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## EDITORIAL.

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### THE INSANE AT LARGE.

From time to time the public is shocked by the news of some horrible tragedy that occurs in some part of the country by an insane person that ought to have been placed in an institution for the insane, and thereby accomplish the double purpose of protecting the public and preventing the insane doing themselves bodily harm.

There is a foolish sentiment in the minds of many persons against having a relative committed to the asylum. This has come down to us from the old notions that insanity was a curse, or sent by some demon. or the chastisement of God for some wrong. Under the modern teachings that insanity is the result of disease, and should be regarded in the same way as people look upon typhoid fever, or pneumonia, there should be an end to this objection to sending the insane to an asylum.

But we fear the public will be slow to take up this view, and the crop of suicides and homicides will still go on unless the law steps in. We believe it is possible to do much to lessen the number of these revolting suicides and homicides. We would urge that a large measure of responsibility be laid upon the shoulders of those who undertake the care of those of unsound mind, or who may have a person of unsound mind under their custody in any way at home. If people who have an insane person in their charge were made responsible for their safe keeping, there would be fewer of these catastrophies.

We would recommend that any one having an insane person in his keeping would be charged with the duty of properly policing the individual so that he could do no harm to either himself or any one else. This would go a long way towards making people take proper steps to ascertain if the insane person was at all likely to prove dangerous, and if so to furnish proper guards, or have him placed in an institution for care and treatment.

All homeless vagrants who are recognized to be of unsound mind should be taken possession of at once and put under proper observation. This would lessen the number of those murders that occur on the wayside and retreats where these insane vagrants come upon unsuspect-

ing persons, often young girls, and brutally do them to death. If, after a period of observation, these vagrants prove to be mentally deranged, they should be kept in custody permanently or until their mental balance has been restored.

We are living in a very humanitarian age, and there is a tendency to regard crime as the result of disease, insanity, or degeneration in some form or other. There is a risk that these teachings may lead to too great a degree of leniency in dealing with these perverts. We take the ground that there need be no cruelty shown these persons in holding over them a firm hand; but we think it is better to err on the firm side than that a number of innocent people should suffer.

Arrangements should be made that all these persons be given plenty to do. They should be made to do a good deal for their own support. This would be good for them physically, mentally and morally. There is no reason why every jail and prison in the land should not be self-supporting as well as a place of custody and correction. One thing is quite clear. People must not be allowed the care of a dangerous lunatic unless they are made fully responsible for his safekeeping; nor must an insane woman be left in charge of her little children to take their lives some day, as has often happened.

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#### THE MUSKOKA HOMES FOR CONSUMPTIVES.

The eleventh meeting of the Trustees of the National Sanitarium Association was held a short time ago. Among those present might be mentioned Hon. Geo. A. Cox, Senator G. W. Ross, Hon. W. A. Charlton, W. J. Gage, J. J. Crabbe, Ambrose Kent, Hugh Blain, Dr. W. P. Caven, Dr. N. A. Powell, and J. S. Robertson.

It was shown that the receipts for the year had exceeded those of the two previous years. The sale of the stamps had realized some \$6,000. Toronto had given \$15,000. The sum of \$16,000 had been expended on the completion of the new administration building, which is regarded as very complete in every way.

The accommodation has been increased by 25 beds, bringing the total number of beds at the Free Hospital up to 104. This makes it possible to admit suitable patients almost at once, and to extend the stay in the hospital from 4 to 6 months. The secretary made the statement that no patient had been refused because of inability to pay.

At the Muskoka Cottage Sanatorium a number of important improvements had been made. One of the most useful was the adding of several new tents, permitting patients to take the open-air cure at a cost of \$9 per week.

The Muskoka Cottage Hospital cared for 228 patients, and the Free Sanatorium for 258 during the past year. Since the establishment of these institutions 3,000 patients had been treated in them during the past ten years.

An ex-patient gave \$1,500 for the purpose of equipping the laboratory; while another person gave \$1,500 towards the doctor's salary who is in charge of the laboratory.

It was agreed that in connection with the Toronto Free Sanatorium, a visiting nurse should be employed, whose duties it would be to visit the homes of the consumptive poor and give needed instructions.

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#### CLEAN MILK IN TORONTO.

Toronto has been taking some forward steps in the matter of clean milk. In this work all praise is due the Academy of Medicine for the energy it has shown in the good work. The Academy appointed a commission to look into the condition of the premises of the dairies which may wish a certificate as to the sanitary state of these. If the water supply, cans, attendants, etc., are found satisfactory, a certificate will be issued to the dealer.

The milk must be cooled to less than 45°F and then bottled and kept on ice till it is delivered. It is not heated and no preservatives are added. It must contain from  $3\frac{1}{2}$  to  $4\frac{1}{2}$  per cent. butter fat. Each bottle is closed by a paper cap, bearing the stamp of the Commission and the date. All premises agreeing to the conditions of the Commission will be regularly inspected.

The milk that will come up to the standard laid down by the Academy will prove much safer, especially for children, than much that is on the market under the prevailing conditions of the past. No doubt other large centres will act in a somewhat similar manner.

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#### THE TORONTO WESTERN HOSPITAL.

From time to time statements are made regarding the attitude of this hospital towards the members of the medical profession who are not attached to its staff. It is well to put the matter clearly before the profession.

Any bed in the hospital is at the disposal of any medical practitioner, regardless of the fee, excepting such as are reserved for city-order cases. This means that if a patient pays 70 cents a day, or

upwards, he or she may select the medical or surgical attendant, whether a member of the staff or not.

The staff reserves the right to attend no patient or class of patients except those sent in under the certificate of Medical Health Officer. By this means a full measure of responsibility is maintained for the proper care of these cases.

In the event of an operation becoming necessary a consultation must be held with some member of the staff, and some member of the staff must be present when the operation is performed. This rule applies to a member of the staff just as much as to one who is not a member of the staff. The Western Hospital thus has the open door system in force.

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### VACCINATION VERSUS SMALLPOX.

One hundred years of experience with the protective power of vaccination has proven beyond the shadow of a doubt that it can prevent the spread of smallpox; but that hundred years of the constant victory of science over disease has not yet compelled belief from all the public. Indeed, there are still many who claim to be educated, and who oppose vaccination. Such an eminent scientist as Sir Alfred Russell Wallace places himself on record as being opposed to vaccination. It is well to ask why.

In the first place a few medical practitioners are not yet convinced that vaccination does protect against smallpox. It is much to be regretted that such should be the case, and can only be explained in two ways: They have not taken the trouble to look into the subject, and are, therefore, ignorant as to the merits of the simple operation. The other reason is that they are catering to the sympathies of those who oppose the practice. This is a base prostitution of science to secure a clientele.

In the second place some scientists have not given this subject careful study. Sir Alfred Wallace is an eminent scientist, but this does not qualify him to speak on a medical subject, and especially on such a complicated one as that of immunity. Nevertheless, opinion is influenced by it much in the same way as the testimonial of some titled devine would influence public opinion in favor of some useless, or even harmful nostrum.

In the third place there are a certain number who know nothing about the subject, and cannot, therefore, see how the producing of a sore on one's arm can prevent or modify the course of any disease twenty years later. They see or hear of occasionally a rather severely

inflamed arm, and take it upon themselves to exaggerate the evil effects of vaccination.

As to the protective value of vaccination a few examples from history should suffice. In London during the 17th century the annual death rate was about 2,000 from smallpox. London then had a population of a little over half a million.

In 1802 it was stated that the yearly death rate in Britain was about 45,000. In those days most of the population had the disease at some time or other.

In the early part of the 19th century there died of smallpox in Prussia about 40,000 annually.

About the year 1811 and onwards there died in France 150,000 people each year.

In Russia in prevaccination days as many as 2,000,000 have died in one year.

The death rate in all Europe prior to vaccination was from 200,000 to 400,000 a year.

Many other instances of the ravages of smallpox could readily be cited, such as the havoc it wrought among the American Indians.

But smallpox will still kill. It is not many years since Russia lost nearly 300,000, Spain over 20,000, and other countries many thousands by this disease.

A word on the dangers of the operation. Statistics show that there is about one death in every 300,000 vaccinations. Further, that the bad arms and such deaths as may occur are due to carelessness and dirty conditions.

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### THE DANGERS OF THE EPILEPTIC

The epileptic at large is a real source of danger. Psychological disturbances at any time may occur and cause a most serious display of mental aberration. In these moments terrible crimes may be committed. The psychic disturbances may happen independently of a convulsive seizure. There may be a variety of conditions from the confusional to the dreamy states. Among the conditions not necessarily connected with a convulsion may be mentioned those of confusion, stupor, delirium, paranoid, impulses, depression. It is a characteristic of epilepsy that the higher mental states are interfered with. There is a marked disturbance in the association of ideas and the proper sensation of personality is lost. Voluntary control may be lost, and the person act as if in a dream state.

Though these epileptics may be able to designate their own identity correctly enough, they lose their proper conception of time and space,

and cannot adjust themselves properly to the external world. They may not know where they are, nor be able to recognize those around them. The perceptive faculty is markedly interfered with. The disturbances of inhibition and ideation may cause such profound derangement of self-control as to render the psychic state of an epileptic exceedingly dangerous.

In the epileptic an impulse, a delusion or an hallucination, may take the place of the more usual seizure. Indeed, these may occur and no instance of a convulsion ever known to have been observed.

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### SCARLET FEVER.

Scarlet fever has been prevalent of late in many portions of the country, and especially so in the cities, where the conditions favor the spread of the infection.

In the case of diphtheria the organism is now well known and there is little more to be said about its pathology. The introduction of the treatment by antitoxine has robbed it of all its terrors. When this method of treatment is resorted to in sufficient time, and the remedy given in sufficient doses, the death rate is almost nil. In epidemics prior to antitoxine days the mortality would reach anywhere from 30 to 40 per cent.

The micro-organism concerned in the causation of scarlet fever is by no means so definitely known as in the case of diphtheria. Nevertheless, a very strong case is being made out that the disease is due to some variety of the streptococcus. The researches of Dr. E. Klein, Sir W. Power, Drs. Wynter Blyth, Lenhartz, Ruskin, Babes, Kurth, D'Espigne, Bagnisky, Hecktoen, Andrews, Campton, Gordon, and others have well nigh settled the question in the affirmative that the streptococcus scarlotinæ is the organism of the disease.

The serum treatment of scarlet fever has not reached that stage of efficiency which has been attained by the antitoxine for diphtheria. But those who have had considerable experience with it are of the opinion that it has distinct merit on its side. In our present state of knowledge it is well to employ a polyvalent serum.

There is no doubt but that the mortality of the disease has been reduced by the serum treatment. In a hospital for children's diseases in Vienna the death rate without the serum was over 14 per cent., but under the serum treatment it fell to 8 per cent. Of 50 cases reported by Welch and Schamberg only three died, or a rate of 6 per cent. From another writer we learn that in cases treated in the ordinary way the death rate was over 14 per cent. Dr. Meredith Young, writing

on this subject in the *Practitioner* (London), states that he has used serum in 75 cases with decided advantage. In his cases secondary angina was not observed in a single instance. Glandular enlargements were reduced from 22.6 per cent. to 2.6 per cent., and no examples of suppuration. In one case the serum appeared to check the spread of gangrenous angina. In 300 cases treated on ordinary lines oëitis with discharge occurred in 20 per cent., while in the cases treated with the antistreptococcic serum, it was met with in only 8 per cent. Scarlital rheumatism appeared in 4 per cent. as against 8 per cent. Rhinitis very seldom appeared and was mild. The serum rash was seen in two cases and was urticarial in character. The acute stage of the disease was reduced both in time and severity. There was only one death in the 75 cases treated with the serum. The patient suffered from broncho-pneumonia and was also infected with diphtheria.

The dose varies from 10 c.cm. to 40 c.cm. In severe cases never less than 20 c.cm. were given, and the dose was repeated twice or three times. In presence of marked sepsis as high as 40 c.cm. were given to quite young children, and repeated if required.

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#### THE VICTORIAN ORDER OF NURSES.

Earl Grey, Governor-General of Canada, presided at the Eleventh Annual Meeting of the Victorian Order of Nurses, which was held in the Council Chamber of the City Hall, Toronto, on 12th February, 1909. His Excellency was introduced by Hon. J. M. Gibson, Lieutenant-Governor, and Mayor Oliver. Earl Grey said it afforded him much pleasure to be present and assist in any way at his command so worthy an order.

Mr. D. R. Wilkie, the honorary treasurer made his report. He stated that the amount brought forward from the previous year was \$248.36, the contributions from patients was \$1,666.55, the grant from the city was \$300, and from subscribers the receipts were \$2,824.40, making a total of \$5,039.31. The disbursements for the year were \$4,793.92, leaving on hand \$245.39.

The Toronto staff of Victorian Nurses number eight. There are many demands for these nurses from outlying places, and it is thought that it may be well to locate some of the nurses in suitable districts. Attention was called to the great interest Lady Aberdeen had taken in the Order, which owed its foundation to her efforts. The amount of work done by the nurses of the Order had very much increased during the year. No less than 371 obstetrical cases had been cared for. The number of free visits amounted to 2,218, or 88 more than double

the number for the previous year. There are many branches scattered throughout the Dominion.

In closing the proceedings his Excellency commended very highly the work of the Order. He thought that the cause for which the Victorian Order was in existence was of such a nature as would surely appeal to the sympathies and aid of all classes. He said that the nurse was one of the great factors in the advance of civilization.

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#### THE ONTARIO MEDICAL COUNCIL.

We believe that this body made decided headway at its special meeting in November last.

The requisite for registration as a student of medicine is that the applicant must have passed the Ontario Departmental Matriculation in Arts with Physics and Chemistry, and one of the languages, French, German or Greek. The percentage on each subject is fixed at 50. This is an advance from the former standard of 40 per cent.

The course on Medical and Surgical Anatomy has been lengthened from 4 to eight months. The term for Therapeutics has been increased from 4 to 6 months. Bacteriology has been made a part of Pathology.

The fifth year may be spent (1) in a hospital as an interne, or (2) six months in this way and six months with a doctor, or (3) six months in a school giving a fifth year's course and six months with a doctor.

The course of a recognized hospital or school for such clinical fifth year's course shall consist of 25 lectures on medicine, 25 on surgery, 25 on obstetrics and gynaecology, 25 on clinical microscopy, one month dispensing, 25 lectures on eye, ear, nose and throat diseases, 10 demonstrations in anæsthetics, and 10 cases of obstetrics.

In future the student must produce a certificate of having passed his chemistry at his matriculation. In the Intermediate Examination only one paper will be set on surgery and midwifery each. In the final examination diseases of children disappears, and obstetrics and gynaecology shall appear on the same examination.

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#### THE MEDICAL PROFESSION AND FREE SERVICE.

The *Maritime Medical News* condemns the custom of imposing upon the medical profession duties for which the law provides no fee. It is quite in order for the Legislatures of the provinces to enact certain regulations regarding reporting cases and the granting of certificates, and even serving on boards of health without fee. This is all wrong. It used to be the custom that doctors had to give evidence at the Police Court in Toronto without a fee.



When a law is passed imposing upon the legal profession a specific duty, it also names a fee for such service. This should be the rule also when the physician is involved. There is no reason why doctors should be called upon to notify the proper officer of the existence of a contagious disease, and receive no remuneration for the performance of such duty in the interests of the public; for this is the reason requiring notification. If a lawyer draws up a legal document for the public he is paid by the public.

When the doctor notifies the public of a danger by the presence of a contagious disease, and the public thereby benefits, that public should pay for said benefit. Altruism can be carried to scapegoatism.

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### BIRTHS, DEATHS AND MARRIAGES IN ONTARIO.

The Registrar's report for the statistical year 1906 is now published. As it gives a review of the vital statistics for the province, it is worthy of some study.

The population is set down as 2,214,116, which is said to be an increase of 5,752 over that of the previous year.

During the year there were registered 51,710 births, 19,848 marriages, and 32,782 deaths. There were 106 male births to every 100 female births. There was one illegitimate birth to each 58 births.

Of the deaths 17,655 were males, 15,021 were females, while the sex in 106 is not given. There were 1,538 still births, and 6,867 died under one year. Between the first and fifth years there were 1,483 deaths. The largest number of deaths occurred in September, with October second.

Typhoid fever caused 891 deaths. Of these 30 per cent. died in places with a public water supply system, and 70 per cent. in places dependent upon wells, springs, etc. There were 40 deaths due to typhoid fever per 100,000 of the population. In the cities it was 37, in towns 95, and in rural districts 38. It will thus be seen that towns suffer most severely from this disease.

Tuberculosis caused 2,911 deaths. This gives a rate of 131 per 100,000 of the entire population. The report urges widespread education on this subject, and that accommodation should be provided in some way as an annex of the county refuges, or homes or hospitals.

Cancer has been steadily on the increase. In 1902 it was the cause of 1,048 deaths. From that date the deaths have steadily risen in number until 1906, when it caused 1,411 deaths. In the counties of Dufferin, Elgin, Haldimand, and Prince Edward it caused more deaths than tuberculosis in all its forms.

## ORIGINAL CONTRIBUTIONS.

## THE CLINIC IN THE CORNFIELDS—TWO YEARS AFTER.

By ERNEST A. HALL, M.D., C.M., Vancouver, B.C.

SOME two years ago I gave the readers of the LANCET a somewhat exhaustive report of the Mayo clinic. At that time the accommodation was one hundred and eighty beds. Now two "hotels" with an accommodation of one hundred and fifty, and an addition to the hospital, yet unfinished, which will accommodate one hundred, mark a development of this work. An additional operating-room (making three) has been added. "The Mayos" now comprise a staff of twenty-five, practically all specialists in some department. As an indication of the thoroughness of the organization, the pathological department alone finds employment for nine men.

A feature that is prominent in this clinic and one that is commented upon frequently, is the perfectness of all the working parts, an accurate adjustment, and proper distribution of the forces. No "itch" in the proceedings, as our English friends would say. No apparatus out of order, instruments misplaced, harsh words nor scolding assistants. During five weeks' attendance I have not heard an improper word, nor a rebuke given in the operating rooms. Kindness and gentleness are here combined with scientific accuracy and dexterity. The whole staff largely partake of these excellent qualities of their chiefs. It is here fully demonstrated that self-control and gentlemanly conduct in the arena where life and death commingle, are compatible with the highest and best in the medical profession. This should be burned into the hat band of those who express their incapacity in abusing assistants and nurses.

The visitor to St. Mary's clinic must indeed be ignorant of his own ignorance or a prodigy of genius, unrecognized by science, who can return after a few weeks sojourn with as exalted an opinion of his own ability as that which he brought with him. The educative influences of Rochester cannot be estimated. Men return to their respective fields of labor with a better equipment, both determined and prepared to do better work than they have been able to do previously.

This is not a place for recent graduates, nor general practitioners, but an advance course for surgical specialists. Many general practitioners express disappointment here. They are better served in the general clinic of some metropolitan hospital, but for those who have made a study of advanced surgery and gynæcology, this is the clinic *par excellence*. What Jos. Price was to the East twenty years ago,

the Mayos are to both East and West, and those of us who have sat under the great teachers of the past, now view with satisfaction and are not ashamed to recognize the greater teachers of the present.

There is not a hamlet in America into which medical literature enters or where medical influence is felt that has not been benefited by the forces which centre in and emanate from Rochester. Whatever the Mayos have touched they have left upon it the imprint of the master hand. They have practically eliminated the danger element in surgery and have lessened the burden of human suffering, and increased the sum of human happiness as few have had the privilege of doing, and with all their genius and unrivalled accomplishments they still remain, Will and Charlie, sincere, humble individuals, genial, communicative, accommodating, tender and dutiful at home and strong in all that makes for their manhood.

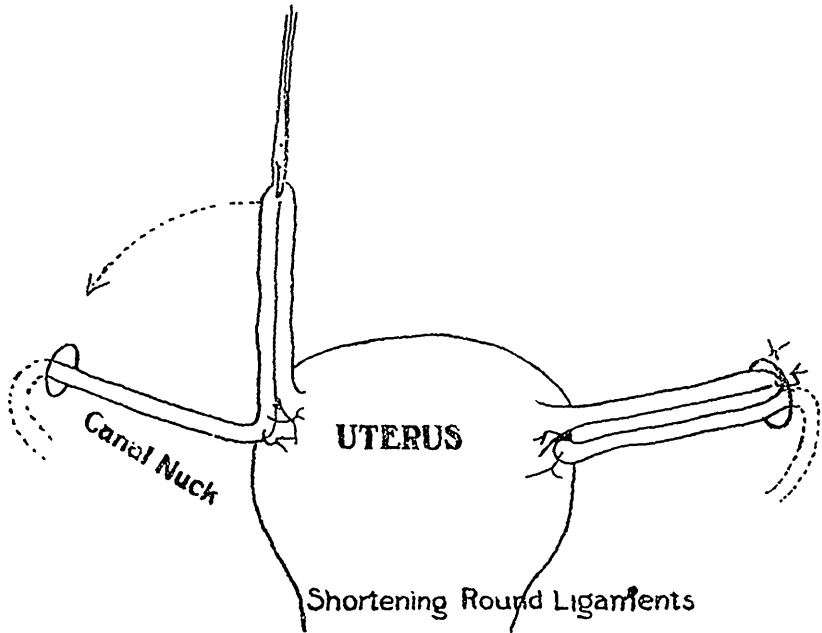
As an indication of the extent of this clinic I will give to-day's list. Chronic appendicitis, iridectomy, cataract, enucleation of goitre, enucleation of papilloma of thyroid, ligature of both superior thyroid arteries for exophthalmic goitre, carcinoma of lips and glands, double inguinal hernia, appendicitis and exploration of left side, appendicitis and exploration of gall bladder, exploration of gall bladder, duodenum and right kidney, subacute appendicitis, exploration of stomach, carcinoma, hemorrhoids, varicocele, spermatocele, epithelioma of lip and glands, appendicitis and cristocele of left cord, curettage, drainage left plural cavity, anal fistula, stitch in tongue, inflamed mole of nose, aspiration and injection of hand, injection of right hip, tonsils and adenoids.

It is impossible for a visitor to see all of these cases, although the operations are timed as much as possible so they will not clash, but with three operating rooms going, the visitor must make a selection of the cases he is most interested in, and may be excused if he finds it impossible to be at more places than one at the same time. However, what he misses at the clinic he may partially make up at the surgeons' club, which meets in the afternoon, at which all of the morning's work is thoroughly discussed, the sessions lasting from 3.30 to 6.

#### NOTE ON RETROVERSION.

All patients presenting at this clinic have a complete physical examination. As a result of these examinations twenty-four per cent. of all women, young and old, have retroversion. Of these but a very few have any symptoms relative thereto, about four per cent., and in these latter only is an operative procedure followed. I give a diagrammatic sketch of the method I have seen done here.

In retroversion without complication, and where the abdomen is not opened for other purposes, the external Alexander is the operation of choice, but where the abdomen has been opened the triple shortening of the round ligaments is done as follows: The uterus having been brought forward, the round ligament is grasped at the junction of the internal and middle third and drawn until the internal part is doubled and brought into contact with the uterus and then two linen stitches are inserted at the junction of the outer and middle third of the round ligament, one penetrating the uterus, and the other including the round ligament and uterus. The loop is now approxi-



Mayo's method of shortening the round ligament.

mated to the canal of Nuck and stitched to the infundibuliform fold, which has been slightly drawn out of the canal by the tension of the round ligament, which when it retracts tends to draw the loop well within the canal. One or two stitches are also placed through the loop of round ligament and the peritoneal folds around the canal.

What is the message of this unique clinic? Has it not a parallel in the industrial organization that has characterized the last two decades. What Rockefeller represents in the business world, the Mayos represent in a higher sense in the professional world. Specialism: in industry has developed synchronously with specialism in medicine. Co-operation and combination, the normal tendency in industry and

commerce, indicates the pathway to a more satisfactory condition in the medical profession. If business has been demonstrated to be more economically conducted under central management, does not St. Mary's clinic show that professional work is not necessarily an exception to that law? What Standard Oil is from the central controlling force outwards, our modern socialistic economists state is but the indication of what similar combinations may become under democratic management, that is governed by the individual units. Why not continue the prospect and say what the central governing powers at St. Mary's have accomplished by associating the best in every special line, and in doing so has achieved the greatest success within the history of medicine, may, in the further evolution of society be accomplished to a lesser extent by the association and co-operation of those specially prepared in different lines, but directed and governed democratically? In other words, is not Rochester a great object lesson in combination? An Oligarchy, I admit—a monument to the executive genius and business ability of the founders—but an indication of the possibilities lying in the future of professional evolution. Why should not a modification of St. Mary's be the ideal in other communities capable of supporting specialties? Would not union here as well as elsewhere mean strength, and co-operation be beneficial? But, alas for human frailties and conceit, every young graduate would want to be the Will and Charlie of the crowd. The pathway to such an ideal is long and thorny, and arrives at the goal only as the stern law of therapeutic determinism decrees it. We may then learn to apply what in the abstract seems preferable, justifiable, economical, and profitable.

#### PUERPERAL ECLAMPSIA.\*

By WM. J. CLARK, M.B., Toronto.

*M*R. Chairman and Gentlemen,—I propose this afternoon to base my remarks on four cases that have occurred in my own practice. These cases when placed alongside of each other present such striking differences that one cannot help but study them for an explanation. Having briefly cited these cases I propose to deal with the subject of puerperal eclampsia from the standpoint of etiology, prophylaxis and treatment.

(1) Mrs. B., aet. 20. Primipara in the fifth month of pregnancy. Was consulted for insomnia. Patient otherwise felt absolutely well. Immediate examination of urine showed solid albumen.

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\* Read at the Toronto Western Hospital Clinical Meeting.

Under treatment urine showed slight improvement. On the fourth day uræmic storm occurred. Violent headache, constant emesis and diarrhœa. This condition lasted for 24 hours. Following day felt well and her usual self. On fifth day following first explosion a second occurred, and so on every fifth day until the fourth week, when miscarriage took place. Patient made a slow but complete recovery. The retina, however, had been permanently damaged.

(2) Mrs. M., aet. 30 Primipara in the third month of pregnancy. Was called in the night on account of a severe pain in stomach. Slow pulse was noticed. Following morning convulsion occurred, which, however, had subsided before my arrival. Pupils contracted, slow pulse and considerable stupor. This stupor increased to a coma and later to a deep coma. Subcutaneous saline was given on three or four occasions without the slightest disturbance to patient. Urine was 1.008 and no albumen. This condition persisted for three days when improvement was noted, which gradually increased and perfect recovery took place, miscarriage taking place later. The subsequent history of this patient is interesting and will be referred to under heading of prophylaxis.

(3) Mrs. McC., aet. 30. Primipara. Saw her in labor at 10 p.m. Child was born at 1 p.m. Perfectly normal delivery. There was no anasarca nor headache nor any of the premonitory signs of eclampsia. Left her feeling well at 2.30 a.m., and at 6 a.m., was asked to give her something for the vomiting which was complained of. I went at once to her on my arrival first convulsion occurred. Catheterized urine showed splr. 10.30  $33\frac{1}{2}$  per cent. albumen. Skin, kidneys and bowels responded quickly and actively to treatment. Convulsions, however, were occurring at frequent intervals, and after each convulsion the coma deepened until 24 hours after when dissolution took place.

(4) Mrs. L., aet. 28. Second child. Was called to see her supposedly on confinement, and found her swollen beyond recognition. Still slightly conscious, pupils dilated, slow pulse. I had her immediately removed to hospital, and as this is the case which Dr. McIlwraith reports in his paper before the Ontario Medical Association of last summer, I append his description of the case as follows: He says at 7 p.m. she was brought to us in a stupid condition, yet capable of answering questions. Her pulse tension was 215 m.m. Her urine contained a large amount of albumen and numerous hyaline casts. She was restless and was given moderate doses of morphine and oxygen inhalations during the night together with calomel and wag. sulph. Next morning her pulse tension was 225 m.m. and 12 ounces of blood was withdrawn and 2 pints of normal saline given hypodermically. Elimination by bowel kept up. Nothing that was done had the slightest

effect upon the disease. She became less conscious. By and by night was on profound coma. Labour pains were going on but os was not dilated. I made wide lateral incisions and delivered the child by uerseon, the whole process taking five minutes. No anæsthetic was required. Babe weighed eight pounds and was dead. The woman lived about seven hours after delivery.

From the above you will have noticed that we have in case No. 1 a condition characterized chiefly by a periodic explosion which lasted for about 24 hours and then enjoyed a period of well being until sufficient of the causative agent had accumulated to precipitate another explosion, which was about 5 days. The urine was highly albuminous with casts throughout. In case No. 2 we have altogether different condition, which was marked by slight convulsion, practically no convulsive twitching, deep coma. Contracted pupil and urine at no time contained albumen, but was always of low sp.g. Case No. 3 showed onset sudden with premonitory signs marked by severe convulsions recurring at shortening intervals and followed by deepened coma and finally death. Urine high s. p. albumen and casts. Finally in case No. 4 there was no convulsions. A gradually deepening coma, followed by death.

The pathological changes which are revealed by post mortem in ecalemptic cases are referred chiefly to the kidney, the liver and brain. The kidney sometimes presents the picture of a true nephritis, in others the condition seems to be the result of a simple anæmia, and is characterized by fatty infiltration of the renal epithelium, particularly of the convoluted tubules. Similar areas of necrosis are found such as occur in the liver. The liver presents ecchymoses which are scattered over its surface and around the portal interspaces. These ecchymosed patches are found breaking down in their centre and sometimes coalescing, forming necrotic islands containing dead liver cells, blood corpuscles, vessels and fibrin.

The brain shows a condition sometimes of hyperæmia with œdœma and minute hæmorrhages, other times an anæmic condition seems to prevail. The other internal organs such as spleen pancreas, lungs are congested and contain similar necrotic patches to that described in liver.

#### ETIOLOGY.

Various theories are advanced as to the causation of eclampsia.

The anatomical changes in eclampsia are such as to leave no room for doubt that there is a severe intoxication with poison or poisons that have a markedly toxic effect upon all the organs of the body, thus differing from the toxic materials at work in uræmia which

seem to affect chiefly the nervous system. The association of this condition with pregnancy and particularly the rapid improvement that follows the removal of the contents of the uterus almost compels us to admit that the causative agent is produced by the fœtus or the placenta. This does not, however, take into consideration those cases that come on after delivery when both fœtus and placenta have been removed, and which in my experience prove the most fatal. With the idea that the causative agent was located in the placenta, investigations have been carried on by introducing the extracts of normal placenta as well as eclamptic placenta into the rabbit. Results here shown have proved that whilst there is marked degree of toxicity in both still the normal does not differ materially from the eclamptic in its effects.

Brown Sequard has attempted to explain eclampsia on the theory of the internal secretion for the kidney. In view of the mystery surrounding the enlargement of the thyroid during pregnancy and menstruation the suggestion has been made that the enlargement is for the purpose of neutralizing the effects of the excessive amounts of toxic material in the maternal blood. This is in effect the claim put forward for the thyroid gland by Sajous. Laenge states also that absence of normal thyroid enlargement is usual in eclampsia and further that eclampsia is very frequent in myxœdœmatous women. Thus we have the theory advanced that eclampsia is due to inefficient action of the thyroid gland.

The autointoxication theory of Bonchard attributes the toxæmia as due to failure of the liver as well as kidney function. Bouchard isolates from normal urine the following toxic substances:

1. A diuretic substance—which is urea.
2. A Vaso Dilator substance.
3. A convulsive substance—which is Polash.
4. A convulsive substance.
5. A sialogenous substance.
6. A narcotic substance.
7. A substance that reduces heat.

After taking into consideration all the theories that have been advanced as regards causation of this condition and remembering that they are theories and not facts, and until something better offers, it seems to me that the reasonable view of the cause of eclampsia is that it is initiated by the excessive products of metabolism thrown into the maternal blood both from the fœtus and her own overactive tissues. These cause injury to the renal and epithelium, leading to a further retention, or injure the liver so that the normal metabolic



processes cannot be carried on. Thus we have a vicious cycle established which leads to an overwhelming of the maternal system with toxic derivatives from both her own and the foetal tissues. That this toxæmia is the result of not one substance but of many and that these are present in varying amounts not only in different cases but in the same case at different times.

Of the conditions that predispose to eclampsia, we may state: 1st. Acute or chronic diseases of the kidney. 2nd. Long retention of excretions. 3rd. A nervous temperament. 4th. Obstructed delivery. 5th. Multiple pregnancy.

#### PROPHYLAXIS.

There is no time during the whole span of a woman's life when she should have the attention and care of the watchful physician (who is alive to the possibilities and dangers associated with the pregnant condition) than during the period of gestation. When one considers such conditions as the pernicious vomiting of pregnancy, acute yellow atrophy of the liver and puerperal eclampsia towards which a great deal can be done in the way of prevention and at least saving the life of the mother, and that other equally serious condition ectopic gestation, it is our duty to educate our patients to the necessity of placing themselves early under their physician's care. When a patient does consult me early, my general directions to her I can place under the following headings:

1st. Diet. The injunction given a patient of mine by her mother, herself the mother of a large family, seems to express my views in this respect. She said: "Don't feed up a big fat baby," and that is the point I would make as to diet. It is not a prescribed or exclusive diet but rather a mixed diet, observing the precaution of not giving unbridled rein to their usually ravenous appetite. 2. Pay strict attention to their excretory functions. The bowels must be moved once and preferably twice daily. In order to bring about this result I advise some saline laxative to be taken each morning on rising, or if there is much nausea, a little later on in the forenoon. The necessity for the drinking freely of water is strongly urged upon the patient. Have them drink water before meals, between meals and after meals. Have them drink water on going to bed and again on rising, and then they will have not taken too much. 3. Establish regular habits, both as regards eating, sleeping and exercise. The woman who will seldom go out in the open air and have her walk but who will remain in the house and either sit in her chair or lie in bed is heaping up for herself a store of trouble. Plenty of good physical exercise within the bounds of reason, I am sure is a contributing factor towards an easy

accouchement. 4. The urine, as a rule, from the fourth or fifth month of pregnancy, I have a specimen of the 24 hours' urine sent me once a month. The appearance of any unusually severe headache, pain in the stomach, insomnia, swelling of face, hands or feet is sufficient warranty for an examination of the urine no matter if it had been examined even the day previous.

When the examination of the urine shows the presence of albumen and a few casts it does not necessarily mean that your patient will have eclampsia. We have all seen cases who would pass through their pregnancy and confinement practically without any untoward symptom, notwithstanding the fact that more or less amount of albumen was present at every examination. It is undoubtedly cause for alarm and treatment. You will have noticed that in Case 2, just cited, that this patient never had at any time albumen in the urine, and it was from this case I learned to lay more stress upon the Sp. G. than upon the presence or absence of albumen. This case became pregnant again and I watched her very carefully upon the lines here indicated and had a bi-weekly examination of the urine. On three occasions I found a 24-hour specimen of the urine show a Sp. G. of flat 1,000. My treatment of her at this time was as follows: 1. Absolute withdrawal of all food for 48 hours and the drinking of copious draughts of water. 2. Administration of five grains of calomel; of 30 grain of jalap co. to produce free purgation. The third day milk was allowed. On the evening of the second day her urine showed a Sp. G. of 1,010, and that evening after taking nothing but water for two days, she told me that she felt better and stronger than she had in the previous week. This was found on two other occasions and the same treatment was adopted with the result that she was delivered of a fine healthy baby boy at full term. This, then, would be the treatment of all cases where the urine or symptoms indicates the possibility of an eclamptic seizure. 1st. Abstention from all food, free drinking of water or milk diet as the case demands. 2nd. Free purgation.

#### TREATMENT IN ECLAMPTIC SEIZURE.

Bearing in mind that the conditions is a toxæmia our first and paramount duty is produce free elimination, using all three channels of excretion. 1st. The bowels. If patient can swallow give 5 or 10 grait. of calomel and follow with saturated solution of mag. sulph. Quicker results may be obtained from 2 or 3 minims of croton oil made into a bolus with butter and placed on back of tongue. Elaterium also may be used, but I have no experience with it. If patient cannot swallow, then use enema of sat. sol. mag. sulph. and glycerine, equal parts. 2nd.

The skin. The eliminative function of the skin is encouraged by the use of hot packs, hot blankets and baths.

3rd. The kidneys. No better or efficient diuretic can be found than the use of sodii acetate (not potass. acetate) in the same proportion as and with the sodii chloridi in normal saline. Two or three pints of this solution can be introduced in the submammary region. This solution was used in case No. 2, and I can assure you it produced the most happy results. In about six hours there was a fairly free flow of urine of much higher Sp. G.

For the control of the convulsion the principal drugs used are vascular depressants and narcotics. The inhalation of *chloroform* is perhaps the quickest way of controlling the attack. It has also the advantage that a vaginal examination can be made, the catheter passed, or if necessary forceps be used, whilst under its influence. Moreover, it does not inhibit any of the eliminative functions as does *morphia*, which is so often used. After elimination has been active for some time then *morphia*, I believe, has its advantages over *chloroform*, in that it seems to control the convulsions perfectly and its action extends over a longer period of time. It is strongly recommended by Jellet, whilst Jardine, of Glasgow, condemns its use, mainly for the reasons before stated.

Pilocarpine is used by some, but personally I believe the tendency towards pulmonary œdœma is sufficiently great without increasing it.

Nitroglycerine has been used by some, but I have no experience with it in this connection.

Of the vascular depressants, *veratrum viride* is to me the drug "par excellence." I have used it and been particularly pleased with the results. I endeavor to obtain the tincture of the green root if possible, and of this I used 15 minims hypodermically every 2 or 3 hours till effect is produced.

Of the complications likely to be met with pulmonary œdœma is the most pressing and I believe should be met with an immediate venesection.

#### OPERATIVE TREATMENT.

In case No. 1, which I have cited, I believe it was a crime to allow that patient to go on for three weeks, causing permanent damage to the retina without inducing labor. My opinion was the same then as it is now in the light of a larger experience, but the balance of consulting opinion was against me and I deemed it prudent in this case not to act. The use of drugs is right at first, but it is simply palliative, and when a sufficient trial is given the palliative treatment

and by sufficient trial I believe every case should be a law unto itself. To illustrate let me say that in case No. 1 I think I was justified in waiting up till the time of the second storm, whereas in case No. 4 I think we would have been amply justified in emptying that uterus at once. If the patient is in labor and progressing favorably, controlling the attack with chloroform may be all that is required. If the os is dilated and the head is not coming down, put your patient well under the influence of the  $\text{CHCl}_3$ , apply forceps and deliver. If the os is not dilated we may dilate by the manual method, and when the upper portion of the cervix is effaced, that is drawn up into the body of the uterus and with it the circular artery, we may make two incisions, anterior and posterior, in the cervix and deliver with comparatively little danger. When any operative procedure is adopted we must have the patient anæsthetized to the surgical extent in order to prevent shock, which is the chief argument against active interference.

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#### A MODIFIED MODE OF PERCUSSION.

By R. D. RUDOLF, M.D. (Edin.), M.R.C.P. (Lond.), Professor of Therapeutics in the University of Toronto.

**P**ERCUSSION of the surface of the body, in order to elicit sounds which may help in the recognition of altered physical conditions beneath, has been practiced since the earliest times. In the diagnosis of abdominal diseases it was known and practiced in the time of Hippocrates, and in the three busy centuries after Hippocrates the Greeks invented the term *tympanites*, which was in common use in the time of Celsus.

It was not, however, until the middle of the eighteenth century that the method of percussion was applied to the diagnosis of thoracic conditions. Then, in 1761, Auenbrugger published a book in which he described the method that he had elaborated for this purpose. In it he said that he was prepared to suffer envy, hatred and calumny, but, as Dr. Samuel Gee says, he endured instead what was even harder to bear, namely simple neglect. For many years his method of percussion, as applied to the chest, was almost completely ignored, but in 1808 Corvisart published a translation of Auenbrugger's work with annotations, and since then the method has been generally adopted, and now, of course, is one of our most certain ways of recognizing diseased thoracic conditions.

Auenbrugger practiced *immediate* percussion, and described his method as follows: "Let the chest be percussed by the tips of the fingers drawn together side by side, and stretched out straight. Let

the chest be covered by a vesture, or the hand by a glove (not of smooth leather), for if the naked chest is struck by the naked hand a smack ensues which hides the character of the sound we wish to produce."

Piorry, early in the last century introduced *mediate* percussion, using a pleximeter, and since then many forms of pleximeters and plessors have been introduced, but most physicians probably prefer to percuss on and with their fingers as in this way alone can the sense of resistance be appreciated.

In recent times a method of combined percussion and auscultation has been advocated, in which the end of a binaural stethoscope is placed upon the surface of the body and then the surface is percussed at a little distance, and when the percussion reaches the region of the hollow organ, say the stomach, over which the stethoscope is placed, the note becomes suddenly much louder, and thus the margins of the organ can be mapped out.

In the method which I would describe here, both percussion and auscultation are employed simultaneously, but the bell of the stethoscope is not placed upon the surface at all, but is held at a little distance from the spot where percussion is being practiced, with the result that any sound elicited there is easily carried to the ears.

In practicing the method the examiner leans over the patient, with a binaural stethoscope adjusted and hanging vertically. He then percusses very lightly as near to the bell of the stethoscope as possible, and will hear any sound produced very much more clearly than if he percussed in the same way and had to hear the sounds at a distance of two or more feet, as is the case when percussion is ordinarily practiced. It is as if one's ear, or rather two ears were within a couple of inches of where the sound is being produced, rather than at many times that distance.

In order to properly practice the method the room must be very quiet, as extraneous sounds are carried to the ears more easily than when the end of the stethoscope is against the surface of the body, and thus, so to speak, there is a closed channel between the surface and the ears.

We have been using the method a good deal during the last six months at the General Hospital and Sick Children's Hospital, and it often seems of value, especially in percussing out such thin organs as the spleen, and the liver at its lower edge, where percussion strong enough to be appreciated by the ordinary way reaches resonant organs beneath. By the use of this method one maps out the heart, both as regards relative and absolute dulness, with greater accuracy than before.

By increasing the power of the ears to appreciate the sounds produced by percussion, the method here advocated seems to do very much for percussion what the introduction of the binaural stethoscope did for auscultation.

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### EAR COMPLICATIONS IN INFECTIOUS DISEASES.\*

By JOHN HUNTER, M.B., Toronto.

**W**ITHIN recent years, the question of ear complications, in the course of infectious diseases, has received more attention than formerly from general practitioners, as well as from specialists. Extended research work has added much knowledge to the etiology of these complications and thus given to them greater scientific interest. The evolution of the science of bacteriology has also been an important factor in helping to solve many of the problems raised by these complications. The laity are also deeply interested, for the enormous expansion in the industrial arts, and in transportation has opened up a wide range of vocations, in which unimpaired hearing is a very important factor, not only in getting employment, but also in being able to hold a position.

Until within the last decade or two, so little was known about the etiology of these complications that the general practitioner scarcely assumed any responsibility in regard to them. If a persistent discharge from the ear followed an attack of scarlatina, it was not considered to be a matter of much importance. If the parent wished to have anything done, he was advised to take the child to a specialist. In the fuller knowledge of to-day the physician holds himself—or he ought to be held—directly responsible for the use of efficient prophylactic measures, and for proper treatment in these cases. The future prospects of the little patient may be very seriously marred, if its life be not imperiled, by any neglect of these ear complications on the part of the medical attendant. It is the purport of this paper to introduce a discussion on the etiology, pathology, symptoms, and treatment of some of the ear complications in infectious diseases.

#### BACTERIOLOGY.

The presence of micro-organisms is one of the most important of the etiologic factors, and a brief reference to some of these will throw considerable light on many ear diseases. Pneumococci, streptococci, staphylococci, and the Klebs-Löffler bacillus, are those most frequently found. It seems to be an established fact, that when only one variety of germ is present, the disease set up by it, although quite acute for a time,

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\* Read at the Post-Graduate Clinic, Toronto Western Hospital.

subsides much more quickly than when different species produce a mixed infection. The streptococci are the most virulent, and they are especially destructive of the osseous tissues. The staphylococci are omnipresent in all the chronic discharges, and are doubtless a potent factor in causing the recrudescences so frequent in these cases, and may prolong the period of infection for months.

#### ANATOMY AND FUNCTIONS.

The etiology of many of these aural complications is practically unintelligible without a clear comprehension of the anatomic structures, and functions involved. The nares, pharynx, eustachian tubes, tympanic cavity, and mastoid antrum are intimately associated anatomically, as well as in their functions. Morbid conditions that affect the tissues, blood-vessels, lymphatic glands, or secretions in any part of the upper portion of the respiratory tract, menace the middle auditory tract, by way of the eustachian tubes, which are the ventilating shafts of the tympanic cavities. We can readily understand then, why deflections of the septum, spurs, hypertrophy, or edema of the turbinals, acute or chronic, catarrhal, or suppurative processes in the nares, or accessory sinuses, enlarged tonsils, or adenoids, become etiologic factors in the aural complications in infectious diseases. The shortness, the more horizontal position, and the greater patulency of the eustachian tubes in childhood, make the middle auditory tracts far more vulnerable to infection during this period of life. In the adult the tubes are longer, more oblique, and less patulous. The eustachian tubes open into the naso-pharynx, and as their orifices are opened in the acts of swallowing, coughing, sneezing, &c., infectious material is readily forced into them, especially when the posterior nares are obstructed by adenoids. The removal of adenoids in early childhood materially reduces the liability to ear complications.

#### INFECTIOUS DISEASES.

Few etiologic factors are so potent in producing ear complications, as the morbid conditions which are present in the upper portion of the respiratory tract, during an attack of one of the exanthematous diseases. Scarletina and measles are the ones most frequently associated with acute catarrhal and suppurative otitis, and with mastoiditis. These occur most frequently during early life, when the position, and patulency of the eustachian tubes make them most vulnerable to infection. La grippe, pneumonia, diphtheria and cerebro-spinal meningitis of the acute, and tuberculosis and syphilis of the more chronic

infectious diseases, may have ear complications from infection conveyed by the eustachian tubes, or from systemic poisoning. In cerebro-spinal meningitis the infection may gain access through the internal auditory canal, to the nerve structures of the inner ear, and thus produce deaf-mutism.

#### PATHOLOGY.

Two or three views are held in regard to the exciting causes of the pathologic conditions found in ear complications. One view assigns the chief part to the action of the specific germs of the disease, while another assumes that the debility produced by the systemic conditions so reduces the resisting powers of the body that any pathologic germs may set up morbid processes in the middle ear tract. Practically all infectious diseases render the naso-pharyngeal secretions more or less septic, and these may be forced into the Eustachian tubes, cavum, tympanum, and mastoid antrum. The pathologic changes that may follow will depend upon the virulence of the germs, or toxins present. Increased secretion, or hyperemia may occur, or more or less destruction of the mucous membrane, and of the osseous structures. Septic material may pass from the auditory tract through fissures or foramina, into the cranial cavity and produce meningitis, or abscesses.

#### SYMPTOMS.

The systemic disturbances produced by infectious diseases, the childhood of the patient, and the insidious onset of these complications render the diagnosis of them about the most difficult problems that confront the physician. Cardiac, respiratory, or renal complications may so overshadow, or distract attention from the ear affection that the latter may not be detected until quite extensive, or even fatal injury has been done. The difficulties in the way of diagnosis should make the physician all the more watchful. When it is possible a very accurate temperature chart should be kept. If after the seventh or eighth day in an acute infectious disease, *e. g.*, scarlatina, the temperature remains high, or fluctuates, the condition of the ears should receive careful attention. The canal should be cleansed by antiseptic solutions, and the drum examined. When the ear is involved the child becomes more restless and irritable. He tosses his head, or burrows it in the pillow. There may be piercing cries at intervals, gastric disturbance, or convulsive movements, when the meninges, or brain become involved. The first evidence, however, may be a purulent discharge from the external meatus, or a post-auricular abscess. Pus may pass from the tip of the mastoid, forward, downward, or backward, in the cellular tissue of the neck.



## TREATMENT.

Some humorist has said that "if we would train up a child properly we must begin at the grandparents." This tit-bit is not only humorous, but it contains some very profound philosophy. Quite a large percentage of these little "tots," who, with or without ear complications, survive the fierce onslaughts of the various infectious diseases, will stand in the relationship of grandparents to a future generation. Now, if we, as physicians, seek to impress upon these children something of the great value of sunshine, pure air, wholesome food, and good habits, we will assist in passing on to the future its best asset, viz., a healthy race of people. In no other class of diseases can prophylactic measures be used more effectively than in the prevention of these infectious diseases, and in mitigating their virulence. State and civic authorities have their place in establishing, and in preserving healthy environments, and in securing proper quarantine regulations. When the physician is called in to an infectious case it would be culpable negligence on his part not to secure the brightest, lightest and best ventilated room possible, even though the patient's eyes might require to be shaded, as is often necessary in measles. Carpets, upholstered furniture, in brief, everything that can collect or hold dust, should be removed and the room made clean, and kept clean by the use of cloths moistened in a bichloride solution. Sheets sprinkled with a solution of carbolic acid, and hung up outside the door, or in the room, are practically useless, and may be somewhat dangerous as a source of carbolic acid poisoning. As we have already seen that the "mixed infections" are apt to be more virulent, the most scrupulous attention should be paid to the bedding. Anything soiled by vomiting, or by fecal evacuations, should be promptly removed, and placed in an antiseptic solution. Clean pieces of old linen, cheesecloth, &c., should be used to receive all nasal, and throat discharges, and these burned. Special care must be taken to use sterilized milk and water—clean food, and clean dishes, to prevent secondary infection. The nares and naso-pharynx must be kept free, so as to have no obstruction to the exit of any secretions carried into these spaces by the acts of vomiting, coughing, or sneezing. In young children the head can be turned to one side over a basin, and a syringe with a rubber tip inserted in the upper nostril, and a bland, warm alkaline solution cautiously injected. Very slight force should be used until the return current flows freely from the lower nostril, lest infectious matter be forced into the eustachian tubes. After a thorough cleansing, a few drops of alboline may be injected into both nostrils. The prevention of ear complications is largely a matter of keeping the respiratory tracts free. In

older children the post-nasal syringe, sprays, and gargles may be used. The importance of keeping the bowels, kidneys, and skin acting freely to eliminate the systemic poisons, need not be dwelt upon. In regard to the ear, it must be remembered that in early childhood the direction of the external canal is downward and inward, and in order to straighten it make gentle traction downward on auricle. The drum is placed almost horizontally in infancy, and lies in pretty close contact with the posterior wall. The canal is generally filled with cerumen. The three layers composing the drum are relatively thicker in infancy, hence perforation takes place with more difficulty and is therefore less frequent in this period than in later childhood. The auditory canals should be kept aseptic and lightly packed with sterile gauze. No syringing should be done after a perforation has taken place, lest infectious material be forced into other channels. The canal is to be kept clean with moist swabs, and dusted lightly with boric acid. A hot water bag placed under a thin pillow gives some relief. In threatened mastoid involvement, the early and constant application of an ice bag is very serviceable. Should post-aural abscesses appear they should be incised promptly lest the pus burrow into the cellular tissues of the neck. When a satisfactory examination of the drum can be made, and bulging detected, a free incision under surgical asepsis should be performed. When the suppurative processes are virulent, destroying the ossides, invading the mastoid, penetrating the cranial cavity, radical surgical measures, which need not be described here, become imperative.

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#### PURIN TOXÆMIA AND ITS TREATMENT.\*

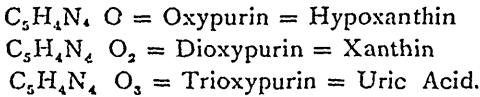
By JOHN STENHOUSE, M.A., B.Sc., Edin., M.B., Tor.

**F**EW subjects in medicine have been so long or so well studied as gout. Since Hippocrates, the Father of Medicine, described it (350 B. C.) and Lucian satirized it, and since the days of Sydenham (1624-89) who was tortured by it and took as his sole consolation that more wise men than fools suffered from it, down to our own times, when Garrod (1848) began its more scientific investigation, there has been no lack of literature on the subject. When, however, we observe the history of great general diseases we find that as they grow old in time and increase in extent they tend by that very process to become diluted and thus to lose their sharply distinctive character. And so, in this country at least, it seems to me that gout is now part of the larger question of goutiness and to require greater discrimination in its diagnosis and treatment.

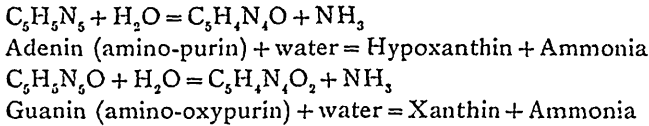
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\* Lecture given at Toronto Orthopedic Hospital Clinical Meeting, Nov. 21st, 1908.

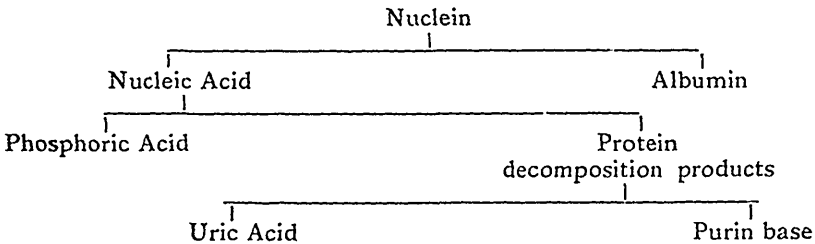
The study of goutiness has been considerably cleared since Fischer introduced his idea of the Purin Nucleus (C<sub>5</sub> N<sub>3</sub>) in which he showed the chemical relationship of the purin group. Starting with the purin nucleus he demonstrated that by successive oxidations, differing only by one atom of oxygen we get:—



The leucomaïns adenin and guanin practically belong to the same group and break up into purins and ammonia, as may be seen in the following equations:—



The goutiness of yesterday is thus the purinæmia of to-day with its host of clinical manifestations and it may safely be said that no organ or tissue of the body is immune to its attack. Purins are derivable from the protoplasm of the cells, but more particularly from their nuclei; and their complexity may be seen from the following diagram:



The formation of uric acid and of uric acid concretions from the nuclein of cells is obvious from the above table. Even the exhibition of phosphoric acid plays its part in such formation. This action of nucleins in forming uric acid received an unintentional demonstration in the case of a patient to whom protonuclein was given.

Miss O. came to see me in regard to a tumor of the breast, for the removal of which she was then awaiting operation. The other breast had been excised for a similar condition—fibro-adenoma. Her physician had become ill; she was unable to enter the hospital and merely came to me for relief of the pain. I prescribed a local application and as the nucleins were then being introduced, I also ordered tablets of protonuclein on the assumption that the leucocytosis produced

might, at least, relieve the internal congestion. To my surprise and pleasure and to her relief, the tumors disappeared but she then developed uric acid calculi in the left kidney and for months suffered with exceedingly severe attacks of renal colic, passing small but very sharp uric acid concretions. These became so bad that the kidney was explored for stone but without any satisfactory result.

The purins are divided into endogenous, those arising from the body tissues as an end result of metabolism, and exogenous, derived from the nucleins of the food, both animal and vegetable. On the average seven to ten grains of uric acid are excreted daily, one and a half to three of which are endogenous purins. Thus on a diet of sweetbread, which is very rich in purin, three hundred grains of total nitrogen yielded thirty grains of uric acid; whereas a purin-free diet containing the same amount of nitrogen yielded only five and a half grains of uric acid.

Uric acid never exists as such in the blood, only in some form of urate. Now there are three forms of urate:—

1st. Neutral sodium urate,  $\text{Na}_2\text{C}_5\text{H}_2\text{N}_4\text{O}_3$ , a laboratory product never found in the blood;

2nd. Sodium Quadriurate,  $\text{NaH C}_5\text{H}_2\text{N}_4\text{O}_3\text{C}_3\text{H}_4\text{N}_4\text{O}_3$ , physiological sodium urate, normally circulating in the blood;

3rd. Sodium Biurate,  $\text{NaH C}_5\text{H}_2\text{N}_4\text{O}_3$ , the pathological form which is insoluble in the blood. It is formed from the quadriurate and being deposited in the tissues is always associated with the gouty attack, but whether as cause or only concomitant is yet a much disputed point.

Clinical Forms: These are so many and so varied that I can only allude to a few of the more important.

1st. Epidermal Changes. All of the epidermal structures may be attacked. The skin itself is frequently affected, the most common forms being eczema and psoriasis. Thus, in one patient, indulgence in a little too much tea and coffee brings out a vesicular or even sanious rash on the elbows and knees. The nutrition of the hair is interfered with (by vaso-constriction and it turns early grey, very frequently in patches corresponding to the sites of gouty neuralgia. The teeth are of typical form and are usually strong and chisel-shaped, but frequently show pyorrhoea. The nails being epidermal structures become ridged or fluted and brittle, thus indicating the hairs from which they are originally formed. Together these form a very striking picture, and often write a patient's history without requiring any questions for its further elucidation.

2nd. Fibrous Tissue Lesions. The fibrous tissues are subject to various inflammations, the term '*fibrositis*' probably including them all.

The most obvious is the one seen in the lobe of the ear, which becomes greatly enlarged and frequently quite red. Of the joints, the gouty toe is the classical form, but it is little seen in this country. A more common form is found in the irritation of intermuscular septa and of tendon sheaths which give rise to muscular rheumatism, lumbago and stiff neck. Uric acid deposits have also been found in the meninges, where they have probably given rise to headache and neuralgia. The heart and vessels suffer severely, sclerotic changes being induced, while the increase in pulse tension is almost too well known to require mention. The effect of the heightened tension with lessened calibre is also well seen at the distal points of the circulation, such patients usually having cold hands and feet. The same may be observed in the tip of the ear, and it is more than likely that the gouty toe and the tophi of the ears and fingers are determined by the tendency of crystals to deposit at the lowered temperature of such distant and vaso-constricted areas.

3rd. Visceral Changes. This subject is too large and too interesting to discuss in so short a time. Much of the indigestion and a large share of the biliousness of the human family belongs to this class, as are those changes in the renal epithelium which end in parenchymatous nephritis. Along with these conditions and belonging to the same class there goes a mental habit characterized on the one hand by great depression and on the other by excessive irritability. The fits of rage of the gouty aristocrat nursing his well swaddled toe are too historic to require description.

It might be well here to call attention to the relation of these conditions to the paroxysmal neuroses, migraine and epilepsy on the one hand and Raynaud phenomena on the other. Thus, migraine is frequently found in undoubtedly gouty subjects, while in subjects as undoubtedly gouty the spastic condition of the blood vessels is suggestive of Raynaud's disease.

If I were asked to mention the two main characteristics of purin toxæmia in addition to its obvious epidermal ones, I think that probably *periodicity* would be one and *retrocedence* the other. Gouty headaches frequently come on at regularly recurring periods; at first, only once a month, then once a fortnight, then weekly, finally, they may appear at the same hour each day. Retrocedence is that peculiarity of the disease in which one clinical form is abruptly changed for another, the first completely disappearing. Retrocedence is to be distinguished from metastasis, a property of malignant tumors. These migrate to other organs but merely reproduce the original tumor which continues its ravages at its original site. Thus Mrs. F., who for years was a martyr to asthma one day called me up to say that her asthma had entirely gone but that she could scarcely move on account of

muscular rheumatism. After some days the muscular rheumatism as suddenly disappeared and was replaced by her old foe. A little niece of my own, Miss H. H., suffered intensely with iritis. The pain of the iritis subsided all at once, but the right thigh immediately swelled up and became so excessively tender that she cried with the slightest movement. This in turn disappeared with the development of iritis in the other eye. Her second attack, however, was not quite so severe, as constitutional treatment was then well under way.

Time is too short to give an account of a large number of cases which might be quoted along the lines above indicated and only a few of the more curious will be mentioned.

In regard to headaches, Miss S. had suffered severely for ten months before I saw her in September, 1900. She had daily headache, beginning at the same time of day, and the correction of refraction and various other remedies had been tried without avail. She had previously suffered from headaches though at longer intervals but the attacks recurred regularly. She was completely cured by purin-free diet.

Miss T., a trained nurse, with all the outward and visible signs of purin toxæmia came to see me in regard to an inveterate cough. Beyond a few rales, nothing was obvious in the chest, but with the regulation of her habits, the free ingestion of water and the exhibition of a little citrate of potash she obtained complete though somewhat tardy relief.

Intercostal neuralgia is frequently, though not by any means always, of this type. One patient, a young man of twenty-one, a watchmaker of sedentary habits, suffered very intensely with intercostal neuralgia of the left side. He was also very asthmatic. His doctor had told him he was to eat as much meat as possible; but the more meat he ate the worse his neuralgia grew. The obvious inference was to stop his meat, and with it, of course, his purin intake. The result was that he not only got rid of his neuralgia, but he practically cured his asthma. He lived an abstemious life and kept fairly well, but on Sundays, when the family were together, he was occasionally tempted to indulge in meat, with the result that he spent that night sitting up in bed struggling with his old enemy, asthma.

The relation of purin to calculous troubles must not be forgotten. At present I have a patient of this type, a lady of sixty-two, from whom I removed six gall stones, four of these being in the common duct; and she is now awaiting another operation for stone in the kidney.

A somewhat rare condition is seen in those cases where a uratic deposit takes place in the pelvis of the kidney during the night, while the patient is in the recumbent position, but is washed away when the erect position is resumed in the morning. This is characterized by early morning renal pain, relieved by the early action of the kidneys.

I have only seen two such cases, both of which were relieved without medication, but by the free drinking of water with slight modification of the diet.

In this connection it is also important to remember that children suffer in a similar way on account of the active metabolism attending their rapid growth. There is a large amount of uric acid excreted, frequently in the form of large cayenne pepper-like crystals, easily visible to the naked eye on the top of the cloud of mucus which settles in the urine. This condition is frequently mistaken for stomach-ache and indigestion and is erroneously treated as such. Careful examination will lead to more accurate diagnosis and treatment.

It might be thought that a vegetable diet would be the cure for such conditions. This, however, is not so, as a relatively large amount of purin is found in peas, beans, etc. Yet it must in fairness be pointed out that the vegetable salts are harmless diuretics compared with tension-raising meats and meat extracts having similar properties.

In regard to treatment, not a great deal is to be expected from drugs, but constipation must be guarded against and the exhibition of citrate of potash with a little arsenic and nux vomica is nearly always helpful. Potassium iodide may also be used in the more chronic cases, but it is not helpful to digestion. The phosphates and glycerophosphates are contra-indicated for reasons given above.

Turkish baths are frequently of great value but must be used with discretion. Moderate diet and even forbidden articles may be indulged in provided exercise be taken. It is told of a hunting squire of gouty ancestry and liberal habits who kept free from gout by the abundant exercise he took. A fractured thigh received in the hunting field kept him in bed, and a very slight indulgence brought on an acute attack of gout. The inference is obvious.

In my own practice I am in the habit of giving patients a diet list, divided into strict,\* moderate and forbidden foods; the strict for use in all acute and sub-acute cases; the moderate, for ordinary use; and the forbidden, which includes those foods having a large purin content, such as steak, liver, kidney, sweetbread and mushrooms, with tea, coffee, cocoa and alcohol. Plenty of water should be taken, apart from meals, and a little salt added to it is of distinct advantage. You may have heard that the sailors who used to go on long voyages in sailing ships, and whose staple article of diet was salt junk, escaped gout while the officers who were better fed were subject to it. Gout is also unknown in the Fen country of England where the water is brackish. It will be clear therefore from what I have said that the way of safety lies in living the 'Simple Life.'

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\* Milk and eggs; bread; potatoes, rice, tapioca and sago; celery, cauliflower, cabbage (preferably as salad), water cress, onions, lettuce, Brussels sprouts; prunes, blueberries, bananas.

## AN INTERESTING CASE SIMULATING ASTHMA.

By H. A. STEVENSON, M.D., London.

THE case I wish to report is rare because of the unsuspected cause of the trouble, and interesting because the symptoms were so similar to those of asthma.

The patient was a female of about sixty, and quite thin. She had been for a very long time troubled with symptoms which were supposed to be those of asthma. Sometimes she was perfectly well and at other times had one of these asthmatic attacks. For these she had been treated by many physicians.

One morning she was found dead in bed, and an autopsy was made about 36 hours after death. The body was not very well nourished, neck thin and wrinkled. The lungs were on anterior aspect extremely engorged with dark blood. The bronchi contained a small amount of mucus. No hepatization, the lungs floated. The heart was much enlarged. The muscles of left side were very much thickened. The thyroid gland presented the right lobe normal and in place. The isthmus was not enlarged, but much elongated and extended down into the thorax on the left side, and attached to it was the left lobe which had also slipped down behind the first rib. The left lobe was about the size of an orange, about  $3\frac{1}{2}$  inches in diameter. It was very firmly bound with the fascia of the neck, so much so that it was with difficulty removed. This lobe, pressing on the great vessels of the neck, would give rise to her symptoms and, perhaps, her recurrent attacks of asthma would be explained by what has been frequently observed, namely, goiters undergoing from time to time considerable change in their size, now enlarging and now becoming smaller. On section it contained colloid looking material and an old hemorrhage of fair size. There was no effect of pressure on the trachea.

Probably an x-ray picture might have cleared up the difficulty.

Another very interesting post mortem is worth recording. It shows to a certain extent what reliance may be placed on theory as to what the results would be if the skull received such and such an impact or blow. This man was walking along the railway track and was struck by the engine from behind on the left side and knocked off the track, down an embankment about twenty feet high. He fell on to solid ground. The only cut that he had on his head was one about one inch long over the tuber frontale on the right side. There was no other mark on his head. On removing the scalp it was found that the skull had been cracked into thirteen separate pieces, the greatest number of pieces being between the right pars mastoidea and the foramen occipitale magnum. One fracture extended from the meatus acusticus externus on one side to the other over the dome of the skull. Several fractures went through the base.



## CURRENT MEDICAL LITERATURE

## MEDICINE.

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

## FIBROLYSIN IN THE TREATMENT OF CONTRACTED SCARS.

In 1892 Hebra introduced a substance which he called thiosinamine for the treatment of lupus. This substance is chemically allyl-sulpho-urea. It was found that it exercised a peculiar action on scar tissue in causing it to swell, stretch, and become soft. It soon became evident that the injection of such a drug would be of use in the treatment of contracted scars. Cognat introduced a combination of thiosinamine and ethyl iodide under the name of thiodine. This preparation possessed disadvantages in having a disagreeable smell and in being little stable. The objections raised against thiosinamine were that it is but little soluble in water; that injections are painful when it is dissolved in alcohol; and that it is inactive when taken internally.

A new preparation has more or less recently been introduced under the name of fibrolysin, which is a chemical combination of thiosinamine and sodium salicylate. It is freely soluble in hot or cold water, but the solution undergoes oxidation when kept in the presence of air and light. It has therefore been put up in sealed vials, in which the solution seems to be indefinitely stable. Each vial contains 2.3 cubic centimeters of a solution of 1.5 grammes of fibrolysin in 8.5 grammes of water. Each thus corresponds to 0.2 gramme of thiosinamine.

F. Mendel (*Berl. Klinik*, October, 1907) deals at some length with the theoretical and practical aspect of this preparation. He shows that fibrolysin is non-toxic in therapeutic doses. After intravenous injection the substance is split up into its constituents and a garlic-like odor is noted in the expired air. Intramuscular injection is to be preferred to subcutaneous injection and at times even to intravenous injection. It is painless, is active, and easy to carry out. The allyl odor is noticeable after the injections, but since this is but of short duration and is an indication of the rapid splitting up of the compound, it must be regarded as a sign of the activity of the preparation. After discussing the selective action on scar tissue which has been determined by careful microscopical observation, he turns to the method of application and the dosage. Intravenous application must be carried out with scrupulous aseptic precautions. The corpuscles are not damaged in the least degree by the drug. The fluid should never be injected before a column

of blood has entered the syringe, when the piston is withdrawn, so that one is certain that the needle is inside the lumen of the vein. For adults 0.2 gramme of thiosinamine—that is, 2.3 cubic centimeters of fibrolysin—is injected as a dose. Children require less, but seldom less than half this dose. The injections should be repeated every one, two, or three days, according to the severity of the case. The maximum number of injections which the author has employed was 50. Individual susceptibility toward the drug is met with at times. The symptoms produced in these cases are headache, sleepiness, and feeling of malaise. Fever also has been met with. He speaks of the results which he obtained with fibrolysin, and states that they are satisfactory provided one does not expect the scars to stretch unless active dilatation can be applied—for example, it will be useless in pyloric stenosis unless the muscular wall is still in good condition.

Becker also praises the action of fibrolysin (*Deut. Med. Woch.* October 24, 1907). He obtained excellent results in Dupuytren's contraction and in the after-treatment of injuries. Stiff joints only respond to the treatment to a certain extent, and the complete mobilization of the joint must not be expected if inflammatory conditions have taken place.

H. Lang (*Deut. Med. Woch.*, November 28, 1907) speaks of the good results which he has obtained in urethral stricture with fibrolysin. He reports on two cases which he has been able to follow closely. In one case a traumatic stricture of fifty-three years' standing was softened and dilated by its means, and in both cases no tendency to recontract has yet shown itself. The cures had lasted for seventeen weeks in the first case and fourteen weeks in the second, so that, although he does not wish to speak of permanent cures, it looks as if the strictures will not return, at all events rapidly.—*British Medical Journal*, June 6, 1908.—*Therapeutic Gazette*.

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## TWO IMPORTANT ANGIONEUROSES.

In the *Medical Record*, Jan. 2nd, 1909, there is an article by Whiting, of London, on two rather rare angioneuroses: acroparasthesia and angioneurotic œdema. This group of diseases or rather of symptom complexes is distinguished by the presence of implication of the vaso-motor or sympathetic nervous system with obvious disturbance of the motility of the blood-vessels, but without any anatomical substratum so far as discovered. They may be divided into angiospasm and angioparesis, according as there is manifested a contraction or a dilatation of the blood-vessels.

Acroparasthesia is a subjective malady with creeping, tingling, burning, itching sensations, or a feeling as if the extremity were swollen or would burst, with generally more or less severe pain. It is much more common in women than in men, 150 out of 162, and out of 184, 150 were between 30 and 60. Three quarters of the cases have occurred in char-women or washer-women engaged in arduous work and with the hands exposed to varying temperatures of water. The condition is important as it is crippling; treatment which is usually successful consists in change of occupation and symptomatic treatment.

A characteristic history is appended :

A patient, a woman of 45, said that during the night after having done her own washing she got no sleep at all. She got some relief by letting her hand (one was especially affected) hang down out of bed. When the pain was bad she was unable to pick up anything or even carry anything with it. During a month of very cold weather the sensations affected her feet, and for nearly a week she had hardly any undisturbed sleep. The pain in one hand particularly would wake her up a dozen times in the night. During the whole of this month her fingers felt numb and she could not use them properly for anything.

Angio-neurotic œdema is characterized by a pure vaso-motor instability resulting in a marked localised œdema occurring apparently without warning or cause in the majority of cases, directly transmitted from generation to generation, with attacks at intervals of a fair regularity. The œdema is usually in an exposed position and under the skin, but may be under a mucous membrane, in which case it may be attended by very severe pain as colic, or may produce suffocation, and this is the most frequent cause of fatal results; the œdema appears so rapidly that as in the case of the arm it may be necessary to slit up the sleeve at once. Pain and tenderness are described, but are unusual.

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#### RESUSCITATION.

Two years ago Crile and Dolley excited the interest of the medical profession by publishing the results of their resuscitation experiments. They killed animals by means of anesthesia or asphyxia and having allowed the heart to remain still for periods of time varying from a few seconds to thirty-five minutes, brought them back to life by centripetal injections of salt solution to which adrenalin chloride was added. The cessation of heart function resulted, of course, in anemia of the body organs and it could be supposed that although the heart could be

made to beat once more irreparable injury may have been done in the meantime to more delicate structures, such as the components of the nervous system. Recently the same authors have investigated this phase of experimental resuscitation and have published the results in the *Journal of Experimental Medicine*, Volume 10, No. 6. A series of thirty dogs were killed by chloroform and then resuscitated according to the above method. If the resuscitation occurred within five minutes of the death of the animal the recovery of function was very rapid and quite complete, showing that the injury done to the nerve cells by the complete anemia during that period was not very intense. Death for a period of over seven minutes seemed to have led to very grave changes so far as function is concerned, for only one dog of the twelve in this series recovered. Histological examination corroborated the functional results; the nerve cells of the fatal cases presented changes indicative of chromatolysis and even of cell death, while special methods of staining proved the existence of fiber-degeneration as well. The authors conclude that six or seven minutes is the average limit of total cerebral anemia which admits of recovery under conditions similar to the circumstances surrounding their experiments. As sudden death from asphyxia or from the effects of anesthesia is the most frequent accident which in human beings may call for the employment of such methods of resuscitation, the determination of the experimental limit of possible recovery is of course of great importance in connection with attempts in this direction.

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#### GAS CYSTS OF INTESTINE.

J. M. T. Finney, Baltimore, (*Journal A. M. A.*, October 17), reports a case of this rather rare condition in man, and discusses its literature, etiology, pathology, diagnosis and treatment. The patient was operated on for gastric cancer, a gastroenterostomy being performed, and before closing the abdomen a routine examination of the intestines revealed a curious soft multilocular cystic growth, which was found attached to the ileum about one foot above the ileocecal valve. The numerous cysts were grouped together and varied in size from microscopic to as large as grapes, air escaping with an audible sound on puncture. Some of the cysts were pedunculated; they completely surrounded the intestine, and the whole mass was surrounded by a thin, weblike structure, suggesting an old, partly organized, peritoneal exudate. There was no evidence that it encroached on the lumen of the bowel. There were no symptoms that could be referred to this growth. The case is, he thinks, the first reported in this country. The chief interest

is in the etiology, which is still obscure, but may yet be elucidated, perhaps from the study of the same or a very similar condition repeatedly observed in pigs, in which it seems to be more common than in man. Gas cysts also sometimes occur in the vagina and bladder of pregnant women, disappearing soon after delivery. The various theories of the etiology are noticed. Finney rejects the idea of a bacterial origin and inclines to the belief that it is a definite type of tumor the cells of which have the power of secreting gas. No evidence of a bacterial origin was found by Drs. McCallum and Simon, or Professor Welch, who examined the secretion. The contained gas closely resembles atmospheric air. The pathology of the condition is also indefinite, though the histologic findings are rather uniform in all cases. The tumor is very vascular and most observers report finding peculiar large giant cells, containing many nuclei. There is no characteristic clinical picture, and the diagnosis is usually made at operation for some other cause at autopsy. The case reported is the first one associated with cancer. Not much is to be said as to treatment; obstructive symptoms may call for attention, but usually it is overshadowed by other existing affections. Abstracts of the previous reported cases are given.

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### DIAGNOSIS OF MILIARY TUBERCULOSIS.

In the *New York Medical Journal*, December 26th, Von Ruck discusses the diagnosis of acute miliary tuberculosis and concludes as follows:—

1. The rapid emaciation, which is a striking feature in almost every case, and which is out of all proportion to the degree of fever, the state of the digestive organs, and the amount of food taken.

2. The bronchiolitis of acute miliary tuberculosis of the lung is characteristic in that the catarrhal signs appear first in the smaller and then extend to the larger bronchi, instead of in the reverse order as in the ordinary bronchitis. In further contrast to ordinary bronchiolitis the lower posterior portions of the lung in acute miliary tuberculosis are often less involved than the upper.

3. Cases in which typhoid fever is minutely simulated by acute miliary tuberculosis, or in which the two diseases co-exist are rare, and a careful study of the pulse, temperature and respiration will usually lead to a correct distinction.

4. Serum reactions are reliable when present in a well marked degree, but tuberculous patients may show a modified Widal reaction and the Arloing-Courmont reaction is not always present in tuberculosis.

5. The ophthalmic test, as applied by Calmette and the cutaneous application of tuberculin according to the method of Von Pirquet, while not yet established as thoroughly reliable, are safe, and one or both should be employed in all doubtful cases, especially if the subcutaneous injection of tuberculin is contraindicated.

6. Bacteriological examinations of the blood, fæces, and secretions may be of great aid in doubtful cases.

7. The appearance of choroid tubercle or miliary tubercle of visible mucous membranes in the course of the disease removes all doubt.

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### GASTROPTOSIS IN TUBERCULOSIS PATIENTS.

In the *Southern California Practitioner*, November, there is a study by Reed and Robinson of fifty cases of tuberculosis which showed an associated gastroptosis. One hundred and thirty-three institution patients were examined and in 50 or 37.6 per cent. the stomach was found prolapsed, 28 cases were in women and 22 in men. When the lower border was found lower than the line mid-way between the ensiform and the umbilicus it was considered abnormal, while if the upper border was also lower it was called gastroptosis; 44 of the cases showed the stomach as low as the umbilicus. The method of diagnosis depended upon mainly was simple percussion or auscultatory percussion and friction together with inspection and palpation as well as tapping to elicit splashing. It is notable that the percentage of men was much higher than is found in ordinary practice, one series showing 75 per cent. women. In many of the cases it was believed that the ptosis was primary, although doubtless in others, the forced feeding with failing strength produced the effect; it was found that relief of the condition was followed by greater success in increasing nutrition.

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### DROP METHOD FOR ETHER.

In the *Medical Record*, October 24th, Lumbard describes a simple method of dropping ether from the original can. A circular incision is made through the soft metal cover about four-fifths of the way around, this is bent back and a small wick of twisted absorbent cotton is inserted and the lid bent back into place so as to hold it there. Now holding the can so that the attached part of the lid is lowest the ether will drop the size of the drop depending on the size of the point of the wick. The advantages of the method claimed are the simplicity and independence of apparatus, the avoidance of removing the ether from the original container, and the complete control.

## GYNÆCOLOGY AND ABDOMINAL SURGERY.

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

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## PROLAPSE AFTER OPERATION FOR VENTRO-FIXATION.

Dr. W. B. Chase said that a year ago when he removed the ovaries of a patient, he did a fixation, and he now presented the uterus with its attached pedicle, showing that what had really been accomplished was a suspension. He made what he believed was a broad fixation, both as regards the area denuded on the parietal peritoneum and on the fundus of the uterus. From the history of the case he believed there was a fixation for a period of three or four months; at least the uterus seemed to be in good position, but in lifting one day the patient felt the giving away of something, and on examination subsequently he found the uterus was low in the pelvis. The attachment to the abdominal wall was about two inches; the length of the pedicle was nearly three, showing that all that had been accomplished was merely a suspension.

He removed the uterus because of the extensive adhesions and believed it better out as it had undergone involution.

In reply to a question, the speaker said that his method of making fixation in this particular case was by scratching with the scalpel the parietal peritoneum for such an area as he wished adhesion to take place and doing the same thing on the fundus of the uterus, but not on the posterior wall of the uterus as is sometimes done. The sutures used were chromicized catgut, introduced on either side, carried down through the transversalis fascia and peritoneum through the uterus and tying them above the transversalis fascia.

Dr. Polak wanted to know if Dr. Chase expected to get fixation by bringing peritoneum to peritoneum.

This case, he said, was particularly interesting, because he had been working up the subject of fixation and suspension and their relation to pregnancy, and in the reports he had been able to observe and in his own personal experience, which consisted of thirty-three re-operations on cases that had been suspended; in all these cases the ligaments have varied from 2 to 6 c.m. in length. All of these cases peritoneum to peritoneum have been brought together with the idea of suspension. In only one case was fixation down, and that woman subsequently had a hysterectomy done for fibroid. Her first operation was a myomectomy in conjunction with a suspension for retro-displacement. In that case there was a very broad adhesion; the peritoneum was not folded in, peritoneal to peritoneal surface, but the raw edge

to the stump, and with this large myomectomy wound it had become adherent to the abdomen. There was a firm fixation for an extent of over an inch with the omentum in the mass. Whether the omentum had much to do with it or not he could not say, and yet in the other thirty-two cases the ligament had varied from 2 to 6 c.m. in length. He had never seen the double ligaments Kelly pictures in his book.

He thought the reason of the relapse in Dr. Chase's case was that the operation was not followed by the use of a pessary. The uterus has to be supported for three or four months in order that the ligament may not be attenuated as happened in Dr. Chase's case. In twenty of the speaker's cases where he did not use a pessary, the ligaments were longer than in the ones where he had used a pessary.

Dr. G. McNaughton thought if one was going to do a fixation, it would be necessary to bring muscle to muscle. If you have peritoneum to peritoneum, you must get a ligament formed only of peritoneum.

In a case of prolapse he thought it quite necessary to grasp the fundus pretty low down, so as to be certain the cervix is pointing back, because if you have a long cervix and it rides forward, you have a leader which will result finally in a prolapse again. This ligament will stretch and the uterus drop back. It is necessary to bring the uterus well forward in order to get the direction of the uterus proper for its support.

His objection to a pessary is it is necessary to introduce a pretty good sized pessary, and you probably will have operated on a perineum, and you are liable to do injury to the perineum, if you use a pessary of sufficient size to hold it. Therefore, he thought it better to keep patients in bed a longer time. He had a case who got up early of her own accord and got a return of the prolapse.—*Long Island Medical Journal*, Dec. '08.

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## THE VALUE OF TURPENTINE IN GALL-STONE OPERATIONS.

By GASKOIN WRIGHT, Nablus, Palestine.

A woman about 54 years of age, who had been suffering for several months with fever and suppuration of the gall bladder, came under my care in the Native Mission Hospital. Cholecystostomy was performed, and the gall bladder, which was full of stones was cleared out. A large mass of impacted stones was found lying apparently in the ductus choledochus, but, on account of the adhesions round the gall bladder, etc., the duct could not be properly exposed. A spoon was passed 3 in. or so through the cystic duct, but the stones could not be removed, and they were so hard that it was impossible to break up the



mass or to make any impression upon it. After working at it for some considerable time I feared that I should have to leave the impaction unrelieved, when suddenly recollecting the well-known solvent action of turpentine on gall stones, I determined to try it.

A piece of indiarubber tubing was fixed on a small glass syringe and 1 drachm of turpentine injected through the cystic duct on to the surface of the impaction. In a few minutes I was able to break up the impaction, and in about ten minutes all the stones were removed from the duct. The patient made an uninterrupted recovery, the opening in the gall bladder healing up in about six weeks.

From my experience in this case it seems to me that the habitual use of turpentine in connection with cases of choledochotomy in which there is the slightest difficulty in removing the bile concretions might materially lessen the risks of the operation.—*British Medical Journal*, Dec. 19th, 1908.

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#### LARGE UTERINE FIBROID.

Dr. J. O. Polak presented a specimen of a very large fibroid of the anterior wall splitting the two broad ligaments. In order to remove it it was necessary to dissect up the bladder. During the dissection he opened into the bladder, closing the rent at the time. After delivering the tumor out of the abdomen, he made an amputation of the uterus above the internal os, closing in the broad ligaments with a continuous suture and the abdomen in layers.

One very interesting point in this case was the appearance of the ureter at the finish of the operation: just before closing the abdomen he saw a raw surface in the left lateral cul de sac, which he attempted to cover with peritoneum. As he went down with his needle he pulled up the ureter, but found it had not been cut and had dropped down in the separation. The fibroid weighed 23 pounds.—*Long Island Medical Journal*, Dec., '08.

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#### UNRUPTURED TUBAL PREGNANCY.

Dr. J. O. Polak presented these specimens, and said that in each instance the diagnosis of unruptured ectopic had been made before operation.

The first patient (aged thirty-four years, three children—last twenty months ago—one miscarriage four years ago) entered the hospital May 18, having last menstruated seven weeks before admission.

She had skipped the two previous periods. The last flow was thought to have been brought on by some medicine she had taken when she found that the period was passed, and after this she passed some clots; two weeks later she began to complain of pain in each side of the lower abdomen lasting a week; this pain was sharp and followed by soreness; during this time she spotted; she had distinct pelvic discomfort. The pain then became localized in the left lower abdomen; there would be no bleeding for several days and then she would spot again. The day before admission the speaker saw her in his office, and made a presumptive diagnosis of ectopic. While riding in a street car she felt as though something had given way in the left lower abdomen and began to spot again; then to bleed profusely, but had no pain. The diagnosis was made on the irregular menstrual history, and the fact of the patient having distinct pelvic discomfort and having a mass on the left side, which was exquisitely tender, and the so-called Boldt's sign—i. e., exquisite tenderness of the cervix as it is moved.

The tube was removed without removing the ovary. The recovery was uninterrupted.

The second patient came into the speaker's service at the Jewish Hospital May 27. She was thirty-six years of age; perfectly well until five days before admission; she skipped the May period, when she was suddenly seized with sharp pain in the left lower abdomen followed by bleeding. The pain recurred frequently and with it would be profuse bleeding. The day before entering the hospital she was seized with severe pain in the left side while out walking and felt faint and dizzy. The uterus was enlarged and displaced by a tender tumor in the left lateral fornix. The diagnosis was made by the house surgeon. In this case both the tube and ovary were removed.—*Long Island Medical Journal*, Dec., '08.

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### EVERSION OF THE UTERUS.

Pierre Delbert, Paris, (*Annales de Gynécologie et d'Obstétrique*, June, 1908), describes the history of a patient who was forty-two years of age, and long under observation for painful menstruation and uterine hemorrhages. Seen at the onset of this attack, the uterus was found much enlarged, but movable. Labor-like pains developed, and soon an enormous, dark, friable and bloody mass presented outside the vulva. On account of the hemorrhage immediate operation was undertaken, the diagnosis being *inversion* due to fibroid tumor, although no constricting cervical ring was found. The tumor mass was rapidly removed at the level of the vulva, but greatly to the surprise of the operator the fundus of the

uterus was found above the tumor and quite normal in shape. It was found that the posterior uterine wall and the cervix had harbored the fibroid and had expelled it by a process of *eversion*, the fundus taking no part. Recovery was uneventful and the uterus was left in place by this operation of "subvaginal" hysterectomy. *Am. Jour. of Surgery*, August, 1908.

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#### INUNCTION OF IODOFORM IN TUBERCULOUS PERITONITIS.

Sidney F. Wilcox, of New York, (*Med. Rec.* May 2, 1908), believes that iodoform is the best agent for the local treatment of tuberculosis. It is inert as a dry powder and must be applied as a solution, which may be made by dissolving it in ether and then shaking up the solution with oil. The effect is due to the nascent iodine evolved from the solution. Pus has the property of breaking up iodoform. This fact is made use of in packing sinuses with dry iodoform powder. To apply iodoform to the peritoneal surface the solution must be used, or it may be applied through the skin, the solution being easily absorbable. The author gives three cases successfully treated by this method. *St. Louis Med. Review*, August, 1908.

[Orthopedic surgeons have long recognized the value of iodoform emulsions injected into tuberculous joints. S. M. H.]

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#### SOME OF THE REASONS WHY CHOLECYSTECTOMY SHOULD NOT BE PERFORMED AS FREQUENTLY AS IS ADVOCATED BY MANY SURGEONS.

John B. Deaver, M.D. (*The American Journal of the Medical Sciences*, April, 1908), first considers the physiology of the gall-bladder, and states that, while he is well aware that patients who have had their gall-bladders removed may remain perfectly well, he believes that this does not demonstrate that gall-bladder has no useful purpose. "From the standpoint of subsequent pathology, the gall-bladder is surely a most useful organ by way of which to drain in certain septic conditions of liver and biliary passages." The author's indications for cholecystectomy are:

1. Hydrops of gall-bladder with obliteration of cystic duct.
2. New growths of gall-bladder.
3. Chronic empyema—acute empyema drainage may suffice.
4. Gangrene of gall-bladder.
5. Perforation of gall-bladder.
6. Where many small stones are imbedded in mucus membrane and cannot be removed.

He closes by stating that hard and fast rules cannot be established, and that from what he can read and hear he fears that removal of the gall-bladder is done too frequently.—*Surgery, Gynaecology and Obstetrics*. July, 1908.

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#### APPENDICEAL PERITONITIS.

E. W. Stanton (*Surg. Gyn. and Obst.*, April, 1908), emphasizes the fact that the distribution of an intraperitoneal infection is, for the most part dependent upon purely mechanical factors, and that in the absence of peristaltic movements, such as are produced by giving food or cathartics by mouth, the tendency of a localized peritonitis, even of appendiceal origin, to spread beyond its original boundaries is very slight indeed, while, when a condition of peritoneal rest is once obtained, the vast majority of cases of extensive and severe appendiceal peritonitis show a rapid localization of the inflammatory process, which either subsides entirely or ends in the formation of a localized abscess. *Am. Jour. of Obs. and Dis. of Women and Children*, June, 1908.

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#### UTERINE ENDOSCOPY IN DIAGNOSIS AND TREATMENT.

Charles David, (*Annal. de Gyn. et d'Obs.*, September, 1908), remarks that much work has already been done to popularize intra uterine endoscopy. Nevertheless it has not found its way into current practice.

The author describes a hysteroscope which he has invented based upon the same principles as Valenthsroscope. After describing in detail the instrument he employs, the author takes up the method of its application. He insists upon careful disinfection of the genital passages, and where the os does not permit the passage of the hysteroscope the os must be dilated, This may be done rapidly under an anæsthetic, or, as the author prefers, more slowly by means of tents. The tent is usually introduced the day preceding the examination. The patient is usually placed in the dorsal sacral position.

When there is any intra uterine hæmorrhage which may obscure the vision, the uterine cavity is swabbed with a solution of 1:1000 adrenalin. Usually a bivalve vaginal speculum is employed and the cervix may or may not as may prove necessary be steadied by a tenaculum. As a rule it is better to draw down the uterus as the instrument can then be introduced more readily.

The author then describes manœuvres necessary to obtain a clear view of the fundus and the tubal openings. Following the use of the

hysteroscope the uterine cavity should be swabbed out with tincture of iodine.

The puerperal uterus permits of (facial examination). In such cases a peculiarly long and large tube should be employed so as to give as large a zone as possible of observation. The author employs a tube of 18 m.m. in diameter, and of 22 c.m. in length. Such examinations are absolutely painless.

The most frequent difficulties met with in this class of cases are the uterine discharges and hæmorrhage. Usually careful swabbing of the intra uterine cavity is sufficient to overcome these difficulties.

The contra indications to the employment of the hysteroscope are, first, in cases in which there is any suspicion of pregnancy. Second, the existence of peri uterine inflammatory lesion. Third, in cases where the uterus is markedly displaced and adherent.

The indications: The author defines the most important as being metrorrhagia in any form. Its employment, however, permits the early diagnosis of cancer of the body. Conditions of chronic metritis and endometritis; intra uterine tumors whether simple, polypes or sub-mucous fibromes. In cases where foreign bodies have been introduced into the uterus its use has been clearly manifest. It also permits the diagnosis of malformations and arrests all development of the uterine cavity.

In puerperal cases the hysteroscope is of value to detect portions of retained placenta, portions of membranes, etc.

In infective cases the various lesions can be easily recognized. Where rupture of the uterus exists, its employment renders great assistance in locating the adhesion.

After abortion the hysteroscope permits the exploration of the whole intra uterine cavity. Particularly is it useful where criminal abortion has been performed in locating traumatisms.

The paper concludes with a somewhat detailed report of the author's experiences with the use of his instrument, by stating that the uterine endoscope is of value from the therapeutic standpoint in that it enables a more accurate diagnosis and permits the application of remedies to affected areas of the mucous membrane with absolute control. The instrument may be employed along with the intra uterine curette and the use of the latter thus comes directly under the control of the eye. In cases of small pediculated tumors such as small fibromes and mucous polypes. These may be removed by the employment of the curette forceps of Kollman or by means of a snare.

## OBSTETRICS AND DISEASES OF CHILDREN.

Under the charge of D. J. EVANS, M.D., C.M., Lecturer on Obstetrics, Medical Faculty  
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## SOLID FIBROID OF OVARY OBSTRUCTING DELIVERY.

J. Stewart, B.M., M.Ch., M.A.O., Leeds, writes as follows in the *British Med. Jour.*, November 21st, 1908:

The case occurred in a lady married two years, and who was attended by me in her first confinement.

Before her marriage the patient, who was aged 26, had complained at times that she felt something roll about in her abdomen, this being accompanied by sudden faintness and sickness. No opinion could be formed at the time as to the cause of this, but subsequent events made things clear. When called to see her in labour, it was found that there had been pains for two hours. On making a vaginal examination the finger impinged upon a smooth mass, so tender and so exquisitely sensitive that it immediately flashed through my mind, without any attempt at a differential diagnosis, that I was dealing with an ovarian tumour which was being compressed. This smooth tender mass was opposite the right sacro-iliac synchondrosis, and wedged between the brim of the pelvis and the head of the fetus, advancing in front of the latter. The cervix could be felt high up and just within the true pelvis. It was soft, dilatable, and about the size of half a crown. Rectal examination assured me that the mass was not faecal, although that was negatived by the great tenderness present.

Under chloroform the hand was passed into the vagina, the uterus and fetal head pushed to one side, when the tumour gently slid back into the abdomen. With the hand still in the vagina the cervix was dilated, forceps applied, and child delivered. The puerperium was uneventful. Six weeks afterwards I removed a solid fibrous tumour of the ovary, somewhat irregular in shape, and about the size of an orange. It was very easy to remove, there being no adhesions, and a sufficiently long pedicle to allow it being brought to the surface. Convalescence was without interest. The train of symptoms mentioned at the beginning, of something rolling about with faintness and sickness, have entirely disappeared.

Of all forms of pelvic obstruction the most interesting and by far the most frequent is obstruction caused by an ovarian tumour. McKerron gives the frequency of ovarian tumour complicating pregnancy as about 1 in 2,500. The mortality is appalling when Nature is allowed to take its course, the maternal being about 25 per cent. and the infantile nearly 50 per cent. The question of treatment is debatable, and in pur-

suing the course I did I am afraid ran counter to the best English opinions. Bland-Sutton says :

When an ovarian tumour is discovered during labour and it impedes delivery, ovariectomy should be performed.

McKerron says :

Ovariectomy is the best treatment, and should be preferred when the patient can be placed under an experienced operator. When time and place does not admit of ovariectomy try reposition.

On the Continent there are two schools—one advocates Cæsarean section, and this has the greater following; the other, ovariectomy.

On one point, however, every authority is agreed—never to attempt delivery until the tumour is removed either by reposition, puncture, or ovariectomy. The objections to ovariectomy are (1) great length of incision, because, as a rule, the surgeon has to get the uterus outside the abdomen to get at the tumour; consequently there is (2) great risk to the life of the fetus; (3) the surgeon must return the pregnant uterus, and sew up the abdomen over it.

Puncture is only mentioned to be condemned; it could have been of no use in the case of solid tumour reported here. There is just one possible exception, where the head is well engaged in the pelvis, and there is a cystic tumour low down in front of the head. In such a case puncture, and perform ovariectomy after delivery.

There are two objections to reposition. In pushing back the tumour, if a cyst it may rupture, or the pedicle may become twisted, and, as a rule, a long pedicle is present. As to the first, there is not much risk if gentleness be used. Instead of pushing at the tumour, push up the head of the fetus and the uterus out of the way. As to the second, axial rotation with twisted pedicle, it will be announced by great pain, tenderness and vomiting, accelerated pulse, and rise of temperature. If these should supervene in a case in which reposition had been performed, there should be no hesitation about opening the abdomen. Personally, I would much prefer to open the abdomen after the uterus had been emptied, and to perform ovariectomy, than to do it when the abdomen was crowded with a pregnant uterus.

It is almost too much to ask of human nature not to try and replace, if it can be easily accomplished. By doing so, at the same time emptying the uterus, a difficult situation has been surmounted, leaving the tumour to be dealt with in the near future.

If the tumour cannot be pushed up from the pelvis into the abdomen, then, in spite of the teaching of Mr. Bland-Sutton (and there is no authority whose opinion would carry greater weight), I should not hesitate to perform Cæsarean section, at the same time removing the tumour after closing the uterine incision; as these tumours have long pedicles,

it would add hardly anything to the operation. By so doing the necessity of an incision from ensiform cartilage to pubis is obviated, the life of the fetus through eventration of uterus is not endangered, and the difficulty of closing the abdomen over a fully distended organ is done away with.

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#### THE DISTRIBUTION OF BACTERIA IN BOTTLED MILK AND ITS APPLICATION TO INFANT FEEDING.

Dr. A. F. Hess sets himself, *Arch. of Ped.*, August, 1908, to find out where the bacteria in an ordinary bottle of milk are to be found, whether they are at the top or the bottom of the bottle, and particularly to investigate their presence in cream.

The work was done in the research of the Board of Health in New York City. The milk was removed from the bottles by a pipette in successive layers.

The article gives a series of tables showing the character of the bacilli and their location in the milk.

The author's conclusions may be summarised as follows:—

In bottled milk the bacteria are by far the most numerous in the upper layers of the cream, becoming gradually fewer in its lower portion.

The upper two ounces the greatest number of bacteria.

This is true of tubercle bacilli as well as of streptococci and other bacteria.

Therefore, instead of using the upper cream, as is now practised, it is preferable to discard the upper 2 ounces.

The average bottle of such partially skimmed milk contains 3 per cent. fat and 3.5 per cent. proteid, and is well adapted for infant feeding.

If we discard the upper 2 ounces we have: next 7 ounces, a 12 per cent. milk; next 8 ounces, a 10 per cent. milk; next 12 ounces, a 7 per cent. milk, with these figures as a basis the usual top-milk formulæ may be prepared.

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#### ICTERUS OF THE NEW BORN.

P. Esch, *Zeit. f. Gyn.*, No 30, 1908, remarks that two forms of icterus are usually distinguished: the simple icterus of the new born, and the symptomatic icterus. The first is usually termed physiological, and the prognosis is practically always favourable. The second form may arise from many different causes, and the prognosis depends entirely upon the primary disease.



The author discusses in this paper an unusual form of icterus of the new born, the so-called ganglionic icterus, as described by Schmorl and Beneke.

Both these authors described it as a definite sharply, defined intense colouring of certain nerve ganglia that stand out specially in the general pale diffuse yellow colouring of the nervous system. These are usually found in the nerve ganglia at the base of the brain, and but rarely in the ganglia of the cord.

These darkly stained yellow ganglia on microscopic examination showed definite necrotic changes, which undoubtedly depend upon some intra vital damage and are not post mortem changes.

The author describes in detail a case occurring in a female infant which weighed 3,000 grms. after an easy birth, the mother being healthy and passing through a normal puerperium.

On the fourth day the child showed slight icterus tinge of the whole body. A day later the whole conjunctivæ became yellow. It seemed drowsy but nursed well. The feces were stained a good yellow colour. The child weighed 230 grms. less than when born. The jaundice rapidly increased. Tonic spasms of the extremities appeared with rigidity of the neck and back. Yellow mucus came from the mouth and nose. The breathing was of the Cheyne-Stockes type. The child died on the third day of the disease.

There was no sign of syphilis in the mother. Her first child was prematurely born, when both mother and child suffered from a transient jaundice. The child lived and developed well. Another child was born at the 34th week of pregnancy, and died a week later.

The father and his sister both had suffered from severe attacks of jaundice in earlier years.

A detailed autopsy report accompanies the paper. The post mortem findings are given in detail. There was some edema in the neighborhood of the vessels of the cord though there was no evidence of peritonitis. There was a large thymus. The spleen was very large, and dark red in colour. The liver was normal in form and consistence, but very much engorged with blood. The bowels, particularly the large bowel, were filled with bile stained material. The mucous membrane of the bowel was hyperæmic and in places hæmorrhagic. The rectum was filled with a large quantity of blood stained mucus. There was a good deal of ecchymoses about the coverings of the brain. The latter was soft and deeply stained with bile. Marked staining of the lenticular bodies, the nucleous dentatus. The anterior horns darkly stained and the posterior horns not marked. The skeletal muscles showed evidences of marked degeneration of a hyaline character. Throughout the whole body there were found bilirubin crystals.

The clinical picture is that of a child becoming jaundiced in the first days of life. A sudden onset of tonic spasms with evidence of bulbar lesion, (difficulty with swallowing and breathing), and dying as a result of general convulsions.

The author thinks that the convulsions stand in relationship to the necrosis of the ganglionic cells. He thinks that the cases recorded permit us to classify a special form of jaundice as ganglion jaundice, the system complex being jaundice of the entire body combined with tonic spasms of the extremities and the vertebral muscles associated with bulbar signs and a colitis which is associated with normally stained motions.

The diagnosis can only be made *intravivum* by exclusion. The prognosis is that the condition is invariably fatal.

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#### A CASE OF EXTRAUTERINE PREGNANCY AT TERM. LAPAROTOMY DURING FALSE LABOR. LIVING CHILD.

M. Potocki, Paris, (*Annales de Gynécologie et d'Obstétrique*, July, 1908), records the case of a woman of thirty-four years, who was seen during her pregnancy by a physician. The pregnancy was normal. At term everything appeared normal also. She was in labor for six days with slight pains, and slight hemorrhage. Various physicians diagnosed partial retroflexion of the uterus (sacculatation), other full dilatation of the cervix, etc.

In the hospital the head was found engaged deeply in the pelvis; the small soft cervix was high (above the symphysis) and far anterior. To the right, the enlarged uterus reached 15 c.m. above the symphysis and showed regular contractions. To the left was a much larger mass which did not contract. A loud *souffle*, no fetal heart sounds, but fetal movements were noted. At laparotomy a thin fetal sac was found adherent behind, on the left side and in the pelvis. The left ovarian artery and the anastomosis between the uterine and ovarian at the left horn of the uterus were clamped, and the child extracted. Most of the sac was extirpated, the placenta then detached without any hemorrhage. Where the sac could not be freed its amnion was shelled out and the rest buried, with abdominal drainage. Smooth convalescence. The child is alive and well three years after operation. Potocki believes that ligation of the two arteries above mentioned will always permit of bloodless extraction of the placenta, thus justifying an attempt to obtain a living child instead of waiting two months after false labor. *Am. Jour. of Surgery*, September, 1908.

## THE OPERATIVE TREATMENT OF PUERPERAL FEVER.

The late Sir Arthur McCann, (*Jour. of Obs. and Gyn. of the B. E.*, October, 1908), states that the operative treatment of puerperal sepsis was probably the first taken up by Lawson Tait, who, in 1881, published a series of papers on abdominal peritonitis. Reference is then made to the work of Mikulicz, and in peritonitis of Zaufal, Freund and others in bacteræmia cases in which thrombosis has occurred.

The author first deals with the surgical treatment of localized inflammation. He advises against the removal of false membrane from puerperal ulcers, claiming that they are protective in nature. He also advises against curretting the interior of the infected uterus at full term, stating that the danger of the operation increases with every month of pregnancy. He suggests that the better method is the brushing-out method introduced by the French.

With regard to the evacuation of collections of pus he favours, in doubtful cases, where the abscess lies deep in the pelvis, the inguino lateral incision with detachment of the peritoneum upwards. If necessary, this operation can be done on both sides.

He is not in favour of the operation for general peritonitis, though if seen early, within two days, and the patient's general condition is good, operation may be of benefit.

He makes the following peculiar observations: "We should specially notice at the tip of the nose, hands and feet, if not become cold; and if that is the case operation will only hasten the end."

After discussing the advantages of operation, he quotes the authorities as to method, the discussion being somewhat obsolete. He recommends the modified porro's operation, where removal of the uterus is necessary, considering that it avoids danger of infecting the pelvic connective tissue.

He suggests the introduction of a 50 cc.m. of a 2 p.c. solution of colargol into the peritoneum in the hope of eliminating the poison.

The removal of freshly suppurating ovarian cysts every six to twelve months after parturition.

The author discusses, at some length, the removal and ligation of inflamed veins, considering that such removal of the seat of infections is of great importance. He concedes that the greatest difficulty is the question of the most favourable time for operation. He does not agree with Von Herff that the occurrence of five or six rigors is undertaken for operation. He quotes extensively from Seitz, and others, as to the method of operation. In fact, this portion of his paper is really an epitome of Von Herff's.

He concludes his paper with a discussion of the removal of the uterus, and insists upon the value of porro's operation with cauterization of the stomach.

He admits that three-quarters of the patients operated upon have died, and as the general mortality of puerperal fever is but 20 p.c., and of the worst cases 50 p.c., removal of the uterus seems to increase the mortality instead of diminishing it.

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### THE GONOCOCCUS AS A FACTOR IN INFECTIONS FOLLOWING ABORTION AND FULL-TERM DELIVERY.

F. B. Gurd claims that the experiments by Duhrssen, Bumm and others, as well as his own observations, (*Amer. Jour. Med., Sc.* Dec., 1908), prove that the normal vaginal, cervical, and urethral epithelium are not attacked by the ordinary pyogenic cocci. The gonococcus overcomes resistance of these parts and other bacteria seem able to produce their characteristic lesions.

In a series of 113 examinations of the vaginal discharge the gonococcus was isolated by the author in 52 cases. Of 44 cases of chronic pelvic disturbance, in 22 of them the gonococcus were isolated.

The author thinks that by careful technique it is possible to demonstrate this organism in the majority of cases in which it is present.

Fourteen cases of severe endo-metritis, following abortion or full-term labor, were examined by the author. In all cases the women suffered from definite constitutional disturbances, the temperature rising above 103° F. Three patients died and came to autopsy; two others developed metastatic pyogenic processes. Six other cases, not included in the 14 above mentioned, were examined post-mortem.

In this series of 20 cases, the author isolated the gonococcus in five of them, and there was one other in which it was almost certainly present. One of these cases proved fatal as a result of secondary streptococcic infection.

The author then gives a detailed report, with temperature charts, of his six cases of gonococcic infection.

His conclusions are as follows:

(1) The gonococcus alone, or as a primary infecting agent, plays a much more important role in the production of puerperal fever than is usually appreciated by most observers.

(2) Various micro-organisms, especially the streptococcus and *B. Coli* are usually present about the vaginal outlet, although apparently infrequently found in the upper part of the vagina of a healthy woman. These

organisms are ever ready to attack the tissue, whose resistance has been destroyed by the action of the gonococcus. As corollaries there follow, (a) The necessity for the most careful examination of the history of the patient, and of the vaginal discharge early in pregnancy in all cases presenting the least ground for suspicion. (b) The necessity for more than ordinary caution in examining externally all pregnant women presenting even the slightest evidence of an inflammatory condition.

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### CONGENITAL HYPERTROPHIC STENOSIS OF THE PYLORUS.

F. J. Shepherd, (*Montreal Med. Jour.*, Dec., 1908), after reviewing briefly the symptoms of hypertrophic stenosis, states that all severe forms of the condition, if not operated upon, die. He states that Mr. Dent operated on nine cases by pyloroplasty in 1906, with the result that four private cases recovered, and of five public cases, three died within two months and one three months after the operation. Mr. Stiles reports ten cases operated on by gastro-enterostomy and one by pyloroplasty. Five of these recovered, but two of them subsequently died of enteritis.

The author then records a case of an infant, twenty-six days old. Medical treatment having failed, an incision, one inch in length, was made above the umbilicus under chloroform anæsthesia and the stomach with the duodenum drawn out. The enormously hypertrophied pyloric muscle felt hard and inelastic and was as large as one of those rubber rings used to "hold the ends of the ribs of an umbrella together." Pyloroplasty was immediately undertaken. The whole operation took but a short time.

The after-treatment is quite as important as the operation, in the author's opinion. A nutritive enema, consisting of one ounce of peptonized milk and ten drops of brandy was given immediately after the anæsthesia. This was repeated every three hours and retained. In addition to this weak whisky and water was given by the mouth. It was eagerly taken and retained.

This treatment was kept up for two days, then the baby was nursed by the mother at short intervals, one minute at a time, the period being increased by the fourth day to four minutes every two hours.

The child progressed favourably and left the hospital on the eighth day, rapidly increasing in weight. The child subsequently developed in every way as a normal child will do.

The author then discusses the various operations and states that in his opinion pyloroplasty is the ideal operation, as none of the gut is side-tracked, and it is not so prolonged or difficult in its performance. He

urges that but one row of sutures be employed and that the mucous membrane be trimmed carefully. These two points, if attended to, prevent closure of the opening after operation. Through and through sutures are advised as more suitable to the thin wall of the infant's abdomen and are more speedily placed.

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### INFANTILE PARALYSIS.

Lovett & Lucas, in this paper, (*Jour. A.M.A.*, Nov. 14th, 1908), deal with 635 selected cases of infantile paralysis seen at the Orthopedic Out-Patient Department of the Children's Hospital, Boston, between January 1st, 1897, and January 1st, 1908.

After a brief study of the spinal motor cells and the blood supply of the spinal cord, the authors conclude that on the whole the groups of the motor cells run in the length of the cord, and have their association in this direction, and that the blood supply is mainly horizontal, thus, unless the lesion is very extensive some cells are likely to escape destruction. Hence the utilization of such remaining cells in partly destroyed groups becomes one of the most important objects of treatment.

In the stage of established paralysis, whether early or late, it is important to prevent unnecessary muscular deterioration and to utilize, so far as possible, the unaffected cells in partly affected centres.

The authors conclude that infantile paralysis is a less formidable affection than is generally believed; partial paralysis is common. Disused and stretched muscles appear to be paralyzed, but possess a possibility of function.

In addition to microscopical treatment, an attempt should be made by massage, electricity, and especially by muscle training to wake into activity the remaining cells in partly destroyed groups, and thus to secure muscles which perform function.

After tendon transfer, the development by muscle training of the transferred tendons is essential to good results, and without this the percentage of failure will be large.

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### SUPPOSED MATERNAL IMPRESSIONS.

C. H. Welland, in *The B. Jour. of Children's Diseases*, Nov., 1908, takes a case of supposed maternal impression, reports it carefully, then quotes the authorities to show that what looks like a bona fide case

collapses, when the cold light of science is turned upon it, like "a house of cards."

Briefly, the left ear of a child five weeks old had an accessory tragus. The mother related that during the last three months of her pregnancy she frequently noticed a boy with a similar deformity, though in the right ear.

The article includes two drawings, one of each of these ears, and certainly the condition is one of close resemblance. The mother was firmly convinced that it was a case of maternal impression, but unfortunately the development of the external ear is complete by the sixth week of foetal life, or, in other words, this child's ear was formed four months and a half before the mother had the boy with the deformed ear brought to her notice.

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#### EXTRAORDINARY ANTHROPOLOGICAL PROLIFICITY.

Dr. C. C. Mapes, (*The Med. Times*, October, 1908), under this caption, truly southern, has gathered together in an interesting paper founded upon the work of Gould and Pyle and some of his own observations, as well as what he has been able to extract from recent literature. He quotes from the writings of Aristotle and Pliny down to the most recent instances concerning the fecundity of women.

The proportion of multiple births is not greater than 1 per cent. of the total parturitions. This applies to all countries. Quadruplets probably occur in about once in four hundred thousand births. Sextuplets are extremely rare but such cases have been recorded. Aristotle mentions a woman who had quintuplets four times. A case is mentioned of a woman in Indiana who was the mother of twenty-five children, having twins seven times. Warren mentions a woman who bore twenty-one children in eighteen years.

A man aged seventy, twice married, is reported to be the father of seventy-two living children. His first wife bore fifty-seven children in twenty-one pregnancies; the second wife fifteen, twins six times and triplets once.

Eismenger cites a case of a woman who bore fifty-one children, all single births. Atkinson speaks of a woman, married at sixteen, and died at sixty-four, who bore thirty-nine children in single births.

There is reported from Michigan a case in which the wife of a professional gentleman gave birth to a daughter, the mother at the time being sixty-five and the father sixty-eight years of age, this being the third child, the last birth having occurred forty-three years previously.

A Canadian woman over sixty is recorded having given birth to a girl, her husband at the time being sixty-eight years of age.

With regard to the possibilities of paternity several interesting facts are mentioned. A man had been married four times; by his first three wives he had thirty-nine children; by his last fourteen, making a total of fifty-three. A South Carolina negro, aged sixty-five, still living, is the father of forty-two children by two wives.

An Austrian woman gave birth to six children recently, three being boys and three girls, all apparently lived. The author in the paper mentions four other similar cases.

A linen weaver's wife, aged forty, married twenty years, bore in eleven years thirty-two children, multiple pregnancies occurring with great rapidity.

In the *Indian Lancet* a case is recorded of a woman who in nineteen years of wedlock bore sixty-two children; fifty-nine boys and three girls. Many of these births were multiple. The woman was a native of Italy.

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#### ON THE HABITUAL SEVERE JAUNDICE OF THE NEW-BORN.

J. Pfannensteil, after an extended study of icterus of the new-born (*Munchener Med. Wochst.* Oct. 27th, 1908), states that habitual icterus tends to repeat itself in the children of one or of both parents frequently. Between these, children may be born who remain perfectly healthy or may develop slight icterus.

There is apparently no difference between the lightest form of habitual icterus and the so-called "physiological" icterus of the new-born.

There is a direct connection between the lightest and the most virulent forms of icterus neonatorum.

The etiology of habitual icterus is quite as unknown as that of icterus neonatorum in general.

Syphilitic infection he was unable to demonstrate in any of his cases. Other infections are also improbable. As soon as early and intensive icterus develops, treatment directed towards combatting toxæmia must be undertaken. Diuresis is to be established, and as much water as possible being given to the child.

Subcutaneous salines of 100 to 150 c.c.m. may be employed. Warm baths are to be recommended, and, at first, small doses of calomel. Washing out of the bowels is to be recommended in the latter stages. The children must be kept warm, protected from bright lights and from great noises. The best food is mother's milk, and not too much should be allowed.



## OTOLOGY AND RHINOLOGY.

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Toronto General Hospital.

## LOCAL ANAESTHESIA IN ADENOID OPERATIONS.

F. Hutter (*Wien. Med. Woch.*, October 10th, 1908. B.M.J.) has devised a method of anæsthetizing the pharyngeal tonsil by infiltration. Painting the tonsil must be repeated so often before the deeper parts become anæsthetic that the process is more objectionable than an operation without anæsthesia. If the curved needle of a syringe is passed behind the soft palate from the mouth it may enter the adenoid tissue, but probably does not pass sufficiently high to anæsthetize the root of the naso-pharynx. Further, owing to the vertical direction of the needle track and the numerous clefts in the pharyngeal tonsil, a considerable quantity of any liquid so injected escapes downward. In the writer's method the needle is passed through the nostril. A camel's-hair brush is soaked in a 10 to 20 per cent. solution of cocaine, passed through one nostril, slightly upwards towards the upper border of the posterior nares, and left there for a few minutes. The process is repeated on the other side. The deeper parts are caused to shrink, so that the upper border of the posterior nares and the adenoid tissue behind become visible by anterior rhinoscopy. The camel's-hair brush is then gently rubbed over these parts until they are superficially completely anæsthetic. If these parts of the process are not carefully done the subsequent prick of the needle will be felt, and the patient, especially if a child, probably becomes unmanageable. The most satisfactory drug, for purposes of injection, is B-eucaine in a warm 5 per cent. solution with 0.8 per cent. of NaCl. Cocaine is unsuitable, as more concentrated solutions are required than are necessary for ordinary infiltration anæsthesia. Novocain is unreliable. The eucaine solution can be sterilized by boiling, is but slightly toxic, and is not followed, as are the vaso-constrictors, by secondary vascular paresis and hemorrhages. Its action is increased by the addition of 5 drops of adrenalin to each syringe-ful. The capacity of the syringe employed by the writer is slightly more than 2 c.cm. (about 34 minims). The needle, which is straight and 12 cm. in length (nearly 5 in.) has bayonet attachments to the syringe, from which it comes off almost at the right angle. The orifice at the point faces upwards. The needle is passed into one nostril backwards and slightly upwards towards the upper margin of the orifice of the posterior naris where it impinges on the mucous membrane of the anterior part of the roof of the pharynx and the insertion of the pharyngeal tonsil a short dis-

tance external to the septum. This should be done under the guidance of the eye. Even if the dividing line between the posterior naris and the adenoid tissue is not distinct, there is with practise, no difficulty in selecting a suitable place for insertion of the needle, which is passed on until it meets with the resistance of the basilar process, when its point is slightly elevated so as to reach the highest layer of the adenoid tissue. Considerable pressure is requisite to force the fluid into the tissues, and an easy flow indicates that the needle has not travelled sufficiently upwards to the pharyngeal roof. The process is repeated through the opposite nostril, half a syringeful being injected on either side. After waiting a short time the adenoids can be removed in the great majority of cases entirely painlessly. The method is especially applicable to older children and adults, though, in the writer's hands, it has often succeeded in children under 10, and not infrequently in those as young as 4 or 5. There should be no crying or struggling, and the growths can be removed as thoroughly as under general anæsthetic with the avoidance of the dangers inseparable from the latter. It is important not to frighten children by digital examination or attempts at posterior rhinoscopy, which frequently render them unmanageable. Anterior rhinoscopy is usually sufficient for diagnosis.

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#### TREATMENT OF MENIERE'S DISEASE BY LUMBAR PUNCTURE.

At one of his *conferences cliniques* at the Hospital de la Pitie, Babinski showed a woman, 35 years of age, who five years before had frequently been subject to attacks of vertigo, vomiting, and other symptoms characterizing Meniere's. The right ear was almost quite deaf, and showed the usual lesions on examination. Charcot's treatment of this disease with quinine is long and troublesome, and Babinski determined to put into effect an idea which he had formed some time before, and to try the effect of lumbar puncture. The patient shown was the first so treated, and two punctures relieved her of the attacks of giddiness and even of the singing in the ears. Since then about 60 cases of this disease have been treated in the same way, and in the great majority, a marked improvement has resulted, in some a nearly complete cure. In the case of the patient shown, the attacks of vertigo had occurred three times a week for eighteen months. At the first puncture, 15 c.c. of cerebro-spinal fluid were withdrawn. She was at first very unwell, as is usually the case, but after eight days the improvement was very marked. The second puncture was performed

a fortnight after the first, and since then the improvement has remained permanent with complete disappearance of the vertigo, and of the dulled hearing on the left side. Among other cases quoted, Babinski mentioned as the most remarkable that of a priest, who had suffered for 38 years, and had been unable to go out alone for eighteen months. Two punctures had cured him completely, and the cure had already lasted for four years. The therapeutic action is very hard to explain. It can scarcely be set down to the diminished pressure of the cerebro-spinal fluid, because that is re-established very quickly after puncture. It is possible, however, that the puncture produces a sort of concussion or shock, which promotes recovery. Whatever the explanation may be, Babinski is satisfied as to the good effect. He considers that lumbar puncture is free from danger, and has never seen any serious consequences occur in some thousands of cases. It appears only to be dangerous in patients suffering from cerebral tumors, but, from this, is harmless, if made with all due and proper precautions. For the intractable affection under discussion, it is a valuable therapeutic measure.—*Journal de Medicine et de Chirurgie Pratiques.*

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#### EAR DISEASE IN SCHOOL CHILDREN.

Frances Ivens (*Journal Laryngology, Rhinology and Otology*, September, 1907) contributed a paper to the International Congress of School Hygiene, on disease in East London school children, giving the result of an examination of 1,000 children, each 10 to 14, as to acuity of hearing, condition of tympanic membrane, and associated deafness with adenoids and other throat diseases. Nearly one-third of the children had deficient hearing and 74 per cent. of these cases were associated with morbid condition of the throat. The mental capacity of each child is estimated by the teacher. The tables showed that whereas 26 per cent. of the children with normal hearing attained a high degree of intelligence, only 17 per cent. of those with deficient hearing and 14 per cent. of those with bad hearing, were placed in the same class. Removal of adenoids with suitable training in nasal breathing was followed not only by cessation of otorrhœa, but also by great improvement of hearing; and the lack of power of attention and concentration, so characteristic to mouth breathers, was lessened. For these reasons all school children should not only be systematically examined for adenoids, but also should be efficiently treated. The habit of nasal breathing and the use of the handkerchief also should be taught.—*Journal of O. and O.-L.*

## ELECTRO-THERAPEUTICS AND RADIOLOGY.

Under the charge of JOHN STENHOUSE, M.A., B.Sc., Edin., M.B., Tor.

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## ROENTGEN FLASHES OR INTERMITTENT X-RAYS.

Finley R. Cook in the *Medical Record*, of November 14th, 1908, writes a most valuable paper on this subject. He points out that stimulation is always brought about by intermittent applications and that continuous treatment with the same intensity is, beyond a certain period, irritating and destructive. Thus a cataract exposed to continuous rays shows a short-lived improvement in vision, followed by rapid ripening through over-stimulation. With X-ray flashes, although a greater amperage is used, irritation and ripening are avoided and a purely stimulating and regenerating action obtained with more or less improvement in vision.

Degenerative action of the continuous rays. Continuous ray treatments produce, first, hyperæmia, through a paralysis of the vasoconstrictors, followed by necrosis and deep ulceration.

X-ray dermatitis thus shows three zones; an external one of hyperæmia, a central one of absolute necrosis and an intermediate one of fibrosis.

There are also degenerative effects to be seen in the blood. In an animal submitted to prolonged exposures, autopsy revealed a large destruction of the white cells and diminution and breaking down of the red cells.

Highly specialized cells are most susceptible to X-rays, as is seen in the production of sterility or permanent baldness and in the disastrous effects upon the kidneys, especially in cases of nephritis.

On the other hand the regenerative action of X-ray flashes has been proved in both local and constitutional conditions. They dilate arteries, lower blood pressure, induce an active and natural hyperæmia and stimulate cellular metabolism without exhaustion.

With a tube focused over the chest and abdomen, the pulse rate has been lowered ten beats per minute, and the blood pressure ten manometers with one instantaneous flash. With sixty such flashes a fall of sixty manometers and thirty-five in the pulse rate has been accomplished in a minute and twenty seconds.

In fatty degenerations and infiltrations the fat is oxidized, and there is a development of normal tissue. In cystic degeneration cysts have disappeared, a mass the size of an English walnut, in the breast, having disappeared entirely after one treatment, after having been observed for two years.

It is also valuable in arteriosclerosis, where the reduction in blood pressure is of untold benefit to the patient.

The Mechanism of Flashes. This is obtained by the use of a small motor, a condenser, and a moving shaft. From 60 to six hundred flashes per minute may be obtained. The quality of the rays remains decidedly more uniform by means of intermittent rays and there is economy in tubes, coils and current.

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## PERSONAL AND NEWS ITEMS.

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### ONTARIO.

Dr. George D. Ross, of Toronto, has gone for a visit to Bermuda.

It is to be hoped that the rumor is well founded that a gentleman in Kingston is going to endow the chair of anatomy.

Dr. J. C. Byers, who contracted typhoid fever while on duty as section physician to the Grand Trunk Pacific, has fully recovered.

Dr. A. D. Macintyre, formerly superintendent of the Kingston General Hospital, is spending the winter in Edinburgh.

Dr. R. J. Gardiner, formerly in practice at Seeley's Bay, has sold out and has located in Kingston.

The Medical Department of Queen's, Kingston, has 68 students in the first year. This is the first class under the five-year course.

Dr. W. A. Wilson, formerly of Fenelon Falls, has located on Bathurst street, Toronto.

The New General Hospital for Toronto has had two plans submitted which will cost about \$1,350,000 and \$1,210,000 respectively.

The County Council of Bruce has sent \$100 in aid of the Muskoka Hospital for Consumptives.

The Local Board of Health of Toronto adopted Dr. Sheard's recommendation for a new wing to the Isolation Hospital to cost \$60,000.

The estimates for the Hamilton Board of Health this year will be over \$20,000. Dr. Roberts the Medical Health Officer, has made some important recommendations.

Dr. W. B. Hopkins, who practised for a number of years at Marshville, and removed to Hamilton a little over a year ago, was elected an alderman for that city.

The Isolation Hospital in Hamilton is now quite inadequate for the demands put upon it. As many as 25 patients have been refused admis-

sion some months. It is proposed that a large additional wing should be erected.

Dr. C. Sheard and Controller Dr. W. S. Harrison, both of Toronto, have been in New York looking into the best method of installing septic tanks and taking advice on the subject of sewage disposal.

The Annual Banquet of the Æsculapian Society of Queen's University was a very successful function. The attendance was large and there was much enthusiasm evinced by the friends of Queen's Medical College. The Provincial Secretary, Hon. W. J. Hanna, made a very happy speech.

Dr. Sheard, Medical Health Officer for Toronto, has recommended to the Board of Control that each of the hospitals, namely, St. Michael's, Grace, the Western, and the Home for Incurables, be asked to provide accommodation for 50 additional city order patients in return for the grant of \$50,000.

At a recent meeting of the County Council of York much opposition was raised against voting any money to the Muskoka Hospital for Consumptives, and appointed a committee to press upon the Ontario Legislature the advisability of building a free hospital for indigent consumptives.

The Toronto Western Hospital is completing its plans for two very large pavilions. These pavilions will consist of a basement and three storeys. Each will be 120 feet in length and will be connected by a central building. These pavilions will afford the most modern kind of accommodation for at least one hundred additional patients. It is estimated that these additions will cost about \$100,000.

For practising medicine in Niagara Falls, Ont., Dr. Snyder, a physician of Niagara Falls, N. Y., was fined \$25 by Magistrate Fraser recently. The Ontario Medical Council prosecuted, and the case was conducted by Detective Rose of Toronto. The doctor pleaded guilty. He stated he had passed examinations in Toronto and is fully qualified in the States. He is not, however, fully qualified in Ontario and the charge was brought on this count.

Mr. Ambrose Kent, President of the Toronto Home for Incurables in Toronto, has filed with the Provincial Government plans for the proposed extensions to the building. These include a new wing facing on Dunn avenue, three stories high, with six wards on each floor, and provision for 100 patients in all. A nurses' home is also to be built on the west end of the building to face Close avenue and accommodate thirty nurses. The additions in all cost \$70,000, towards which the city has granted \$50,000. The balance the officers hope to make up through the private generosity of citizens.

*QUEBEC.*

At a meeting of the Medico-Chirurgical Society of Joliette, Que., it was decided that all examinations for life insurance companies be \$5. This was unanimously adopted.

The house problem in Montreal is a very serious one. There is an extreme degree of overcrowding in some parts of the city. Many houses have been erected with dark or windowless rooms. Steps should be taken to render this impossible.

In the year 1908 there were in Montreal no less than 850 deaths by violence. There were 23 deaths by foul play, the Italians being responsible for ten of these. There were 29 suicides. Railways killed 50 and the street railways 22. There were 19 asphyxiated by gas. Drowning claimed 75.

The people of Montreal are being aroused to the very great importance of a pure milk supply. This is having an excellent result, and the lay press is taking an active part in the advocacy of pure milk. Montreal has for many years suffered from a very high infantile mortality, much of which has been due to bad and impure milk.

The Montreal Tuberculosis Exhibition was a marked success. The exhibit was a very large one, and some 60,000 persons paid the exhibit a visit during the twelve days it lasted. It is said that 25,000 of the school children were in attendance. In connection with it was also a health and hygienic exhibit, and much instruction was given upon sanitary matters. Upon the whole, the Tuberculosis and Health Exhibition was a very marked success.

Montreal has been recently passing through an epidemic of typhoid fever. At one time there were 250 cases in the hospitals and about 800 cases in private houses. The water supply system for Montreal is very defective, and favors the contamination of the water by sewage. The water is not examined and consequently the people have no warning when they should boil it before using. Then there is no milk inspection. In these ways typhoid fever is given every opportunity to spread.

Montreal, Feb. 10.—An anonymous donor to-day gave a hundred thousand dollars to McGill University on condition that an additional half million dollars be raised, the resultant \$600,000 to be funded for the general use of the university. No time limit is set for the collection of the half million, but Principal Peterson to-day stated that he already had in hand about \$100,000 to this fund, including a donation of \$50,000 recently made by Mr. Robert Reford, and another gift of \$25,000 which was made to-day, also by an anonymous benefactor.

The public school medical inspection of children in Montreal has revealed a very serious state of affairs. The school population was 49,360. Out of this number no less than 30,133 required medical treatment of some sort. There were 13,385 with decayed teeth, 3,825 with enlarged tonsils, 3,656 with pediculosis, 1,333 with defects of vision, and 1,661 with enlarged glands. The city is divided into 14 districts with a qualified medical man in charge of each district at a salary of \$100 per month.

The Montreal Medical Society (French) has appointed several committees to investigate and report on a number of important questions. (1) To enquire into the method of admitting poor patients into the hospitals, and the best method of preventing free treatment of those who can pay. (2) To report on the regulations that ought to govern the consultations between the family physician, and the consulting surgeon or specialist. (3) To report on the subject the uses of the medical inspection of school children, and the best methods of improving municipal hygiene. (4) To report on certain rules relating to child labor. (5) To study the Medical Act and to report on changes that ought to be made.

#### MARITIME PROVINCES.

Dr. D. A. Taylor, who has been practising in Newcastle for some time, intends settling in Lethbridge, Alta.

Dr. J. A. Spongale, of Middleton, N. S., has gone to London for a period of post-graduate study.

Dr. James Chisholm, formerly of New Glasgow, N. S., has gone to Everett, Washington State, and is doing well.

Dr. G. J. McNally, who has practised for some time in York and Sunbury counties in Nova Scotia, has decided to locate in Berwick in the Annapolis Valley. He was entertained by his confreres before his departure to his new sphere of practice.

#### WESTERN PROVINCES.

The Winnipeg Clin' Society has elected the following officers: Dr. W. R. Nicholls, President; Dr. Chas. Hunter, Vice-President; Dr. J. G. Munro, Secretary; and Dr. J. E. Lehmann, Treasurer. The committee consists of Drs. R. W. Kenney, J. H. Bond, and R. Rorke.

The Medical and Chirurgical Society of Winnipeg has as officers for this year the following: Dr. W. J. McLean, President; Dr. J. O. Todd, Vice-President; Dr. C. H. Vrooman, Secretary-Treasurer; Committee, Drs. Smith, Hunter, Galloway, and Halpenny,



## FROM ABROAD.

The International Medical Congress meets this year in Budapest, Hungary, on 29th August, and continues in session till 4th September.

The late Henry Isaac Bernato bequeathed \$1,250,000 for the purpose of founding a hospital or charity in memory of his brother and nephew. The money may be used for a Jewish Hospital.

A bill has been passed by the Legislature of N. S. W., Australia, regulating the sale of proprietary medicines containing powerful narcotics, or noxious drugs. The bill also ensures the purity of foods.

According to the report of Dr. W. Ernest Jones, the number of insane in Victoria, Australia, at the end of the year was 5,052, or 1 for every 249 of the population.

According to a recent report of Surgeon-General Wyman there is no further evidence of the plague in San Francisco. No district reveals the presence of the disease either in man or infected rats.

Prof. Von Strümpell, of Breslau, has been offered and has accepted the chair of medicine made vacant by the death of Prof. Von Schrötter, of Vienna.

The marriage in Austria in 1900 was 24 per 1,000, in 1908 it was 21.7. The birth rate in 1900 was 34 per 1,000, whereas in 1908 it had fallen to 32.

The Research Defence Society of Britain has now 2,000 members. Of these 230 are ladies. A branch has been formed in Dublin with 400 members.

Of the patients admitted into the Brisbane General Hospital, Australia, 17% had filaria in the blood, though they showed no symptoms of filariasis, having been admitted for some other trouble. This has aroused attention against the mosquito once more.

Among the bills introduced in the Pennsylvania Legislature was one which provides that all applicants for marriage licenses must present certificates showing that they are not afflicted with tuberculosis or other disease.

An anonymous contributor has given the Medical School of the London Hospital £20,000. The interest is to be used in aid of medical research. This gift is in aid of the scientific basis of the treatment that other gifts make possible from the charitable side.

An interesting trial took place in London before Justice Grantham when both parents were found guilty and sentenced to three months in

prison for not calling in medical aid to their sick child. They claimed to belong to the "Peculiar People" who believe only in prayer.

In the United States and Canada last year there died in the medical profession 2,261. This gives a death rate of 17.39 per 1,000 doctors. The average age of those who died was 59½ years. Accidents caused 126 deaths, while there were 34 suicides and 12 homicides.

The antivivisectionists are going to great lengths in Great Britain. A circular has been issued and sent to experimentors and workers in laboratories to warn them that prayer will be made for their death unless they desist from their cruel investigations on animals.

In Paris for some time past a good deal of attention has been given to the value of radium in the treatment of cancer of the skin and mucous membranes. Prof. Gaucher has been carrying on some extensive observations on the use of radium in these affections, and reports good results.

An interesting old parchment has been discovered by Mr. D'arcy Power, dealing with the old cult of the Barbers. John Stafford, Archbishop of Canterbury, issued an edict dated 1445, to the effect that barbers who carried on their trade on Sundays and festival days would be excommunicated.

Medical schools of London, Eng., are notoriously hard up. This is really a great drawback to the work of research. To overcome this difficulty to some extent an anonymous donor has given to the Medical School of London Hospital the sum of £20,000 for research work.

The Medical Department of the Western Reserve University, of Cleveland, Ohio, has made the entrance standard the degrees of A.B., B. S., Ph.B., or Litt. B., or the securing of one of these before entering upon the third year of the medical college. The student in such cases must have passed the junior year in a college granting one of the foregoing degrees.

Dr. William P. MacCallum, associate professor of pathological physiology at Johns Hopkins Medical School, has been appointed to the faculty of medicine of Columbia University, New York. He is a Canadian, born in Dunville, Ont., and the son of Dr. G. S. MacCallum of the asylum at Penetanguishene. He has been prominent in original research work.

Dr. Arnold, of Dusseldorf, has placed on record a very interesting case. The subject was a male aged 59, who married at 40. He had

sexual potency. There was a tumor in the left inguinal canal which became painful. This tumor was removed and was found to be a perfectly formed uterus with the two tubes. The person had all the appearance of being a well formed male.

There is a vigorous demand for strict regulations regarding the manufacture of bedding in Britain. It appears that much bedding is made from what is called "flock," or old rags. For the sake of economy these rags are worked up into bedding without being washed. The washings from a test quantity of rags gave 140 grains of organic per gallon.

Dr. Coppinger, a very distinguished surgeon of Dublin, died in his 62nd year recently. He had been surgeon to several of the Dublin hospitals; was some time professor of the Institutes of Medicine in the Catholic University of that city, and was an examiner for the conjoint board. He had contributed scientific papers on medical and surgical subjects.

There appears to be serious financial trouble in the affairs of the London Polyclinic. Sir Jonathan Hutchinson stated that the institution was £500 in debt and that those associated with him were not willing to share any portion of the burden. It seems the building was rented in his name and that he is responsible for the amount of rent due. His valuable museum is in the building and if this is given up the collection may be broken up.

An Association of Medical Libraries has been formed in Britain. Prof. Osler has been elected its president. The objects of the Association are to encourage the formation of local libraries for medical men; to encourage the use of these by doctors in each locality, and to exchange duplicate books with other branches. It is hoped that expensive works and rare books may be loaned from one library to another.

The hospital in Cairo, Egypt, contains over 400 beds and is the seat of the Government School of Medicine. From 6,500 to 7,000 patients are admitted annually. The ratio of male to female patients is three to one. Three infections are very common, namely, trachoma, ankylostomiasis, and bilharziosis. Of these patients 1,850 were medical, 2,630 were surgical, 1,400 were ophthalmic, 250 gynaecological, and 126 skin and venereal. The anti-rabic section admitted 424 for inoculation. Of these three developed hydrophobia and died.

N. K. Foster, Secretary of the State Board of Health for California makes the declaration that a large amount of the cases of

typhoid fever and other sporadic diseases prevalent in California are directly due to the consumption of oysters, clams and fish taken from the State rivers and bays. He declares that the water products are diseased as a result of pollution of streams and bays, and says there are two ways of preventing dangerous epidemics. Either people must quit eating clams, oysters and fish or the sources from which they are obtained must be purified.

At a recent meeting of the Society for the Study of Inebriety in Britain, Dr. W. A. Potts read a very interesting paper on the etiology of feeble-mindedness. He pointed out that alcoholism and tuberculosis frequently existed in the parentage. There was also often a neuropathic heredity. He maintained that impaired vitality and nervous instability might result from parental alcoholism. Children of parents who do not use alcohol give 96 per cent. proficient, 4 per cent. dullards, and 18 per cent. sufferers of some neurosis. On the other hand the children of drunkards gave 23 per cent. proficient, 77 per cent dullards, and 76 per cent sufferers from some neurosis. Maternal drinking is specially dangerous to the offspring.

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## OBITUARY.

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### GEORGE WILSON BELL, M.D.

Dr. Bell died at his home in Kingston, N. S., after a lingering illness. He was born in 1842, and graduated from the College of Physicians and Surgeons of New York. He was a very successful practitioner and was an ideal gentleman. He began practice in 1869, and for the last 20 years had lived and followed his profession in Kingston, N. S.

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### D. E. CARDER, M.D.

Dr. D. E. Carder, of Blyth, died 18th February, at his home, of fatty degeneration of the heart. He was the second son of Dr. Geo. W. Carder, of Otterville, Oxford county, and an elder brother of Mr. M. D. Carder, of Toronto, Grand Recorder of the A. O. U. W. He was prominent in the Masonic body and A. O. U. W., and a member of the Anglican Church. He formerly practised at Delhi and Listowel, but for about twenty years had resided at Blyth.

A. R. STEPHENS, M.B.

Dr. Stephens died in Collingwood recently, where he had practised for many years. He obtained his license to practice in 1851. He was in practice for a period of 55 years. He was one of the oldest practitioners in Ontario.

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## BOOK REVIEWS.

### DIGESTIVE CANAL DISEASES.

Diseases of the Digestive Canal (Oesophagus, Stomach and Intestines), by Dr. Paul Cohuheim, Specialist in Diseases of the Stomach and Intestines, in Berlin. From the second German edition. Edited and translated by Dudley Fulton, M.D., Lecturer on Medicine, University of Southern California, Los Angeles. Illustrated. J. B. Lippincott Company. Philadelphia and London, and 608 Lindsay Building, Montreal. Price \$4.00.

This book has been written and revised by the author with a very distinctive end in view. This end is to emphasize the great importance of subjective symptoms on the diagnosis of diseases of the digestive canal. The work has been prepared for the general practitioner, and for this reason the study of laboratory methods is very largely omitted. This, after all, is the standpoint from which the general practitioner must approach diseases of the digestive canal. He has rarely the facilities for carrying out complicated laboratory investigations, and he must, therefore, depend largely upon what the patient tells him regarding his symptoms, and upon what he can find out by palpation, etc. The work is an exceedingly valuable addition to the literature of this subject.

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### DIATHESIS AND OCULAR DISEASES.

By A. Maitland Ramsay, M.D., Fellow of the Faculty of Physicians and Surgeons, Glasgow; Ophthalmic Surgeon, Glasgow Royal Infirmary; Lecturer on Eye Diseases, Queen Margaret College, University of Glasgow. Author of "Atlas of External Diseases of the Eye," "Eye Injuries and Their Treatment," etc. London: Baillière, Tindall and Cox, 8 Henrietta Street, Covent Garden, 1909. Price 3s. 6d. net.

The author regards diathesis "As a permanent condition of the body (hereditary or acquired) which renders it liable to certain special diseases or affections—in short, a bodily condition predisposing to a particular disease." With this general statement most will find themselves in accord. The author seeks in this book to work out this thesis,

and show in what way and to what extent constitutional tendencies affect their possessors when they become the victims of ocular diseases. The author discusses the scrofulous diathesis, the arthritic diathesis, inflammations of the conjunctiva and sclerotic, inflammation of the ureal tract, albuminuric retinitis, toxic amblyopia, retrobulbar neuritis, glaucoma. On all of these important topics the remarks of the author are particularly well taken, and his advice on treatment sound. The book will be found a most interesting and valuable one to all who may have the good fortune to secure a copy. It is such a book as ought to find its way into the hands of general practitioners, as so much of the ground covered by it falls first under the purview of those who are not specialists. We very heartily recommend this little book.

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#### BLOOD EXAMINATION IN SURGICAL DIAGNOSIS.

A Practical Study of its Scope and Technic. By Ira S. Wile, M.D., New York. Duodecimo; 161 pages; 35 illustrations and 1 double-page colored plate. New York: Surgery Publishing Company, 1908. Cloth, price \$2.00; oil cloth for laboratory use, \$2.50; De Luxe ooze leather, price \$3.00.

This is a pioneer book in a wide and useful field, especially so as the diagnostic and prognostic value of blood examinations in surgical as well as medical conditions have been definitely established.

Although written especially as a guide in the diagnosis of surgical conditions, the blood findings in "medical" affections are also described seriatim, in order to present the differing data; therefore the general practitioner will find much that is valuable and new clearly stated in the book. No previous knowledge of hematology is necessary in order to grasp the subjects presented in this volume, and the book ought to prove of service to those practitioners who have not had the benefit of training in this field, and of especial value to hospital internes on whom this diagnostic work falls. Unburdened by names, it sums up for the reader all the vast hematological literature. As treated it yields a free presentation of the most serviceable modern aid to clinical surgery.

The classification of anemia is decidedly original and commendable. Basing anemias upon hematological rather than a clinical basis is a marked step in advance. Particularly startling is the casting out of Hodgkins diseases but it appears rational. No clearer statement has yet appeared to teach a student the varieties of leucocytes and the method of making a differential count. The whole subject of leucocytes is handled particularly clearly. The table of percentages of leucocytes

normal at various ages is new and should be of immense aid in interpreting blood counts in children.

The chapter dealing with the surgical interpretation of the total leucocyte count and the differential count is absolutely new both in material and mode of treatment. "The index of bodily resistance and the index of toxic absorption" are far more important in surgery than one would imagine, and this excellent chapter has no counterpart in text books on hematology. It is the clearest and fullest discussion of the topic that has appeared.

Lacking in hematological dogmatism it abounds in a surgical conservatism that makes it a safe authority to follow. The consideration of anti-operative, operative and post operative conditions affecting the blood is logical and well arranged. The book is a splendid example of the printer's art and the bookbinder's ability. The typography is clear and attractive, and the marginal notes in red are as neat as they are useful. The double-page colored plate shows six blood pictures and in addition 29 illustrations of the various types of cells as they appear with the Jenner stain. While these will serve to interpret, the numerous other blood pictures printed only in black, have added to the value of the book.

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### SEVEN HUNDRED SURGICAL SUGGESTIONS.

*Practical Brevities in Surgical Diagnosis and Treatment.* By Walter M. Brickner, B.S., M.D., Assistant Adjunct Surgeon, Mount Sinai Hospital, New York; Editor, in-chief, *American Journal of Surgery*, Eli Moschowitz, A.B., M.D., Assistant Physician, Mount Sinai Hospital Dispensary, New York, and Harold M. Hays M.A., M.D. Third Series. Duodecimo; 153 pages. New York: Surgery Publishing Co., 92 William St. Price, semi-de-luxe, \$1.00; full library de luxe ooze leather, gold edges, \$2.25.

This volume is literally "packed full" of useful and valuable information for the general practitioner or surgeon. Written in short, terse epigrammatic paragraphs it puts its hints up to the eye of the reader in a manner which makes a lasting impression. In its present and enlarged form it is a gem both as to its contents and as an example of the printer's and bookbinder's art.

Any work which can call for three editions in two years, each larger and better than the previous one, is an indication of its usefulness and popularity and *Seven Hundred Surgical Suggestions* surpasses them all. The originality of its contents is in keeping with its elaborate and attractive mechanical make-up, and every doctor should have a copy in his library.

## PACKARD ON THE NOSE, THROAT AND EAR.

*Text-Book of Diseases of the Nose, Throat and Ear for the use of Students and General Practitioners*, by Francis R. Packard, M.D., Professor of Diseases of the Nose and Throat, in the Philadelphia Polyclinic Hospital and College for Graduates in Medicine; Aurist to the Out-Patient Department of the Pennsylvania Hospital. J. B. Lippincott Company, Philadelphia and London, and 608 Lindsay Building, Montreal. Price \$3.50.

This volume is one of Lippincott's series of new medical manuals. The author claims to have prepared this work mainly from the practical standpoint and to be suitable for graduates in their post-graduate studies as well as for the more advanced student of medicine. The author has had many years of experience as a teacher, and this he contends enables him to judge what should best go into such a book as this. The work consists of two parts: The nose and throat, and the ear. The salient features of each chapter are the exhaustive manner in which diagnosis and treatment are discussed. The book is very well illustrated, many in colors. The publishers merit praise for the skill displayed in producing a work with so many attractive features. To those who wish a good text-book of diseases of the nose, throat and ear, this one will meet every requirement.

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 WOOLSEY'S SURGICAL ANATOMY.

*Applied Surgical Anatomy, regionally considered for the use of students and practitioners of medicine*, by George Woolsey, A.B., M.D., Professor of Anatomy and Clinical Surgery in Cornell University Medical College, Surgeon to Bellevue Hospital, Associate Surgeon to the Presbyterian Hospital, Fellow of the American Surgical Association and of the New York Academy of Medicine. Second edition, enlarged and thoroughly revised, with 200 illustrations, including 59 plates, mostly colored. Lea & Febiger, Philadelphia and New York, 1908.

This excellent work has now passed into its second edition. Every page has been subjected to careful revision. Eighty pages of additional reading matter and seventy-five new illustrations have been added. The book contains much valuable information on the interesting subject with which it deals. To the surgeon and the general practitioner the subject of surgical anatomy is a very interesting and important one. It is, indeed, a basic study. Dr. Woolsey has written his book with the knowledge of an anatomist together with the experience of a surgeon. This enables the author to bring together such facts and illustrations as are of the greatest value to the student or practitioner who wishes to acquire a proper working knowledge of surgical anatomy. All the regions of the body are carefully studied in detail. The various sections lay down a good foundation on which to build



up one's knowledge of operative procedures. The paper and binding are all that could be desired. We wish to express our approval of the work and to recommend it to all who wish to give attention to surgical anatomy. The book will improve on acquaintanceship.

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### GYNECOLOGICAL DIAGNOSIS.

A *Text-Book of Gynecological Diagnosis*, by Dr. George Winter, O.O., Professor and Director of the Hgl. Universitäts-Frauenklinik in Königsberg, Prussia; with the Collaboration of Carl Ruge, of Berlin. Edited by John G. Clark, M.D., Professor of Gynecology, University of Pennsylvania. After the third revised German edition. Illustrated by four full page plates and three hundred and forty-six text illustrations in black and colors. Philadelphia and London, J. B. Lippincott Company, and 608 Lindsay Building, Montreal. Price \$6.00.

The high standing of the authors and translator of this work would warrant the reader to expect much. In this expectation we are bound to say he will not be disappointed. Step by step the reader is taken through the many difficulties of gynecological diagnosis. One would think that this topic had been about exhausted by the many able treatises that have appeared on gynecology; but as the pages of this work are perused under review it becomes quite clear that the author throws much interest on well-worn subjects, and succeeds in placing old discussions in a most attractive light. The amount of suggestive matter in this volume is really very great and stands out as a unique monument to the industry and skill of the authors. It would be altogether unfair to leave the impression that the work is merely an excellent statement of up-to-date knowledge. It is far more than this; it is a truly original work both in plan and material. The book itself is a superb one in appearance.

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### MAYOU'S EYE DISEASES.

*Diseases of the Eye*, by M. Stephen Mayou, F.R.C.S., Late Hunterian Professor, Assistant Surgeon and Pathologist, Central London Ophthalmic Hospital, etc. With 119 original illustrations and 8 colored plates. London: Henry Frowde, Oxford University Press; and Hodder and Stoughton, Warwick Square, E.C. Toronto: D. T. McAinsh and Company. Price \$1.50.

This handy little volume of about 400 pages is one of that excellent series known as the "Oxford Medical Publications." The author claims that his object has been to prepare a work that would be a reliable guide to students and a practical manual for practitioners. In both of these objects we do not hesitate to say that this book fulfills every reasonable

expectation. In the first place it is reliable in its statements regarding pathology and treatment; and in the next place it is well condensed, but still possesses that clearness which is always essential in a good book for students, and those who are not specialists. The paragraphs throughout the book are indicated by heavy-faced type. The illustrations have been carefully selected with a view towards explaining the text. We have formed a very high opinion of this manual and have no doubt but that it will meet with much favor.

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## MISCELLANEOUS.

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### THE MOSQUITO IN HISTORY.

Professor J. George Adami, of McGill, while addressing the College of Physicians and Surgeons, of New York, among other things said:—"It was the mosquito, not graft, that brought disaster upon the French project to build a canal across the Isthmus of Panama. The malaria-breeding pest has been a menace to public health for many centuries, and indirectly, through the spread of the fever, caused the decay of Greece and the fall of Rome.

"Half the population of the world die from malaria, in most instances spread by the mosquito. Out of six millions who died in India, five millions died from fever. But now pathological research has led to practical means of prevention, and the death rate has greatly diminished."

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### TYPHOID FEVER IN THE UNITED STATES.

The death rate from typhoid fever alone is estimated at 50,000 annually, and it is admitted to be a preventable disease. In addition to this, it is estimated that 500,000 people every year have the disease and recover. In reckoning the cost of typhoid fever, Doctor Victor Vaughan says:—"To get down to dollars and cents, which is the American way of figuring everything, say that the average human life is worth a thousand dollars. Then, with 50,000 deaths from this disease, we are losing by death alone \$50,000,000." Besides this there is the time lost by the 500,000 people who are sick, the cost of the doctor and other expenses, in an average duration of sickness of

forty days for each case. Reckoned in dollars and cents, it is estimated that the people of the United States are paying annually a tribute of \$90,000,000 to our ignorance and carelessness regarding only one of the preventable diseases.—*The Pacific Medical Journal*.

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#### FLEAS AND PLAGUE IN THE OLD TESTAMENT.

Sir Havelock Charles contributed recently to a contemporary an ingenious speculation concerning an incident in the Book of Samuel, which has given rise to much discussion on the part of commentators. It will be remembered that when, in the warfare between the Israelites and the Philistines, the ark of God fell into the hands of the latter, it was followed in its travels by "a very great destruction," the men of the cities of the Philistines where the ark rested being smitten with "emerods in their secret parts." Eventually the ark was restored to Israel, only to cause a worse destruction, fifty thousand and three score and ten among those who pried into it being smitten. It is recorded also that mice marred the land of the Philistines at that period, and they must have been supposed by the Philistines to have some relation to the prevailing epidemic, since images, not only of emerods, but of mice, were made to allay the anger of God. Sir Havelock Charles suggests that in the story we have an account of an epidemic of plague. The ark, he says, during its stay in the temple of Dagon, infested, like all Eastern temples, with rats, became infected by plague-laden fleas, to which its covering of badger skins gave safe harbor. During its subsequent travels, even till it came to the prying Israelites of Beth-shemesh, it distributed plague. When the ark became safe from further inquisitive meddling, its power of propagating disease disappeared. The suggestion is an interesting and ingenious one, though we are scarcely surprised that the high church dignitary to whom Sir Havelock Charles first made it, did not receive it as it was meant.—*Medical Press and Circular*.

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#### DR. BEAUPERTHUY ON MALARIA AND YELLOW FEVER.

The *Havana Cronica Mexico*, a short time ago, contained an article on the pioneer work of Louis Daniel Beaupertuy, and republished an article which that investigator contributed to the *Gaceta Oficial de Cumana*, in May, 1853. Beaupertuy had devoted fourteen years to

a microscopic study of the blood, prior to the time that he took charge of the yellow fever epidemic in Cumana, and, after his experience with yellow fever, he forwarded a letter to the Academie de Paris, in which he stated that yellow fever is in no way to be regarded as a contagious disease. He further held that yellow fever and intermittent fever were due to the same general causes, and that both conditions develop "under conditions which favor the development of the mosquito." Beauperthuy went even further in the matter and stated that the mosquito transmitting yellow fever was one whose legs were striped with white, indication, perhaps, that he had assigned the blame of yellow fever transmission to the *stegomyia fasciata*, which we now believe to be the insect properly chargeable with it. In continuing his notes, the author held that yellow fever was transmitted by the sting of the mosquito and that intermittent fever was communicated in exactly the same way, and he adds: "The expression 'winged snakes,' employed by Herodotus, is particularly applicable to the mosquito and the result of its bite on the human organism." Beauperthuy was plainly out of sympathy with the idea that marsh air was, in itself, injurious. In concluding his paper, he said:

"Marshes do not communicate to the atmosphere anything more than humidity, and the small amount of hydrogen they give off does not cause in man the slightest indisposition in equatorial and inter-tropical regions renowned for their unhealthfulness. Nor is it the putrescence of the water that makes it unhealthy, but the presence of mosquitos."

It is interesting to note how, long after a man is dead and well nigh forgotten, he may become great by the establishment of the correctness of his theories. If the discovery of the transmission of malaria and yellow fever by the mosquito is a great advance in medicine, Beauperthuy has certainly become a great man and his name will be far better known to the coming generations than he is in this.—*The Pacific Medical Journal*.

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#### DR. T. G. RODDICK ON DOMINION REGISTRATION.

At the annual banquet of the Medical Students of McGill University, a fine bust, the work of Dr. J. J. Ross, was presented to Dr. Roddick. In accepting the bust he referred to his efforts to secure Dominion Registration. The law still remains on the statute books, and six provinces have already expressed themselves as ready to avail themselves of the privileges of the act. The other three had not done

so, and appeared to be watching each other. He hoped the day would soon arrive when all the provinces would signify their willingness to have the act go into operation.

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#### GREATER NEW YORK NUMBER.

An unusual feature of medical journalism will be presented in the March issue of the *American Journal of Surgery*. The entire original subject matter in this issue will be contributed by New York City surgeons of note, and a number of new operations will be first presented therein. Among the contributions to appear are:

A New and Simple Method of Intestinal Anastomosis (illustrated), by Howard Lilienthal, M.D., Attending Surgeon, Mt. Sinai Hospital.

Sigmoiditis and Perisigmoiditis, by James P. Tuttle, M.D., Professor of Rectal Surgery, N. Y. Polyclinic, New York.

Sacral Suspension of the Uterus—A New Technic (illustrated), by James Van Doren Young, M.D., Surgeon, St. Elizabeth Hospital, New York.

Cancer of the Breast by Willy Meyer, M.D., Professor of Surgery, Post-Graduate Medical School; Attending Surgeon of German Hospital, New York.

A Modified Operation for Inguinal Hernia (illustrated), by Albert E. Sellenings, M.D., New York.

The Localization and Removal of Foreign Bodies with Especial Reference to Those in the Skeletal Tissues (illustrated), by Dr. Walter M. Brickner, Assistant Adjunct Surgeon, Mt. Sinai Hospital; Editor-in-Chief, *American Journal of Surgery*, New York.

An Operation for Direct Blood Transfusion with a Description of a Simple Method, by John A. Hartwell, M.D., Attending Surgeon to Bellevue Hospital, New York.

Plastic Mastoid Operation. A New Method of Operating in Acute Mastoiditis, by T. F. Hopkins, M.D., Assistant Surgeon Oral., N. Y. Eye and Ear Infirmary, New York.

Dislocation of the Cervical Vertebrae (illustrated), by James P. Warbasse, M.D., Special Editor, *American Journal of Surgery*, Attending Surgeon to Seney and German Hospitals, Brooklyn.

Surgery of the Pericardium and Heart, by H. Beeckman De Latour, M.D., Attending Surgeon to St. John and Norwegian Hospitals; Professor of Clinical Surgery, Long Island Medical College.

Fibrosis Uteri and its Surgical Treatment (illustrated), by S. W. Bandler, M.D., Adjunct Professor of Gynæcology, N. Y. Post-Graduate Medical School.

Laryngeal Stenosis in the Adult, Successfully Treated by intubation, by William K. Simpson, M.D., Professor Laryngology, College of Physicians and Surgeons, New York.

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### ALCOHOL AND TOBACCO IN CANADA.

A correspondent to *The New York Medical Journal*, writing from Montreal, give the following statistics:—

“The report for 1907-1908 of the excise division of the Department of Inland Revenue of Canada shows that in spite of the local option movement the production of alcoholic beverages continues to grow in Canada. Spirits, of course, are not all consumed as beverages, large quantities being used in the preparation of medicines and in some of the industrial arts, though for the latter wood spirit is to some extent taking the place of the article made from grain. The greater part of the alcohol made from grain or molasses is intended, however, for beverages. In Canada last year the new output of the distillers was at the record figure of 6,849,763 proof gallons, there being consumed in the process 7,679,000 pounds of malt, 72,997,000 pounds of Indian corn, 14,921,000 pounds of rye, 3,117,000 pounds of wheat, 395,000 pounds of oats and 17,212,000 pounds of molasses. In the matter of production Ontario is the great whiskey province. It has within its bounds seven of the twelve distilleries in Canada. The increased production of spirits is small compared with the growth in the output of beer. This has to be measured, so far as the returns go, by the increase in the production of malt. In 1903-'4 the amount manufactured was 68,503,000 pounds, while last year it was 99,577,000 pounds. Many regard the increase in the consumption of malt liquor as a temperance movement, and they have some reason, as it is well known there is less temptation to indulge to unseemly excess in drinking ales and beer than when consuming the highly intoxicating spirituous beverages. When the records are gone back to, the figures speak for themselves. In 1869 the consumption of spirits, home made and imported, was 1.124 gallon a head of the population; last year 0.889 gallon a head. In the same time the quantity of beer consumed has risen from 2.290 gallons a head to 5.812 gallons. As regards tobacco, there were taken for consumption 32,088,000 pounds. There were also consumed 200,133,000 cigars and 385,000,000 cigarettes. The latter fact is interesting in view of the abuse to which the cigarette is subjected. It is apparently becoming the favorite form of tobacco.”

## LIFE CAN BE LENGTHENED.

Declaring that human life in America could be lengthened by one-third—that is, more than fifteen years—by the adoption of hygienic reforms already known, Dr. Irving Fisher, of Yale University, in an address before the Association of Life Insurance Presidents, urged the advisability of insurance companies taking an active part in the crusade against tuberculosis and other preventable diseases.

“If we take the life tables for different periods for England, France, Prussia, Denmark, Sweden and Massachusetts,” he said “we find that human life lengthened during the seventeenth and eighteenth centuries at the rate of about four years per century; that during the first three-quarters of the nineteenth century it lengthened at the rate of nine years per century; that at the present it is lengthened in Europe generally at the rate of seventeen years per century, and in Prussia (which is perhaps the home of preventive medicine) at the rate of 27 years per century. For this country the rate can only be judged from the statistics of Massachusetts, which show that life is lengthening by about fourteen years per century, or, approximately, half of the Prussian rate.

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EXPERIENCES WITH THE CUTANEOUS TUBERCULIN REACTION AND THE FINDINGS IN TWO HUNDRED POST-MORTEMS ON CHILDREN.

In the *Cleveland Medical Journal* there is a report of an address by Von Pirquet of Vienna on this subject, relating the experiences with a second series of a hundred cases in the pediatric clinic at the University of Vienna. Having found that in vaccination against smallpox only those persons show local symptoms within 24 hours who have been vaccinated previously; in the same way an early reaction at the point of vaccination with Koch's tuberculin proves a previous infection with tuberculosis, and that this cutaneous reaction corresponds to Koch's fever reaction after injection with tuberculin.

In the first series of cases 25 per cent. tuberculin was used, in this series undiluted old tuberculin was used. The test was generally made on the arm, though sometimes the conjunctival method was also used. The latter has been given up as disagreeable, and lasting irritation has resulted in some cases, but the dermal test by the inunction of tuberculin may be safely used though it is not so sensitive as the cutaneous method. In the majority of cases the reaction was tried several times, and the sores were inspected every 24 hours, and a note made of the diameter of the papule when present.

Of about 2,000 children who had undergone the cutaneous test 200 died and were carefully dissected, tuberculosis was found in 89 cases, it

was absent in 109 and 2 were doubtful—in these two the test had been positive; one showed adhesions of the lung and enlarged glands, the other pericarditis. All the 109 reacted negatively. Of the 89 cases, 60 were positive at the first test and 29 negative, but 6 of these showed signs at the site of the inunction test. In several of the cases of the second group the test was negative owing to the presence of measles, this non-reacting stage has been shown to begin at the same time as the exanthem and continue a week. If the measles has not caused a generalization of the tuberculosis the regular reaction appears, but most of the other negative cases were miliary tuberculosis; this condition has not much influence where the children are very young but the more grown they are the sooner the reaction lessens in the last weeks of life. The facts thus made out are very important in diagnosing the bronchitic conditions following exanthems—possibly the stage of non-reaction gives the opportunity for the germs of tuberculosis. In cases of suspected miliary tuberculosis or meningitis a positive reaction speaks in favor of the disease but a negative does not exclude it, and a negative reaction in a case which was positive argues for a more serious condition. In Vienna the writer has noted that the majority of more grown children and nearly all adults have a reactivity due to slight infections which often do not inconvenience the patient, these give as a rule only a slight reaction and only on the second application. He sums up:—

The activity of such persons is in general a very slight one and they react only at a second application. This I call a "secondary reaction." But many of them have a greater reactivity, perhaps due to some slight reinfection, without their being in any danger. Only a very severe reaction at the first application has a significance in adults. It means that there has been some new process at work, although one can not conclude whether it is a slighter or severer one. A severe reaction in connection with a suspicious disease speaks for the tuberculous nature of the latter. On the other hand, a failure to react after repeated applications of tuberculin proves (except in measles or miliary tuberculosis, as said before) that the individual is free from tuberculosis, and makes it certain that a suspected disease is not tuberculous. In such cases, in which one wishes to exclude tuberculosis, instead of making several cutaneous applications, a quicker result is obtained if, after the first negative cutaneous reaction, one injects one mg. of old tuberculin and pays attention to the local subcutaneous reaction, as suggested by Dr. Hamburger. The cutaneous test is of especial value during the period from birth to three or five years; during these years nearly all infected children react at the first cutaneous application. A slight and mild tuberculosis is at that age more rare than in older persons, complications of infection are also rarer, and, therefore, diagnosis and prognosis by the cutaneous test can be made in nearly all cases.