time has elapsed since the appearance of the previous edition, such rapid strides have been made in the subject of bacteriology, especially in its relation to pathology, that the author deemed it necessary to rewrite the work entirely. All the old matter has been eliminated, much new matter is in evidence, and, in fact, the subjects treated have been brought precisely down to date. What impressed us most were the chapters upon Infection and Immunity. All the new facts recently added to our knowledge of these subjects can here be found. The value of the work as a book of reference has been materially increased by the introduction of a large number of references to bacteriologic literature. These have been thoughtfully chosen, and, in nearly all cases, give the sources of the original descriptions of the micro-organisms treated, and the important methods described. Another valuable addition is a bibliographic index containing the names of over 600 authors. Altogether the work in its new edition is very commendable, and practitioners and students will find it of unusual value.

HENDERSON'S LESSONS ON THE EYE.

Lessons on the Eye for Undergraduate Students. By Frank L. Henderson, M.D. Third Edition. Philadelphia: P. Blakiston's Son & Co. Toronto: Chandler and Massey. Price, \$1.50.

This is an excellent little manual for students and for general practitioners desiring some knowledge of the eye and its diseases. It is not intended as a serious contribution to ophthalmic literature. The illustrations are good, especially in the anatomical section. The chapter on therapeutics is up-to-date, and deals with the newer ophthalmic agents, holecain, euthalmin, scopalamin, trikresol, protargol, argyrol and other substances in a plain and comprehensible manner.

ELECTRO-THERAPEUTICS AND RADIOGRAPHY.

A Manual of Electro-Static Modes of Application, Therapeutics, Radiography, and Radiotherapy. Second Edition. By William Benham Snow, M.D., Professor of Electro-Therapeutics and Radiography in the New York School of Physical Therapeutics, &c., &c. New York: A. L. Chatterton & Co. Price, cloth, \$3.00.

The literature on electric treatment and the use of the x-rays is rapidly increasing. It is a very important branch of medical science. The work of Dr. Snow is well written, and unusually well illustrated. The text matter is carefully prepared and gives a clear account of the place occupied by electro-therapeutics and radio-therapeutics. The book will well repay careful study.

A TEXT-BOOK OF PATHOLOGY.

Fourth Edition, Thoroughly Revised and Enlarged.

A Text-Book of Pathology. By ALFRED STENGEL, M.D., Professor of Clinical Medicine in the University of Pennsylvania. Octavo volume of 933 pages, with 394 text-illustrations, many in colors, and 7 full-page colored plates. Philadelphia, New York, London: W. B. SAUNDERS & COMPANY, 1903. Cloth, \$5.00 net; Sheep or Half Morocco, \$6.00 net.

In this work the practical application of pathologic facts to clinical medicine is considered more fully than is customary in works on pathology. While the subject of pathology is treated in the broadest way consistent with the size of the book, a successful effort has been made to present the subject from a clinician's point of view. In the second part of the work, the pathology of individual organs and tissues is treated systematically and quite fully under subheadings that clearly indicate the subject matter to be found on each page. In this edition the section dealing with general pathology has naturally received the greatest care and the most extensive revision. Several of the important chapters have been practically rewritten. Among the subjects that have received the greatest revision are: Ehrlich's Theory of Immunity and allied process; Inflammation; The Bacterial Diseases, including Typhoid Fever, Tuberculosis, Yellow Fever, and Dysentery; and Diseases of the Blood. In the second part of the book that treating on special pathology—the revision has also been considerable, so that this part likewise represents the latest advances in the subject of pathology. A very useful addition to the book is that of an Appendix, treating of the Technic of Pathologic Methods, and giving briefly the most important methods at present in use for the study of pathology; including, however, only those methods that are unquestionably practicable. Many new illustrations, including ten excellent plates, have also been added, and some of the old replaced by new ones. We specially recommend the book to students and practitioners, as we believe it is one of the best we have seen.

SWANZY'S HANDBOOK OF DISEASES OF THE EYE.

Handbook of the Diseases of the Eye and Their Treatment. By Henry R. Swanzy, A.M., M.B., F.R.C.S.I., Dublin. Eighth Edition. Philadelphia: P. Blakiston's Son & Co. 1903. Toronto: Chandler and Massey. Price, \$2.50.

Swanzy's well known book makes its appearance in an eighth edition, thoroughly revised and with many new chapters. A description of lymphangoides of the eyelids. Pfluger's method of tarsoraphia, the use of the magnet for foreign bodies, Kronleins temporary resection of the outer wall of the orbit for orbital tumours, together with descriptions of grating keratitis, keratitis aspergillina, and recurrent abrasions of the cornea, constitute the more important additions to the book. The chapter on the orbital muscles, and also that on focal brain disease, are particularly good. We can recommend the book to students and practitioners, although, as is usual with English books, the newer therapeutics is almost entirely wanting. Sulphate of zinc and nitrate of silver figure largely, while grattage, protargol, and dionin are conspicuous by their absence.

THE PHYSICIANS POCKET ACCOUNT BOOK.

An Account Book for Professional Services. By J. J. Taylor, M. D. Published by the Medical, 4105 Walnut St., Philadelphia.

This is a unique pocket book well bound in limp leather. It is a perfect ledger and day book. In it a doctor can keep his accounts and in an instant turn to any account and find out in a glance how it stands. It contains an index, a portion for balances, a section for addresses, and a main part for accounts. The service is entered with the charge. There is a column for payments. In this way a doctor does all his book-keeping when he makes his visits, or receives payments. It is well worthy of a trial.

OBSTETRIC NURSING.

A Handbook of Obstetric Nursing for Nurses, Students, and Mothers. By Anna M. Fullerton, M.D. Sixth Edition. Illustrated. Philadelphia: P. Blakiston's Son & Co. Toronto: Messrs. Chandler and Massey. Price \$1.00.

Dr. Anna Fullerton has long been known an able teacher on nursing, gynæcology, and obstetrics. She has held a number of very important and responsible positions. Her books are now well known and require no introduction. The present edition is thoroughly up-to-date, and should be in the hands of every one who does obstetric nursing. It might be read with much profit by medical students, or recent graduates.

MANUAL OF THE DISEASES OF THE EYE FOR STUDENTS
AND GENERAL PRACTITIONERS.

By Charles H. May, M. D., Chief of clinic and instructor in opthalmology, college of physicians and surgeons, medical department Columbia University, New York, 1890-1903; opthalmic surgeon to the French Hospital, New York; consulting opthalmologist to the Red Cross hospital, New York; adjunct opthalmic surgeon to Mt. Sinia hospital, New York, etc., third edition, revised with 275 original illustrations, including 16 plates with 35 colored figures. Publishers: Wm. Wood & Co., New York.

A book that reaches its third edition in three years and has been reprinted twice within that time must bear all the elements to make it valuable as a medical work. Many books are written on opthalmology especially intended for final year students and general practitioners. Many are failures because they are too large and offer too much for the student to digest, others are failures because in attempting to make a small book they omit too much. This book seems to have taken the middle course. Those diseases seen frequently in general practice are fully taken up, while the rarer conditions are given but very little space. The author has aimed at being very practical. Illustrations showing exactly how to examine the conjunctiva and retro-tarsal folds add very materially to the student's knowledge. Very minute instructions are given showing how an eye case should be examined, every little point is clearly brought out, and how to estimate vision is made much plainer than usual. A number of colored plates showing various conditions of the eye grounds are of decided value. In connection with lacrimo-nasal obstruction no mention is made of the desirability of teaching the patient how to probe his own tear duct. This adds materially to the success of many cases where long continued probing is essential. Also, in cases of catarrhal conjunctivitis, nasal and nasopharyngeal catarrh seem to have a relationship the author has omitted to mention. The author speaks very lightly of antitoxine in Diphtheria conjunctivitis, solutions of Quinine are not referred to. The treatment of Trachoma is fully given and is enhanced very materially by full page illustrations, showing how to use the expression forceps. He uses for this operation a general anaesthetic, in children and neurotic females this may be necessary, otherwise it is not desirable. The chapter at the end of the book on ocular therapeutics and general rules for eye operations is excellent, concise and practical. This book is undoubtedly the best of the smaller works on opthalmology and one from which all general practitioners will find great assistance.

MISCELLANEOUS.

THE MILD TREATMENT OF OBSTRUCTIVE DYSMENORRHŒA.

Relief from uterine congestion and a stimulation to increased activity by the mild method of medication without recourse to dilatation and curettage, is a *desideratum* which presents itself to every practitioner.

The congestion of the uterus, uterine and intestinal colic, hysteria and other symptoms, are common events. Menstrual pains are considered to be one of the inevitable wrongs of women. Of all the disturbances which are not necessarily fatal, perhaps amenorrhœa and dysmenorrhœa are the most demoralizing mentally and physically, and cause the practitioner more annoyance, owing to the idiosyncracies which they are obliged to combat.

Treatment of these disturbances is, of course, always dependent upon the physical condition of the patient. Surgical measures are to be deplored, as a noted physician once said, "God never intended the uterine canal to be opened, except by nature," and most physicians will agree that surgical intervention is likely to cause subsequent and long-continued weakness.

The administration of morphine or other sedatives or narcotics, or the use of alcohol, may be followed by habits, and even the usual purgation will interfere with the secretions, to say nothing of the effect of the opiate.

Of all the remedies for uterine obstructions, phenalgin is recognized to be the best. It excites ordinary secretions, induces loose movements of the bowels, opens the emunctories generally, and at the same time relieves the pain. The heart's action is slightly stimulated, but with no after depression. The therapeutic effect of phenalgin might be said to be an eliminant, analgesic, which is never followed by a habit.

In no other drug have we these conditions. It is advisable to give phenalgin in doses of five grains three times a day for two days before the expected period, and just prior to the time, take two doses of ten grains each at intervals of four hours.

VERONAL.

This is a new hypnotic introduced by E. Merck, of Darmstadt. It is put up in tablet form of gr. 8 and so made that the tablets can be divided, rendering it an easy matter to give 4, 8 or 12 grains. Repeated trials have shown that Veronal is a useful hypnotic.

A VALUABLE AUXILIARY IN THE TREATMENT OF PNEUMONIA.

Pneumonia is nowadays considered a general infectious disease due to a special germ, and not, as was formerly believed, a local condition resulting from exposure to cold. It is therefore of the utmost importance that once it appears in the household, every precaution should be taken to prevent its spread to other members of the family. As the germ is carried through the air, this cannot be accomplished by fluid disinfectants; an unirritating and non-poisonous antiseptic which is sufficiently powerful to destroy the infection and yet can be freely breathed by the patient is required. There is only one safe and efficient agent of this kind, and that is vapo cresolene. Experiments by a member of the Pathological Department of Yale University have demonstrated its high germicidal power. Its vapor permeates the air of the sick-room, destroys the infection at its source, and when inhaled by the patient allays cough and irritation in the air-passages, promotes expectoration, and thus aids materially in bringing about recovery.

QUICK AND SURE AND TIME TRIED.

No doubt many of our doctor friends will recognize in the following, from Chas B. Forsyth, M.D. (Bellevue Hospital Medical College, New York City), dated Alexandria Bay, N.Y., January 6th, 1903, an expression which will, in many instances, recall their own experience. He says: "I can say no more than that I have used Antikamnia Tablets since I began practising medicine. Several times I have switched to other preparations, but I invariably come back to Antikamnia Tablets when I want quick and sure results."

The Antikamnia Chemical Company, St. Louis, Mo., is an old and responsible concern, and any of their medicinal specialties may be depended upon to be just as represented. The latest additions to their list of preparations are "Antikamnia & Heroin Tablets" and "Laxative Antikamnia Quinine Tablets." Send to them for samples, mentioning THE CANADA LANCET.

SANMETTO IN PROSTATITIS, URETHRITIS, CYSTITIS.

W. J. Chittock, M.D., Jackson, Mich., says: "I have used Sanmetto extensively in my practice for some years, and in well chosen cases have always gotten good results. I look upon it as a most valuable remedy in prostatitis, urethritis, cystitis, and in fact all inflammatory conditions of the genito-urinary tract."

AN OPEN LETTER FROM THE FERROL COMPANY.

We take the liberty of addressing the physicians of the Dominion in order to acquaint them with certain changes which we have made, or contemplate making, in regard to Ferrol and the method of conducting our business.

We have secured commodious premises at 124 King St., West, Toronto for warerooms, laboratory and offices, where we shall be delighted to see any of our medical friends who may make it convenient to call.

While no change will be made in the formula, we have decided to discontinue the manufacture of "Ferrol with Creasote," "Ferrol with Acid Phosphates" and "Ferrol with Manganese." However, the emulsification is so perfect that Ferrol is readily miscible with creasote, brandy or wine at the pleasure of the physician.

We are now using a specially refined brand of Cod Liver Oil and physicians will observe a marked improvement in the flavor, in fact, Ferrol is now really "pleasant to take." Moreover, we guarantee the stability of the preparation and it may be prescribed with the utmost confidence where Cod Liver Oil and Iron are indicated.

Physicians, who have never prescribed Ferrol, are invited to write us, enclosing professional card, and we shall gladly send a full-sized bottle for trial.

Trusting we shall continue to receive the favorable and highly esteemed consideration of the profession.

AN INTERESTING AND EXCELLENT EXAMPLE FROM THE COAST OF MAINE.

A professional call up on the Maine coast in mid-winter at Ogonquit, York county, furnishes many delightful opportunities for enjoying some of the pleasures of a country doctor's life. On a case of ugly, persistent, nagging cough, in a case of broncho-pneumonia, I had the pleasure of suggesting Glyco-Heroin (Smith) to good advantage. The attending physician, Dr. J. W. Gordon of Ogonquit, one of the able and busy medical men of Maine, related to me the details of a very aged patient who was almost dead from exhaustion with a case of irritable cough, due to chronic bronchitis, complicated by hiccoughs, that everything had failed to relieve. The Glyco-Heroin (Smith), in teaspoonful doses, relieved the cough and cured the hiccough magically and permanently; patient was soon able to take nourishment and is recovering rapidly. — From *The Medical Mirror*, March, 1903.

BACTERIOLOGICAL CHART.

M. J. Breitenbach & Company, (Pepto-Mangan, Gude) of New York, will send by mail one of their bacteriological charts. This chart has taken months of labor and the combined application of many artists. They will send a copy, free of cost, and believe every member of the medical profession possessing one will be much gratified. As they make no charge for these charts, they would appreciate it very much if you would send for one. They feel safe in asserting that no piece of work ever sent to the medical profession, free, stands out so boldly as a work of art.

DECREE IN FAVOR OF FAIRCHILD BROTHERS & FOSTER.

Final decree, enjoining James Kerr, *et al*, from selling substitutes for Fairchild's Essence of Pepsine. At a special term of the Supreme Court, Part I thereof, held in and for the County of New York, at the County Court House, Borough of Manhattan, City of New York, on the 25th day June, 1903.

Now, on motion of Gould & Wilkie, attorneys for the plaintiff, it is

Adjudged that the defendant, his clerks, agents, servants and employes, be, and they hereby are, enjoined and restrained perpetually from selling or dispensing either at the drug store of the said defendant, at West New Brighton, in the Borough of Richmond, of the City of New York, or elsewhere, any Essence of Pepsine, or pharmaceutical preparation of any sort or kind whatsoever, not manufactured by plaintiff, in imitation of, or in substitution for, Fairchild's Essence of Pepsine, whenever Fairchild's Essence of Pepsine is prescribed or asked for, and from representing by any word or action that any preparation sold by said defendant, not manufactured by plaintiff, is Fairchild's Essence of Pepsine, together with taxed costs.

THOMAS L. HAMILTON, Clerk.

GLYCO-THYMOLINE IN ENDOMETRITIS.

Chas. A. Stedman, M. D., Cleveland, O., in the New York Medical Journal, Sept. 12th, 1903, reports the following case :

Mrs. R. This was a case of endometritis, with extensive inflammation. The entire vaginal tract was inflamed and tender, with slight ulceration of the os and profuse leucorrhoeal discharge. There was a great deal of pain in the lumbar region, and the patient was extremely nervous. Tampons of Glyco-Thymoline and glycerine, equal parts were applied and left in situ twenty-four hours. After removal of the tampon I gave the patient a vaginal douche of a solution of Glyco-thymoline and

water. Under this treatment the pain and tenderness rapidly subsided and the leucorrhoea diminished. After three months I instructed her to use Glyco-Thymoline douches three times a week, which were continued for some time. All her symptoms have disappeared and the patient now considers herself well.

HYDROZONE IN SEPTICÆMIA.

X, a white woman, 22 years of age, was taken into the hospital on account of syphilitic skin disease, a blennorrhagic vaginitis of most violent description with strong congestion of the mucous membranes of the vagina. The gonococci infection reached to the neck of the uterus. Above the mouth of the neck was a syphilitic ulcer of the size of a dime, clean at the bottom, livid in color and rather deep.

Upon careful examination, the patient was found to be pregnant in the third month; and, was subjected to energetic treatment.

Under treatment she improved rather well; but, though the blennorrhagia was not cured, the syphilitic manifestations of the skin disappeared, and the ulcer at the neck improved somewhat, until confinement which took place at the eighth month.

The confinement was normal. However, the patient suffered a complete laceration of the right side of the neck; an incomplete laceration of the left side; an incomplete laceration of the rear wall of the vagina; and a two-thirds laceration of the perinæum. The placenta was removed at once; ample warm washes of a 1 per cent. solution of permanganate of potash were applied and the uterus was stimulated by massage, but remained inert. All this was reported to me by the house physician. I arrived at the hospital four hours later in company with the well-known gynecologist, Dr. Mendez Capote, who decided to sew up the lacerations, and touched the ulcer at the neck with the cauterizer; then he gave another wash and plugged with iodoform gauze.

When the patient was on the operating table, she had fever, 38.4°C. At 5 p. m. the fever was at 39°; then the vaginal plug was taken out and a large intra-uterine wash of one-half per cent. solution of permanganate was given very hot in a quantity of five liters. The fever was at 40° throughout the night, and washes were given every four hours.

The following day, at 8 p. m., temperature 40°, same local treatment. The fever lasted all day, falling to 39° by the wash, but rose again to 40°.

The day thereafter, fever at 41°; same treatment with more vaginal washes of bichloride of mercury, before the uterine washes; the fever kept on at 41°.

On the next day at 8 p. m., (temperature 41.5°), I took out the stitches, washed well both uterus and vagina, dried the latter with carbolated cotton and conveyed into the uterine cavity eight grammes of pure Hydrozone, taking care that this liquid should flow towards the vagina, into which I poured about 60 grammes of the same liquid and drained the uterus with simple gauze saturated in Hydrozone, while the vagina was drained by the same means.

From the time on the fever declined slowly, and at 6 p. m., it was pyretic. The fever did not return and the patient's cure proceeds without further difficulty.

Hydrozone can be applied if care is taken to keep the neck dilated as much as possible.

In this case the superiority of Hydrozone over the other treatments of puerperal septicæmia is indisputable.—Dr. Matias Duque, Director of the San Antonio Hospital, Section of Hygiene. Abstract from the *Revista Medica Cubana*, April 15, 1903.

STEARNS' IMPROVED SERUM BULB.

The syro-bulb, in which the Stearns serums have been marketed, has been materially improved. Instead of breaking the ends of glass stems, all that is now necessary is to remove a sterile rubber cap from the ends of the stems. This improvement, together with their flexible rubber attachment for the needle portion, renders this form of serum administration about ideal.

The Stearns diphtheretic antitoxin and the Stearns streptolytic serum are both offered in the improved syro-bulb at no extra charge.

ANTIPHLOGISTINE IN THE TREATMENT OF DISEASE.

As a non-conductor of heat Antiphlogistine maintains the degree of temperature at which it is applied or nearly so, for 12 to 24 hours, requires no attention whatsoever, and is in every way pleasant and agreeable.

The treatment of inflammation through the medium of Antiphlogistine has the endorsement of every active practitioner as the most approved method of curative procedure.

Antiphlogistine renders ready service to the patient and physician by promptness and positiveness of action.

For therapeutic efficiency in rapid resolution of the products of inflammation, Antiphlogistine is unexcelled.

Expectation becomes realization in all cases of localized inflammation where Antiphlogistine is applied.

Extension of the septic products along the vascular highways is prevented by the use of Antiphlogistine.

The abstraction of blood from the deep blood-vessels into the superficial capillaries through physiologic innervation is physiological phlebotomy. Bleed, but save the blood, is the mechanics of Antiphlogistine.

THE MAX DUPLEX INHALER.

This inhaler is manufactured by the J. N. McKim Company, of Montreal. After repeated trials, it has been proven to nebulize the chemicals placed in the bottles in a most thorough and satisfactory manner. Its construction is simple, but scientific, and is easily put together and operated. The ingredients to be vaporized may be varied. The bottles are so arranged that the fumes of hydrochloric acid is passed through a solution of ammonia, producing a white vapor of extreme fineness. This vapor carries coated with the medicus which it passes through, and which consists of the following ingredients: Creosote, eucalyptol, ol. menth. pip., ol. cassiae, ol. gaultheriae, ol. pini, alcohol. This formula may be varied in composition and strength. It has a marked effect on the cough and expectoration.

CHARLES E. FROSST'S PREPARATIONS.

Messrs. Frosst & Co., of Montreal, have placed before the medical profession the following preparations: Pinocodeine, Elixir Digitalin Co., Ferrogen. They are put up in an attractive and palatable form, and merit a trial.

From the returns of the Provincial Secretary's Department there were in the various institutions on August 1st of this year the following number of inmates:—Fifty-four hospitals, 2,418; forty-one refuges, 2,566; thirty-two orphanages, 1,823; one asylum for idiots, 687; seven asylums for insane, 4,669; one deaf and dumb institution, 288; one institute for the blind, 138; Central Prison, 366; Boy's Reformatory, 95; Mercer Reformatory, 137; in forty-two gaols and fourteen lock-ups 529; totals, 13,712.
