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EDITORIAL

WOMEN PSYCHOLOGICALLY CONSIDERED.

The mental and psychical make-up of women has long been a subject of close study. One of the latest to express himself in definite language is Sir Almroth Wright. This distinguished medical savant took occasion to write to the London *Times* of the attitude of the suffragettes, and to advance arguments why women should not be granted votes. Among other things he said:—

"For man the physiology and psychology of women is full of difficulties. He is not a little mystified when he encounters in her periodically recurring phases of hypersensitiveness, unreasonableness, and loss of the sense of proportion. He is frankly perplexed when confronted with a complete alteration of character in a woman who is childbearing. When he is a witness of the tendency of woman to morally warp when nervously ill and of the terrible physical havoc which the pangs of a disappointed love may work, he is appalled. These upsettings of her mental equilibrium are the things that a woman has most cause to fear. No doctor can ever lose sight of the fact that the mind of a woman is always threatened with danger from the reverberations of her physiological emergencies. It is with such thoughts that the doctor lets his eye rest upon the militant suffragist. He cannot shut them to the fact that there is mixed up with the woman's movement much mental disorder; and he cannot conceal from himself the physiological emergencies which lie behind."

The views of Sir A. Wright have been keenly contested by some distinguished persons. Among these may be mentioned Sir Victor Horsley, Mr. Israel Zangwill, Sir Douglas Powell, Lady Robert Cecil, the Bishop of North Queensland, Prof. Sylvanus Thompson.

Mr. Zangwill said: "According to this letter the whole movement in favor of women's suffrage springs from a form of hysteria, which is due to being a woman and unmarried. Now, I am in favor of the movement, and I am neither a woman nor unmarried. I want female suffrage for state reasons.

"As to his suggestion that the thing is a hysteria due to women being unmarried, I may say that one of the keenest suffragists is my own wife, who, like Mrs. W. W. Jacobs, is an ideal wife and mother.

"The doctor is tremendously afraid of what he calls the physiological emergencies of women, but, after all, they do not so interfere with their lives that they could not give a vote once in four or five years."

Sir Victor Horsley, in his reply to Sir Almroth Wright, states: "The thousands of non-militant suffragists, married and unmarried, whose existence he foolishly 'doubts,' do not share his declaration that they are incompetent to adjudicate upon political issues, for they are doing it every day. And so far from hesitating to use the vote to shut up public houses, which are dragging down their husbands to a premature grave, and their families to misery and poverty, the leading and thoughtful women of this country long to possess that vote so that they may at once strike the blow which shall emancipate the nation from the slavery of the drink custom.

"Sir Almroth Wright's ideals of life and of womanhood are far too degraded for national progress. Those of us who are demanding equal civic rights for both sexes intend to secure for the welfare of the nation a co-operation by men and women, both in public and private life, of which no anti-suffragist has apparently yet formed any intelligent conception. Among the frustrations put in the path of this reform Sir Almroth Wright's outburst constitutes but a trifling mud-heap, which time and truth will speedily clear away."

The following statement from Miss Elana Acland's letter is to the point: "It may be gratifying to masculine vanity to assert that it is only sexually thwarted women who claim or desire the vote. But, before making such an assertion it would be wise for a man to run through a few lists of women who are devoting themselves to this cause, and to make sure that no wives and mothers are among them. The truth is that it is the force of realized, just as much as unrealized, motherhood that is actuating us."

Many other strong replies to Sir A. Wright could be quoted. It may be accepted that he is wrong when he contends that the suffragist is one that has undergone atrophy in one portion of her nature, that they are sexually embittered women, and that they are persons with instincts long suppressed and that have at last broken out. The weight of sound physiology and psychology will not hold with these views.

It is only as a medical study that we deal with the subject, and we are bound to differ from Sir A. Wright. We think his analysis of the psychological side of women is quite inadequate and misleading.

SOME ASYLUM ACCOMMODATION FOR TORONTO.

The Government has decided to remove the asylum from Queen Street, Toronto, to Whitby. This will leave Toronto without asylum accommodation nearer than Whitby, as the asylum at Mimico does not admit from the city. This seems to use to be too radical a change.

We agree with the policy of having the asylums located on a large area of land where the patients can be kept out of doors, and engaged in healthful occupations. They can be employed to raise most of what they consume.

But we must not overlook several other very important questions. In the first place, there are always cases that require prompt, indeed, immediate commitment. The securing of papers from Whitby and the sending of the patients there will involve a delay that will be very inconvenient, and, in some cases, positively dangerous.

Then, there are many cases that should be under observation for a time. They may be allowed out in a few weeks or months, or they may become chronics, when they could be sent on to Whitby. These are observation cases. There are some that could go at once to Whitby, because they have passed the acute, or observation, stage. For the sake of the patients this aspect of the subject cannot receive too much attention.

But there is another view that must be taken of this question. The students of medicine must be considered. The cases to study from are those that are in the early and acute stages. They should be in an institution near the students, so that their symptoms may be studied. It is absolutely necessary that the medical student should have an opportunity of studying mental affections. There is no more important branch of study to-day on the medical curriculum than that of psychiatry.

The question at once comes out how this is to be arranged. There are several ways. In the first place, arrangements could be made with one or other of the hospitals in Toronto for the establishment of psychiatric wards. This should be in a separate building. The new general and the Western hospitals could furnish the land.

Another way, and a better one, would be that of securing a few acres of land near the city, and on a car line, and on this to erect a suitable building for say at least one hundred patients. The students could reach this building easily by the cars.. An institution with accommodation for less than one hundred should not be thought of for a moment for a city the size of Toronto. There would always be acute cases sufficient in numbers to fill it.

Then comes the providing of the means. This should be done

by the Government or the city, or both. Our own view is that it should be by the city. This institution should furnish accommodation for the pauper and the pay patient. There should be different grades of accommodation to meet the purses of the patients, or their friends. In this way the institution could be made self-sustaining.

All other considerations aside, there must be some accommodation for the acutely insane of Toronto in the city. This is absolutely demanded in the interests of the people and the medical students. The cost of such an institution sinks into the background entirely when compared with the need for it on the one hand, and its usefulness to medical education on the other. We say with Lowell: "New occasions teach new duties."

THE MISSES SHIELDS.

No words of ours could add any honor to the deeds of the Misses Shields. They lived a quiet and unassuming life, and gave most liberally for the good of others. Their good deeds will long follow them.

The National Sanitarium gets $5,000; the Sacred Heart Orphanage, $2,000; the Protestant Orphans' Home, $2,000; the Aged Women's Home, $2,000; General Hospital Nurses' Home, $500; Aged and Infirm Ministers' Fund, $1,000; Toronto City Mission, $250, and the Shields' Emergency Hospital, $95,000.

The late Miss Jane Shields had already given $75,000 for the erection of the Emergency Hospital building. This additional legacy from Miss Agnes Shields will equip the hospital and ambulance service and provide for their up-keep.

Such splendid generosity cannot be too highly praised. Wealth given in this way will do untold good. For years to come the needy and the suffering will be benefitted by these gifts. In the words of Mrs. Norton:

They serve God well
Who serve His creatures.

TUBERCULOSIS IN QUEBEC.

Montreal takes first place for the unenviable reputation of having the highest death rate from tuberculosis of any city on the continent. The death rate from tuberculosis in the Province of Quebec is exceeded by only two states in the American Union. This is the problem before the people of Quebec. Will they face it and deal with the serious condition?

Nearly twice as many French-speaking people are affected as English-speaking persons. This is accounted for by the greater poverty among the former, that they are ignorant of the simple laws of health and hygiene, and that they are employed in the poorer and more insanitary workshops.

Women suffer much more severely than men, the proportion being 222 to 164. During the six months of winter they live much of the time indoors, and keep their houses warm by shutting them up, and preventing the entrance of fresh air. The poor houses and the lack of fuel make this course a necessity. This also tends to spread the infection.

The crying need in the Province of Quebec is fresh air. There is a healthy climate, but it is not properly used. Nearly one-third of all the deaths in the province is due to tuberculosis in some form. In some of the cities tenement houses have been built in the past without a window leading to the open for many of the sections.

Some of the cities are now beginning to wake up. Steps are being taken to enforce better regulations for dwelling houses, schools, factories, public halls, etc. More attention is being paid to street cleaning, sewage, ventilation, etc.

More than half of the victims of the disease are from 15 to 35 years of age, and at least one-third from 15 to 45. No doubt a vast amount of good is bound to come from the making known of these facts. It would seem at last the people of Quebec are becoming alive to this matter, and showing signs of taking a forward step.

SWATTING THE FLY.

This is the battle cry of medical health officers throughout the continent and many newspapers have taken up the cry, and are spreading broadcast a fear of the fly.

The time was when people regarded the house fly as a sort of nuisance that got into the milk, or crawled over the pie, or kept one awake in the morning when he would like a little more sleep. That the fly carried fatal diseases is a teaching of quite recent years.

But the house fly does carry germs about, and in this way may spread a variety of diseases. Its body is large enough to carry a fatal dose of typhoid fever infection, tubercle bacilli, smallpox pus, etc. It is, therefore, an enemy of the human race that must be reckoned with.

The remedy lies very largely in starving the fly. Do not leave food around for it to live on, and suitable places for it to breed in. Foods should be kept covered and garbage destroyed and kept in

closed receptacles. Flies do not stay where they can get nothing to eat, and they cannot multiply unless there are places for them to lay their eggs.

If one goes to a part of the country where there are no stables, no garbage, almost no people, in other words, to virgin country, he will find no flies. The lesson is plain, and the remedy easy. Indeed, it is one that ought to be adopted apart from the fly.

Professor F. C. Hodge, of the Department of Biology at Clark University, speaking about the extermination of the fly, said:

"Fly screens no more settle the question for us than a mud hole does for hogs. The hogs hide from the flies in the mud, but still the flies carry hog cholera germs to the animals' food. We must catch the flies, not drive them from place to place. When your fly-trap is filled, hold it under the hot water faucet—and feed the flies to the flower bed or to the chickens.

"As a solution of the extraordinary problem of the fly, I would suggest that every town and city employ fly-traps, stationed at those places where the best breeding grounds are. Get scouts, both boys and girls, to attend the traps. Any boy may care for 200 traps a day. When the first scout reports 'No flies' give him a prize, when the last scout has so repored, give him another prize. So that there will be no more flies for the rest of time."

INFANT MORTALITY.

All over Canada there is altogether too high a death rate among infants. This is very much a preventable condition. The statement is made on good authority that there were fewer children in Ontario in 1901 under five years of age than in 1871. This is rather startling when one bears in mind the increase in the population of the province in these years.

A vast amount of information is published and distributed on the diseases of bees, hogs, cattle, horses, but nothing of the kind is done in the case of people. The governments should give out information on the care of children, the preservation of milk, and the avoidance of infectious diseases. This would have the effect of very markedly reducing the death rate among infants. Ignorance on the part of the mothers is death to the infants.

But we must not forget the poverty factor. Many young women are left widows with several small children to care for. These mothers must go out and work. This leads to neglect, and this in turn to dis-

ease and death. Just the other day Mrs. Leathes, writing to the press, called attention to the plan in use in Australia and New Zealand to give such women a pension till her children are able to do something for themselves. This is an excellent suggestion.

A 17TH CENTURY SURGEON AND HIS FEE.

Mr. Justice Riddell contributed to the *New York Medical Journal* of 4th March a most interesting article on a case that was tried at the Guildhall, May 4th, 1687, before Sir Thomas Street, Justice of the Common Bench. The article is in Mr. Justice Riddell's finest vein of constructive humor.

The case was of this sort. Sir Thomas Powis interceded between two men of the sword and received a severe wound in his arm. The pain and other conditions of the wound made him very weak. He sought the advice of one who practised the art and mystery of surgery. He treated the wound according to the teachings of that day with topical application, but the wound did not heal, and the patient became very much afraid of gangrene.

He then discontinued this surgeon and sought the advice of another of the barber-surgeons by the name of Mr. Randall. Mr. Randall made no use of the usual liniments and topical applications recommended in those days; but instead he cleansed the wound with water and dressed it with clean linen. The wound healed and Sir Thomas Powis made a good recovery. He refused to give any fee to Mr. Randell and the latter sued the patient.

The case was tried by Sir Thomas Street, as stated. The judge went into a lengthy argument that as he had made no use of the applications recommended in the books by the masters he was not entitled to any fee; and further, that the applications made by the first surgeon may have continued to do good, while the patient was attended by the second surgeon.

The jury was accordingly charged that as Mr. Randall had done nothing, having no credit in the case, neither should he be given cash. The verdict was given against the surgeon. We have read of the case of Deacon Rogers' wife by Will Carlton. The doctor gave her fresh aid and sunlight, and the Deacon thought there should be no bill to pay.

THE CARE OF THE FEEBLE MINDED.

There is a very old saying to the effect "the poor ye have always with you," and judging by the lay press "the feeble minded we have

always with us.'' There is a very great deal of attention being paid to this subject. It is certainly a very proper thing to look after the feeble minded and give them as fair a chance for education as possible. Some of these cases can be taught sufficiently to earn a living for themselves.

There are several aspects of this subject that call for action. There are some who are feeble minded because of the accidents of birth, disease, injuries, or arrested development. It is impossible to prevent these, and they should be cared for properly at home or in some public way.

But there are many feeble minded children who should never have been born. It is a fact that marriage is but very little regulated in civilized countries. It is notoriously too true that almost any persons may marry and have children. This should not be allowed. Defective, drunkards, criminals, half-breeds, etc., etc., contract marriages and raise children. On this there must be placed a rigid check. Marriage should be looked upon from the race point of view more than it has been in the past. Arrest the production of feeble minded children by every means known to modern science.

With the unavoidable balance of defectives it will be necessary to deal. Homes must be found for them. Most of them can be taught enough to earn their keep in an institution. Institutions for the feeble minded and the epileptic are made self-sustaining in some places, and the same could be done in the various provinces of Canada. It only requires the nerve to do things the right way.

ANTE-MORTEM STATEMENTS.

From time to time ante-mortem statements are put in as evidence in murder trials. That these statements be of any value the persons making them must believe that they are dying and that there is no hope for their recovery. Now, let us look into these statements and the conditions under which they are often taken.

It is thought that the near approach of death gives the statement the force and solemnity of a statement made under oath. But all this depends upon the mental condition of the person making the statement. No court would give much credence to the evidence of a person under oath who at the time was in the low delirium of typhoid fever. He is mentally too weak and deranged to be able to state reliably what really did happen. In like manner the ante-mortem statement of one in such a condition would be valueless.

A person is feloniously wounded and is told he is dying and that he has no chance of recovery. But his wounds have become septic and his blood is saturated with poison. His mind is wandering. He cannot fix his thoughts on any given subject. He cannot form a proper conception of what death means. If asked how he feels is quite likely to say "first rate," and in the next breath "I know I am dying," and, then again, "I will soon be all right." We have heard dying septic patients talk on in this strain indefinitely. Their minds are quite incoherent and do not realize their serious condition. An ante-mortem statement made by such persons in answer to leading questions is worthless. They will answer much as they are asked.

Again, extreme exhaustion will reduce the mind to a shadow. The person cannot reason, cannot associate his ideas, cannot remember, cannot formulate deductions and express them. All this arises from exhaustion, as lack of food or loss of blood. An ante-mortem statement made by such should have no weight. They are passive subjects of the suggestions made to them by those who may be taking the statements. They do not, and cannot, appreciate the distinction between right and wrong, and do not know that their statements are to have a legal bearing on the trial of other persons, or that their statements may do grievous wrong to others. All this is as foreign to their minds as the story of Marathon to the child a few days old.

But the most pronounced type of case is that of a woman who is dying of sepsis and peritontis after a criminal operation. Long worry of mind, loss of strength from sickness and pain, and marked derangement of mind from toxæmia, render her as unfit to make a reliable ante-mortem statement, as would the person dying with pneumonia and in the low muttering delirium of the last hours of life. It is a travesty on all attempts at justice to admit such statements. Further, they were not subject to cross-examination. Certain questions are put and certain answers obtained; but, if some one else were to ask other questions, he would, ninety-nine times out of the hundred, secure contradictory answers.

This is what happens with the witness in court. He is subjected to cross-examination. In the case of the ante-mortem statements there is no cross-examination. This cross-examination would undoubtedly modify these statements. If courts will use these dying statements, they should be taken with proper precautions so as to safeguard the rights of all, and avoid the danger of a delirious person making statements that may take away the life or liberty of some person; and, yet, the testator not have the faintest idea of the importance of the statements.

Dying statements have often been shown to be wrong, because the

persons making them were not in a fit condition to give out deliberate and reliable information on what really did happen. Now that so much is known regarding the mental condition of dying persons, it should be made a condition *sine qua non* that the dying persons are in a fit condition mentally to make so serious a statement as would involve the life of another. Such dying persons would rarely be held as competent to make a will directing the disposition of their property. It is, therefore, too much to accord them the right to make ante-mortem statements directing the disposition that may be made of life. But with the bard of Avon:

Poise the cause in justice' equal scales,
Whose beam stands sure, whose rightful cause prevails.

THE EUGENIC CONGRESS.

This important Congress is to be held at the University of London, in July. It will discuss many subjects of interest affecting the heredity of children and the need for paying attention to the subject of race culture. In many countries this question has taken deep root and is making good progress along the lines of spreading useful information.

As yet there has been nothing much done in the way of legislation. In some states of the Union laws have been passed preventing the marriage of degenerates and feeble minded persons, and criminals. This is making some headway. So far the work of those urging eugenics have been mainly educational.

One of the features of the Congress will be the encouragement of early marriages among the fit. The Congress will advocate the passing of laws to restrain the marriage of among those who should not be granted such a liberty.

Professor Osler will give a paper on the subject of "Eugenics and the Medical Profession." Other leading savants from Germany, Italy, France, Spain, the United States, etc., will take part in the deliberations. Race-culture has been too long neglected, and we hope brighter days are in store for it.

THE DISCOVERY OF ANAESTHETICS.

During the year 1847 there raged a keen controversy as to the merits of the claims of Sir James Simpson and chloroform, and Dr. W. T. G. Martin and ether. Wills opposed Morton's claim and contended that he had induced anæsthesia before Morton. He went insane and committed suicide in 1848. Wells was a dentist. One Jackson also opposed Morton's claim, saying that he had suggested ether to him.

Recently the University of Pennsylvania has done honor to Dr. Crawford Williamson Long, who undoubtedly used ether for anæsthetic purposes in 1842. This has been established beyond a shadow of doubt. Credit is, therefore, due to his memory. He was then practising in Jefferson in Georgia. The Medical Society of Georgia has erected a statue to Long in Jefferson.

But there is a name that comes many years ahead of these. It is that of Henry Hill Hickman, who practised in Ludlow, England, and later in Shifnal. He produced anæsthesia by the use of carbonic acid gas, and also by nitrous oxide in 1824. He gave these gases to animals and performed a number of operations on them. He tried to have his views taken up by other professional men, but met with no success. In 1828 he wrote to the King of France, asking him to urge that the Academy of Medicine in Paris take up his researches. This was done, but the Academy did not give his views much attention with the exception of Larrey.

He was discouraged and died at the age of 29, in 1829. Of Hickman it can be said without the slightest fear of contradiction that he was the first to produce general anæsthesia in animals and perform operations without pain to these animals. Had he met with encouragement he would have shown that he had made one of the greatest of the world's discoveries, but full justice has now been done to his memory.

TORONTO ACADEMY OF MEDICINE.

The fifth annual meeting was held in the Academy's building, 13 Queen's Park, on 7th May, 1912.

The report of the Trustees, read by Dr. R. A. Reeve, showed that the assets of the Academy, exclusive of books, prints, periodicals, paintings. pictures, etc., were $20,468.91. Mention was made of the urgent need for an auditorium in which the meetings of the Academy could be held. The late Dr. Ross had this very much at heart, and hoped to have been able to do something towards securing the needed accommodation.

The Treasurer's report, submitted by Dr. W. A. Young, was a very satisfactory one. It showed that the income from fees on a total of 349 fellows, amounted to $3,288. This did not include income from investments. The expendntures were $3,063. The savings account showed a balance of $1,616. This shows a net gain of $452 over previous year.

The report of the Council, read by Dr. N. A. Powell, the President, was one of progress. It referred to the location of the Academy's building as being an ideal one. Reference was made to the stockhouse for

books with space for 25,000 volumes. There should be an auditorium with capacity to seat 400 persons. A pleasing feature of the report was the announcement that Mr. J. W. Flavelle had donated $200 to the Academy to be used in any way that might seem best. The President said that this should be invested as the nucleus of a fund from which to provide light refreshments after the meetings were over. The Academy was steadily gaining in numbers, strength and influence.

The Library Committee's report, read by Dr. John Ferguson, showed that there were 5,353 volumes in the general library, 300 in the Bovell section, and 40 in the Workman section. There had been added to the library 201 volumes during he year. Of these, 111 were donated. The total number of volumes, now 5,683, is of very great value. Besides these volumes, there are very many rare reprints and periodicals.

The general meetings and those of the sections were well attended, and much valuable and interesting work was done. Among those who gave addresses were Dr. C. A. B. Camac, of New York; Dr. Thomas McRae, of Baltimore; Dr. John G. Clark, of Philadelphia; Dr. Richard M. Pearce, of Philadelphia, and Dr. Richard C. Cabot, of Boston.

The following resolutions were adopted regarding fee splitting:

(a) That the payment of a commission to any person, or persons, who may be instrumental in influencing a patient, or patients, to apply for professional advice, is wrong in principle, and detrimental to the best interests of our profession.

(b) That when two or more practitioners are engaged in a case, the disposition of the respective fees shall only be made with the knowledge and consent of the patient.

(c) We agree that the attending physician has often been inadequately paid for his services.

The officers for the ensuing year are: President, Dr. R. A. Reeve; Vice-President, Dr. H. J. Hamilton; Past President, Dr. N. A. Powell; Hon. Secretary, Dr. Hartley Smith; Hon. Treasurer, Dr. W. A. Young; elected to the Council, Drs. John Ferguson, H. A. Bruce, E. E. King, George Bingham, A. A. Macdonald, W. H. B. Aikins, Graham Chambers, J. H. Elliott. The Chairmen of the Sections, and also members of the Council are: Dr. H. B. Anderson in Medicine, Dr. G. Boyd in Ophthalmology and Otology, Dr. Addison in State Medicine, Dr. G. Silverthorne in Surgery, Dr. J. B. Leathes in Pathology, and Dr. Rudolf in Pediatrics.

THE CASE OF DR. A. H. GARRATT.

The action of a party by the name of Mr. Albert Burnett, brought against the Toronto Street Railway Company, has been well ventilated in

the Press. The case was a bogus one and seems to have been for the purpose of entrapping Dr. Garratt. The Star of 16th May, in reporting the case as tried before Mr. Justice Latchford, makes Mr. J. W. Curry, K.C., say, "what I had in my mind was the obtaining of evidence sufficient to bring Dr. Garratt before the discipline committee of the council, and not to bring the court into contempt in any way whatsoever."

The Grand Jury threw out the charge against Dr. Garratt for perjury and obstructing the work of a court of law. We now congratulate Dr. Garratt. We had much sympathy for him in this whole affair. Dr. Garratt is a member of the profession of undoubted ability. That he was, to some extent, imposed upon in this case does not reflect on either his skill or his honesty. We feel satisfied that the medical profession will still accord to Dr. Garratt the same confidence as he enjoyed before this fake suit.

OPERATIVE TREATMENT OF CHRONIC OSTEOMYELITIS.

Beck states that bones differ only from other tissues in the process of repair, the scar formation of the soft tissues being replaced in bone by the formation of new bone on top of an old inflammation, the repair often outgrowing the damage. The lower third of the femer and the upper third, lower third, or whole tibia are the usual sites of osteomyelitis. Pain and abscess formation are the two principal indications for surgical interference. They are concomitant, the pain ceasing when the pus can flow freely. The old treatment of making a big enough opening to curette out all the necrosed bone you can find it condemned by Beck as changing a partial necrosis of bone into a chronic suppurative cavity of bone which will constantly discharge from one or more fistulæ. This is because the edges of the bone are separated and cannot heal, just as any other wound with separated lips cannot heal. Bone chips, skin grafts, waves, and pastes have been used to overcome this, but Beck affirms that pastes are of use only in narrow channel-like cavities and that the following three rules are paramount for good results: 1. Open broadly, leaving periosteum intact as much as possible. 2. Remove all diseased tissue. 3. Leave no cavity behind. The bone is chiselled away till perhaps half its circumference is gone. The periosteum, which has been carefully separated and conserved, is sutured and allowed to fall against the flat surface of chiselled bone, obviating any cavity. The periosteal cavity may in some cases be packed with gauze and later with paste for a number of days. The external wound is closed with sutures or adhesive plaster and readily heals. Results are still better in the tibia, for here the whole tibia has been removed, leaving the periostum only, from which a new tibia has formed.

ORIGINAL CONTRIBUTIONS

UPPER ABDOMINAL SURGICAL DISEASE—SOME POINTS IN DIFFERENTIAL DIAGNOSIS.

BY W. J. MACDONALD, M.D., ST. CATHARINES, ONT.

IF definite symptoms were always produced by, and the result of, definite pathological lesions, diagnosis would be readily reduced to an exact science, but this is far from being the case. It is but too often we find that a definite pathological lesion in one patient will produce a certain train of symptoms, only to find in another patient with the same lesion, a chain of symptoms of a very different character altogether. This is what makes the art of diagnosis so peculiarly difficult. When a scientific diagnosis has been definitely arrived at, treatment is a comparatively easy matter. The mechanical act of removing a portion of the stomach because it is affected by carcinoma, is a much easier task than arriving at the diagnosis at a sufficiently early period to make such action productive of the best results.

For the purpose of studying intimately the differential diagnosis of surgical disease in the upper abdomen, I have selected a few cases of recent date which have been peculiarly difficult to diagnose. Each one of these cases has presented serious difficulties, and I have endeavored to show by what method, and by what reasoning a diagnosis was arrived at. In each case the result is also shown.

CASE I.

On September 8, 1910, I saw in consultation Mr. J. Y. C——— of H———. Though only sixty-four years of age, he presented the appearance of a man at least ten years older. His expression was drawn and haggard, his complexion sallow, dark rings around his eyes, a distinct tinge of jaundice throughout the sclera, and his entire demeanor that of one who had lost all interest in life.

His previous history had been good. At six years of age he had measles, and at fourteen scarlet fever, from which time till the summer of 1909 his health had remained perfectly good. In November of that year he had noticed a lump in his neck which kept gradually enlarging in size, and finally in March of the following year he had it removed, and was told it was carcinoma, though as far as I could learn, no microscopic examination was made of the growth. The wound healed perfectly and gave him no further trouble. This illness, however, appeared to be the starting point of all his future trouble, for following it he had never been entirely well.

From time to time he suffered short spells of uneasiness in the "pit of the stomach," and occasionally was greatly annoyed by the belching of gas after meals, but he never vomited. He occasionally suffered spells of dizziness so that on several occasions he was obliged to sit down until the attach passed off. During the proceeding four months he had lost flesh rapidly, so much so indeed, that during that time his weight had been reduced from 212 to 166 pounds.

Physical examination revealed little, and it was evidently clear that a diagnosis must be made on the history of the case, rather than on present conditions. The heart, the lungs and the kidneys were normal. His physician reported no variation in the temperature during the preceeding month, having averaged during that time between 98 and 99.F. There was no abdominal rigidity, no distention, and no tenderness except on deep palpation in the region of the gall-bladder. The tongue was furred, and the bowels somewhat constipated. The stools were of normal color and consistency. At the time of examination he complained much of a burning soreness in the stomach almost immediately after partaking of food, which in turn would be followed by the belching of gas at short intervals. His appetite was much less keen than heretofore, though even yet his meals were sometimes taken with a certain degree of relish. No melaena, no hematemesis, stools and urine normal, gastric contents normal.

Discussion.—The facts which we have before us in this case, and which we must endeavour to weave into a composite and definite diagnosis of an undoubted pathological condition, are numerous and somewhat contradictory. A pale haggard man looking much older that his years, a history of carcinoma? jaundice, gastric uneasiness, belching of gas, dizziness, loss of appetite, tenderness over the gall-bladder, and the most dominant symptom of all, the loss of forty six pounds of flesh in four months, points unmistakably to the upper abdomen as the seat of whatever pathological lesion may be present. As for the lesion itself one cannot help but consider pancreatic cancer, cancer of the liver, of the gall-bladder of bile ducts, ulceration in either the stomach or duodenum or even cancer of the stomach itself.

Probably the better method to persue is to arrive at a diagnosis by the process of elimination. Presuming this condition were due to pancreatic cancer, what local symptons would we except to find at examination in a case so far advanced as we find in this man? We would first look for jaundice, which in the present instance is not marked, though should the growth be in the body or the tail, marked jaundice would not necessarily be present. Emaciation would be expected, and in this case it is marked.

A dull, aching, continuous pain, or one sharp, lancinating and intermittent, radiating through to the back between the shoulder blades, is an almost invariable accompaniment to cancer of the pancreas. In the case under consideration the discomfort experienced could scarcely be characterized as either. Though of the aching variety, it was not continuous, but only appeared after the partaking of food.

One of the most common accompaniments of pancreatic cancer is distention of the gall-bladder due to the daming back of bile. This is accomplished by the enlarged gland compressing the common duct. It some instances the gall-bladder will become enormously distended, reaching below the umbilicus, and even to the right iliac region. The liver is also frequently enlarged. In the present instances there was no enlargement of either gall-bladder or liver, the only sympton referable to either one or other of these organs being tenderness of palpation in this region.

Ascites, a frequent accompaniment of cancer of the pancreas, was absent.

Cachexia accompanied by emaciation was present, though the cachectic appearance was not sufficiently pronounced to lead one to believe in cancer from this sympton alone.

There was no palpable tumor in the epigastrium. Though this need not necessarily be present, yet in the advanced stage of whatever disease from which this man may be suffering, one would except to find tumor, should the trouble prove to be cancer of the pancreas.

The stools were constipated, but contained neither free fat nor undigested meat fibres, two conditions frequently found in a person suffer ing from malignancy in the head of the pancreas.

Cancer in this location is almost invariably accompanied by albuminuria. This man's urine was normal.

In summing up the evidence in favor of pancreatic cancer, we find we are standing on very insecure ground. Though emaciation, cachexia and jaundice are present, yet they may also be found in cancer of the liver. In uncomplicated cancer of any of the other upper abdominal organs, jaundice would likely be absent.

In the absence of the charcteristic pain, enlargement of the gall-bladder or liver, ascites and a palpable tumor, it appears fairly reasonable to exclude a malignant pancreas, and attempt to account for the jaundice, cachexia and emaciation in some other way.

Cancer of the hepatic or splenic flexures of the colon would be responsible for the great emaciation and cachectic appearance presented in this instance, but it would not produce the jaundice; the presence of which, and the absence of vomoting and symptoms of incomplete obstruction due to stenosis of the bowel at the seat of the disease, will permit us to readily pass this diagnosis by.

Stones in the common bile duct would readily be responsible for both the jaundice and the great loss of weight. It is not an uncommon thing for a heavy patient to lose from thirty to forty pounds in a few months in cases of cholelithiasis. Cholelithitic jaundice however is intermittent, while in this instance the jaundice was persistent. Cholelithiasis, too, has its own characteristic pain, usually sharp and lancinating, a symptom entirely foreign in this case. Moreover cholelithiasis is very unlikely to produce the cachecitic appearance so manifest in this instance.

Gastric or duodenal ulcer would not likely be responsible for these symptoms for many reasons. In the first place, great loss of weight could scarcely be occasioned without vomiting except in the presence of malignancy. Then, too, more of the typical symptoms of ulceration such as pain after eating, hyperchlorhydria ect, have not been present. The only symptoms pertaining to ulceration would be the frequency of the gaseous eructations and the uncomfortable epigastric sensation after meals. The complete absence of hematemesis or melaena would also help to throw the weight of the evidence against ulceration.

The diagnostic field is now very much narrowed, especially as the clinical picture would point very strongly toward malignancy. We have satisfied ourselves tentatively that it cannot be in either of the flexures of the transverse colon, and the weight of evidence is strongly against its presence in the pancreas. Of the remaining locations, the liver or the stomach would be the most probable.

Cancer of the liver is rarely a primary disease. As a general rule it is secondary to pyloric involvement. It is also fresuently attended by nodules which can be readily palpated through the abdominal parietes. The jaundice is usually deep and persistent. In the absence of deep jaundice, in the absence of any nodular involvement, and especially in the absence of any previous history of gastric or duodenal ulcer providing a focus for the primary nodule, we are forced to the conclusion that the liver itself is not involved, or if so, only to a very slight degree.

As for the presence of cancer in the stomach itself, the weight of evidence is not at all conclusive. This man has never vomited, therefore thre is as yet no pyloric obstruction. From this we observe that the growth, if in the stomach at all, must be either very small, or at some distance from the pylorus. There is no palpable tumor, therefore if its presence is proved it will likely be of a small size. The gastric motility is not impared. A test breakfast shows the presence of hydrochloric acid and the absence of lactic, but even in the presence of cancer this may be expected, as lactic acid is usually the result of food ferments due to retention as a result of pyloric obstruction. The presence of lactic acid very frequently means nothing more than that there is an obstruction at the pylorus, and as cancer is the most frequent cause of such obstruction, the

presence of lactic acid usually means the presence of cancer. However, in this case there is no obstruction, therefore we would not expect to find lactic acid.

The clinical picture is indeed complex. A case of undoubted malignancy , and yet the exact location is very difficult to determine. Each of the likely locations have been carefully eliminated and we now have left but one—the stomach. There is in gastric carainoma a peculiar facial expression which in many cases almost typifies the disease. The pinched, pale, wan expression, often carries with it a conviction which cannot be adduced by obtainable facts. In this instance we have the facies of carcinoma, we have the dislike for food, we have the enormous loss of weight, 46 pounds in four months, and after carefully eliminating all the other organs, even in the absence of pyloric obstruction and pain, we must come to the conclusion that in all probability we will find the seat of the disease either in the stomach or duodenum, and as primary duodenal cancer is indeed very rare, it will in all likelihood be discovered in the stomach itself.

Outcome.—On September 14, a median incision above the umbilicus revealed a carcinomatous nodule on the lesser curvature of the stomach, about one hand one-half inches from the pylorus. The coronary chain of glands was greatly involved right up to the cardia, and the disease had spread into the gastro-hepatic omentum.

CASE II.

On February 11, 1911. I was asked to see Mr. W. L. E.——— of V———. I found a man 58 years of age, somewhat emaciated, and whose whole body presented the appearance of pure saffron. This jaundice was deep, intense and abiding. Since its first appearance some two months previous, it had shown no signs of lightening, but had been steadily getting deeper. Icterus at times was intence. During the two months of his illness he had lost some fifteen pounds in weight. At the time of my seeing him his pulse was 102 and temperature 103 F. Although in a warm room he complained of feeling very cold, and insisted on having heavy blankets over him. From the nurse I could not learn that he had had any distinct and definite chills, but rather that he felt chilly all the time.

His previous history was easily obtained. A travelling salesman by occupation, he had always enjoyed the best of health. For the last fifteen years, however, he had suffered occasionally from severe cramps in the stomach, which he himself attributed to indigestion, but which on more than one occasion had been diagnosed by a physician as gall-stones. No sign of jaundice had ever followed any of these attacks. Of late years he had, in fact, been troubled much less in this way, and the trouble ap-

peared to be wearing off. Apart from these spells he had never had any illness. His father and an uncle on his father's side had died from what was diagnosed as cancer of the stomach.

The present illness commenced about two months ago, and was ushered in by attacks of epigastric pain of a more serious nature than formerly, and the commencement of a slight tinge of jaundice, which graudally deepened into its present color. As the days passed by, the pain disappeared, until at the present time he had absolutely none whatever.

Physical examination revealed little. Deep palpation in the region of the liver elicited some tenderness, and the liver appeared to be somewhat enlarged, the lower border projecting about two inches below the right costal margin. There were no nodules. Gastric analysis revealed nothing. The heart was normal. Slight albuminuria was present. There was no palpable tumor and no ascites. The total leucocytosis was 21,400 of which 88 per cent. were polynuclears.

Discussion.—In the discussion of any disease in which the body is deeply jaundiced we must commence on the hypothesis that the bile-ducts are involved to a greater or lesser extent. We may be facing any one of numrous conditions. This patient may be suffering from a purely catarrhal jaundice, he may have cirrhosis, he may have pancreatic cancer, cancer of the gall-bladder or bale-ducts, cancer of the liver itself, abscess of the liver, or even a benign or malignant growth entirely outside the biliary tract, but producing compression enough to produce the pigmented color of the skin here shown.

Should this condition prove to be due to a growth outside the liver or the biliary tract, what form of new growth would be naturally expect to find? Obviously only one—pyloric cancer. In the case under consideration there is neither palpable growth nor any history which would even lead one to suspect its presence. There has never been even the slightest suspicion of gastric or duodenal ulcer, the seed bed of cancer in this location. Stomach contents are normal. There has been no vomiting. The condition is obviously not due to pressure from without.

Cancer of the liver, the suspicion for which may have existed, can with greater difficulty be eliminated. Cancer of the liver is usually secondary to pyloric cancer, and as this has been definitely eliminated, malignancy, if present must be primary. This we know to be occasionally true. Even without any primary focus, therefore, malignancy may exist in the liver substance.

The liver is enlarged to two inches below the costal margin, but it is smooth. No nodules can be left. There is no abdominal distention. There are no enlarged superficial veins. There is no oedema of the feet. There is no anaemia. Though in hepatic malignancy, ascites is not neces-

sarily present, yet in the majority of cases it is present as a result of pressure by nodules on the portal vein, or extension of the cancer to the peritoneum. In the case under consideration there is no ascites. Furthermore, although this man is running a temperature of 103 F. a symptom thoroughly consistent with cancer, yet the jaundice is of a much greater degree of intensity than is usually found in this condition. His appearance is not typically cachectic. We may, therefore, with comparative safety, rule out malignancy in the liver.

Cancer of the pancreas would almost immediately suggest itself, but in the absence of enlarged gall-ladder, of epigastric pain, of ascites, of cathexia, of free fat or indigested meat fibres in the feces, may be eliminated.

Simple catarrhal jaundice is contra-indicated by the fact that the pigmentation has remained so long. In jaundice due is simple catarrh of the biliary passages, the discoloration is usually entirely cleared up in from two to four weeks.

In cirrhosis of the liver jaundice is usually slight, the skin being more of a sallow complexion. The spleen is usually enlarged. A history of alcoholism can almost invariably be obtained. Hemorrhage from the stomach or bowels is a frequent accompaniment of cirrhosis. Ascites is frequently well marked. A facial expression known as the facies hepatica is very common in cirrhosis of the liver. The face is thin, the eyes are watery and sunken, the nose and cheeks show distended venules, which, coupled with the usual slightly jaundiced appearance, presents a picture truly typical of cirrhosis. Albuminuria is common, and fever ranging from 101 to 103 F. is frequently present.

This man presents the albuminuria, the fever, the jaundice and a facial expression which might be mistaken for the hepatic facies; but in the absence of a history of alcoholism, of splenic enlargement, of hematemesis or melaena, and of ascites, we are fairly safe in excluding cirrhosis.

There are remaining but two pathological conditions which are at all likely to produce the present symptoms, gall-stones in the common duct, and abscess of the liver, and many of the symptoms would appear to be associated with both these conditions.

The attacks of epigastric pain from which this patient has suffered for some years past, the sudden onset and just as sudden cessation, even if not succeeded by jaundice, would certainly indicate the presence of gall-stones. The present loss of weight would also be thoroughly consistent with the presence of stones. The chilly feeling and the temperature are common accompaniments to common duct cholelithiasis. The character of the jaundice, however, is not that which usually accompanies an obstruction in the common duct due to stone. In simple stone obstruc-

tion the jaundice is intermittent, I might almost go so far as to say *never* continuous, and this one point alone may be considered sufficient to rule out stone as the only cause of the present pigmented condition of the skin.

Abscess of the liver, though seldom productive of such intense jaundice, yet would account for its persistency. The toxaemia resulting from abscess would, or could be responsible for the loss of weight. His persistent chilly feeling, and his temperature of 103 would readily result from pus formation. This patient's leucocytosis was 21,400, with a polynuclear percentage of 88, strong presumptive evidence of pus accumulation, and, furthermore, by the high percentage of polynuclear cells, showing a greatly weakened resistence.

A tentative diagnosis of gall-stones complicated by hepatic abscess was made. Operation appeared hopeless and was not urged.

Outcome.—On March 4th autopsy revealed an acute suppurative cholangitis. No stones whatever were present. Suppuration had spread up the hepatic duct and reached to its farthest ramifications in the liver, causing multiple abscesses throughout. No cause was discovered which would be accountable for the preliminary infection.

CASE III.

On January 30, 1911, I was asked by his physician to see Mr. S. P——— of G———. A man forty-eight years of age and a moderate drinker was suffering from a severe pain in the left upper abdomen. He had been confined to his bed three weeks, and, according to the report of his friends, had lost much weight during that time. When in normal health his weight had for years ranged about 160 pounds; there was no means of weighing him at present, but he had apparently lost somewhere in the neighborhood of twenty pounds. The loss of this weight, however, had not all taken place during the three weeks he had been in bed, but rather from the commencement of the present illness, some six months prvious. His complexion was pale and sallow, he was worried over his present condition, his anxiety being continually manifested by his actions and numerous questions regarding his condition.

He gave a perfectly clear preliminary history. With the exception of the usual diseases of early childhood, and pneumonia at the age of twenty-two, he had never before been ill. Eighteen months ago, while on a high ladder picking apples, he had suddenly lost his balance, and on falling to the ground, a distance of nine or ten feet, had struck his side against a scantling lying across the top of an apple barrel. This occasioned him considerable pain at the time, and on many occasions subsequently a severe stitch would suddenly seize him in the location of the former injury—just below the left costal margin.

For twelve months, however, no ill-effects were anticipated, but about this time he first consulted a physician for loss of appetite and a general feeling of lassitude. Subsequently diarrhoea developed, which, however, was of a very intermittent character, and on three or four occasions the stools were black and tarry as though they might contain some blood, but no such stool had been passed for the past five months.

Two months ago he had discovered a hardness in the left side of the abdomen, which in the meantime had given him a good deal of trouble. The pain was of a dull, boring, aching character, and appeared to be persistently worse at night.

Physical examination revealed only a slight degree of emaciation. The entire body had a sallow tinge and there was a rounded fullness to the abdomen. In the upper left quadrant of the abdomen could readily be left a rounded hard mass, in size slightly smaller than a cocoanut. Pressure on, or in the neighborhood of this mass, elicited but the slightest degree of tenderness, but in its region he suffered much from a constant boring ache. There was no spasmodic pain. There was no diarrhoea. There was no blood in the stools. The bowels moved every day, sometimes without and sometimes only by the use of a laxative. There was an occasional attack of nausea, occasionally accompanied by slight vomoting. The appetite was poor, the tongue was furred, the stools were foul. The heart, the lungs, the urine and the blood were normal. There was no history of cancer in the family.

Discussion.—The picture we have before us is one which presents considerable difficulty in deciphering. There are no clear-cut typical symptoms which would warrant one in readily arriving at a definite conclusion. We have evidence which on the surface would indicate one of many conditions, among which may be mentioned new growth in the peritoneum of either tubercular or malignant origin, enlargement of the spleen, cancer of the splenic flexure of the colon, cancer of the stomach, localized peritonitis with the possibility of abscess formation, or even chronic enlargement of the spleen due to cirrhosis of the liver.

A short analysis will suffice to eliminate at least some of these conditions. The presence of localized peritonitis in this location is likely to be induced by one of three conditions, perforation of a gastric ulcer, carcinoma of the stomach or trauma.

A localized inflammation in this region in the greater peritoneal cavity is rare—in the lesser, somewhat more frequently found. This is accounted for by the anatomical relationship of the structures permitting the collection and localization of an inflammatory exudate in the lesser cavity. It lies behind the gastro-hepatic omentum, behind and below the stomach, and behind the anterior layer of the great omentum. The upper layer of the transverse meso colon forms the lower limit of the space. It

reaches from the Foramen of Winslow to the spleen, it reaches from the hepatic to the splenic fiexures of the colon. The transverse fissure of the liver and a portion of the diaphragm form the upper limit. It will readily be seen, therefore, how an inflammatory exudate into the lesser sac would produce a tumor consistent with the one under consideration. But is this what has occurred? True it is that we have the history of an injury which would readily be responsible had this tumor occurred at a much earlier date and very shortly after the accident. But here we have a period of eighteen months elapsing, and not until six months ago was there any indication or even suspicion of serious trouble supervening. The lapse of twelve months before the onset of severe symptoms would be sufficient to rule out trauma as the cause. Cancer of the stomach or a perforated gastric ulcer could readily be responsible for the existing condition, but there is not the slightest evidence of the presence of either cancer or ulcer. Furthermore, the symptoms produced by the perforation of an ulcer of the stomach into the lesser peritoneal cavity are entirely wanting. In the latter case we have the onset sudden and abrupt. The pain is intense, and the vomiting often copious and bilious. Owing to involvement of the diaphragm, the respirations are frequently embarrassed. Obviously ulcer cannot have been responsible for the present condition; the typical symptoms are wanting, the lapse of time is too great.

An omental tumor, whether it be tuberculous or malignant, early becomes adherent to the abdominal wall. It is also accompanied by ascites and progressive ematiation. This tumor is apparently non-adherent. There is no ascites.

Regarding new growths in the peritoneum, two forms may be considered in connection with this case, tuberculosis and cancer. Either may develop as the result of an injury, or rather the commencement of the disease may coincide with the occurrence of an injury.

If tuberculous peritonitis is present in this instance, it must be of the chronic variety. What symptoms would be expect to find? Ascites, though probably with but a small effusion, the fluid sometimes being hemorrhagic. In a long-standing case such as this, typmpanites may be present as the result of adhesions between the parietal and visceral layers. In the chronic form the temperature is frequently subnormal, often for days at a time running as low as 97°. The simultaneous presence of pleurisy is frequent. One of the most marked features of this disease is the presence of a tumor either by simulation or in reality, in which latter case it is due to the rolling of the omentum into a ball, to the collection of fluid which is confined between the coils of intestine by adhesions, or in somewhat rare cases by the actual thickening and retraction of the intestinal coils themselves.

In the present case we have not the characteristic ascites, nor temperature, nor tympanites nor pleurisy. We have the tumor alone.

Is it peritoneal cancer? Secondary malignant peritonitis is comparatively common, primary very rare indeed. In fact, it is open to question if primary peritoneal carcinoma ever exists, that which is usually mistaken for it being in reality endothelioma.

As in tuberculous peritonitis, so in cancer we have a mass, usually in the upper abdomen, and associated with ascites. In tuberculosis it is formed by the rolling up of the great omentum; in cancer by spreading induration of the omentum from the primary focus, usually in the stomach.

With the history of a primary focus, the diagnosis of peritoneal malignancy is comparatively easy; in the absence of such focus, very doubtful. We have here neither primary cancer nor ascites. We are not likely to have peritoneal cancer.

Splenic enlargement may be the result of various causes such as leukemia, pernicious anaemia, pseudoleukemia, chronic malaria or syphilis. Chronic enlargement of the spleen is sometimes occasioned by cirrhosis of the liver.

The recognition of certain physical signs will almost invariably result in a definite diagnosis of splenic enlargement: the retention of its notched anterior border, the position of the organ anterior to the colon, and its retention of respiratory mobility; it is not fixed. Our tumor is evidently not splenic.

Cancer of the intestine is often primary. We have here a case of tumor in the region of the splenic flexure of the colon. He has a history of early diarrhoea, to be followed later by obstinate constipation, and later still by diarrhoea and constipation alternating. He has a history of blood in the stools early in the disease, though none has appeared for some months.

He has a great deal of pain concentrating at the seat of the tumor, is emaciated and has a sallow complexion. He has a mild degree of tympanites.

A diagnosis of cancer in this region must be made on general as well as localized symptoms. He has anaemia, he has a certain degree of cachexia, he is forty-eight years of age. He has no visible signs of stenosis as would be observed by visible peristalsis or ribbon-like tools, but he has alternating spells of constipation and diarrhoea. Ribbon-like stools would not be expected in this case, because the obstruction, if such it be, is too high in the bowel.

With all other possible conditions having one by one been carefully eliminated, and yet fully appreciating the impossibility of making a de-

finite diagnosis in an abdominal case so obscure as this appears to be, a tentative diagnosis of cancer of the splenic flexure was made.

Outcome.—On August 4th exploratory laparotomy revealed an irremovable mass enveloping the splenic flexure, a section of which proved to be carcinoma.

CASE IV.

Mr. A. H. T——, of H——, aged fifty-nine years. Along with his physician I examined this gentleman on March 23rd, 1911. A man who one year before, the picture of health and strength had weighed one hundred and seventy-eight pounds, now at one hundred and thirty-seven pounds, presented a very dejected appearance indeed. His eyes were sunken, his expression was pinched, his skin was flabby, his energy was gone. Though he was not distinctly jaundiced, yet the color of the skin presented a slightly jaundiced hue. The same condition was more marked in the sclera.

At twenty-eight years of age he had suffered a severe illness from "inflammation of the bowels," which had kept him in bed one month, and again at thirty-six years he had a similar attack, though of much less severity than the former one. There was no history of tuberculosis in the family. His father had died of cancer of the stomach.

The history of the present illness dates back one year. At that time he began to suffer periodical attacks of pain in the right hypochondriac and epigastric regions, which apparently were in no way related to the partaking of food. For a time they were severe, then eased off for a short period only to return with greater severity. At times these attacks would appear every day, then again several days might pass without any symptoms whatever.

As the months passed by these attacks increased in both frequency and severity, until for the past three weeks he had been given at least one-half grain of morphia hypodermically at the commencement of each attack. Nothing short of that amount afforded any relief. Diarrhoea and obstinate constiuation alternated.

During the past four months vomiting spells had frequently accompanied the attacks of pain, in fact on many occasions he received no relief until after a copious emesis. The vomit was usually dark green—a typical bilious vomit. As far as I could learn it, too, had no relation to meals.

Physical examination revealed a somewhat rounded abdomen, slightly tympanitic and slightly tender throughout. The point of maximum tenderness appeared to be in the right hypochondriac and epigastric regions, and from this point radiated throughout the abdomen. No tumor or mass of any description could be discovered. The heart was

normal, the lungs were sound, the urine presented no evidence of renal disease. There was no blood in the stools, they were of normal color, there was no hematemesis. Pulse 78, temperature 89 4/5, respiration 22.

DISCUSSION:—We have here a man slightly jaundiced, somewhat emaciated, and looking withal as though his days may be numbered. He has severe epigastric and right hypochondriac pain, spasmodic in character and yielding only to large doses of morphia. This pain strikes him unawares, without the slightest previous warning. It is in no way related to food. Vomiting sometimes gives relief. No tumor is palpable. Diarrhoea and constipation alternate.

What pathological condition will produce the above picture? It may be one of many. It may be the result of pyloric spasm due to gall-stones, or appendicitis or tuberculosis of the caecum. It may be pyloric cancer. It may be cancer of the hepatic flexure of the colon. It may be ulceration in the gastric or duodenal mucous membrane. It may be cancer of the pancreas.

There are many reason why we should first consider the possibility of cancer of the pancreas. He is slightly jaundiced. In pancreatic cancer this jaundice need not necessarily be deep. In 25 per cent. of all cases, the pancreatic portion of the common bile duct is not enveloped by the substance of the gland, but rather lies in a groove on its posterior surface. In these cases malignancy may be far advanced without completely occluding the duct, and the consequent jaundice may be only slight.

When epigastric pain is the result of malignancy in this location, it may be of two different varieties, either a dull continuous ache, or intermittent, severe and agonizing. Vomiting does not usually give complete relief, in fact vomiting may not be present. In the case in point the pain is intermittent, it is severe, it is agonizing. Vomiting sometimes gives complete relief, which coupled with the fact that the pain is almost as severe in the right hypochondrium as in the epigastrium, would not have a tendency to substantiate pancreatic cancer. He is thin, he has lost forty-one pounds during the past year, which coupled with the jaundice and pain looks suspicious, and yet he has no distention of the gall-bladder, he has no ascites, he is not cachectic in appearance, he has no palpable tumor in the epigastrium, and furthermore no indigested meat fibres could be found in the feces. These are conditions which we would expect to find before we could definitely pronounce cancer present. It would appear from this that the weight of evidence was negative rather than positive.

As to gastric or duodenal ulcer, there is little evidence. He has the pain, the vomiting, the emaciation. The pain, however, is not definitely related to meals. Furthermore, there is jaundice. There has

been no melaena, there has been no hematemesis. The possibility of ulceration, therefore, must be very slight.

In considering the possibility of malignancy in the hepatic flexure of the colon, we must remember that tumor is a late symptom, and that diagnosis, in order to give prospects for complete relief, must be made in its absence. The diagnosis must be made from a combination of general and local symptoms. If there is increasing anaemia, if there is any cachexia, and if the patient is above forty years of age, malignancy, in the absence of any other apparent cause, must be suspected.

In cancer of the hepatic flexure we would expect to find stenosis, obstinate constipation, pain, ascites, cachexia, and emaciation.

Stenosis at some point in the alimentary canal is evidently present, as evidenced by the fact that vomiting is frequent, and that it almost always gives relief. Obstinate constipation is not necessarily always present in cancer of the intestine, in fact it frequently alternates as in the present case with excessive diarrhoea. Emaciation is also present in this case.

Two symptoms which we would expect to find are absent, ascites and cachexia. As these are very important, one would in their absence be very loath to pronounce carcinoma of the intestine. One further condition, the presence of slight jaundice would at least lead one to look for implication of the biliary tract in the location of the disease.

Is this clinical picture due to pyloric spasm, and if so, what is the direct cause of the spasm? We know of four definite pathological conditions which will produce spasm of the pylorus—appendicitis, cecal tuberculosis, gall-stones and malignancy of the pylorus itself.

At twenty-eight years of age, and again at thirty-six, this man had suffered from inflammation of the bowels. In the first attack he nearly died. Was one, or were both of these illnesses due to appendicitis? The first attack was thirty-one years ago, and the second twenty-three. At that time appendicitis as a disease was practically unknown. We now know that ninety per cent. of all cases of acute peritonitits in the male are directly due to appendicitis. It would appear that we are quite safe in supposing that these two attacks were due to a common cause—the appendix. It is now twenty-three years since the last attack. During these intervening years no symptom of appendiceal trouble had appeared. It would not therefore appear likely that this condition, even if pyloric spasm, could be caused by the appendix.

Are there any symptoms of cecal tuberculosis which might produce such a spasm? In tuberculosis of the ileocecal region we would expect to find a tumor, fixed, hard and more sensitive to pressure than a carcinoma. We would also look for periodical attacks of severe pain and alternating diarrhoea and constipation, as a result of the enterostenosis

which must be present. It is quite rare to find acute obstruction of the bowel supervene in this condition. We would expect to find fever in moderation with evening exacerbations and morning remissions. We would expect less emaciation than in carcinoma.

This gentleman has the periodical attacks of pain, he has the alternating diarrhoea and constipation, he has the emaciation; he has not the tumor, he has not the fever and furthermore the symptoms are referred to a point in the abdomen considerably higher than the ileocecal region.

Pyloric cancer? There is no history of preceding ulceration in either the stomach or duodenum. There has never been any melaena, there has never been any hematemesis. The stomach is not dilated, therefore there can be no pyloric obstruction, which would to a certainty be present after one year's presence of cancer in that region. There is no tumor in the region of the pylorus, which after the disease has been in progress for twelve months, one would naturally expect to find. Altogether, we cannot even suspect pyloric cancer.

Have we before us a case of gall-stones? Though the symptoms are obscure and some of them at least apparently misleading, the weight of the evidence must certainly favor the presence of concretions in the biliary tract. The loss of forty-one pounds of flesh is not at all inconsistent with the presence of gall-stones. The periodical epigastric pain, sudden, lancinating and bearing no relation to meals, would lend strength to the opinion of gall-stone colic. Vomiting frequently relieved the pain, a symptom of importance in the diagnosis of gall-stones. Pancreatic cancer has been ruled out. Jaundice is present, and its presence can best be accounted for by the presence of gall-stones as the most likely cause of biliary obstruction with the foregoing clinical picture and attendant history. A diagnosis of gall-stones was accordingly made.

Outcome:—On March 27th, abdominal section revealed a normal stomach and duodenum, a normal gall-bladder and biliary tract, a normal pancreas. A band of adhesions, firm and strong as a large cord, passed from the base of the appendix across the ascending colon, narrowing its lumen to at least one-quarter its natural size. The appendix itself was buried in dense adhesions. After removal of the fibrous band constricting the colon, and appendectomy, the pain ceased, the vomiting stopped and he began to put on flesh rapidly. No cause whatever was found for the jaundice. After operation it too cleared up, so that it must have been simply catarrhal.

CASE V.

When, on May 12th, 1911, I saw with her physician Miss M. A——, of S——, I found a young woman of eighteen, who for the past three

years had been able to do practically nothing through chronic invalidism. I found her very much wasted in flesh. At fifteen, the picture of health, she had weighed one hundred and sixteen pounds. At the present time she scarcely tipped the scales at eighty-four. She was pale, haggard, and worn, was sad and dejected in appearance, and as a result of long continued ill-health, she had become more or less despondent.

Her previous history is soon told. Shortly after her fifteenth birthday she had commenced to suffer from vague, indiscriminate wandering pains throughout the abdomen. She became slightly constipated, suffered from headaches, from loss of appetite and insomnia. This vague abdominal pain was somewhat periodical in character. For a week she would suffer much, then for the next fortnight would be apparently quite well.

After six months of repeated attacks such as this, it was thought best to remove the appendix, under the impression that this organ may be the offending one. Appendectomy was followed by a repetition of the same symptoms as previously. No benefit whatever was experienced.

From this time on her weight gradually decreased. When the attacks came on she would remain in bed for a week, then until the appearance of the next seizure some two, three, or four weeks hence, would be about the house in comparatively good health. At seventeen she weighed just one hundred pounds. The vague, wandering pain of heretofore had become more definitely settled in her right side just above McBurney's point. Tenderness on pressure was not marked in the region of the pain, but lower in the abdomen, just above the pubes, pressure on the right side elicited considerable tenderness. Bimanual examination revealed nothing. Rest in bed, free purgation, and evaporating lotions had at this time accomplished much good, so that the lower abdominal pain had quite disappeared.

For the succeeding year she gradually lost flesh, the periodical attacks of pain became more frequent and severe, and the outlook for the future looked very discouraging. On May 12th I saw her presenting the appearance above described.

Physical examination revealed a wasted frame and a tender abdomen. Tenderness was general throughout the entire abdominal cavity, though the point of maximum tenderness appeared to be in the right lumbar region. Pressure here elicited great pain. The right hpyochondriac region was tender only to a lesser degree than the right lumbar. The abdomen was scaphoid. Some rigidity was present in the right rectus throughout its entire course. The heart and lungs were normal. The urine showed no evidence of kidney disease. The stools were normal in color, and microscopical examination revealed nothing

abnormal in any way. There had never been any melaena, there had never been any hematemesis, there had never been any vomiting. No undigested food remained in the stomach, there was no motor insufficiency, there was no gastric dilatation. A test meal revealed free hydrochloric acid. Temperature and pulse normal.

DISCUSSION:—In the face of the foregoing history, it is readily seen that arriving at a diagnosis in this case is no easy matter. The picture is complex. An original diagnosis of chronic appendicitis had been made and the appendix removed with no apparent benefit. One year before, there had been great pain and muscular rigidity in the region of the right ovary, but under appropriate treatment this seeming exacerbation had rapidly cleared up, so that any complications in this portion of the abdomen may be readily dismissed. She had periodical pain in the right hypochondriac and right lumbar regions accompanied by some rigidity; now what conditions are, along with the other symptoms manifested by the patient, likely to be the cause of her present condition? We must consider tuberculosis of the caecum, gastric or duodenal ulcer, incomplete obstruction of the intestine due to adhesions, chronic pancreatitis, gall-stones and spasm of the pylorus.

Tuberculosis of the caecum is a common cause for pyloric spasm producing just such symptoms as this girl presents. Caecal tuberculosis however, would long before the lapse of the three years during which this girl had been ill, have produced a definite and prominent tumor. In tuberculosis of the caecum, the tumor which invariably develops is hard and nodular, is usually fixed, and presents every evidence of a carcinomatous growth. On palpation one point must be emphasized, a tumor the result of tuberculosis in this portion of the bowel is likely to be somewhat more tender to the touch, than one the result of cancer. Her periodical attacks of severe pain looked very much indeed like the result of an enterostenosis, which always accompanies ileocecal tuberculosis. This disease is almost invariably accompanied by fever. This girl had none, the absence of a tumor after the trouble had progressed three years, would be evidence sufficient to rule out tuberculosis as the cause of this disease.

It looks as through the differentiation must be made between gastric or duodenal ulcer and gall-stones.

Her symptoms do not point to the typical history of ulcer. She has free hydrochloric acid which we would expect, but she has no vomiting, she has had neither hematemesis nor malaena, she has never had the typical pain one, two or three hours after meals, the pain she suffered was never in any way related to the partaking of food, partaking of a meal never had any tendency to relieve the pain. Under these circumstances it seems fairly reasonable to exclude ulceration.

As for gall-stones, the symptoms are more typical. The pain is ushered in suddenly, has no relation to food and passes away just as suddenly. The character of the pain had the typical appearance of gall-stone colic. Her great loss of weight would be thoroughly consistent with gall-stones. Her age, however, would speak against this, as the presence of gall-stones under twenty years of age is very uncommon. The weight of the evidence was all in favor of gall-stones, and this diagnosis was accordingly made.

OUTCOME:—On May 15th, laparotomy revealed on the anterior wall of the duodenum an ulcer the size of an ordinary ten cent piece. Its base was very thin, almost on the point of perforating. The gall-bladder and ducts were normal. Infolding of the ulcer and posterior gastro-enterostomy effected a rapid cure. In three months she had regained twenty pounds.

CASE VI.

Miss L. D.——, of T——, age 23. On October 20th, 1911, I first examined this young lady. She was apparently well nourished, had a very rosy color, and did not present the appearance of one very ill. She gave a very clear previous history.

At the age of thirteen, just ten years ago, she had, while one day in school, been suddenly seized by a severe pain, as she said, in her stomach. She was then taken home and in some twenty or twenty-four hours it passed off immediately after a free vomiting spell. For six months there was no recurrence, then without warning there was a repetition of the old attack. For the following seven years she suffered every few months from such an attack coming on regularly in the spring and fall. During the past three years the attacks have been appearing much more frequently, in fact for the past six months she has never gone more than three weeks at the most without an attack. Coincident with the greater frequency, the severity has also increased, so that at the present time she is compelled to take to bed for at least two days at each seizure. The pain continues unabated, in fact gradually increases in severity from the commencement of the attack until its culmination in a vomiting spell, when it completely disappears. On the culmination of the attack she can eat anything and everything without the slightest discomfort, and enjoys the best of health until the next attack. This seizure has never appeared to be precipitated by a meal or any indiscretion in diet. Immediately after the attack she loses a few pounds in weight, but invariably regains it rapidly. The pain commences in the epigastrium, piercing like a knife to the back, at a point midway between the shoulder blades. She never vomits or, in fact, never has even the slightest epigastric discomfort between attacks.

On making a careful examination I found the pulse and temperature normal. The heart and lungs were perfectly free from even the suspicion of disease. Urinalysis revealed nothing abnormal in the genito-urinary system. The body was plump and well nourished. Abdominal palpation revealed great tenderness in the epigastrium and also a tender spot just above McBurney's point. By detracting her attention, fairly deep pressure could be brought to bear on either of these points without producing pain. Furthermore, by drawing her attention to the left side of the abdomen and suggesting tenderness, the pain on the right side at once disappeared. It looked to me on the first impression like a typical case of neurasthenia.

Feeling the necessity of keeping her under observation for a short time, I sent her into the hospital and had a complete gastric analysis made on three different occasions. They were perfectly normal, and no hint could even be obtained from them as to the seat of the lesion. While in the hospital she appeared perfectly well and at the end of a week returned to her own home town.

On November 2nd she returned in apparent great distress, and I sent her into the hospital at once. I now had the opportunity of examining her in one of the attacks. The pain was entirely epigastric, sharp, severe and lancinating in character, and radiated straight through to the back. The epigastrium was very tender, though no other tenderness was apparent in the abdomen except in a minor degree just above the usual site of the appendix. The pain increased in severity until six hours after her admission, when immediately after a very free attack of emesis, it suddenly ceased. The vomitus on examination showed bile, free hydrochloric acid and some particles of indigested food. The instant she vomited she appeared perfectly well. There was no jaundice, there was no indication of clay colored stools, there was no hemetemesis, there was no meleana.

Discussion:—My first impression of this illness being of a nervous origin was dispelled immediately I saw her in an attack. Her pain was indeed intense. Her facial expression was of one who was suffering real agony. The epigastrium alone appeared rigid, throughout the remainder of the abdomen the muscles were soft; there was no rigidity. It would appear that the seat of the pathological lesion, whatever it may be, would be found in the immediate epigastric region.

Now, what lesion would likely be responsible for the symptoms here produced? Is it intestinal, is it pancreatic, is it stomach, is it gall-bladder? Is this an enterospasm due to periodical contraction of some portion of intestine in the upper abdomen? Should this be the case, it is likely to be secondary to a chronic intestinal obstruction, one in which the lumen of the gut is not completely occluded from an anatomic point

of view, yet sufficiently contracted to chronically interfere with the passage of feces. Should such a condition become acute, the clinical picture presented would be one such as has been described here.

In chronic intestinal obstruction we have most obstinate constipation which may have existed for a long period. A purgative may frequently have to be given, the patient discovering that a bowel movement is very difficult to obtain without. It is frequently the case that this severe constipation will alternate with diarrhoea. If the senosis is situated in the large intestine, constipation is an early symptom, if in the small, it is usually quite late in appearing.

This girl has never had any constipation, she has never had any diarrhoea. Her bowel movements have always been quite normal.

One of the earliest symptoms of stenosis in the bowel is vague indefinite colic. These spasms gradually become more severe and definite in location, and almost invariably are accompanied by vomiting, which immediately gives relief. In the present instance this condition is marked.

Visible peristalsis is a frequent symptom in a chronic obstruction of the intestine. Should the stenosis be low in the bowel, though not necessarily low in the abdomen, these peristalic waves are quite visible. When present they are always accompanied by colicky pains. In the case of this young woman they were not discernable.

Abdominal distention to a greater or lesser degree is almost invariably present. It depends entirely on the location and degree of the constriction. In the present instance the abdomen was soft, and at no time was it ever distended.

We have here the absence of constipation alternating with diarrhoea, of visible peristalsis, of tympanites. There has never been either blood or pus in the stools. There has been no loss of weight, and, furthermore, there is no history of syphilis or tuberculosis, two common diseases likely to produce such a stenosis. We have only the severe, intense pain relieved by vomiting, and although in itself very typical of stenosis we must in the absence of at least some of the foregoing symptoms, look elsewhere for the seat of the trouble.

Pancreatic disease need only be mentioned to be passed by. Although the character of this pain would simulate exactly that produced by a chronic pancreatitis, yet there is wanting some of the most vital symptoms, such as wasting, jaundice, the typical ague-like seizures ect. This is evidently no lesion of the pancreas.

Is this lesion in the stomach? Is it gastric or duodenal ulcer? The history of the case is not typical of ulcer. This woman would go for weeks enjoying the best of health, eating anything and everything with absolutely no discomfort. Food did not produce pain. The pain she

suffered was apparently in no way related to the partaking of food. During all these years there had never been any hematemesis, there had never been any tarry stools. Th pain was not of the character produced by ulcer, it was more intense, sharp and lancinating. Vomiting gave immediate relief, when she could at once eat anything without the recurrence of pain. The picture is not that of ulcer.

With the exception of the loss of weight we would naturally expect to find with gall-stones producing as much trouble as here experienced, this is a picture we would likely see produced by cholelithiasis. She has the typical gall-stone colic, the intense pain shooting from the epigastrium straight through to the back. Like gall-stone colic, it has no relation to food. Like gall-stone colic, it appears suddenly, without warning, and leaves just as abruptly. Like gall-stone colic, too, it usually passes off with a free attack of emesis. After weighing and sifting the evidence carefully, we are forced to the conclusion that the biliary tract is the seat of the trouble, and gall-stones the cause.

OUTCOME:—On November 7th laparotomy revealed a normal gall-bladder and biliary tract. A large partly healed duodenal ulcer one inch beyond the pylorus was present, and its cicatrix had so contracted as to narrow the lumen of the bowel at this point to the size of an ordinary lead pencil. The stomach was greatly dilated. Posterior gastro-enterostomy afforded complete relief.

CASE VII.

Mr. J. W.——, of F——, age 26. On February 17th, 1909, I saw with his physician this young man, who was evidently very ill. On first sight his appearance was striking. His face was pale and his expression anxious. His eyes seemed to pierce you through, as though to divine your opinion. There was a nervous twitching of the mouth and eyelids, and his hands twitched restlessly on the white counterpane.

His previous history is short. He had been ill but three months, before which time his health had been the best. Just three months before my seeing him, while driving in a buggy, his horse having become frightened and unmanageable, had run away, throwing him heavily to the side of the road, where, on falling, he struck his abdomen on a large stone. From that moment he was never free from pain at a point just above the umbilicus. He continued to work for another month, though oftentimes complaining much of severe epigastric pain. One month after the accident a distinct lump was discovered just above the umbilicus, which on pressure was tender. It was apparently smooth and rounded. His temperature when taken at that time was 100 1/5, and pulse 88. There were no chills, and the fever appeared to be transient, for on several consecutive days thereafter it was never found above normal.

Two weeks after the discovery of the lump, or six after the accident, he was compelled to take to his bed on account of the constant pain when he walked around. His temperature was now running at about 100 F. in the morning and 101 degrees at night. The mass steadily increased in size and tenderness, and general abdominal distension began slowly to appear.

At the time of my seeing him careful physical examination revealed a distended tympanitic and tender abdomen. A distinct mass could be clearly felt just above the umbilicus. It was very tender to the touch but not nodular. Examination of the chest revealed nothing. Urinalysis was normal. Temperature 104 F., pulse 132. Careful enquiry revealed no history of tubercular or malignant trouble on either his father's or mother's side.

DISCUSSION:—The condition now present is evidently one of great acuteness, but whether an acute disease from its commencement, or an acute exacerbation on an old chronic condition, is the question.

Should it be an acute exacerbation of a chronic trouble, we would immediately think of an echinoccocus cyst, pancreatic or retroperitoneal, simple proliferative peritonits, cystic tumor of the mesentery, and although the age of the patient would speak against it, yet we could not help but consider carcinoma, either primary or secondary.

If the condition is one acute from the onset, the diagnosis must lie between abscess and acute tuberculous peritonitis.

While echinoccocus cysts constitute the most frequent variety of cystic tumors, yet this may be readily ruled out, as the tumor is evidently of a solid variety. For the same reason we may speedily dispose of cysts, both pancreatic and retroperitoneal. Furthermore, this tumor appears to be adherent to the abdominal wall, while a cyst of the pancreas lies behind the inflated stomach and colon. A retroperitoneal cyst is immovable and lies directly behind the inflated colon.

Seventy-five per cent. of all tumors of the mesentery are cystic. The larger ones usually appear in the region of the umbilicus, and though not adherent to the abdominal wall, are not freely movable. Symptoms of stenosis or even intestinal obstruction are frequently caused by their pushing the intestines aside. Though not adherent anteriorly, they often become adherent to their neighboring viscera. The sense of fluctuation is sometimes very doubtful, and it is extremely difficult to differentiate between them and one of a solid variety. The tumor in this case is evidently quite adherent anteriorly, and has every indication of being solid, therefore the presence of a cyst of the mesentery may be ruled out.

Carcinoma in a young man of twenty-six is uncommon. When present it is either primary or secondary. This could scarcely be pri-

mary. If of either of the colic flexures it would have produced stenosis, which is not apparent. If of the great omentum the tumor would be not only adherent to the abdominal wall, but would be distinctly nodular. This one is comparatively smooth. Furthermore, omental cancer is very rarely primary, but rather secondary to pyloric involvement. There is no evidence of any primary focus anywhere. The question of cancer may confidently be dismissed.

This condition, evidently acute from the onset, is probably infective—is either an abscess formation or an infective peritonitis, probably tubercular. If of abscess formation, where is the focus of infection? The two most likely conditions would be either a huge empyema of the gall-bladder or a subdiaphragmatic abscess from an acute or subacute perforation of a gastric ulcer. The position of the tumor would not conform to the location of the gall-bladder, and as there has heretofore never been the slightest symptom of any gall-bladder disease, we may feel reasonably assured this organ is free from trouble. Subdiaphragmatic abscess is usually the result of an acute or subacute perforation of a gastric ulcer. This man has never had at any time even the faintest suspicion of stomach trouble. Until the time of his accident he had been perfectly well. At the present time his meals are taken without the slightest discomfort.

I wish to state here, however, that it is not absolutely necessary for a patient to exhibit any typical symptoms of ulcer, or even any symptoms of indigestion, in the presence of even extensive ulceration. I have on two occasions operated on acute perforation of a gastric ulcer, where before the moment of perforation no symptom whatever of stomach trouble had been present. In the case of ulcer of the duodenum I have on one occasion had the same experience. In one large subdiaphragmatic abscess I found the cause to be perforated gastric ulcer, and yet no indigestion, no dyspepsia nor stomach symptoms of any description had ever been present.

There is not present in the case under discussion the characteristic tenderness elicited on pressure of an abscess. He had never had the chills so frequently associated with abscess formation. It appears fairly reasonable to exclude pus.

Tuberculous peritonitis presents itself in various forms. It may be present as a part of a general miliary tuberculosis, or it may be quite latent, as in the appendix or fallopian tube, and only discovered by accident, at operation for other conditions. In tuberculosis of the peritoneum without encapsulation, the disease is sometimes ushered in tempestuously. This may be initial fever of from 103 to 104 F., great abdominal tenderness, tympanites, rigidity, vomiting, constipation and leukocytosis. In these cases it is often difficult to find a cause for the

peritonitis, but frequently an examination of the lungs will furnish the clue. These are also the cases which often have their origin in a chronic tuberculous condition in the appendix or fallopian tube.

A fourth variety is that in which there is definite encapsulation of the exudate forming a tumor, or the formation of a tumor from the rolling up of the great omentum, or the retraction, the thickening or adhesions of adjacent intestinal coils. Tumors are occasionally formed by the enlargement of mesenteric glands, especially in children. There is also a fifth variety, in which a great quantity of free fluid is present in the abdomen. This is known as the ascitic form.

Is the case in point one of tuberculous peritonitis?? The disease was ushered in apparently as the result of an accident, and from the first a steady augmentation of the symptoms were experienced. We have the slow formation of a tumor, no palpable ascites, but rather a somewhat tympanitic abdomen. We have a high temperature with fast pulse. There is no pulmonary tuberculosis, and no tubercular history. There is apparently no primary focus of cancer, and there is no cancer history. With the exclusion of all other possible conditions we are thus forced, even in the absence of so-called typical symptoms, to consider this a case of tuberculous peritonitis, with the formation of a tumor from either rolled up omentum, or encapsulated exudate.

OUTCOME:—On February 20th I opened the abdomen. The great omentum was rolled up into a large hard mass. The peritoneum was studded with tubercle throughout its entire extent. There was present but a small quantity of ascitic fluid.

A FEW REFLECTIONS.

BY JAMES S. SPRAGUE, M.D., PERTH, ONT.

CHEMICO-METRICAL MADRIGAL.

I know a maiden, charming and true,
With beautiful eyes like the cobalt blue
Of the borax bead, and I guess she'll do
If she hasn't another reaction.

Her form is no bundle of toilet shams,
Her beauty no boon of arsenical balms,
And she weighs just sixty-two kilograms
To a deci-decimal fraction.

Her hair is a crown, I can truthfully state
'Tis a meter long, nor curly nor straight,
And it is as yellow as plumbic chromate
In a slightly acid solution.

And when she speaks from parlor or stump,
The words which gracefully gambol and jump
Sound sweet like the water in Sprengel's pump
In magnetic phosphate ablution.

One day I said, "I will leave you for years,"
To try her love by rousing her fears;
She shed a deci-liter of tears,
Turning brown the turmeric yellow.

To dry her tears I gave her, you know,
A hectogram of candy; also,
To bathe her red eyes, some H_2O;
She said, "You're a naughty fellow."

I have bought me a lot, about a hectare,
And have built me a house ten meters square,
And soon, I think, I shall take her there,
My tart little acid radicle.

Perhaps little sailors on life's deep sea
Will be the salts of this chemistry,
And the lisp of the infantile A, B, C
Be the refrain of this madrigal.

Dear Dr. Sprague:

It gives me pleasure to send you a copy of my ballad of which you speak: "Chemico-Metrical Madrigal." You perhaps may be interested in knowing that I wrote this when a Senior at Harvard University in 1873, and, as you know, it has had a great vogue.

Sincerely,

HARVEY W. WILEY, M.D.,
Chief of the Bureau of Chemistry of the United States Department of Agriculture, Washington, D.C.

To this madrigal of our brother who recently resigned office, after being in the limelight for many years, and who will become director of the department, "Food, Health and Sanitation," at Washington, for Good Housekeeping, Boston, the women's magazine, I add a few scholia and annotations more or less in conformity with the work of our brother, who in his thirtieth year was the author. I may say with Locke: "It is

beyond the powers of humanity to spend a whole lifetime in profound study, and intense meditation, and the most rigorous exacters of industry and seriousness have appointed hours for relaxation and amusement. Depew has this view: That life is full of compromises and they are absolutely essential, for no man can live unto himself and for himself alone." "A marriage (said St. Augustine), without children, is the world without a sun." Another fact given us by Depew is this: "Every profession is a jealous mistress and requires the best thought and time of her votary, but she is a wise mistress and knows that the attentions to her are fresher and brighter if her lover takes recreations and vacations." Professor Metchnikoff, in his masterly work, "Prolongation of Life," says: "Man is capable of much, and for this reason we hope that we may be able to modify his own nature and transform his disharmonies into harmonies. It is only human will that can attain this ideal."

These lines of Richard Le Gallienne, appearing in *Harper's,* when re-read, says *Literary Digest,* completely detach themselves from the class of conventional verse to which they at first seem to belong:

All the words in all the world
Can not tell you how I love you,
All the little stars that shine—
To make a silver crown above you.

All the flowers can not weave
A garland worthy of your hair,
And not a bird in the four winds
Can sing of you that is so fair.

Only the spheres can sing of you;
Some planet in celestial space,
Hallowed and lonely in the dawn,
Shall sing the poem of your face.

Dr. Crane, of Chicago, in "Fermenting Thoughts," writes: "If love thoughts are going to 'kep' and not play havoc within us, we must air our hearts often and keep them clean, and be on the watch for the insistent microbe that dearly loves to multiply in a love 'culture.' Clean up or cast out every fermenting thought, whether uncleanliness or distrust, the memory of a wrong, or the apprehension of disaster."

"Feed your mind on clean, sweet and wholesome thoughts. Above all do not indulge in self-pity, most horrible of all mental toadstools. "Keep thy heart," said the wise man, "with all diligence, for out of it are the issues of life."

Let a man reverence himself, then he is not far from believing in God.

"O what a world of vile ill-favored faults look handsome in three-hundred pounds a year!" says "The Merry Wives of Windsor." If so, it is advisable that young men with the title of M.D. honorably won, and which no king or potentate can give, should follow, unless wealthy, the wise and praiseworthy example of impoverished knights, dukes, earls and baronets who take to their castles and crested bosoms the daughters of millionaire pork packers, and others, who however humble their birth, are handsome with diamonds and in satins, yet "love like a shadow flies, when substance love pursues; pursuing that that flies, and flying what pursues," for her, who, I pray, will pray, "will share my house, and hold my heart and take my honored name."—"lest, (as Ruth iv., vi., says) I mar mine own inheritance. This is from a speech of Othello referring to his courtship of Desdemona: She swor't in truth 'twise passing strange; 'twas pitiful, 'twas wonderful pitiful; she wished she had not heard it, yet she wished that Heaven had made her such a man; she thanked me and bade me if I had a friend that loved her I should but teach him how to tell my story, and that would woo her. Upon this hint I spake." Is there cause for wonder.

If we, who are of a learned profession, would study the original writings, or even the translations of the ancient classical authors, we would find many instances in our researches and pleasing studies which would remind us that many of our to-day distinguished scholars are posing as brilliant men and yet are but putting new interpretations to words given us by scholars before the Christian era. One fact is, as Montaigne tells us: "There is more ado to interpret interpretation than to interpret things, and more books upon books than upon all other subjects; we do nothing but comment upon one another." In brief, "we weave the cast-off ideas of bygone ages into the garment of languages; and by nimble shuttles, and the chemistry of time, create a new meaning for words expressive of old theories and sentiments.

Jovenal, the Roman satirist, after the age of 60, and during the first century of our era, produced his famous poems in which he so severely, yet warrantably, lashed the vices and follies of the citizens of Rome, which are rapidly appearing in these our days. I may state that his satires are worth the study by moralists and students of eugenics, of marriage relationships and all social interests of state and home. In Satire vi., 175, he says:

> "Who weds the husband whom her purse invites,
> Preserves, unchallenged, all her spinster's rights."

That many true illustrations of this saying can be presented to-day, is evident. Burns writes: "I got my death from two sweet een, two lovely een o' bonny blue, 'twas not her golden ringlets bright; her lips like roses wat wi' dew. her heaving bosom, lily white—it was her een sae bonny blue." The words of James Whitcomb Riley are: "Her face and brow are lovelier than lilies are beneath the light of moon and star, that smile as they are smiling now . . . .
So luminous her face and brow, the lustre of their glory shed in memory, even blinds me now."

Madame Sylva sang: "'Tis the melody of love, the sweetest one of all, like the cooing of a dove, as the evening shadows fall. Every heart that beats below, every bird that flies above, knows the sunny, and serious, sweetly delirious song of love."

The moral of this contribution is: "As ye sow, so also shall ye reap, for one cannot gather figs of a thorn tree nor grapes from thistles."

Dean Walter T. Summer, of the Cathedral of Saints Peter and Paul, Chicago, says: "Beginning with Easter no persons will be married at the cathedral unless they present a certificate of health from a reputable physician to the effect that they are normal physically and mentally, and have neither an incurable nor communicable disease."

This wise manifesto or declaration is much in advance of the noble work of our fellow licentiate, Dr. Forbes Godfrey, which our medical journals should, and we as social workers should encourage. Yes, eugenics should be a study by the profession and the nation and no one should be allowed to marry unless duly examined and by authority of our profession—not osteopaths—Christian scientists, chiropractists or fakers.

As a donor has arisen with a gift of $100,000 to Cambridge University, England—and with which to establish a chair—the Balfour Professorship of Genetics, it is evident that the distinguished A. J. Balfour by his writings on this subject, has won many admirers and among them the giver herein named. If, as Gladstone says: "Physicians are to become the future rulers of nations," and it appears from the study of great reforms that there is truth in the words, it becomes us to encourage legislation which shall not permit others but the physically and mentally strong, and vigorous to be sires and mothers—for those for whom "planets have toled and forgotten suns have burned"—that man—God's masterpiece—should and may live in order that His great work be accomplished. If our legislators and our medical councils are to allow interference to our work by permitting baseless cults falsely termed medical—our existence, our progress, will be slow—the nation suffer and our universities disgraced.

Yes, as Ingersoll tells us: "Time runs on in sun and shade until the one of all the world is wooed and won, and all the lore, of love is taught and learned again. Again a home is built with the fair chamber, wherein faint dreams, like cool and shadowy vales, divide the billowed hours of love. Again the miracle of birth—the pain and joy, the kiss of welcome, and the cradle-song drowning the drowsy prattle of a babe.

And then the sense of obligation and of wrong—pity for those who toil and weep—tears for the imprisoned and dispised—love for the generous dead, and in the heart the rapture of a high resolve."

Soliloquy: .. ....

The public press one year since announced that our distinguished brother—the author of *Madrigal*—had decided "to take her there," and not having heard that there was "another reaction," and doubtless did, and being aged 67, it is my wish, and the wish of us all, that the "salts of this chemistry" has had its "little sailors." Brother, my apology is that, in some respects, which Dr. W. H. Drummond ascribes in his "The Country Doctor" to the old doctor (of my age and that of Dr. Wiley, viz., 67 years):

"For it's purty old, ole, ole story, an' he always have it wit' heem
Ever since he come among us on parish St. Mathieu,
An' no doubt he's feelin' mebbe jus' de sam' as noder feller,
So he rader do hees talkin' about some'ting dat was new."

PRESSURE INUNCTION IN THE TREATMENT OF CHRONIC HYPERPLASTIC CONDITIONS OF THE EYE.

BY G. STERLING RYERSON, M.D., C.M., PROFESSOR OF OPHTHALMOLOGY AND OTOLOGY IN THE UNIVERSITY OF TORONTO.

I HAVE ventured to propose the term Pressure Inunction to describe a form of treatment involving mercurial inunction combined with more or less continuous pressure in the treatment of certain eye affections.

The analogy presented by a chronic inflammatory hyperplasia of the synovial and fibro-cartilaginous structures of the knee joint to a chronic hyperplastic condition of the cornea, sclera and vitreous body suggested to my mind the idea that, if mercurials combined with pres-

sure could be of service in the one case they might be found useful in the other. I would urge in support of this centention that the selective power of drugs is well known, and that it is undeniable that certain diseases prefer certain tissues as a local habitation. I would further point out the developmental relationship between cartilage, fibrous tissue, the sclera and the conjunctiva. Are they not all derived from the mesoblast and is it not admitted that a pathological relationship exists between tissues of the same developmental origin?

Arguing on these premises I have for very many years carried on a series of observations, and have had ointments made of various strengths and of various preparations of mercury and have arrived at a standard ointment made of

Calomel, gr. XXX.
Vaseline, oz., 1.

It should be rubbed up very carefully so that no particles remain undivided. It is applied freely to the closed eyelids, and in cases of corneal opacity the conjunctival sac should be filled also, with the ointment. A pad of absorbent cotton is placed over it and three or four turns of a good elastic flannel bandage applied rather tight. This dressing is used from two to three hours daily.

The cases in which I have found most benefit from this treatment are those of corneal opacities of a dense type, interstitial deposit, plastic deposit on the lens from iritis, opacities of the vitreous and some obstinate cases of scleritis. The improvement is slow and the treatment must be persisted in for some months. I have never seen mercurialisation from this treatment. It will be found that some persons will bear a stronger ointment than the standard one, in others it causes too much irritation and must be weakened or intermitted.

While this method of treatment is by no means infallible, I have still been able to obtain results which could not be hoped for under other methods.

I am well aware of the beneficial results obtained from the use of Dionine solutions and of the hypodermic injections of sodium saccharata, but I have obtained better results in cases of long standing from the pressure-inunction treatment than from either of these drugs.

A CASE OF DISLOCATABLE TESTICLE WITH ACUTE SYMPTOMS.

BY E. V. FREDERICK, M.D., PETERBOROUGH.

SINCE I have been unable to find a similar case described, I know of no simpler name than the above. History—W. J.—male—age 23—cook in restaurant.

No previous illness of moment. Testicles present in scrotum as long as he could remember.

About one month ago while running with a pan of ashes his foot slipped. He felt a pain low in right side of abdomen which kept bad for three days when he presented himself for examination.

On inspection a medium-sized swelling was observed, apparently a large hernia which had not passed the external abdominal ring. On palpation it felt very much like a hernia.

The pain was considerable and on making upward pressure to reduce the supposed hernia the pain became excruciating. On releasing the pressure the lump seemed to go down and on pressing further it slipped past a slight obstruction and disappeared as a swelling in the inguinal canal and appeared freely movable in the scrotum where it proved to be a testicle freely movable with a normal length of spermatic cord. Owing to severe pain about the diaphragmatic region also he was kept in bed for four days and then allowed to return to work. In about a week he returned with the testicle again in the inguinal canal, and it was easily replaced in the scrotum.

A few days later he returned and stated that he had difficulty in keeping it out of the canal.

The anatomical condition found was testicle with free movement even to 1½-inch. from the external ring when the scrotum was relaxed, a scrotum which contracted very powerfully when cold, an external ring of large size through which the testicle passed with a sensation similar to the return of a hernia through the internal ring.

Diagnosis was between a recently descended testicle acute torsion of the cord and dislocatable testicle, but these were discarded since he was positive the testicle had been in the scrotum and in the second case that there was no sign of phlebitis or tendency to congestion.

On operation the spermatic sheath was found widely distended almost like a hernial sac. and the muscular coverings weak. The sheath was folded over simply, the external oblique muscle treated as in the ordinary operation for hernia, the external ring narrowed as much as possible and the result so far has been good, the testicle being unable to move out of the scrotum.

A CLINICAL LECTURE ON DISEASES OF THE PITUITARY BODY IN RELATION TO ACROMEGALY.—(SELECTED.)

BY H. CAMPBELL THOMPSON,M.D., F.R.C.P,, LOND., PHYSICIAN TO THE DEPARTMENT FOR NERVOUS DISEASES, MIDDLESEX HOSPITAL; PHYSICIAN TO THE HOSPITAL FOR EPILEPSY AND PARALYSIS, MAIDA VALE.

GENTLEMEN,—The pituitary body belongs to the group of ductless glands, and, when diseased, it is capable of producing symptoms locally through pressure on neighboring structures, and on the general system through alterations in metabolism.

The most important structure which an enlarged pituitary gland is likely to injure is the optic chiasma, and the effect that is likely to be first produced is that of failure of vision in the temporal fields—i.e., a bilateral temporal hemianopsia. This is produced through the pressure being first felt on the centre of the chiasma where the fibres decussate to pass to the inner half of each retina from which is governed the temporal fields. As the pressure increases, the fibres on the outer side of the chiasma will suffer, and probably one side will be affected more than the other.

Therefore, to sum up the usual results of an enlargement of the pituitary body, so far as vision is concerned, there is production of bilateral hemianopsia, followed later by gradual atrophy of one or both optic nerves. This is what has taken place in the case of the man whose photograph I am showing you to-day. He first went to an ophthalmic surgeon to complain of his vision. It was then discovered that he had bilateral temporal hemianopsia, which indicated the presence of pressure on the decussatory fibres of his optic chiasma. The pressure increased until it led to a further loss of vision in the nasal field on one side, so that at the present time the patient sees properly with only one nasal field. Thus, clinically, whenever you see a case of bitemporal hemianopsia, always think of pressure on the optic chiasma and of the probability of an enlarged pituitary body being the cause.

We must now turn to some of the general effects produced by pituitary disease, and here I must remind you that the pituitary body consists of two lobes. The anterior lobe is an outgrowth of the pharynx and closely resembles the thyroid gland in structure and secretion. The posterior lobe, on the other hand, is composed of neuroglial tissue, pigmented cells and vessels, and between the two there is a "pars intermedia," which is also partly of a glandular structure.

So far as can be judged from experiments and from the effect of disease, the secretion of the anterior lobe has an important influence on the general growth of the body, while the posterior lobe appears to contain a substance which has an action analogous to that of the suprarenal gland.

In trying to estimate the effects of the pituitary gland it must, however, be borne in mind that all the ductless glands appear to be intimately related to one another, and that it is doubtful if alterations in their activity are ever limited to one only.

Thus there is a close relationship between the pituitary and the thyroid glands. When, for instance, the thyroid is wanting, as it is in cretinism, the pituitary gland is likely to be unusually large. Again, when the thyroid gland of some animals is removed, the size and secretion of the pituitary are both modified.

It is also probable that the activity of the thymus gland is influenced in a similar manner, so that to estimate the influence of an internal secretion from any one gland must be a matter of great difficulty.

The diseases which are most closely associated in our minds with modifications of the pituitary secretion are those known as acromegaly and infantilism. Acromegaly is an extraordinary condition, characterized by enlargement of the bones and soft tissues of the body, more especially those of the face, hands, and feet; while infantilism is characterized by a lack of general, and more especially of sexual development, with which an undue adiposity is not infrequently associated.

It is generally assumed that acromegaly is associated with an increase in the pituitary secretion, and that infantilism is accompanied by a decrease. There is some ground for this supposition, since in one or two cases where the anterior lobe of the gland has been successfully removed, the symptoms have appeared to some extent to subside. It is, however, more likely that modification in quality rather than quantity is the predominating factor, but in the present state of knowledge, one is not in a position to judge of this. Symptoms of acromegaly are not invariably associated with enlargment of the pituitary gland, but it is now generally believed that there is a definite connection between the changes in this gland and the disease.

Acromegaly was first described by Pierre Marie, in 1885, and his original essay on the subject forms an introduction to the well known "New Sydenham Society" translation of Marie's more complete account of the disease which he made in conjunction with Souza-Leite.

In the head, enlargement of the upper and lower jaws are among the more prominent characteristics, and the face assumes a heavy and elongated aspect. At the same time, the features become broadened and coarsened owing to changes in the soft tissues and cartilages.

The bony sinuses undergo dilatation, and this causes undue prominence of the cheeks and of the orbits, which gives a peculiar massive expression to the countenance. The nose becomes thickened, chiefly due to increase in thickness of its cartilage, and the cartilages of the ear are often subject to changes of a similar character.

Another change in the bones which almost invariably takes place sooner or later is curvature of the spine, and, indeed, this symptom ranks among those which are most typical of the disease. The vertebræ enlarge and form an antero-posterior as well as a lateral curve.

Of the two, the antero-posterior curve is usually the greater, and causes the rounded shoulders and hanging head, which can only with difficulty be held up straight. The bones of the thorax are also altered. I have already mentioned that the hands and feet are the parts most severely affected, and it was from this fact that Marie called the condition acromegaly.

The changes are not by any means limited to the bones; the subcutaneous tissue becomes infiltrated in a manner somewhat similar to that which occurs in myxœdema, with the result that the parts become swollen and puffy. In the face this swelling and puffiness add to the coarsening of the features, which are already broadened by the changes in the bones and cartilages. This puffiness is very noticeable in the lips, and more especially in the lower lip, which assumes a thickened, pouting, overhanding appearance. The tongue is increased in size and becomes too large to fit comfortably in the mouth. The hands assume a broad appearance, with the ends of the fingers blunted, and have been compared in their shape to a spade or a battledore. The feet undergo changes of a similar nature. Allusion has been made to the intimate inter-relation that exists between the different ductless glands, and this is exemplified in acromegaly by alterations that have been observed in the thyroid and to a less extent in the thymus glands.

Alterations in the size of the thyroid have frequently been noted, and, as a general rule, the change is in the direction of diminution. An area of dullness over the upper portion of the sternum has sometimes been observed and has been attributed to an increase in the size of the thymus gland, while the occasionel presence of sugar in the urine is strongly suggestive of a disturbance of the secreting properties of the pancreas. Mention will be made later of the bearing these facts have on the possibilities of treatment.

In acromegaly the increase in size is mainly one of depth and breadth, that is to say, the patient does not become taller, and, indeed, in many cases, his height is decreased by the stoop consequent on the changes in the shape of the spine. The immense size of the hands produces no increase in their length. On the other hand, in the case of giants, which are likewise abnormalities, the changes are nearly all in the direction of length, and the relationship of the two diseases to the pituitary body is an interesting point which has been much debated. It is generally thought that both are associated with changes in the pituitary gland, and in support of this view it has been noted that the sella turcica in the skulls of giants is often enlarged. The idea is that in the case of giants the change takes place during the growing stage of the patients, while in acromegaly nothing happens until after the normal growth has ceased.

If such a chronic disease as acromegaly can result from slow changes in the function of the pituitary body, one would not be surprised if occasionally more acute or even transient symptoms occurred from corresponding modifications in the gland. Instances of both have been recorded. In a former clinical lecture, (a) in which reference is made to this subject, I have mentioned the case of a young women, æt. 19, who was a patient in the Middlesex Hospital suffering from malignant disease of the glands of the neck. During the last few weeks of her life her hands, feet, and lower jaw all became enlarged in the manner characteristic of acromegaly, and after death the pituitary body was found to be somewhat larger and firmer than normal. Doubtless the pituitary secretion was modified in this case, but another point I consider worth regarding is the association of the malignant disease of the lymphatic glands with the pituitary symptoms. Such association may, as I have said elsewhere, be coincidence, but one must remember that the original of the lymphatic system is thought to be closely connecter with the thymus gland, and that the latter is considered by many to belong to the same group of glands as the pituitary and thyroid, so that it is not impossible that there may be a chain of effects started by the lymphatic glands in such a case as this.

As an example of tranient symptoms an interesting account of a case is furnished in the *British Medical Journal,* December 30th, 1911. Briefly, the characteristic points in the case were the appearance of symptoms of acromegaly, together with glycosuria at the eighth month of pregnancy, with gradual subsidence and finally, disappearance shortly

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(a) *Clinical Journal,* March 23rd, 1910.

after the birth of the child. This appears to have been due to a modification of pituitary function, and may be considered as an analogous condition to the changes that sometimes occur in the thyroid during pregnancy.

Thus we have considered examples of (1) chronic progressive acromegaly, (2) acute acromegaly with a fatal termination, and (3) temporary acromegaly. There still remains another important class—viz., those in which the symptoms appear to become arrested, and in whom, up to a certain point, some improvement may even take place. Such a case I have referred to in the lecture before mentioned, and subsequent observation still confirms the view then taken that no appreciable advance in the disease is taking place, and that the improvement mentioned in some of the symptoms has been distinctly maintained. I attribute the result of this case to the benefit derived from taking thyroid gland, and I consider it to be a clinical confirmation of the evidence of experiments which shows th inter-relation that may exist between the size and secretion of the thyroid and pituitary glands and of which I have already spoken in this lecture. Instances have been frequently brought forward in which some of the symptoms occurring during the course of acromegaly are to be attributed to the coincident changes of the thyroid secretion, and of these the increase of subcutaneous cellular tissue is a good example. It is symptoms of this kind that one may hope to modify directly by the administration of thyroid gland, while indirectly, as we have seen from experimental work, it is possible that the administration of thyroid may influence both the size and secretion of the pituitary gland and so produce an effect on the course of the disease. —*Medical Press,* April 17th, 1912.

THE ANESTHETIST.

Woolsey, in the *New York State Journal of Medicine* for December, 1911, deplores a tendency which he thinks he has discovered to hand over the responsibilities of the anesthetist to the nurse. If this tendency has developed anywhere into actual practice, the sooner it is stopped before possible investigation by a coroner, for example, the better. The duties of the anesthetist are in a sense as important as those of the operating surgeon and demand not only special skill of a high degree, but the sense of duty and moral obligation that are to be acquired only through an exhaustive medical education capped by the taking of the sublime Hippocratic oath.(Editorial in *N. Y. Medical Journal.*)

CURRENT MEDICAL LITERATURE

MEDICINE.

UNDER THE CHARGE OF A. J. MACKENZIE, B.A., M.B., TORONTO.

MYOCARDIAL DEGENERATION.

E. F. Ingals, Chicago (*Journal A. M. A.*, April 27), says that an exact classification of cardiac degenerations is impossible. These affections are more frequent in men than in women and in advanced life than in early years, but the fibroid degeneration usually occurs some eight or ten years earlier than the fatty form. Fatty and fibroid degenerations of the heart muscle are also classed clinically as myocarditis, either acute or chronic, but commonly the latter. Acute cases with sudden death are not, however, infrequent. Symptoms indicative of cardiac degeneration have lasted a few years before death in some cases, but in the majority only one or two years. Fatty degeneration includes two conditions. In one the heart is embarrassed by superimposed fat, which does not necessarily impair the heart muscle itself. In the other condition of true fatty degeneration, owing to some obstruction or inflammation of the coronary arteries, the nutrition is affected and the muscle fiber is more or less replaced by fat. In fibroid degeneration the fibers are through inflammation supplanted by connective tissue, usually in limited portions of the organ. There is often at first a sort of compensatory hypertrophy, but this sooner or later fails. Fatty degeneration is usually due to the same causes that produce atheroma of the aorta. It is a natural result of old age. It is also attributed to gout, alcoholism, tobacco, coffee, etc., and kidney disease, and wasting diseases may also give rise to it. Fibroid degeneration, when acute, is sommonly of septic or infectious origin, and the chronic variety is often only a continuance of the acute. In other cases it may have the same origin as fatty degeneration or be due to physical or mental excess, as well as the infections of syphilis and other diseases. Ingals gives the symptoms at considerable length, and says the most important are irritability of temper, melancholia, loss of memory, precordial pain, palpitation, dyspnea, diminished endurance, physical and mental, pulse alterations and slight edema of the ankles. These are attended by more or less change in the physical signs, though they are not distinctive until late in the disease. Often the process goes on without symptoms until an attack of angina pectoris or fainting appears, but in most cases there are some antecedent symptoms within two or three years. There are no signs enabling us to distinguish definitely between the various forms of the disease. Ingals gives brief case histories illustrating how

we may form reasonable conclusions as to the different types of cardiac degeneration, and also describes the physical symptoms in other organs which this cardiac disease may produce. An important differential feature of myocardial degeneration is the aggravation of symptoms on exercise which has litle effect on functional conditions. The prognosis depends largely on heredity. Long-lived ancestors are a good possession of the subject of myocardial degeneration. The younger the patient the better the outlook. If he can follow proper instructions and take good care of himself it is in his favor. Death is often sudden in these cases, but with proper care life may be prolonged for years. The termination is, however, commonly sudden. Myocraditis which only causes arhythmia is considered more favorable than other types. If there is sclerosis of the coronaries, sudden death may be expected at any time. Diabetes and common kidney disease give a bad prognosis. Intercurrent bronchitis or influenza is a grave complication and pneumonia is most always fatal. As regards treatment, overeating and eating fat-producing foods should be corrected. The amount of exercise should be moderate. The general treatment is essentially the same as that for valvular disease with broken compensation. Patients should be cautioned not to exert themselves, and excessive effort, either mental or physical, should be prohibited. The drug treatment is given in some detail. If any infectious disease is the cause it should be looked after and treated first. For relief of pain, morphin, atropin or chloroform can be used, but opiates should be avoided as much as possible.

ALKALIS IN DIABETES.

Rathery (*Jour. des prat.*, December 2nd, 1911), reviews the question of the administration of alkalis in diabetes. They ought not to be given continuously but at intervals, and are for the most part contraindicated in the debilitated, the anaemic, the tuberculous, or badly-nourished diabetic, except in the presence of acidosis. Alkalis are especially indicated when an antidiabetic regimen has not fully succeeded. Although magnesia in doses of 4 to 6 grams, ammonium carbonate from 1 to 4 grams, have been used in certain cases with satisfactory results, the most commonly employed alkalis are the bicarbonates of potassium and soda or the citrate of soda. The thermal alkaline water are also of use, such as Vichy in obese diabetics, Pouques in asthenic cases, and Vittel in gouty diabetics. There is no doubt that these thermal stations are of use to diabetics also because of the regular regimen. Various theories have been offered to explain the benefits of alkalis in these cases, one of them being that as in diabetes there is diminished oxidation and utilization of

sugar, the addition of an alkali favors the transformation of glucose into glycogen. The author favors the intravenous method of injection of alkaline solutions in cases of acetonaemia, and to be of any real service the injections must be given in the precomatose state. This is characterized by persistent headache, insomnia, and dyspnoeic phenomena. The urine should be examined for Gerhardt's reaction, which if present indicates the existence of acidosis. There is then no time to be lost. In complete coma the intravenous injection of a litre of solution containing 4 grams per cent. of sodium bicarbonate may be given. Recoveries at this stage, however, are rare. Sometimes a certain amount of oedema follows these injections. This has been attributed by Widal to the retention of chlorides, but it is of no special import.—*Brit. Med. Jour.*

BACTERIOLOGY AND PATHOLOGY OF THE TONSILS.

Davis reports (*Jour. of Infectious Diseases*) a series of 113 cases in which extirpated tonsils were examined bacteriologically. Many others were examined grossly or microscopically, but for various reasons were not suitable for bacteriological work. Of this series twenty-eight come under the heading of arthritis of varying types. In twenty-five of these, hemolytic streptococci were obtained as the predominating organism. In two cases the pneumococcus predominated, in the remaining case the streptococcus mucosus. In the nephritic series were ten cases, some mild, others severe, two hemorrhagic in character. In nine of these, hemolytic streptococci were found. In the one case which did not reveal streptococci a small aerobic, Gram positive, non-liquefying, non-hemolytic bacillus was found in the crypts in nearly pure culture. Ten patients with endocarditis were examined, nearly all of whom were at the time suffering from arthritis or gave a history of having had it in the past. Hemolytic streptococci were found in six cases in large numbers. In the remaining cases were large numbers of pneumoncocci. Sixty-one patients with tonsillar hypertrophy were examined, nearly all of whom gave histories of repeated attacks of tonsillitis. In fifty the hemolytic streptococcus was obtained as the predominating organism. These streptococci proved virulent for rabbits and other animals, invariably localizing in or about the joints and producing multiple arthritis. It only occasionally localizes on the heart valves. The multiple arthritis in the animals may become chronic, lasting for months. The exudate is mucoid early, later becoming purulent; usually it contains streptococci, though in a few instances it was sterile. The bacterial flora of the surface of the tonsils is usually very different from that of the crypts. Subcultures

from the surface, particularly in chronic infections, are quite unreliable for determining the crypt flora. The crypts of enlarged tonsils in nearly all cases contain large numbers of virulent streptococci, and these cases may, therefore, be considered as streptococci carriers.—*New York Medical Journal.*

PANCREATITIS.

Deaver, after reviewing the symptomatology of acute pancreatitis, states that, providing the diagnosis be very sure, he is strongly opposed to hasty operative intervention in this condition. The general state of the patient is not such as to encourage operation in the early stages, and statistics of recoveries under medical and surgical treatment have been misleading. The treatment recommended by Deaver includes the Fowler position (unless collapse contraindicates), a light ice bag over the epigastric and hypochondriac regions, gastric lavage for vomiting, proctoclysis to replace lost fluids, and morphine sparingly. Those patients whose lesion is not sufficient to prove immediately fatal will react and the symptoms and signs will make toward localization in the pancreatic region. At this point—at any time from the second day on—operation should be undertaken without delay. The author recommends the left loin incision when there is strong probability of an exudate in the lesser sac; in case of doubt, an anterior exploratory incision should be made, drainage instituted, if necessary, or, if the inflammatory mass appears capable of attack posteriorly, the anterior incision closed, and drainage instituted through the loin. In discussing chronic pancreatitis, Deaver deals particularly with the third form—in addition to the interlobular and interacinar varieties—recently described under the name of "pancreatic lymphangitis." This is dependent upon the close connection between the lymphatics of the gallbladder and the head of the pancreas, which explains the frequency of swelling of the latter in association with gallbladder disease and the ease with which the pancreatic disturbance yields upon drainage of the gallbladder in these cases. The relationship of pancreatic lymphangitis to the interlobular or interacinar varieties of pancreatitis has not as yet been clearly established. In the treatment of the former, drainage of the gallbladder usually suffices. If the bileducts are diseased, the common duct should be drained as well. In more marked pancreatitis, particularly when the common duct is compressed, a cholecystoduodenostomy should be done if possible, together with, in some cases, drainage of the common duct; the latter step is the more important. The end results of chronic pancreatitis being comparable to those of interstitial nephritis and other like conditions, the operation should be per-

formed early. Deaver takes occasion to emphasize the fact that, contrary to the usual statement, benign pancreatic tumors are movable. Although the organ is retroperitoneal, it is invested by loose areolar tissue which permits considerable motion. The nonrecognition of this has often led to errors in diagnosis.—*Archives of Diagnosis.*

NOGUCHI'S LUETIN REACTION: A BRIEF DESCRIPTION AND ESTIMATE OF ITS PRACTICAL VALUE.

Dr. H. F. L. Ziegel said that the theoretical conception on which the luetin test was based was one which many investigators must have had in mind before Noguchi made its realization possible by discovering a means of growing the *Treponema pallidum* in pure culture. For instance, in an article on "allergy" von Pirquet had prophesied: "I personally feel quite sure that it will be possible to make the diagnosis of syphilis by cutaneous and subcutaneous inoculation as soon as the syphilis virus can be obtained in pure cultures." Dr. Ziegel offered the following summary: "(1) The luetin test is a simple, harmless procedure, consisting essentially of the intradermatic injection of a carbolized emulsion of sterile cultures of *Treponema pallidum.* (2) The reaction is negative in normal and nonsyphilitic individuals, and in various diseases, including tuberculosis, pneumonia, typhoid fever, malaria, carinoma, eczema, and psoriasis. (3) The test can already be accepted as of considerable negative value. As compared with the von Pirquet reaction, the latter gives more than 50 per cent. positive reactions in apparently nontuberculous adults, whereas the luetin test is constantly negative in both adults and children who are clinically and serologically nonsyphilitic. (4) The positive value of the test appears to be more limited. A positive reaction is rarely obtained in primary syphilis and seldom in secondconditions. Whether the negative reactions usually obtained in patients ary spyhilis." Noguchi found the test unsatisfactory in parasyphilitic practically cured of syphilis indicated lasting suppression of the disease remained to be determined. In hereditary and tertiary spyhilis, however, Noguchi obtained positive reactions in more than 90 per cent. of the cases.—*Med. Rec.*, February 10th, 1912.

ROUTINE TREATMENT OF ARTHRITIS DEFORMANS IN MONTEFIORE HOME.

In the *Medical Record*, February 10th, Boorstein describes the method which has been followed for some time with cases of arthritis deformans, and which has given very encouraging results as to the recovery of function and prevention of extensions.

Each patient is carefully examined for the existence of foci of infection and these if present are treated; particular attention is paid to the digestive processes, and, as a rule, foods rich in calcium are given; if indican is present in the urine, high enemata are given. No drug treatment except as indicated for symptoms is given.

Routine: Each patient as soon as he enters the orthopedic department has his casts, X-ray, and photograph taken and a careful description is made of the joints on the "question blank" so that a good record of the changes can be kept. Then the patients are given the following treatment: Baking following by massage three times a week; "steam boxes" on the intervening days; light baths twice a week; Bier's hyperemia every day for six or twelve hours; enemata twice a week; exercises daily, and static electricity three times a week. Casts are taken every three to four months. For carrying out this treatment we have given nurses special training and have elicited their personal interest in this special kind of work.

SPECIMEN OF AN ABORTED RIGHT KIDNEY WITH GREATLY ENLARGED OPPOSING KIDNEY NON-FUNCTIONATING.

DR. CHETWOOD, PRESENTED THIS CASE AT THE NEW YORK CLILNICAL SOCIETY OF THE POLYCLINIC MEDICAL SCHOOL.

Dr. Chetwood illustrated the value of the colorimeter test in measuring the capacity of the kidney function. His patient on cystocopic examination showed apparently normal ureteral orifices from both kidneys. The left ureter was easily catheterized, withdrawing urine of low specific gravity, deficient in urea and a number of leucocytes: pus though present was in insignificant amount. The right ureter was rigid and impossible to catheterize and the cystoscope showed a certain amount of purulent granular material slowly exuding. The patient was then subjected to the colorimeter test, made by injecting I cc. of phenol-sulphonephthalein, aftr having prviously emptied the bladder. At one and two-hour intervals the urine was collected from the bladder. The returned percentage of color was so low that the individual kidneys were tested separately, resulting in an absence of color on the right side and a very low color return on the left.

Operative treatment seemed necessary, and after taking X-ray pictures to rule out the possibility of a calculus, the patient was operated upon. Operation showed a vestiginary right kidney with a ureter entering the bladder, but having a sacculated distal end. On the left side

which was unsuspected, there was a perfectly normal ureter below, while above was a large ureteral sac almost as large as the small intestine, which entered the kidney. A large peri-nephritic pus sac occupied one side of the kidney, and practically no kidney tissue remained even in this organ to secrete. The patient could not possibly have lived as proved by the colorimeter test and subsequently verified by autopsy.

Dr. Slinclair said that in Dr. Chetwood's case there had been a slight previous injury many years ago, but aside from blood in the urine for a few days no recurrent symptoms of any kind had occurred.

Dr. Wyeth said a very interesting phase of the case was the extremely limited excretory area eliminating urea. Considering the good health the patient enjoyed he thought the skin must have played an important part in the excretion of urea.

THE TREATMENT OF THE THREE MAIN SYMPTOMS OF ULCER OF THE STOMACH.

Prof. Lœper, of Paris, says that the three main symptoms of gastric ulcer are hæmorrhage, vomiting and pain. The treatment of hæmorrhage is the most important part of the treatment of gastric ulcer. The essentials of this treatment are: complete rest in bed, ice per os or in local applications, hot rectal injections and drugs. In subacute hæmorrhages perchloride of iron or bismuth salts may be useful; but adrenalin, chloride of calcium and gelatin are certainly better and may be given per os with excellent results in all cases of hæmorrhage. Ergotin, ergotinin or adrenalin hydrochloride may be given in hypodermic injections; their action is rapid but temporary, and often there is a recurrence of hæmorrhage soon after their use. Horse serum or normal saline solution are also useful, the former in hæmorrhages of long duration where there are distinct modifications of the blood, the latter in profuse or prolonged hæmorrahges to make up for the loss of fluid of the system. Gelatin solution may also be tried hypodermically, but it seems to be less used nowadays than some years ago. The food must be as bland as possible, and Prof. Lœper is distinctly in favor of the old fashioned milk diet for at least four weeks; however, when the hæmorrhage cannot be checked rectal feeding must be tried.

Vomiting must be checked by external means and cold applications (ice, ether, methyl, chloride, etc.), since the analgesic mixtures taken per os are likely to cause vomiting. Alkaline powders are very often of great value and generally well borne. For hypodermic injections a mixture of atropin and morphia gives excellent results in most cases.

Nitrate of silver may also be of use, but it is likely to give an extra stimulus to the mucous membrane of stomach which is already so irritable.—*Progres Medical.*

RAPIDITY OF GENERAL PARALYSIS.

In this clinical lecture, Prof. Lepine discusses the question of the duration of general paralysis. The opinions of the various authors who have written on this subject are greatly different, some of them considering that a year or a year and a half is the most common duration of the disease, while others state that death occurs only after five years or more. About one-tenth of the cases seen by Prof. Lepine had a very rapid evolution less than a year. Acording to Prof. Lepine's experience, the cases which have such a rapid evolution may be divided into three main classes. First class: "intellectuals," *i.e.*, patients whose brain has had severe and prolonged overwork. Among these patients belonging to liberal professions, are very frequently met with. Second class: patients without overwork, but with irregular hygiene, like railway officials or omnibus drivers. Third class: syphilitic patients whose mercurial treatment has not been carefully conducted or supervised. These patients have neglected Prof. Fournier's advice: "Energetic treatment at the beginning, safety treatment in the later stages, and rest during the intervals."

To sum up, Prof. Lepine thinks that if the average duration of general paralysis seems to be longer nowadays it is because we are able to make an early diagnosis; conversely, there seems to be nowadays an increase in the number of the cases with a rapid evolution.—*Progres Medical.*

GYNÆCOLOGY

UNDER THE CHARGE OF S. M. HAY, M.D., C.M., GYNAECOLOGIST TO THE TORONTO WESTERN HOSPITAL.

RETRODISPLACEMENTS OF THE UTERUS.

Hamilton gives the following summary of the results he has obtained from various operations: Ventro-suspension, 116 cases, with 18 failures or faulty results. Alexanders operation, 56 cases, with 2 failures. Gilliam's operation and its modifications, 21 cases, with 1 failure and 1 accident. Intra-abdominal plication of round ligaments, 9 cases, with 2 failures. Baldy's operation, 127 cases, with 1 recorded failure through faulty technique.—*Australian Med. Gazette.*

INTRAUTERINE DUCHES, PACKING, AND ANTISEPTICS IN THE TREATMENT OF MISCARRIAGE.

Young and Williams are of the opinion that salpingitis has been more common after intrauterine douches, that intrauterine douches of sterile water or of salt solution have not given as good results as simply wiping the uterine cavity with sterile gauze, that antiseptic douches have given even poorer results, and that swabbing the uterine cavity with tincture of iodine has given the best results. Packing the uterus to control hemorrhage does not greatly increase the liability to infection. For packing, gauze saturated with fifty per cent. alcohol in "clean" and plain sterile gauze in "infected" cases have given the most satisfactory results.—*Boston Med. and Surg. Journal.*

CANCER OF THE OVARY IN A GIRL, AGED ELEVEN YEARS.

Lahey and Haythorn report this case, with operation and autopsy. The symptoms in the case were misleading, a tuberculous peritonitis being suspected. The authors conclude that accurate diagnosis of malignant tumors of the ovary in young girls is rarely possible. An exploratory laparotomy should be made whenever fluid is found in the abdomen of children without general anasarca, provided adhesive pericarditis and cirrhosis of the liver be excluded. The removal of ovarian tumors in young girls should not be delayed. Metastatic nodules in the fossa of Douglass or elsewhere, if they can be definitely made out, is a contraindication to operation.—*Am. Jour. Med. Sciences.*

THE VAGINAL ROUTE IN CANCER OF THE CERVIX UTERI.

From an experience of ten years comprising 445 operations, Professor Schauta (*Monatssch, f. Geburtsh, u. Gynäk.*, Bd. 33, Hft. 6) is not inclined to regard the vaginal and abdominal methods as competing procedures, each having its own place. The vaginal route is indicated in cases of marked obesity, myocarditis, pronounced anemia, cachexia, and advanced age. This applies also to beginning carcinoma with non-involvement of the parametrium, where the vaginal route is preferable on account of the smaller risk. The chief aim in the future will be to reduce the primary mortality of each of these operations and increase the margin of operability by earlier intervention.

ILIAC PAIN IN WOMEN.

Rightly to ascertain the nature and origin of pelvic pain in the female often requires the greatest skill and tact on the part of the practitioner. Morbid sensations referred to the iliac region are so common among women, especially upon the left side, as to constitute no small proportion of the symptoms complained of by gynæcological patients. The presence of a chronically loaded rectum and the existence of uterine displacements probably account for a large percentage of the cases, though the character and distribution of the pain vary a good deal according to the nature of the lesion. In an interesting paper upon the subject read at the last meeting of the West London Medico-Chirurgical Society by Mr. F. L. Provis, one important cause of constipation was emphasized, namely, the condition first described and named by Mr. Miles as proptosis of the left broad ligament, the normal position of which may become much distorted as a result of the constant pressure upon its upper surface of scybalous masses in the pelvic colon. In consequence of this persistent displacement, adhesions may be formed between the colon and the broad ligament or other structures, rendering operative interference essential for the permanent relief of the patient.

PYOSALPINX IN THE PUERPERIUM.

James Haig Ferguson (*Jour. of Obstet. and Gyn. of the Brit. Emp.*, January, 1912) records a case of this affection, not on account of its rarity but to focus attention on a condition liable to be slumped into the common category of cellulitis. Not a few cases of puerperal pelvic inflammation are secondary to tubal mischief, and the author is inclined to think that where tenderness and swelling start high up in the pelvis the tubes are not infrequently at fault. Many cases of tubal infection in the puerperium recover without operation, but in severe cases the patient's chances of recovery and ultimate restoration to health are greatly improved by timely operation. There are two kinds of cases: (1) Those originating before labor and becoming exacerbated in the puerperium, and (2) those commencing in the puerperium *de nova* from direct infection. The first class is undoubtedly the more amenable to operative interference, because in them the condition is more local, while the second class is often a mere incident in a general infection. In the latter class it is sometimes difficult to determine whether the tube is primarily affected or even affected at all; but the higher the swelling is in the broad ligament and the more movable it is the more likely is it to be tubal. If the swelling is high to begin with, it has probably been

tubal in origin, but if it begins in the base of the broad ligament and extends upwards and outwards it is probably the result of a cervical tear and not tubal in its source. When tubal inflammation is suspected during pregnancy and verified by bimanual examination immediately *post partum*, the condition is very apparent, the only thing—apart from appendicitis—likely to be mistaken for it being bruising or twisting of a small ovarian cyst. In such cases the indications for operative interference are pretty clear, and the only question is when to step in. That will depend on the urgency of the symptoms; but where possible it is better to avoid operating during the acute symptoms, and to wait till they have abated, and then operate if the physical signs and symptoms still call for interference; the physical signs being the recognition of the swelling to one or other side of the uterus, and the distinct localized tenderness. A blood examination does not give great assistanie in diagnosis unless the leucocyte count rises very rapidly. In the case under consideration there had been a history of pain in the left side since the fifth month of pregnancy; four days before delivery no extrauterine swelling could be detected, and there was no pain in the fornices; it was not till the fifth day *post partum* that the acute symptoms arose, and yet the pathological report showed that the tube had been affected for some months. Ferguson urges the importance of early pelvic examination of all puerperae who complain of pelvic pain, especially if associated with a rise of temperature, for the physical signs may become very quickly masked by subsequent complications. Many of these cases probably are put down as ordinary cellulitis, and the writer is convinced that lives can be saved and much suffering prevented by a timely exploratory laparotomy.—*Brit. Med. Jour.*

THREE CASES OF STERILITY SECONDARY TO ADNEXA DISEASE: CURED BY OPERATION.

Dr. Henry V. Holcomb, at the Clinical Society of the New York Polyclinic, presented three cases as showing what could be accomplished by conservative work.

The first case was a woman 19 years of age, who had had a previous miscarriage in the sixth week of pregnancy, and gave samyptoms showing pelvic trouble. Operation by Dr. Child showed both ovaries bound down by adhesions, a cyst attached to the left tube, and the tubes closed. The cyst was evacuated, the adhesions broken down, and the tubes probed with a fine bougie their entire length. Convalescence was un-

eventful. Four months after the operation she was free from any abdominal symptoms. Menstruation regular. She later showed symptoms of a floating right kidney, which was anchored by three silk stitches. Convalescense from this operation was also uneventful. February 2nd, she had her last menstruation, and by the end of March she began to have morning vomiting with swelled breasts, and all the evidences of pregnancy. She had a precipitate delivery of a seven and a half months fœtus in the following August. The child died, but the mother is alive and well.

The second case was somewhat similar. The patient came with all the abdominal symptoms of inflammation of the apendages. Dr. Child found on operation that both ovaries were prolapsed and bound down by adhesions, occluding the tubes. After her operation she returned home well. One month after the operation she became pregnant and was delivered of a full time child.

The third case was a woman of 31 years of age, who had been sterile for thirteen years. She had a former child and was anxious to have another. She had pelvic pains bilaterally, painful and profuse menstruation, which had been present for the previous four years. Examination showed a retroverted uterus, and tender appendages. Local treatment gave no relief. Operation in 1909 by dilatation, curettage, followed by laparotomy showed the same adhesions of ovaries, with closed fimbriated extremities as in the other two cases. The same method of treatment was followed, and the patient made an uneventful recovery. She gained in weight after the operation, and in the following November was delivered of a normal child.

None of the above three cases came to be operated upon for sterility, but Dr. Holcomb laid stress upon the desirable outcome of cases who have primarily adnexal trouble, and in the correction of this secured the desired pregnancy. Dr. Holcomb said that as far as could be ascertained these cases were free from gonorrhœa.

Dr. Child said that the cases reported were very interesting to those who were striving for the correction of sterility where the fertility of the husband was unquestioned. He had felt that it was important to thoroughly probe the tubes in these cases to insure an absolute patency. With the adhesions of the adnexa corrected, malpositions replaced, and the toilet of the uterus complete, he thought that there was field of work open to the careful and discriminating surgeon, which would be effective in overcoming some hopeless cases of sterility.

Dr. Holcomb, in closing the discussion, said that the tubes were absolutely closed and the fimbria clubbed so that in the ordinary course of events pregnancy would have been impossible.

PERSONAL AND NEWS ITEMS

Ontario.

Dr. and Mrs. D. W. McPherson, of 556 Bathurst Street, Toronto, sailed for Europe on 10th May. They will be abroad for four months.

At the home of Dr. Graham Chambers, of Toronto, his niece, Miss Gladys Rogers, was married to Dr. Kenneth Buckley, of New York.

Dr. J. W. S. McCullough, secretary of the Ontario Board of Health, will attend the International Congress of Hygiene at Washington in the latter part of the summer.

Dr. G. Sterling Ryerson, of Toronto, attended the International Red Cross Conference at Washington as the representative of the Dominion Government during the early part of May.

There will be erected a new hospital in Orillia at a cost of $50,000.

Dr. G. H. Cowan has been appointed medical health officer for Napanee.

Dr. Nelson Tait, Toronto, had a portion of the left forefinger removed on account of a septic wound.

Smallpox has made its appearance in many centres of Canada. This is to be regretted, as there is an easy and safe way of preventing all this trouble, sickness and expense.

The contracts for a new Nurses' Home have been let by the trustees of the Brantford Hospital. The building is to cost $36,000.

Dr. E. W. Prouse, of Windsor, was seriously injured by a street car starting as he was about to board it.

Mr. John Ross Robertson has given his home on Sherbourne Street, No. 295, as a Nurses' Clubhouse. It has been beautifully fitted up for the purpose.

Dr. A. R. Haywood, 529 Sherbourne Street, has succeeded in passing the examinations of the conjoint board of the Royal College of Physicians and Surgeons of England. Dr. Haywood is leaving London shortly for a few months study on the Continent.

The engagement is announced of Miss Grace Janet Munro, daughter of Mr. Hugh Munro, M.P.P., Alexandria, Ont., to Dr. Gustave John Hope, of Edmonton, Alta. The marriage will take place quietly in Winnipeg the first week of June.

The many friends of Dr. J. T. Duncan, of Toronto, will learn with deep regret of his ill-health. He has retired from practice for this reason.

The authorities in Hamilton have ordered plans for a Children's Hospital to cost $30,000.

During the month of April there were in Toronto 328 cases of scarlet fever, 152 of diphtheria, 578 of measles, 107 of whooping cough, 27 of typhoid fever, and 110 of tuberculosis. The deaths were from scarlet fever, 16; diphtheria, 14; measles, 3; whooping cough, 9; typhoid fever, 13; and tuberculosis, 73.

The Provincial Board of Health is going to enforce strictly the rules against the pollution of the waters in the summer resort districts of Ontario. A poster is to be distributed shortly containing a warning that the pollution of the lakes and streams by dumping garbage, vegetable or animal matter, or filth of any description will be promptly punished. This applies to individuals, to summer hotels, and to steamers. The penalty is $100 fine.

At the time of the Porcupine fire considerable money was left over from the relief fund that was subscribed to from all parts of the continent. The Relief Committee of the Toronto Board of Trade set aside a sum of $10,000 to be devoted to the erection and equipment of a hospital for Porcupine. The plans for the hospital were to be prepared by a committee selected from the township councils of Whitney and Tisdale, together with three representatives from the mines of the camp.

It is estimated that the thorough inspection of the milk sold in Toronto has saved to the consumers $250,000 a year, by preventing the addition of water to the milk sold.

The free Public Health exhibit held in Toronto a short time ago, under the auspices of the Provincial Board of Health, was a decided success. The exhibit has now been sent to the northern part of the province, such as Cobalt, New Liskeard, North Bay, Haileybury, etc.

The new building for the Protestant Home, at Peterborough, was formally opened recently. It is a three storey red brick building, and has accommodation for 75 inmates. It cost $30,000. The original home was founded in 1865 by a gift of Mr. Wm. Hall.

Dr. T. Alexander Davies, of Toronto, has gone for a four months' trip to Europe.

London Medical College has now adopted the five year course. This brings it in line with the other university medical departments in the province.

Dr. S. H. McCoy, of St. Catharines; Dr. Clark, of Dunnville, and Dr. Oliver, of Merlin, have removed to Toronto.

Prof. J. J. Mackenzie, of the University of Toronto, has gone abroad.

The new wing of St. Michael's Hospital cost $250,000. It is four storeys in height and has a roof garden.

Dr. D. N. Maclennan has been appointed to the department of eye, ear, nose, and throat work, Children's Hospital.

The Aesculapian Club of Toronto elected the following officers: President, Dr. A. A. Macdonald; Vice-president, Dr. J. M. Cotton; Secretary, Dr. George Elliott; Treasurer, Dr. E. E. King; Executive Committee, Drs. W. McKeown, Bruce Smith, Gibb Wishart, and B. L. Riordan.

The second annual meeting of the Canadian Public Association will be held in Toronto in September of this year.

Dr. Nelson Tait, of Toronto, while operating on a patient injured his hand and suffered from a very severe attack of septic infection. Dr. Bruce operated on the hand, and the conditions were considerably improved.

The formal opening of the new club house of the Toronto graduate Nurses' Club was held on 6th May, at 295 Sherbourne St.

Quebec.

For the purpose of selecting ten district sanitary inspectors for the Province of Quebec, examinations will be held in Montreal in June. The successful candidates must take a special course in sanitary work. Candidates must be medical men and hold the diploma of public health.

By the will of the late John Torrance Vanneck, the Montreal General Hospital receives $50,000.

Montreal General Hospital is advertising for a general superintendent who must be a medical graduate and have had experience in hospital management to co-operate with the management committee.

Western Provinces.

A number of cases of smallpox is reported at Moosejaw.

The new General Hospital at Port Alberni will receive a special grant of $5,000 from the Government.

A new hospital will be erected at Edmonton on the University grounds.

A commodious hospital will be erected at Coquitlam, B.C. It will accommodate 600 male patients.

Dr. W. H. T. Peake, of Transcona, Man., has been made a coroner.

The Government of British Columbia has made a grant of $10,000 to the West Coast General Hospital.

Dr. J. D. McQueen, formerly medical superintendent of Winnipeg General Hospital, has been doing post graduate work in New York.

Dr. Andrew Troll, Saskatoon, has passed for the diploma of F.R.C.S., Edin.

Dr. S. J. S. Pierce, pathologist to the Winnipeg General Hospital is in Europe doing post graduate study.

Dr. D. A. Stewart, Superintendent of the Tuberculosis Sanatorium at Annette, Man., has gone to Rome to attend the International conference on tuberculosis.

In spite of the protests raised by *The Western Medical News*, the Legislature for Saskatchewan passed a special Act licensing three persons to practise in the province without passing the examinations required by the Medical Council. This sort of thing is to be profoundly regretted. There is a definite way for securing the right to practise in the province, and this should be adhered to. It is stated that the medical profession could have prevented this legislation had there only been a united effort.

Weyburn, Sask., is to have a hospital costing $100,000, and the site has been agreed upon.

The difficulties in connection with the hospital at Lloydminster have been settled, and the institution reopened.

From Abroad.

Women's medical schools are springing up in China staffed by English and American women, and the good they are doing is incalculable. The Margaret Williamson Hospital at Shanghai is an entirely American institution, where no men are employed, except coolies, for the roughest work. The doctors and head nurses are white women, and many of the assistants are Chinese who have been trained in the hospital.

The Mayor of Boston invites applications for the position of Health Commissioner for that city, irrespective of residence. The salary, $5,500, and may be made more.

The Government Hospital and Medical School for Women at Tientsin is also doing splendid work for women in the country. The Government does not raise difficulties with regard to the higher education of women, and many men are anxious for their daughters to be trained on Western lines, and are encouraging them in every possible way.

A special laboratory is being fitted up in Berlin for the purpose of studying the hygienic effects of sports. Attention is to be paid to the results of sports and gymnastics on the human organism. Care will be taken in the record of measurements, gain and loss in weight, the good or harmful effects of certain sports or gymnastics, and the effects of different foods. Great attention will be paid to school children, and the best way of aiding their physical development.

Dr. William Ogle, of London, died on 12th April, at the age of 84. He was for many years connected with the Registrar General's office.

He made splendid use of the statistics which thus came to his hand. He was a pupil of the famous Dr. Arnold, of Rugby.

Dr. John Dixon Mann, Professor of Forensic Medicine at Victoria University, Manchester, died 6th April, of pneumonia. He was the author of a work on medical jurisprudence. He was a member of the General Medical Council.

Dr. Samuel Oakley Vander Poil, New York, died on 22nd April. He was born in 1853. He held many important positions.

The British Medical Journal, of 20th April, has an interesting article on Benjamin Harrison, the founder of Grig's Hospital Medical School. He acted according to the motto: "Don't argue; don't apologize. Get the thing done and let them howl." Though Sir Astby Cooper and others aid materially, nothing was really done without the approval of Harrison, who was called "King" Harrison. He was a thorough going autocrat, but a wise one.

Cholera has broken out in rather a severe form in Serampore. According to one account there are 50 cases daily. The water supply in Serampore, has dried up owing to the deficient rainfall, and what is left is hardly fit for human consumption.

The colleagues of Dr. Byrom Bramwell, who, under the time limit, is retiring from the post of Senior Physician to the Royal Infirmary, Edinburgh, as a mark of their appreciation of his great services as a teacher of clinical medicine entertained him at a complimentary dinner on May 17th. The arrangements were in the hands of Professor Harvey Littlejohn, Dr. Norman Walker, and Dr. Haultain.

Dr. Angus Fraser, one of the best known physicians in Aberdeen, died on 2nd April. He was born in 1838, and graduated M.A., M.D. from Aberdeen. He was for many years a leading member of the staff of the hospital in his city, and taught many a generation of students.

The present Lord Mayor of London is 81 years old, and is the first physician to hold the office in the Mansion House.

The pall bearers for Lord Lister were: Lord Rayleigh, O.M., for the Order of Merit, Lord Roseberry, University of London; Lord Iveagh, Lister Institute; Sir A. Geikie, President Royal Society; Sir Donald MacAlister, Glasgow University; Sir Watson Cheyne, King's College; Mr. R. J. Godler, President, R.C.S., and Prof. F. M.. Caird, Edinburgh University.

The Massachusetts State Board of Health has adopted a regulation prohibiting in public places the use of the common towel, or what is usually known as the "roller' towel.

An effort is being made with the Minister of Education in Russia to permit women to study medicine at the University of Tobolsk. It is

contended that there is a great field for women physicians among the Mohammedan women in Siberia.

The total subscriptions to the endowment fund of the Boston Instructive District Nursing Association, whose appeal has been noted in recent issues of the *Journal,* now amount to $65,430.

The 250th anniversary of the foundation of the Royal Society is to be commemorated by a series of meetings and entertainments to occupy the week beginning July 15th. A number of foreign visitors will be invited, and the first four days will be spent in London; on Friday, July 19th, visits will be paid to the Universities of Oxford and Cambridge.

In the Nyasal and Protectorate Sleeping Sickness Diary, Part XVI, 1912, further details are given of the spread of trypanosomiasis in that region. Since the issue of the last number of the series, when the cases of sleeping sickness reported up to October 12th, 1911, numbered 55, 8 further cases had been recorded. During the month of November no fresh cases were observed. The patrols who are looking for cases report, however, that natives frequently hide their sick, and that more severe measures will be necessaryfor dealing with offenders in this respect. Of the previously reported cases large numbers have now died, but the course of the disease would seem generally to be very slow, in this way differing very materially from the recent Uganda epidemic.

Dr. Thomas Rennie died on 11th April. He had been doctor to the European residents of Foochow, China, for many years. He graduated atAberdeen in 1872, and spent many years in China. He was an all round practitioner who could deal with every sort of case.

The Royal Society of Medicine, London, opened its new home on 21st, May. The King and Queen were present and received an address. The building stands on the corner of Wampole and Henrietta Streets. It is complete in every detail for the work of the Society.

The Government of Bavaria has instituted an inquiry into the relationship between alcohol and crime. Every conviction for 1910 will be studied from the standpoint of whether the person used alcohol to excess.

Throughout Hungary one day in each year will be devoted to the study of alcohol in all the schools of the country. It is known as the "Annual Anti-Alcohol Day."

Mr. David vonGuttmans has given the Jewish Board of Vienna, $600,000 for the establishment of a children's hospital. Steps are to be taken to secure funds to ensure the future up-keep.

The Bombay Legislative Council has a Medical Bill under consid-

eration that will permit of the registration of qualified medical practitioners; the establishment of a medical council, and the regulation of malpractice suits.

The Fourt International Congress of Hygiene will meet in Buffalo in August, 1913. Ex-President Eliot, of Harvard, is president, and Sir James Grant, of Ottawa, is honorary vice-president.

OBITUARY

D. W. CARROLL, M.D.

At the good age of 75, Dr. Carroll closed his useful life on the 25th April. He was a native of Ingersoll, Ontario, where he settled in practice and where he lived until his death. He was the second oldest resident in the town. He was universally beloved by all and was a very successful practitioner. The entire day of the funeral people came from great distances to view the remains. The floral offerings were numerous and beautiful. Placed on the casket was a wreath of wild flowers gathered by the little children of the town. It was most noteworthy the large number of children who came to take a last look at their old friend. He was a man of means and might have taken life easy, but his time and skill were ever at the command of those who sought him, especially if they were poor. He could in the truest sense be called "a beloved physician." He was a man of wide reading and ripe scholarship, a loyal subject of the Empire, an honored citizen, and an esteemed friend and benefactor. He leaves a widow. The funeral services were conducted by Rev. Mr. Thompson and Rev. Mr. Perkins. He saw his duty and he did it, and his memory will long be cherished.

FREDERICK S. YORSTON, M.D.

Dr. Yorston, of Truro, had been in poor health for some time and had gone to Florida with the hope of rejoining his strength, where he died. He was a graduate of McGill of the class of 1890. He had a large clientile and was highly esteemed by those who knew him.

CALVIN BROOKS McQUESTEN, M.D.

Dr. McQuesten died in Hamilton in his seventy-fifth year. He was

the son of the late Dr. Calvin McQuesten. He studied at Dartmouth College. Dr. McQuesten served in the Federal Army throughout the Civil War. He then entered into private practice in New York, where he lived until he retired to Hamilton through ill-health.

J. S. MUNGER, M.D.

Dr. Munger died at his home in Rodney in the latter part of March. He was in his eight-first year.

ROBERT MURRAY, M.D.

Dr. Murray died in Woodstock at the age of 77 years. He had practised his profession in Woodstock for twenty-five years.

FRANK J. DUROCHER, M.D.

Dr. Durocher, of Ecarse, died in the latter part of February after a brief illness. He was in his thirty-eighth year. He was a graduate of Detroit, and practised at Ecarse for nine years.

GEORGE D. MAXWELL, M.D.

Dr. Maxwell was a resident of St. Thomas. For some time he practised in Montreal. Lately his health failed and he went to Porters, Texas, where he died.

E. P. JAMES, M.D.

Dr. James graduated in Toronto in 1902, and located in Galt, where he was engaged in practice. He died very suddenly in his office on 27th March.

JOHN W. CLEMESHA, M.D.

Dr. Clemesha was in his sixty-ninth year. He was a graduate of McGill and the College of Physicians of New York. For many years he practised in Port Hope. Through a wound on his hand he suffered from septicaemia. He came to Toronto for treatment where he died.

J. W. SMITH, M.D.

Dr. Smith lived and practised in Dundas until about a year ago, when he removed to Toronto, where he died on 2nd May, at the age of 67. He was born on Smith's farm, near Dundas, and was one of the Wentworth pioneers. For very many years he had a large practice, which he was forced to give up some time ago on account of failing health. He took a lively interest in a number of fraternal associations. He left a widow, two daughters and one son, and three brothers. Public School inspector Smith, of Wentworth; B. E. Smith, principal of Berlin High School, and E. W. Smith, on the old homestead. The late W. B. Smith, of Toronto, was a brother.

ROBERT TRACEY. M.D.

Dr. R. Tracey died at Belleville on 22nd April. He was a graduate of Queen's Medical College, Kingston. He served in the Fenian Raid in 1866. For many years he had a large practice in Belleville and adjoining country.

WILLIAM DUNCAN McNAB, M.D.

Dr. McNab, of Toronto, died on 11th May, at his home, corner of Bathurst and Dupont streets, in his fifty-second year of age. His health had not been good for more than a year, suffering from organic heart trouble. He graduated from the University of Toronto, having pursued his medical studies in the Toronto School of Medicine. He was a member of the Governor-General's Bodyguard, and served in the North-West Rebellion. He leaves a widow and son. Dr. McNab was a very retiring man, and but little before the public, but he had the confidence of a large clientele.

J. HORACE CREPAULT, M.D.

Dr. Crepault died after a long illness. He was in his sixty-third year, and was a graduate of Laval. He practised at St. Pascal and Montreal.

R. U. LUTON, M.D.

Dr. Luton, who had practised for many years in Grand Rapids, Michigan, died recently in London, Ont., in his sixtieth year.

GEORGE F. RYMER, M.D.

Dr. Rymer died at Fort Resolution, Sask., where he had carried on the work of a medical missionary for many years.

FINLOW ALEXANDER, M.D.

Dr. Alexander died in the Hotel Dieu, Montreal, in his seventy-ninth year. He was born and studied medicine in England. He practised for a number of years in this country. Latterly he joined the ministry of the Church of England.

BOOK REVIEWS

CANCER.

The Cause of Cancer being Part III. of "Protozoa and Disease. By J. Jackson Clark, M.B., F.R.C.S., Senior Surgeon to the Hampstead and North-West London Hospital, and Surgeon to the Royal National Orthopedic Hospital. London; Baillière, Tindall & Cox, 8 Henrietta Street, Covent Garden, 1912, All right reserved. Price, 7/6 net.

Mr. Clarke opens with the words: "It may still be said that all that lives is cells, and we may still repeat Virchow's aphorism, *Oumnis Cellula E Ccellula.*" He contends that a protozoon at one period of its life may be a plastic ultra microscopic particle and at another stage of it life-cycle be a cell nearly or quite visible to the naked eye. Mr. Clarke gives a careful account of the "Chromidia and Free Cell Formation." In this chapter some very interesting information is given on the cell growth and division of protozoa. He describes the bodies which are found in cancer, and regards them homologues of the gametes formed by free cell formation from the chromidial plasmodia, while others may prove to be homologous with the Zygotes or spores. "The invasion by plamodiophora causes multiplication of the host cells by regular mitosis." In time the interior of the cell is filled with parasites in some stage or other. The author states "that cancer (including sarcoma) is caused by a parasite." We commend the work of Mr. Clarke, and regard it as a most advance in the study of cancer.

HEART BEATS.

Chemical Disorders of the Heat Beat. A Handbook for Practitioners and Students. By Thomas Lewis, M.D., D.Sc., M.R.C.P., Lecturer in Cardial Pathology, University College Hospital Medical School, Physician to Out-Patients, City of London Hospital for Diseases of the Chest. London: Shaw & Son, 7 and 8 Fetter Lane, E.C., printers and publishers, 1912.

This little book of 104 pages is a careful exposition of the newer methods of examining the heart. There is a free use made of the graphic method. He deals with disorders of Cardiae Mechanism, Sinus Irregularities, Heart Block, Premature Contractions, Paroxysmal Tachycardia, Auricular Fibrillation, and Alternation of the Pulse. The book is a most interesting one.

HUMAN PHYSIOLOGY.

A compend of Human Physiology, Especialy Adapted for the Use of Medical Students. By Albert P. Brubakar, A.M., M.D., Professor of Physiology and Medical Jurisprudence in the Jefferson Medical College, Philadelphia. Thirteenth Edition, with 36 Illustrations. Philadelphia: P. Blaskistons Son & Co., 1012 Walnut Street, 1912. Price $1.25.

The excellent compend of physiology has long been in the hands of the medical profession. That it has reached the thirteenth edition is the highest praise that could be given the book. The author has given his readers a thoroughly trustworthy statement of the facts of physiology and in brief form. It is all that could be desired and we commend the book very cordially.

NEW AND NON-OFFICIAL REMEDIES.

Price, cloth, 50c., paper, 25c.; pp. 298. Chicago: American Medical Association, 1912.

This book contains descriptions and a statement of the actions and uses of all articles which have been examined and accepted by the Council on Pharmacy and Chemistry prior to January 1, 1912, for inclusion in the list of New and Non-Official Remedies.

The book is unique. The work of the Council during its seven years of existence and the reports of the Propaganda Department of *The Journal A. M.A.*, have convinced the physican that in the prescribing of proprietary remedies he must be more careful in his selection of those which he directs for his patients. Nowhere else can the physician or the pharmacist turn for reliable, unbiased information concerning the new remedies. This book enables the physician to make such selection and the careful pharmacist to know the character of the remedies he dispenses. It should be in the hands of every one of them.

TREATMENT OF TUBERCULOSIS.

Usual Therapeutics of the Practitioner. By Albert Robin, Professor of Clinical Therapeutics at the Faculty of Medicine, Paris; Member of the Academy of Medicine. Third Series, Vol. 1, 650 pages. Paris: Vigot Brothers, editors, 23 Place de l'Scote-de-Medicine. Price 8fr.

This volume of clinical therapeutics by Prof. Robin, is devoted to the treatment of tuberculosis. This volume is of unique value as setting out the views of the distinguished author. The subject is discussed in the widest sense of prevention as well as cure. We could wish that a translation of this book was in the hands of every doctor.

DYSENTERY IN FIJI.

Report the London School of Tropical Medicine on Investigations on Dysentery in Fiji during the Year 1910. By P. H. Bahr, M.A., M.B., M.R.C.S., Eng.; L.R.C.P., Lond. Together with an account of the occurrence and spread of Dysentery in the Pacific in former years. By B. Blanvill Carney, M.R.C.S. With colored and monochrome plates and many charts. London: Witherby & Co., 326 High Holborn, W.C., 1912. Price 6/ net.

Epidemic dysentery is due to a bacillus identical with Shiga's and Flexner's. The disease is of annual occurrence. Those treated intravenously with polyvalent anti-dysenteric serum gave the best results. There are some cases of amoebic dysentery. The report is a most interesting one.

INFANTILE PARALYSIS.

Report of Special Investigations made in 1911, bearing upon the Etiology of the Disease and the Method of its Transmission. Boston: Wright & Potter Printing Co., State printers, 18 Post Office Square, 1912.

This report contains a good deal of very valuable information on anterior poliomyelitis. Some important conclusions are reached, namely, that the disease is both epidemic and endemic. It may prevail with marked intensity in a given locality. Nothing is very definitely known as to the method of spread, though the suggestion is thrown out that it may be conveyed by insects, stomoxys calcitrans, is thought to be the most likely.

THE TOXICITY OF CAFFEINE.

U.S. Department of Agriculture, Bureau of Chemistry, Bulletin No. 148. An Experimental Study of the Toxicity of Caffeine on different species of animals. By William Salant, Chief Pharmacological Laboratory, Division of Drugs, and J. B. Rieger, Assistant Chemist. Washington: Government Printing Office, 1912.

It is interesting to note with what care this subject has been studied. Many experiments were made on guinea pigs, dogs, puppies, rabbits, and

cats. The results of these experiments are carefully recorded. They show that some animals are much more sensitive to caffeine than others. and eliminate the drug with much more difficulty from the system than do some of the others. The toxicity of the drug varies when given by the mouth of by the intravenous method. Young animals are much more resistant than old ones. Dogs were more sensitive to the drug on a meat diet than on a milk diet. Glycosuria appeared in rabbits, guinea pigs and cats when toxic doses of caffeine were given. This is a report of much scientific value.

DRAINING LAKE MICHIGAN.

Department of Marine and Fisheries, Canada. Papers relating to the application of the Sanitary District of Chicago for permission to divert 10,000 cubic feet of water per second from Lake Michigan. Ottawa: printed by C. H. Parmelee, printer to the King's Most Excellent Majesty, 1912. Hon. J. D. Hazen, Minister.

Chicago has been seeking for some time for the right to divert a large volume of the water of Lake Michigan through a canal into Desplaines River and thence into the Mississippi River. For some years this drainage has been going on, but has of late far exceeded the amount granted in the first instance. With the population of Chicago, at least 10,000 cubic feet per second would be required to dilute the sewage to what is regarded as a safe degree for the people along the canal, the Desplaines River and the Mississippi River. This would mean as much water as flows over the Niagara Falls on the American side. This would have the effect of lowering the lake levels from 6 inches in full water periods to 10 inches in low water periods. This would cost Canada at least $12,500,000 to deepen water courses and harbors. It is contended in this report that it behooves the people of Canada to oppose this heavy drain upon the waters of Lake Michigan, as injurious to navigation and a violation of treaty rights in the lakes. The report is a very valuable one, and should be read carefully by all thoughtful Canadians.

A MANUAL OF SURGICAL TREATMENT.

By Sir W. Watson Cheyne, Bart. D.Sc., LL.D., F.R.C.S., F.R.S., Hon. Surgeon in Ordinary to H. M. the King; Senior Surgeon to King's College, Hospital, and F. F. Burchard, M.S. (Lond.), F.R.C.S., Surgeon to King's College Hospital, and Senior Surgeon to The Children's Hospital, Paddington Green, London. New (2nd) edition. Thoroughly revised and largely rewritten. In five volumes, containing about 3,000 pages and illustrated with about 900 engravings. Price, cloth, $6.00 net, per volume. Lea & Febiger, publishers, Philadelphia and New York, 1912.

The publication of the second volume of this invaluable work in little over a month after the appearance of the first is indicative of the sys-

tematic and energetic work of its editors and contributors. This rapidity in the appearance of the successive volumes ensures to the purchaser a complete and modern library of surgical treatment, equally fresh and up-to-date throughout. This volume covers the surgical affections of the skin and subcutaneous tissues, of the nails, lymphatic vessels and glands, faciae, bursae, muscles, tendon sheaths, tendons, nerves, veins and arteries, as well as the surgical treatment of special aneurysms; the consideration of surgical affections of the bones follows, including fractures and the various diseases which require surgical intervention; and the volume closes with a discussion of amputations.

In the preparation of this edition, Mr. F. P. Legg, of King's College Hospital, and Mr. Arthur Edmunds, of the Great Northern Central Hospital, have been associated. This volume, as was the case in the first volume, is very practical in its character. It is what it claims to be "a manual of Surgical Treatment." The work is got up in very handsome form, and does great credit to the publishers. So far as matter is concerned it is a unique work on surgical treatment by men of very large experience.

ESSAYS AND CHEMICAL STUDIES.

By F. G. Crookshank, M.D., Lond. London: H. K. Lewis, 136 Gower Street, W.C., 1911. Price, 7/6 net.

This attractive volume of 245 pages contains eighteen articles which have appeared at different times in the medical journals, and some of them were delivered before medical societies. They have been collected and edited by the author, and are not given out in book form. The subjects are varied but practical, and are handled with much skill. It is refreshing to read these papers, dealing with insanity, scarlet fever, diphtheria, public health, phthisis, etc. Dr. Crookshank has really given us a very valuable book.

THE INSANE AND HOSPITAL MANAGEMENT.

The care of the Insane and Hospital Management. By Charles Whitney Page, M.D., Assistant Physician Hartford Retreat, Hartford, Connecticut, 1871 to 1888; Superintendent Connecticut Hospital for the Insane, Middletown, 1898 to 1911; Superintendent Danvers State Hospital, Danvers, Massachusetts, 1888 to 1898, and 1903 to 1910; Member of the American Medios-Psychological Association, the Boston Society of Psychiatry and Neurology, the New England Psychiatrié Society, the Massachusetts Medical Society. Boston: W. M. Leonard, publisher, 1912.

This small volume of 155 pages is the outcome of many years of study and close observation of the insane, and the best methods of caring

for them. The author is a staunch advocate of the "non-restraint" method of managing insane patients. He refers to the splendid work of Pinel, of France, and Tuke, Hill and Conolly, in England. He points out that in carrying out this method the trustees or managing body must be in sympathy with this system. The book goes into the many ways of trying to gain the confidence of the patients. It is a very readable book and very full of useful information.

REGULATIONS PERTAINING TO PUBLIC HYGIENE.

Municipal Ordinances, Rules and Regulations Pertaining to Public Hygiene. Adapted from 1 January, 1910, to 30 June, 1911, by cities in the United States of over 25,000. Issued by the Treasury Department at Washington.

For those interested in questions of public hygiene and health this will prove a very useful collection of information. It shows what many places and peoples are doing and how they do it.

HENRY PHIPPS INSTITUTE.

Sixth Annual Report of the Henry Phipps Institute, Philadelphia, for the Study, Treatment, and Prevention of Tuberculosis. February, 1910.

The work of the Institute was some time ago placed under the control of the University of Pennsylvania. There is much valuable material in the present report. It reveals much care in its preparation. Such researches are throwing light on the problems of tuberculosis.

MISCELLANEOUS MEDICAL NEWS

DEMONSTRATION BY COMPARISON.

Before the use of chloroform had become so general as it is in our day, a quack advertised that he would draw teeth painlessly. A patient was placed in the chair, the instrument applied to his tooth with a wrench, followed by a groan from the unpleasantly surprised sufferer.

"Stop!" said the dentist, "compose yourself. I told you I would give you no pain, but I only gave you that twinge to show you Dr. Carter's operation."

Again the instrument was applied to the tooth, and another tug and another roar.

"Now, don't be impatient. That is Dr. Logan's method," said the dentist.

Another application, another tug, another roar.

"Now, pray do be quiet. That is Dr. Tate's way. I see very well that you do not like it, and I am not surprised."

By this time the tooth hung by a thread, and, whipping it out, the operator exultingly exclaimed: "That's my mode of extracting teeth. You are now able to compare it with the operations of Carter, Logan and Tate."

DR. CARROLL'S GIFT TO INGERSOLL.

The citizens of Ingersoll learned with much satisfaction of the generous bequests to the town by the late Dr. Carroll. Dr. Carroll was said to be the second oldest native resident of the town, and his greatest interests were here. In keeping with the spirit of philanthrophy which he always manifested during his long and eminently successful career as a medical practitioner, he has made provision in his will for a park to be known as "Carroll Park," and the establishment of a Protestant Children's Hospital.

The tract of land which is to be devoted to park purposes is situated on the north side of the town, and occupies twenty-six and a half acres.

The kindly and sympathetic spirit which characterized the late doctor's professional career is also emphasized by a clause in his will in which he devises his residence and the property connected therewith, which is of considerable extent, to the corporation for the establishment of a Protestant Children's Hospital. Provision is also made for the converting into cash of other property after the widow's interests cease, the proceeds of such sales to go into a fund for the maintenance of the Children's Hospital.

MEDICAL GRADUATES OF MEDICAL COLLEGE, LONDON.

Thirty-eight out of a class of forty-five students were successful in the graduating examinations of the Western Medical College, of London. This is the largest class in the history of the institution. James Moriarity, of Orillia, who won the gold medal, has had a brilliant career, and was a scholarship man every year. The valedictory will be delivered by him at convocation.

Gold medalist—James Moriarity, Orillia.

Silver medalist—A. MacOulay, London.

Honors—Fourth year, R. D. Morand, R. J. McRoberts, C. L. Douglas, L. Glenn; third year, T. Bowman, A. Muterer, L. Elliott, Turner, Wright, Aitken; second year, Cornish, McPherson, Luney, Bean, Aiken, Gilfoyle, Hudson, Poisson, Siddell, Campbell, Wilson, Anderson, Jones; first year, Pearson, Fisher, J. M. Young.

Scholarships—Third year, Thornley Bowman, London; second year, C. Cornish, Crampton; first year, Gerald Pearson, London.

Graduates—W. N. Adams, Toronto; W. H. Birks, London; A. W. Bodkin, London; H. Barrett, Salford; E. Bice, London; G. G. Clegg, Clinton; S. Coulter, Hensall; J. A. Campbell, Belmont; E. Collins, London; W. S. Downham, Essex; C. L. Douglas, St. Thomas; D. A. Fletcher, Calgary; D. Garret, London; J. P. Green, Belleville; L. Glenn, Charing Cross; R. D. Morand, Windsor; J. Moriarity, Orillia; R. J. McRoberts, London; W. L. McIlwraith, Woodstock; J. McCrae, Ilderton; A. MacAulay, London; C. E. McCechan, London; H. A. McFadyen, London; G. T. Nelson, Battleford, Sask.; R. Park, Chesley; N. L. Phoenix, Greenbank; N. T. Schram, London; P. A. Scollick, London; M. Shipley, Clinton; R. J. Shute, Kingston; E. K. Simpson, Ridgetown; A. E. Talbot, Calgary; G. E. Thompson, Kingsmill; C. B. Tran, Port Perry; H. N. Watson, New Westminster, B.C.; G. C. Wagner, London; R. J. Washburn, Chesley; L. R. Lealland, London.

THE RESULT OF SANITATION.

It is asserted that in the last half century an average of 12 years has been added to the human life. Since the first actual records were taken in New York City, in the middle '60s, the rate of mortality has been reduced from 35 deaths in each 1,000 inhabitants to about 15 or 16. This reduction has resulted from the control of infectious diseases. This saving thus made relates only to the period of life less than 50 years. There is no saving knowledge regarding the organic diseases of advancing years, which afflict especially those who have been active in affairs and who are taxed with large responsibilities.

Dr. William H. Welch, in an address at the 43rd anniversary of the Presbyterian Hospital in New York recently in referring to the close alliance between the College of Physicians and Surgeons and the Presbyterian Hospital, said he believed that such relationship would be a source of great scientific education, not only in the nursing and treatment of those afflicted, but also in preventing the diseases which are so fatal in their effects, and thus would continue to increase the average of human existence.

MEDICAL PREPARATIONS, ETC.

MEDICAL, DENTAL AND DRUG EXCHANGE.

Physicians on the lookout for a field for practise can secure a short cut thereto by making their wants known to Dr. W. E. Hamill, medical broker, who conducts the Canadian Medical Exchange at 75 Yonge Street, Toronto. The doctor is in touch with practically every physician desiring to sell out, and, in addition, has many vacant fields without a doctor, where the residents request one and where a practise of at least $3,000 annually is assurred. Bona fide buyers can get full particulars gratis of any offer by addressing him as above, or, what is still better, call personally at his office, if possible. A partial list of his offers will be found each month in our advertising columns, the complexion of which necessarily changes each issue. Both vendors and vendees should get in touch with 75 Yonge Street, to speedily reach the goal desired.

WHAT IS THE BEST IN TONICS?

Many people, and perhaps a few physicians, are inclined to consider the terms "tonic" and "stimulant" as more or less synonymous and interchangeable. This, of course, is not the case, although some agents employed medicinally may partake of the properties of both and be properly known as "tono-stimulants." Strychnia, for instance, is a heart stimulant but may also be considered as a general nerve and systemic tonic when given in small and frequently repeated does. While a stimulant alone is sometimes indicated in conditions of emergency, its long continuance almost certainly produces an after depression. It is sometimes advisable, however, to give stimulant and tonic together in conditions of serious general depression, the first to "boost" the vitality and the second to hold it at the point to which it has been raised and to restore the general tone of the organism. An ideal combination of this nature is Pepto-Mangan (Gude) to which has been added the proper dose of strychnnia, according to indications. This combination is especially serviceable in the convalescence of exhausting diseases such as typhoid fever, pneumonia, la grippe, etc. It is also of much value when the heart needs support and the general system requires upbuilding. Pepto-Mangan restores vitality to the blood by increasing the number of red cells and the percentage of hemoglobin, and the strychnia assists in rendering the combination a peculiarly efficient general bracer and permanent reconstituent.

A NEW AND PROMISING AGENT FOR THE TREATMENT OF RHEUMATISM.

An announcement that is certain to cause widespread interest among the profession is being made in medical journals in behalf of Rheumatism Phylacogen. The new product is a bacterial derivative originated by Dr. A. F. Schafer, of California. The term "Phylacogen" (derived from two Greek words—the equivalent of "a guard" and "to produce") means "phylaxin producer," phylaxin being a name that is applied to a defensive proteid found in animals that have acquired an artificial immunity to a given infectious disease.

Rheumatism Phylacogen (Schaefr) is a sterile aqueous solution prepared from a large variety of pathogenic bacteria, such as the several staphylococci, Strepetococcus pyogenes, Bacillus pyocyaneus, Diplococcus pneumoniae, Bacillus typhosus, Bacillus coli communis, Streptococcus rheumaticus, Streptococcus erysipelatis, ets. The basic Phylacogen is a "polyvalent" preparation, since the organisms are obtained from cultures made at frequent intervals and from a variety of sources. To this basic material is added an equal amount of the filtrate obtained by similarly growing and treating the Streptococcus rheumaticus of Poynton and Paine. The product is indicated in all cases of rheumatism, acute and chronic, not due to gonorrheal infection. It is marketed in sealed glass vials of 10 Cc. capacity and may be administered subcutaneously or intravenously, the former method being preferred except in cases in which quick results are demanded.

Rheumatism Phylacogen, which is the first of a series of phylacogens originated by Dr. Shafer and about to be offered to the medical profession, has been thoroughly tested clinically in many of the leading hospitals, as well as by competent specialists and other scientific men in various parts of the country, and is said to have shown brilliant results in a large percentage of cases. With the co-operation of Dr. Schafer, and in accordance with his methods, it is prepared by Parke, Davis & Co., in whom are vested the sole rights of manufacture and sale. Physicians who are interested in this new treatment for rheumatism, and every general practitioner ought to be, will do well to get descriptive literature on the subject. It may be obtained by addressing the manufacturers at their principal laboratories in Walkerville, Ont. Ask for the "Rheumatism Phylacogen pamphlet" and mention this journal.