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# The Canadian Practitioner and Review.

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## ✓ Original Communications.

### OPHTHALMOLOGY AND THE GENERAL PHYSICIAN\*

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Associate Professor Ophthalmology and Otology, Toronto University; Oculist and  
Aurist, the Mercer Eye and Ear Infirmary, and the Toronto General Hospital, etc.

The object of this paper is to bring before the general profession some of the diseases of the eye, and also some disturbances associated with the eye, which could be more satisfactorily dealt with, if earlier recognized and more clearly understood. Take acute glaucoma: This is the form in which blindness, almost or quite complete, comes on very suddenly, viz., in one hour or so, associated with agonizing pain. It may attack one or both eyes. The intense redness of the eyeball, the swollen conjunctiva, and the severe pain may cause it to be diagnosed as acute iritis, especially when the attack is limited to one eye. The treatment of iritis is most emphatically contra-indicated in acute glaucoma, or any form of glaucoma. Hence, such a diagnosis is most disastrous. In this form of glaucoma correct treatment must be at once begun, otherwise the sight is never regained. If the oculist can at once be seen, then an iridectomy is done. If, however, some delay must take place, then use a solution of eserine till the oculist arrives.

Chronic glaucoma is a very insidious disease, its chief symptoms being a slowly growing dimness of sight; sometimes a dull headache and rainbow colors about the flame are fitfully present. If this be diagnosed as a cataract and consequently nothing be done till the vision becomes very poor, it is then too late for any operative measure, and blindness, more or less complete, results. Another cause of poor sight gradually coming on, which closely simulates a slowly growing cataract, is

\* Read before the Ontario Medical Association, June 14th, 1899.

tobacco amblyopia. Here, if the proper treatment is instituted in time, restoration of sight can be had; but if allowed to go on, thinking the cause to be an immature cataract, then the sight is, as a rule, hopelessly damaged. There are other affections of the optic nerve due to the action of certain medicines, as quinine, alcohol, arsenic and many others less commonly used.

Iritis is another affection which requires to be at once noticed, or otherwise adhesions between the iris and capsule of the lens follow, and consequent impairment of vision. In cases in which vision is thus impaired the usual course is to do an iridectomy.\* This operation improves the vision; but, as a rule, is far from satisfactory. I used to perform this operation in this class of cases, but now I never do. I use in its place my combined form of treatment, viz., mercury and the iodide of potash internally, and pilocarpin hypodermically. In this way an absorption of the exudation is produced, and a restoration of the vision is brought about, superior in every way to that by an iridectomy, and in addition there is a decided improvement in the condition of the eye generally. Disease of the lachrymal apparatus, known as "watery eye," is a much neglected affection. If taken in the early stage, before the bone becomes diseased, or but slightly affected, it can be much more easily managed than if there is extensive mischief, for this latter condition needs much time, and a long course of treatment. Unfortunately this latter condition is much the more common. The public, and many physicians, consider it too trivial an affection to be paid much attention to. There was once the same carelessness in regard to discharges from the ear, but thanks to the recognition of its dangers by the profession and through them by the public, the lamentable results from that neglect are now seldom seen. If the same care were exercised regarding lachrymal diseases, the condition of extensive destruction of the bone would as seldom be met with; and hence much more speedy and satisfactory results of treatment. The probes used in the treatment of this affection have eight sizes. I use the four smallest sizes only. The four largest sizes are never employed by me. The use of these latter is always attended with much greater pain and suffering than the four smaller. Moreover, I consider no benefit is derived, in fact a contrary effect. Frequent probing is not needed in the plan of treatment I adopt.

I now wish especially to call your attention to eye-strain. This is now acknowledged by the profession to be a decided factor in many peculiar phenomena of the nervous system; but its full significance is by no means realized. Some physicians regard it so carelessly and so little comprehend the

great difficulty in giving the proper glasses for such cases that they tell their patients to go to the nearest watchmaker or druggist to get glasses fitted. This procedure is very wrong, and most unfair, and is as if an oculist sent a patient for general treatment to a quack instead of to a physician. The giving of glasses, known under the term, refraction, is a most difficult branch of ophthalmology, and often taxes to the fullest extent all the resources of an oculist. Besides there is often associated with the error of refraction actual diseases of the structure of eye itself, or of the addenda of the eye. Let it be thoroughly understood that great eye-strain may be present though the acuteness of vision may be up to the full normal standard, or even above it. This is especially the case where there is an inequality in the two eyes. That is, one eye may be normal and the other only a little removed, or both eyes may be abnormal.

The eye, it must be remembered, always strives to get the clearest image of an object possible. If the eye be normal, this is got with the normal effort, and hence this effort is not felt. However, where there is an abnormal condition of the eye, this clearness can only be obtained by an effort greater than the normal. Hence it is merely a question of amount, time, and the surroundings before the nervous phenomena of eye-strain are shown. Some of them are: Headache, migraine or sick headache, neuralgia, spinal irritation and neurasthenia, chorea, epilepsy, mental disorders, disorders of the stomach and bowels, etc.

The narration of some of my cases, if I had the time, would be very interesting and convincing. Therefore, do not forget that most marked eye-strain may be present with good vision; for it is the continuance and amount of excessive effort made by the muscles of the eye which constitute eye-strain, not the mere fact that the vision is poor.

I hope I have succeeded in impressing upon you the importance and difficulty of prescribing the proper glasses for the eye, and the necessity of you doing your share in showing to the public the farcical nature of the claims of the so-called "doctors of refraction" to their forbearance or to their confidence.

167 Bloor Street East.

## ACUTE DIABETES.\*

BY DR. A. F. MCKENZIE, MONKTON.

Herbert T., twenty years of age, cheesemaker, first consulted me in the fall of 1898, for trouble in connection with a partially erupted wisdom tooth. He was tall and slim, and complained of feeling run down; but this was attributed to his not having eaten well on account of the trouble with his tooth, and to his having at the same time continued to work hard at his trade. A small portion of overlapping gum was excised to relieve the tooth trouble, and a tonic mixture was prescribed. I did not see him again professionally until the 9th of January last. He then told me that while on a visit to some friends during the Christmas holidays he ate rather freely of sweet food, and drank a good deal of cider. At the same time he noticed that he was passing more than the usual amount of urine, and felt very thirsty. He consulted me regarding these symptoms about two weeks after they were noticed by him. The urine had a specific gravity of 1032, and gave a very positive reaction for sugar. His tongue was large, flabby, and covered with a white fur. His breath had a heavy odor. He complained of a nauseous taste constantly present in his mouth. He stated that he had been troubled with constipation for years, but had been much worse in this respect since the commencement of his illness. He was instructed to avoid the use of sugar in all forms, and was given some calomel and also some boracic acid, 10 grs. to be taken in solution four times a day. This was prescribed as an intestinal antiseptic on the strength of some cases recently reported in the *British Medical Journal* as having been successfully treated with this drug. He was instructed to measure the amount of urine passed, and next day reported that during the twenty-four hours he had voided 156 ounces, or nearly four times the normal quantity. On January 13th, four days after consulting me, the amount of urine was reduced by 23 ounces, the sp. gr. remaining the same, 1032. The pulse was noted as being slow, 64 to the minute, and the temperature  $96\frac{1}{2}^{\circ}$ . Two days after there was a further reduction of 12 ounces, and the sp. gr. was reduced to 1030; pulse 60; temperature  $95\frac{1}{2}^{\circ}$ , three degrees below normal. Patient thought he felt some better, but complained of his bowels remaining constipated in spite of laxatives.

On the morning of January 21st, twelve days from the time he first consulted me, I was asked to go to see the patient as he

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\*Read before the meeting of the Ontario Medical Association, August, 1899.

seemed to be not quite so well. Up to this time he had been coming to the office. When I arrived he expressed himself as feeling better. His pulse was 68, temperature 98°. As this was the nearest approach to normal that his temperature had been since he came under my observation, and as he reported that during the previous twenty-four hours he had only passed 108 ounces of urine with a sp. gr. of 1034, I was inclined to think that his condition, instead of being worse, was possibly a little better than it had been. During the day I made a quantitative analysis of the amount of sugar in the urine, and estimated that the patient was passing a little more than ten ounces in the twenty-four hours. Next day I was sent for again to see the patient, and found him complaining of soreness in the limbs, headache, a slight cough, temperature 101.8°, and pulse 120, an increase of 42 over what it was on the preceding day. As other members of the household were suffering from "la grippe," I concluded that this was the cause of the fresh symptoms. For the next few days the temperature ranged between 102° and 104°. The respirations were slightly increased in frequency. The cough was not very troublesome. The expectoration was slight and a few times of a dark color, but never rusty. Examination failed to reveal any tubercle bacilli. No marked physical signs developed to indicate consolidation or other serious trouble in the lungs. About twenty-four hours before death the patient complained greatly of pain in the lumbar region, at times crying out with it, although partially unconscious. Secretion of urine was diminished in quantity. Some which was set aside for examination was unfortunately thrown out. Profound coma set in, and the patient died on the 26th of January—five days from the onset of the influenza, seventeen days after consulting me, and about one month from the onset of diabetic symptoms. No *post-mortem* was held.

According to statistics diabetes mellitus does not appear to be so common in America as Europe. The mean annual mortality for the whole of Europe is about 5 per 100,000 of persons living. In Paris, however, it is as high as 14, and in Scotland, Norway, and Prussia, as low as 2. The rate in America is given as 2.8. Among 35,000 patients treated at the Johns Hopkins Hospital and dispensary, there were only ten cases. An examination of the registration reports of Ontario for the five years, from 1893 to 1897 inclusive, shows that 615 deaths were due to diabetes, no distinction, however, being made between cases of diabetes mellitus and diabetes insipidus. Let us assume that these were all cases of diabetes mellitus. Of the 615 cases, 379 were males and 236 females, the ratio being about the same as what generally occurs, viz., 3 to 2. The annual death rate per 100,000 of persons living was 4.47, being

considerably greater than the average for the United States, and almost equal to the average European rate.\*

The annual rate for Toronto alone was 5.15 per 100,000. Out of 2,011 cases of deaths from diabetes occurring in England and Wales, about 12 per cent. were twenty years of age or under, while in Ontario the percentage was a little over twenty. It would therefore seem that unless a sufficient number of fatal cases of diabetes insipidus have occurred to materially affect the figures, we may conclude that Ontario has a greater death rate from diabetes mellitus than has the United States, and almost as large as the average European rate. Moreover, a larger percentage of cases occurs in young people in Ontario than in England and Wales.

The disease is said to be unknown among the Chinese and Japanese, and the negroes of Africa, and this immunity of the negro appears to persist, partially at least, in America. On the other hand it is very common among Jews, and in certain large cities of Europe, particularly Paris. Intense application to business, over-indulgence in food and drink, with a sedentary life, seem particularly prone to induce the disease.

The excessive use of sugar, beer and cider does not in itself appear to cause the disease to prevail. Deaths from diabetes in the cider-drinking counties of England and the beer-drinking counties of Prussia are below the average. It is possible, however, that in individual cases, such as the one I have related, the excessive use of these articles may stand in a causal relation to the onset of the disease. There is frequently a family predisposition, but I could find no history of such in my patient.

The pathology of diabetes is still involved in some obscurity. It is not likely that any one theory will be found to explain all cases. Normally, the carbohydrates taken in the food are stored in the liver as glycogen or animal starch. The glycogen is withdrawn from the liver as required by the system, being reconverted into sugar. Whenever the sugar in the systemic blood exceeds a certain amount, it appears in the urine, setting up glycosuria. This condition may be supposed to be produced by (1) An excessive amount of food, more than the liver is able to store up as glycogen, so that part of the sugar coming to the liver in the portal vein passes directly into the systemic circulation. This would explain some of the cases which are easily controlled by regulation of the diet; (2) some disturbance of the liver function

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\* The details of the deaths in a few of the large towns were omitted from the copy of the report for 1896, which I secured. In striking the average rate, however, the population of these towns was deducted from the total population of the Province, so that the omission would not likely affect the average rate one way or the other. The average population of the Province for the five years was estimated as 2,754,566.

due either to structural change in the liver itself or to some remote influence exercised on it through its nervous mechanism; (3) defective assimilation of the glucose in the system. Undoubtedly in some of this class of cases the pancreas is at fault.

Saunby summarizes the morbid anatomy of the disease as follows: "Diabetes has so profound an influence on the general nutrition of the body, that it tends to produce structural alterations in the various organs, which are for the most part of a secondary and degenerative character. The exceptions are (1) the tumors and growths in or near the medulla oblongata and the vagi nerves; (2) a few instances of primary liver disease; and (3) cirrhosis, and other destructive changes in the pancreas. The one important addition to our knowledge of the morbid anatomy which the last few years have yielded, is undoubtedly the lesions of the pancreas, and we are justified in regarding these changes when present as the cause of the symptoms of chronic Bright's disease." Experiments upon dogs prove that extirpation of the gland causes all the classical symptoms of the disease. On the other hand, mere obstruction of the pancreatic duct is not followed by any of these symptoms. Nor do they occur if a small part of the gland be left, even if the duct be removed. Grafting a small portion of the gland outside of the abdominal cavity in the muscles of the external walls will also prevent the onset of the symptoms. The relation of the pancreas to some cases of diabetes appears to be very analogous to the relation between the thyroid gland and myxedema. It has been suggested, on the one hand, that the pancreatic secretion in some way controls the sugar-forming function of the liver, and, on the other, that the pancreas secretes a sugar-destroying ferment, which passes directly into the blood. No one, however, has yet succeeded in obtaining such a ferment from the pancreas, and pancreatic extracts, however administered, have failed to control glycosuria. It is, however, to be hoped that further knowledge will place the treatment of pancreatic diabetes on the same satisfactory footing as that of myxedema.

With regard to the cause of the disease, in my case it would be idle, in the absence of a *post-mortem* examination, to speculate. However, I think it is safe to assume that rapid growth, close application to work and autointoxication from absorption of intestinal poisons, caused by prolonged constipation, had something to do with the onset of the trouble. In reference to the constipation, it is interesting to note that Charrin and Carnot have proved that it is possible to render a dog diabetic by injecting infective fluids derived from the bacillus coli, bacillus pyocyaneus, and streptococci, into the pancreatic duct,



and it is possible that in long-continued constipation the pancreas may be more liable to infection by these organisms, which occur so abundantly in the intestine. Finally, the indulgence in cider and sweet food, which immediately preceded, or at least accompanied the commencement of the symptoms, added another link to the chain of causation.

It may be stated as a general rule admitting of exceptions, that the younger the patient the more rapidly fatal diabetes is apt to be, so that most cases of what might be termed acute diabetes occur in young people. Any acute infectious process, such as influenza, is very liable to terminate fatally, as in my case. I am not aware that there has been any decided advance of late years in the treatment of diabetes. Regulation of the diet, general hygienic and symptomatic treatment are still recommended. There appears to be a tendency to be a little less strict in the restriction of diet than was thought at one time advisable. Of the various drugs recommended, opium and its derivatives appear to be still the ones most relied upon.

No opium was used in this case, excepting towards the termination, when one or two doses of morphine were given to relieve pain and restlessness. Various intestinal antiseptics have been recommended. In this case I used boracic acid, and there certainly was a diminution in the glycosuria, but it is difficult to say how much of this diminution should be credited to the medicine, and how much to the restriction of diet.

Diabetic coma generally proves fatal, although recoveries are reported. Active purgation and the use of saline infusion injected into the bowels, under the skin or into the veins, are the most likely remedies. I did not use the saline injections in my case, as I considered it hopeless. A case successfully treated by this means was reported in the *Epitome of the British Medical Journal* of February 25th of this year. In five days 14 pints of saline solution were used, 3½ of which were injected directly into the veins, and the rest subcutaneously. Besides this, he had three enemata containing 17½ fluid ounces each. The patient died four months after of empyema and phthisis. The pancreas was found to be partly absent. The reporters of this case collected nineteen others which had been treated by saline injections. Of these, only one recovered from the coma, but few or none appear to have received such copious injections as mentioned above.

## ✓ Selected Article.

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### MEDICAL EDUCATION IN DIFFERENT COUNTRIES.

We extract the following interesting information with reference to medical requirements in various countries from the Presidential Address delivered by Dr. R. McNeill, Prince Edward Island, before the Maritime Medical Association, Charlottetown, July 12th, 1899, and published in the *Montreal Medical Journal* in October :

**THE GERMAN EMPIRE.**—(Population forty-one millions.)—There are twenty-three universities which confer the doctorate. To matriculate, the applicant must either present a certificate of a gymnasium or pass a preliminary examination upon Latin, Greek, German, history, mathematics and the elements of natural science. The course extends over four years of nine and a half months in each year. The right to practise, however, can only be obtained by passing the State examination which is conducted by a board composed of the professors of the different colleges appointed annually by the Ministry. The degree of Doctor has no special privileges attached to it, other than that it admits the possessor to examination for official position.

**AUSTRO-HUNGARIAN EMPIRE.**—(Population about thirty-six millions.)—There are six medical schools all supported by the government. To matriculate, the applicant must present a certificate from a gymnasium. The course of study extends over a period of at least five years, of about nine months in each year. Examinations are held at the end of the second year upon the various subjects of the first two years ; and at the end of the fifth year upon the subjects of the preceding three years ; two or three months after the latter examination the candidate must pass a third and final one, which secures the diploma of Doctor of Medicine, with the right to practise.

**RUSSIA.**—(Population over eighty-five millions.)—There are eight medical schools in Russia. To matriculate, the applicant must have a certificate from a gymnasium. The course of study extends over five years, with examinations at the end of each year. The arrangement of the course of study is similar to that of Germany. Upon passing the final examination upon all the subjects of the entire course the candidate receives the right to practise with the title of "Physician." To obtain the degree of M.D., he must have the above title and must undergo a written examination, and also present a thesis. There was formerly a third degree, M.D., C.M., obtained after an examination in surgery, but it is now becoming obsolete.

**SWEDEN.**—(Population four and one-half millions.)—There are two universities and one academy all of which confer the license to practise. To matriculate, the applicant must present a certificate from a gymnasium. Three years after matriculating the student is required to pass the medico-philosophical examination which includes physics, chemistry, mathematics, botany, zoology, and comparative anatomy. Three years later he must pass the examination for the academic degree of candidate in medicine which includes anatomy, physiology, physiological chemistry, general pathology, pathological anatomy, and pharmacology. Four years later he must pass a final examination upon practical medicine and surgery, obstetrics, ophthalmology and medical jurisprudence. Upon passing the above examinations the candidate receives the right to practise. Attendance upon lectures is not obligatory but the student is obliged to attend clinics for one and a half years. The course of medical studies is thus not less than ten years.

**NORWAY.**—(Population nearly two millions.)—The only medical school is in connection with the University of Christiania. To matriculate as a medical student the applicant must pass two preliminary examinations—one in arts, including Norwegian, Latin, Greek, French, German, English, mathematics, geography, and history; and one in philosophy, including geometry, zoology, botany, astronomy and the elements of chemistry and physics. He then enters upon the study of medicine proper, which on an average occupies six and three-quarter years. There are three examinations arranged as follows: first examination held two and a half years after matriculation, upon anatomy, dissection, use of the microscope, histology, chemistry (organic and inorganic), zoology, and botany. Second examination held three and a half years after the first upon physics, pharmacology, toxicology, medicine, therapeutics, general pathology, and pathological anatomy, surgery, ophthalmology, dermatology and syphilis. Third examination held about one year after the second, upon surgery and bandaging, topographical anatomy, obstetrics, and gynecology, diseases of children, forensic medicine, hygiene and a practical examination in medicine and surgery. Thorough practical work in connection with the various hospital wards is also obligatory. Upon passing the examinations, which are conducted by the faculty, the candidate receives the right to practise. The doctorate is a scientific degree, giving the right to lecture at the university, and can be obtained only by passing a very severe examination.

**DENMARK.**—(Population nearly two millions.)—Has one medical school in connection with the University of Copenhagen. To matriculate, the candidate is required to present a

certificate from a recognized literary institute, and must then attend a course of two years upon zoology, botany, physics and chemistry, including analysis. After passing the examination on these subjects, he is admitted to the course of medicine which extends over five years. The degree of M.D., with the right to practise after the final examination, is then conferred.

FRANCE.—(Population thirty-six millions).—There are six academies conferring degrees and sixteen preparatory medical schools. To matriculate at an academy, the candidate must have the degree of B.A. and B.Sc. The course extends over four years of ten months in each year. In addition there are required practical laboratory work, and clinical work in connection with the hospitals, for two years. This may be done either the last two years of the course or the last year and the year following. There is a practical examination at the end of each of the three first years, and at the close the final examination for the Doctorate consists of five parts, including all the subjects of the course, together with the presentation of a thesis.

HOLLAND.—(Population one and a half millions).—Has three universities supported entirely by the State. To matriculate at a university the applicant must present a certificate from a gymnasium or undergo an equivalent examination. The course extends over six years. The right to practise is not conveyed with this degree, but can be obtained only by passing an examination before a special board consisting of eight professors appointed annually by the government.

BELGIUM.—(Population over five millions).—Has four universities, two of which are supported by the State. To matriculate, the applicant must be a graduate of a literary college or pass a thorough preliminary examination. The course extends over five years, and includes practical laboratory work, operative surgery, and attendance for three years upon clinics in medicine, surgery and obstetrics. The examination for the degree of Doctor of Medicine is held a few weeks after the close of the course, and includes the general subjects of the course, together with practical examinations in clinical medicine, surgery, obstetrics, and in operative surgery. This degree is conferred by the universities, but the diploma must be legalized by a Government Commission, whose duty it is to ascertain if all the conditions exacted by the law have been complied with.

GREAT BRITAIN.—There are nineteen medical schools; ten, namely, the universities, confer the Doctorate. The remainder bestow the various titles of licentiate, member and fellow. To matriculate, the applicant must either possess a degree in arts or some recognized collegiate institution, or must pass the pre-

scribed preliminary examination. The course has been extended to five years. During the attendance at a hospital the student must serve as clinical dresser for three months, and as clinical clerk for three months. The examinations are two in number, partly written and partly oral. The examinations are quite rigid, and are conducted by a board composed of professors and of others having no connection with the college. Upon passing the final examination the candidate receives the right to practise, with the title (differing in different schools) of licentiate, member, fellow, bachelor of medicine and master of surgery, or doctor of medicine. In Edinburgh the degree of M.D. is only to be obtained after first having taken a degree both of bachelor of medicine and master of surgery, and after having devoted two years to actual practice. No special examination is required, but the candidate must present a thesis. The higher titles, such as F.R.C.S., F.R.C.P., and M.D., have no privilege outside of the college granting them, excepting that they are requisite for appointment on the staff of hospitals of any reputation. The medical profession in Great Britain enjoys that degree of estimation and credit which a science (conferring on mankind the greatest of all comforts) justly deserves. We find that the physicians and surgeons of Great Britain are almost invariably men of liberal education and cultivated minds, and the art of medicine is carried to a singular height of excellence.

**AUSTRALIA.**—(Population about two millions.)—There are two universities, one at Melbourne and one at Sydney. Before matriculation the candidate must pass a rigorous examination in languages, mathematics, etc. The course of medical study extends over five years of nine months a year, and includes thorough practical work in laboratories and in hospital wards. The examinations are both written and oral. The final examination includes all the subjects of the fourth and fifth years with practical tests in dissection, operative surgery, clinical surgery, and medicine. Candidates are required to pass in all subjects. The degree of M.B. with license to practise is then given. To obtain the degree of M.D., which is a title merely conferring greater professional prestige, the applicant must have taken the degree of M.B., and subsequently have passed two years in hospital practice or five years in private practise, including in either case attendance for three months on the practice of a hospital for lunatics, and must also pass a special and elaborate examination both theoretical and practical in character.

**ITALY.**—(Population about twenty-nine millions.)—There are seventeen universities, four so-called free universities and one academy. To matriculate, the applicant must possess a cer-

tificate from a lyceum, which is a high grade of literary institute. The course of medical study extends over six years of nine and one-half months in each year. There are three examinations held at intervals of two years by a commission composed of professors with one or two associates having no connection whatever with the schools and nominated by the government.

Excellence in one or more branches is not allowed to compensate for failure in others. Upon passing a second examination at the end of the fourth year the student receives the title of licentiate, which is merely an academic distinction. The final examination at the end of the sixth year includes not only all the subjects of the entire course of study, but also the diagnosis and treatment of medical, surgical and obstetric cases. Upon passing this examination and presenting a thesis, the candidate receives the degree of Doctor of Medicine and Surgery with the right to practise

**PORTUGAL.**—(Population four millions.)—There are three medical schools all supported by the government. The course extends over five years of nine months each. To matriculate, the applicant must pass an examination in Latin, Portuguese, French, English, mathematics, elementary physics and chemistry, natural history, logic, history and geography.

**BRAZIL.**—(Population about twelve millions.)—There are two universities, requiring a rigid preliminary examination. The course extends over a period of six years. Upon passing the final examination, which embraces all the subjects of the course, and upon the presentation of a thesis, the candidate receives the degree of Doctor of Medicine, with the right to practise.

**VENEZUELA.**—(Population about two millions.)—There are two universities. To matriculate, the candidate must have the degree of bachelor of philosophy. The course extends over six years.

**CHILE.**—(Population two and a half millions.)—Has one medical school. The applicant must have a diploma of a collegiate institute to matriculate. The course extends over six years.

**SPAIN.**—(Population about seventeen millions.)—There are three medical schools. To matriculate, the candidate must have the degree of doctor of philosophy. The course of medical study is four years.

**CUBA.**—(Population was about one million.)—Has one university. To matriculate, the candidate requires to have a degree in arts. The course extends over six years.

**UNITED STATES.**—(Population about seventy million.)—Has one hundred and six medical schools, with different regulations in each State. The leading States of Pennsylvania, New York,

Massachusetts, and some others have State qualifications, so that a diploma serves only as a mark of literary distinction, and no longer gives the holder thereof the right to practise. Too many schools have lowered the standard in that country, but now the leading schools of the regular profession have a graded course of four years of nine months, and a preliminary examination.

CANADA.—Our beloved Canada, with a population of about five millions, has eleven medical schools. I need not refer to the collegiate course in this country. The colleges have been doing good work, and always followed in the wake of improvements. For years past the Canadian Medical Association has been endeavoring to educate the people as well as the profession on the necessity of having one qualification for all Canada. At the last meeting at Quebec, the basis of uniformity of curriculum was agreed upon, and the matter entrusted to Dr. Roddick to perfect and complete. We look to him as the Cæsar to lead us across the provincial Rubicon, and have established in Canada—what? the University of Canada, or the College of Physicians and Surgeons of Canada, or the Dominion Medical Council?

## Society Reports.

### TORONTO CLINICAL SOCIETY.

The first meeting of the year—the fifty-fifth regular meeting of the above society—was held in the society's parlors, St. George's Hall, Elm Street, on Wednesday, the 4th day of October, at 8.30 p.m.

In the unavoidable absence of the President, Dr. George A. Bingham, the Vice-President, Dr. W. H. B. Aikins, occupied the chair.

Fellows present: Geoffrey Boyd, W. H. B. Aikins, F. LeM. Grasett, J. A. Temple, G. S. Ryerson, Fred. Fenton, H. J. Hamilton, A. A. Small, Graham Chambers, G. W. Badgerow, E. E. King, J. O. Orr, A. A. Macdonald, Allen Baines, Adam Wright, A. J. Harrington, W. B. Thistle, Charles O'Reilly, H. B. Anderson, W. H. Pepler, K. McIlwraith, H. A. Bruce, G. Silverthorn and George Elliott.

Nominations for membership—Dr. D. J. Gibb Wishart, by Drs. Elliott and Pepler.

Dr. J. A. Temple drew the attention of the society to the fact that this was the first meeting since the death of one of the Fellows, the late lamented Dr. J. E. Graham, and moved that the following committee be appointed to draft a letter of sympathy to the widow and family of the deceased member: Drs. Grasett, Ryerson, Baines, Macdonald, Temple and Bingham. Carried.

### The Use of Peptones in Typhoid Fever.

Dr. Fred. Fenton read a paper with this title, and reported the results obtained with this plan of treatment in two cases. The first case was that of a man aged 21, a patient in the Toronto General Hospital in 1892. The patient had just passed through a severe attack when a relapse supervened. There was high temperature, low muttering delirium and uncontrollable vomiting, which was a very marked feature of the case. The pulse was almost imperceptible, and the patient had a tendency to slip down into the bed. Swallowing became difficult, or almost impossible, and it was then decided to feed the patient per rectum. Ten hard-boiled eggs (the whites alone) were finely minced and mixed with milk and peptonized, and this quantity was administered every twenty-four hours, about a pint being used every four hours. When the rectum became irritable, liquor opii sedativus was employed. The patient got no nourishment by the mouth for nine days, and during that



time he put on flesh. The disease terminated in about three weeks, the patient putting on flesh during the period of fever.

The second case was that of a boy of about eleven years. This was also a very severe case, and it was impossible to get him to take more than a few ounces of milk per day. He developed a troublesome hacking cough a few days after admission, and there was marked consolidation of the base of the right lung, with attacks of cyanosis. He developed pneumonia, which condition was also present in the first case. Nutrient enemata were ordered for him every four hours, the mixture being peptonized some hours before being given. After this there were no more attacks of cyanosis, and there was considerable improvement. Both the whites and the yolks of the eggs were used in preparing the mixture in the latter case. To digest the milk in the first case, pepsin and HCl were used; in the latter, pancreatin. The pepsin and HCl mass was better than the other, because in the boy the rectum became very irritable quickly, so that it had to be washed out in order to ensure the enema being retained.

Dr. W. B. Thistle, in discussing the paper, stated that he had not had much experience with nutrient enemata in typhoid fever, because he had not had cases in which they could not be fed by the mouth. He favored the employment of the peptogenic milk powder in preparing the milk for ordinary feeding in typhoid cases. Here you get the peptonized milk, and you also get the excess of sugar, and he thinks this much better than the ordinary peptonized milk.

Drs. Baines, O'Reilly and Chambers, further discussed the cases.

### Microscopical Specimens.

(a) *Microsporon Audouini*.

(b) *Trichophyton Megalosporon*.

Dr. Graham Chambers demonstrated these specimens of the small spore and the large spore ringworm fungus under the microscope. The *microsporon audouini* was the cause of 70 or 80 per cent. of ringworm in the scalp of children, and they never affect the surface of the body. The *microsporon* was not a *trichophyton* at all. Of the *trichophyton* there were two kinds, the small spore and the large spore. Some grew outside the hair, and some inside. The speaker described the condition of the scalp and hairs in these cases, and said that under the microscope the large spores will be found in chains, jointed, while the small spores are never in chains. In treating cases due to the large spores there is hope of improvement in two or three months; but in the smallspore variety, a cure will probably take a couple of years.

**Friedreich's Ataxia.**

Dr. W. B. Thistle reported this case, and read notes on the disease. He stated he was unable to present the patient, because he lived out of town. The patient was a boy aged 10, who was brought to the hospital on account of an attack of difficulty of walking. This was noticed from the time he was four years of age, and it progressively got worse. The father was healthy, and never had syphilis or private disease. His mother died of phthisis, and her family were free from any nervous diseases. No history of the grandparents could be obtained. The father, a German, came to this country while young, and knows nothing about grandparents. The patient has two aunts, sisters of the father, and they were afflicted somewhat the same way as this boy. There is also in the family an elder brother, who was afflicted in the same way. In the elder brother, the disease came on at the age of seven years, and now, at fourteen years of age, is quite unable to walk, and has marked ataxia. As regards the previous history of the patient, there was no difficulty at birth, and the boy was perfectly well until about four years of age. Then it was noticed he was somewhat uncertain in his gait, and frequently stumbled while walking. The condition has increased gradually, but not very rapidly. He has that peculiar lack of facial expression, and holds his head on one side. One side is marked differently from the other; and at first glance, he looked somewhat like a case of birth palsy. There was no nystagmus in this case, and no abnormal condition noted in the eyes. The doctor sought closely for nystagmus, and did not obtain that symptom; the pupils were equal, and reacted normally to light. With the eyes closed the patient swayed, and would have fallen. Speech slow and difficult, so that he stumbled over words and halted or hesitated. Sight was good; hearing quite normal. Locomotor system had moderately marked ataxia, worse on excitement. Inco-ordination was also marked in both hands, but not to the same degree as in the feet and legs. The inco-ordination was shown when he was asked to button his coat. There was no paralysis, and no indication of muscular weakness. Sensory system: there was abnormality with reference to sensation. Tactile sensation perfect for testing heat and cold, and testing painful impressions, but located impressions gradually. Reflexes: no jerks; are gone absolutely on both sides; plantar also absent; cremasteric, quite normal. Nutrition: skin was healthy-looking; no atrophy, and no evidences of trophic disturbance. The rectal and bladder functions were quite normal. With reference to the feet: he had the characteristic clubbing of both feet, that is, shortening of the plantar arch and condition of hammer toe, particularly noticed in the

big toe. The arch of the foot was lifted very much, and the ball of the great toe was approximated to the heel; and the great toe itself was flexed and stood up almost at a right angle from the dorsum of the foot. From the family history, this condition of inco-ordination coming on in this way in childhood, gradually getting worse, made it quite clear that it was ataxia of spinal type as distinct from the cerebellar type. In the cerebellar type he would likely have had some palsy, particularly of the tongue and other muscles. The lesion affects the posterior columns, crossed pyramidal tracts, direct cerebellar tract, and anterior lateral tract, with the probability that it is more extensive in the posterior columns. These cases have been studied fairly well, and an abundant examination of cords made, and the pathology seems to be pretty well worked out. It is generally considered to be of the nature of a developmental defect, that is, hereditary and congenital; and the occurrence of an infectious disease precipitates the occurrence of the symptoms and intensifies them. There is no reason, however, in this case to attribute anything to infectious disease. Unfortunately there was nothing that could be done to remove the condition, and the prognosis is rather bad, that is, in reference to the recovery. These patients live a long time—the longest on record being about forty-six years after the appearance of the symptoms; but sometimes the condition becomes extreme in a very short time, and the patient may last only two years. This is the shortest period; very likely to last between fifteen and twenty years. The prognosis as to length of life is not good. Coming on at four years of age, it would not be likely that he would live much after twenty. Then there is the off-chance that the condition might become stationary; this has been noticed in these cases. They may become stationary for long periods, and then they may take on further development. Intelligence does not suffer much, but in the latter stage the intellectual functions do become somewhat impaired; but in this boy's case he was quite bright, perhaps more than ordinarily so. There are several conditions which might easily be mistaken for Friedreich's ataxia, if you do not have a very clear family history; but in this case, with a brother and two aunts afflicted, there was no difficulty in the diagnosis. But if the case had come under consideration during the advanced period, it would be rather difficult to distinguish it from ataxic paraplegia, and this affects about the same regions as ataxic paraplegia. However, in paraplegia you are very likely to have some involvement of the sphincters and involvement of the sensory functions. There is now a patient in Ward 5, at the Toronto General Hospital, who has difficulty in speech. There are no eye symptoms, but marked ataxia and

increase of the reflexes instead of loss as in this case. Cerebellar tumor might look like the cerebellar type of Friedreich's disease, but in addition you would get the constant headache and vomiting; and the duration of the condition is very much shorter than that of cerebellar tumor. Primary lateral sclerosis occurs also as a congenital defect. That condition occurs also in early life, and would have a very close resemblance to Friedreich's disease; however, if you had the nystagmus present, it would be strongly in favor of Friedreich's disease. In primary lateral sclerosis there is a more spastic condition, without so much inco-ordination. It is easily distinguished from the birth palsies, because you have marked cerebellar symptoms there.

Dr. H. J. Hamilton asked Dr. Thistle whether there was any tendency whatever to swaying movements of the head or any scoliosis present, as Dr. Thistle had spoken of the tendency of the head to lie upon one shoulder.

Dr. Thistle—There was no rotatory movement. You do get that in the cerebellar form, but this was a typical spinal type. There was no scoliosis whatever.

#### **Fracture of Femur.**

Dr. A. J. Harrington exhibited a fractured femur from an old lady aged 76, as the result of a slight injury. In a scuffle she was shoved over and struck her thigh on a hat-rack, and then fell on the floor. It showed the great friability that these bones possess at this time of life, and it is really wonderful with that extreme condition, how she could walk about with the bone in such a weak state. Delirium had set in on the second day, and she died thirteen days afterwards.

GEORGE ELLIOTT, *Recording Secretary.*

# ✓ Progress of Medical Science.

## ✓ MEDICINE.

IN CHARGE OF W. H. B. AIKINS, J. FERGUSON, T. McMAHON, H. J. HAMILTON,  
AND INGERSOLL OLMSTED.

### Albuminuria of Pregnancy.

Dr. R. E. Skeel, in the July *Bulletin* of the Cleveland General Hospital, draws the following conclusions from his experience in dealing with this condition: When the disease is recognized in its early stages, much good may be done by treating the case persistently on the same methods as for nephritis. When epigastric pain occurs, it must be regarded as a serious symptom. Morphine in one or two hypodermic injections is of much value in controlling the convulsions. Venesection, veratrum viride and chloroform are also of importance, as means of arresting the eclampsia. These means should receive a fair trial before immediate delivery is resorted to. If labor is in progress, it should be completed with as much speed as possible. When relief does not follow the employment of the above drugs, anesthesia must be administered to its full degree, and delivery effected as rapidly as possible, having due regard to the maternal structures.

### Phototherapy.

Dr. Finsen, of Copenhagen, contributes, by his assistant, Dr. V. Bie, to the *Brit. Med. Jour.* for Sept. 30th, a lengthy and interesting article on the therapeutic value of sunlight and electric light. By special apparatus he has succeeded in concentrating the light in such a way as to secure the greatest possible number of blue, violet, and ultra-violet rays. These have a very remarkable bactericidal power, and have yielded excellent results in the treatment of lupus vulgaris, lupus erythematosus, and alopecia areata. The power of the chemical rays of light to penetrate the skin is well established. Nitrate of silver, in sealed glass tubes, has been placed under the skin, and successfully acted upon by the light passing through the tissues, and thereby reaching the silver. The apparatus concentrates the light, and avoids burning the patient.

### ✓ The Pathology of Inebriety.

Dr. T. N. Kelynack, Pathologist Manchester Royal Hospital in July issue of the *Quarterly Journal of Inebriety*, takes strong ground that alcoholism in many cases had to be studied

and treated as a disease. The patient must be considered, as a whole, and abnormal conditions of health sought out and corrected. In many cases there was some profound disarrangement of mind. Limiting the study to cases of uncontrollable craving, there were probably 600,000 in the United Kingdom. In some cases it began as a habit, deepening into a vice, and finally into a veritable diseased condition. In some it appears as a distinct morbid condition from the first. In others it is the result of mental derangement. It must be really regarded as a mental disease, a psychological condition. The cause was clear. Alcohol was the great degenerator. Heredity and environment must receive due attention.

### Drugs in Cardiac Insufficiency.

Dr O. T. Osborne, in *Medicine* for October, has an article on the above subject. He divides cardiac insufficiency into two classes: incompetence with valvular lesions, and badly aching hearts without valvular lesions. The first class he divides into the acute and the chronic insufficiency. The acute form is a most distressing attack. The patient is in great anguish. If in bed, the head is raised; if standing, usually leaning on the back of a chair for support and to aid respiration. He is bathed in cold perspiration. His countenance is the picture of misery. These attacks may be controlled by the person's own will-power, or the circulation becomes impaired and the brain hyperemic. The sensations become blunted, and relief comes. More blood enters the heart than it can get rid of. The best drug is the hypodermic injection of  $\frac{1}{200}$  nitro-glycerine. Amyl nitrite is not so good. Morphia will relieve the pain, but may impair respiration. A nitro-glycerine tablet of  $\frac{1}{200}$  on the tongue every fifteen minutes till the head begins to throb usually gives relief. But suppose there is along with the paroxysm cardiac dilatation, edema, passive congestion of the lungs, in such a case the heart must be aided. Digitalin by hypodermic injection gr.  $\frac{1}{100}$  to gr.  $\frac{1}{30}$  is the most reliable means. In aortic cases, digitalis must never be pushed to a slowing of the heart below 80. In initial cases the heart may be slowed to 60 or less. Strychnia is an excellent cardiovascular tonic in the chronic forms of heart failure. Camphor is also a very valuable heart and brain stimulant. Alcohol, except in small amounts, is injurious. The after effects are paralyzant. In chronic cases of valvular disease rest is a *sine qua non*, and, as a cardiac tonic, nothing approaches digitalis. If the patient shows symptoms of digitalis intoxication, the drug must be reduced, or cactus or strophanthus substituted. By adding cactus to the digitalis less of the latter will do. Cactus tones the heart, but does not constrict the arterioles.

There are many cases of heart failure without organic disease of the organ. In these cases apply warmth to the extremities and body; the elevation of the legs favors return of venous blood; artificial respiration may start the circulation; apply ammonia to the nostrils, and give hypodermic injection of strychnia. Alcohol is useful in these cases, but should not be repeated for an hour. If the patient rallies, but shows symptoms of recurrent weakness, give digitalis.

### The Treatment of Typhoid Fever.

Dr. L. F. Rousch, in *Jour. A. M. A.* for September 2nd, writes on the above subject. He holds strongly to the view that the course of this disease can be greatly modified, and its severity lessened, which is for all practical purposes, a sort of aborting of the disease. During the first six or eight days, always give calomel in doses of two to six grains daily. If there is constipation, give it to cure it; if there is diarrhea, give it again to cure it. During the course of the disease always give calomel if the stools take on the character of typhoid motions. By this means the stools should always be kept bilious in appearance. Salicylate of ammonium in five-grain doses should be given every two hours, night and day, while the temperature is above 102. When below this point, only in the daytime. If the drug disagrees, add some aromatic ammonia, or tr. card. co. By the end of the fourth or fifth day the fever is permanently lessened. Do not give food during the first week. The patient is living upon himself, and let him alone. Food only increases the amount of waste materials in the system. Tympanitis should be guarded against. When the bowels become disturbed with gas the very worst consequences are sure to result. Prevent or cure this condition by small doses of calomel and salol. Turpentine and camphor liniment over the bowels is very useful.

### Tuberculosis of the Throat.

Dr. W. F. Strangways, in *Medical Age* for September 25th, remarks that in some cases, where no ulceration, or infiltration, can be recognized, there is a marked pallor of the affected tissue, and so out of harmony with the adjacent parts that the attention should be arrested by it. No other disease causes this condition. There is marked laryngeal and pharyngeal anemia, a faulty approximation of the vocal cords, and a changed appearance around the arytenoids. These signs generally precede any evidence of disease in the lungs. When the larynx and pharynx are carefully examined with the laryngoscope, a diagnosis can be made in cases of much doubt and a suitable prognosis given

the patient, often greatly to his relief. When these parts are found normal, it may be stated with great confidence that the patient is not suffering with tubercular disease in any portion of the respiratory tract. When the pharynx is pallid, the larynx of a dull gray color, and there is faulty approximation of the vocal cords, the patient is in great danger.

### The Treatment of Infantile Convulsions.

Drs. A. M. Gossage and J. A. Coutts, in *Brit. Med. Jour.* for August 19th, remark that during the attack all that need be done is to place the child in a comfortable position and loosen the clothes. The custom of putting the child in a hot bath does no harm. The addition of a little mustard is stimulating to a delicate child. If the unconsciousness lasts, or is very profound, or the convulsions return, chloroform may be employed. The presence of unconsciousness is no bar to its administration. In most cases, when the anesthesia passes off the consciousness returns. To an infant of six months 3 grains of chloral along with the same amount of pot. bromide may be given per rectum. The inhalation of 1-minim doses of amyl nitrite has met with much favor. Morphia  $\frac{1}{4}$  gr., by hypodermic injection, is also of value and quite safe. It may be repeated. When there is reason to suspect indigestion, an emetic, or purge, may be required. The gums may be the cause of much irritation, and it may be justifiable to lance them. In all cases small doses of one of the bromides should be given for a few days. All conditions of ill health, as rickets and syphilis, must receive attention.

### The Treatment of Graves' Disease.

Dr. Robinson Cox, in the September issue of the *Montreal Medical Journal*, records his success in the treatment of a severe case by the administration of intestinal antiseptics. He remarks that, of recent years, many pathologists have regarded the disease as due to toxemia from absorption from the intestinal canal of poisons. In this case the several methods of treatment had been tried without good results. Thyroid extract was tried, and the patient was the worse for it. In consultation, Dr. Muir suggested intestinal antiseptics. With this end in view, salicylate of bismuth and salol were prescribed, and an occasional mild mercurial purge. The diet was mainly milk and eggs. Meat, fruit and vegetables were withdrawn. The patient was kept in bed for six weeks. The result was that there was reduction in the thyroid gland, while the pulse fell from 140 to 100. The exophthalmos was later in showing signs of improvement, but by the end of four months was also relieved, as well as much gain in general health. For the



last six months she has attended to her usual household duties with ease. At present the eyes are natural, scarcely any thyroid enlargement, and the pulse 82 and strong.

### The Uses of Pilocarpin.

Dr. Stephen Hamsberger, in *Philadelphia Med. Jour.*, August 26th, reports much success from the administration of this drug along with codeia or morphia, in cases of orchitis. The inflammation and pain rapidly subside. The dose used is gr.  $\frac{1}{8}$ , every two to six hours, as required, to keep up free action of the skin. The same combination of drugs is of the greatest value in hepatic colic. The morphia relieves the pain, and the pilocarpin lessens the spasm. The same is equally true of renal colic. The best results come from its hypodermic administration. In cases of tonic spasm of the diaphragm, a condition calling for instant relief, and in severe hiccough, it rarely fails to give ease. In persistent and severe cramps in one or more of the extremities it is of much value. In cases of intestinal colic, where iced poultices and wet compresses are badly borne, pilocarpine should be tried. The benefit is often very marked.

### Acute Anterior Poliomyelitis.

Dr. H. M. Lyman, in the October number of the *Clinical Review*, has some practical observations on this disease. He remarks that the inflammation of the cord, like inflammations elsewhere, is the result of an intoxication of the tissues by some poison product. Inflammation of the cord may be caused by the toxins of any of the infective diseases, as typhoid, measles, scarlet fever, diphtheria, gonorrhoea, syphilis, and others. The pneumococcus, the colon bacillus, streptococcus, staphylococcus, are also capable of giving rise to destructive inflammations of the cord and its coverings. In the laboratory, inflammations of the cord have been experimentally produced by inoculation; these attacks manifest themselves in the same way as when they arise naturally, and run through a course of similar duration. There are many varieties in extent and severity from that of all four extremities to only a group of muscles in one extremity. The disease is sometimes epidemic, and no doubt due to some micro-organism not yet isolated. The lesions are inflammatory, and located in the gray matter of the anterior horns. Later on in life the diseased cord may take on chronic degenerative changes, and lead to fatal trouble. In the treatment of the acute stage, the writer prefers a solution of antipyrin and aconite to suit the age, and the free movement of the bowels by means of calomel, gr.  $\frac{1}{10}$  every hour. Where the digestive organs are overloaded, a full dose of castor oil is useful. Pain is best relieved by codeine phosphate. Sponging

and baths, when agreeable to the patient, may be employed, but should be avoided where they cause excitement. Convulsions should be treated with chloral and bromide. During the period of convalescence the child should have good food and fresh, with small stimulant doses of strychnia and arsenic. Electricity should be made use of for about ten minutes every day. When the faradic fails to arouse activity, the slowly interrupted galvanic current must be employed, the positive pole over the muscle and the negative over the sacrum. It should be continued for a long time, even if very little improvement appears at first.

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## SURGERY.

IN CHARGE OF EDMUND E. KING, HERBERT A. BRUCE AND L. M. SWEETNAM.

### • The Prepuce.

The examination of the prepuce is by no means as frequent as it should be. It is not necessary to circumcise every male child, although it would be to the child's interest in every case. As a factor in the production of nerve disorders and reflex conditions, the tight, irritating and adherent prepuce should never be overlooked. Circumcision will cure ills that one would hardly dare believe to be due to reflex irritation. Reflex conditions are so diverse in their results that the cause may be located with the greatest difficulty, and often overlooked because of a too prominent position. Dr. L. Duncan Bulkley (*Jour. Cut. and Gen.-Urinary Diseases*) reported the following case: Some ten years ago he had had under his care a physician with chancre on his finger. His wife had also been infected. Subsequently they had had a healthy child. About three months ago the child, aged four months, had come to him with a vesicular itching eruption on the legs and abdomen. The pruritis had been so severe as to interfere with sleep. He had excluded syphilis at once, the eruption being simply vesicular, and also with no tendency to run into eczematous surfaces, even after scratching, and he had regarded it as a reflex herpes. He could find no other cause but a long and adherent prepuce. He had, therefore, advised beginning treatment by performing circumcision, no other treatment of any kind being given. One month later he had learned that within three weeks after the circumcision all traces of the eruption had disappeared, and that it had not returned. The eruption had lasted for four months previously, and had resisted all local treatment. It was one of the most striking instances of reflex eruption that he had ever encountered.

### An Effective Treatment of Vesical Hemorrhage when caused by Papillomatous Growths.

H. I. Herring, M.B., B.S., in the *Brit. Med. Jour.*, July, 1899, says: Following a suggestion and method of treatment devised by Sir Henry Thompson, the author details twelve cases of true papillomatous growths, the majority of which were vastly improved and cured by injections of gradually increasing dosage of silver-nitrate solution, first inaugurated by the physician, afterwards carried on by the patient himself after he had learned the technique.

The diagnosis is established by microscopic examination of specimens caught in the fresh state. The sessile tumors, as a rule, do not react so well as the pedunculated.

The instruments needed are a No. 7 E. soft, slightly coudeé catheter, eye near the tip. A four-ounce india-rubber bottle with a brass tapering nozzle and stop-cock. A standard solution of 1 grain of silver nitrate to 1 drachm of distilled water acidulated with a little free nitric acid. He begins with  $\frac{1}{2}$  a drachm of this standard solution (*i.e.*,  $\frac{1}{2}$  grain of silver) to 4 ounces of water, heated to 99° F., and the strength is gradually increased until 1 and even 2 drachms have been added. He has never exceeded 2 drachms. No pain should be awakened by the strength of the solution. Asepsis in all details should be attended to. When bladder becomes irritable decrease the dose. Half the contents of the rubber bottle is thrown in at a time, retained a short time, and allowed to flow out, and repeated with the second half. This should be done daily, preferably at night, followed by rest. Treatment should be continued three to six months daily, then the intervals may be lengthened, sometimes treatment may then cease, sometimes must be again renewed. Sometimes it at first increases hemorrhage, which then gradually ceases. In some cases it never entirely ceases till treatment is stopped when it may cease definitely.

### Hydrogen Dioxide.

In a number of cases it has been noted that hydrogen dioxide has retarded the healing of a wound. In one case the daily use of the agent for four days enlarged the sinus in the breast, resulting from an operation for carcinoma, and was the means of carrying the infection beneath the axillary scar. The bad effects are due to the forcible dissemination of infectious material by the bubbling of the dioxide. The mechanical action exerted upon the tissues by this agent during effervescence is far greater than is supposed by many to be the case. For this reason it is unsafe to use it in infected wounds in certain locations with or without pus; in abscess

cavities, either acute or chronic, where the walls are supposed to be weak; in closed cavities, and in the tissues surrounding the larynx and trachea, especially in young children.—*The Monthly Cyclopaedia of Practical Medicine.*

### Surgical Sins.

Dr. Emory Lanphear considers the following as surgical sins: First, operating in hopeless cases; second, delaying opinion as to the gravity of a disease; third, failure to operate in depressed fracture of the skull; fourth, pretending to be clean; fifth, undercharging in order to secure an operation; sixth, stealing patients; seventh, representing capital operations as trifling; eighth, *keeping patients too long under chloroform.* Unwise speed is bad; chronic surgery is worse.—*Maryland Medical Journal.*

### Fissure of Anus.

Allingham uses the following ointment:

℞ Extract of hemlock . . . . .	5 grains.
Castor-oil . . . . .	15 "
Lanolin . . . . .	30 "

M. Sig.: To be applied to parts after each action of the bowels.—*Journal of Medicine and Science.*

[We have had the utmost success with these very troublesome cases by applying ichthyol along the fissure. Care must be taken that the application is made to the fissure only. The treatment should be repeated three or four times at two-day intervals.]

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## THERAPEUTICS.

IN CHARGE OF GRAHAM CHAMBERS AND J. T. FOTHERINGHAM.

### A Case of Strychnine Poisoning.

Todd (*Phil. Med. Jour.*) reports a case of a child, twenty months old, accidentally swallowing a tablet containing a  $\frac{1}{10}$  grain of strychnine sulphate. The child died within an hour in convulsions.

### The Action of Atropine and Pilocarpine on Gastric Secretion,

Riegel (*Allg. Wien. Zeit.*) reports the results of a number of experiments upon man and animals, which establish the fact that atropine given internally inhibits while pilocarpine increases the secretion of gastric juice.

**For Coarse Hair.**

℞ Calci hydrat.....	℥ ip.
Orpiment .....	℥ iii.
Amyli .....	℥ i.
Aquæ calcis, q.s.	
M. Ft. Pasta.	

S. Spread in a thin layer, scraping off the softened hair with a dull blade. Wash off when burning becomes intense and apply soothing ointment.—MCCALL ANDERSON.

**The Antiseptic Treatment of Acute Diseases of the Respiratory Passages.**

Drs. Cassoute and Corgier (Marseilles) report that creosotal is a most efficacious drug in acute infectious diseases of the respiratory passages. The crisis of pneumonia appears on the first or second day under its use. If the exhibition of the drug is stopped the temperature rises again, but the attack is shortened provided the creosotal is given in the first stage of the disease. In cases of broncho pneumonia, febrile bronchitis, the creosotal treatment gives equally good results. The courses of the diseases are materially shortened. Dr. Cassoute's method of administration is as follows:

For adults, 2½ drachms in the first twenty-four hours, thus:

℞ Creosotal (von Heyden) .....	℥ iiss.
Emulsion .....	℥ ij.

To be taken in four doses.

Or even more simply:

℞ Creosotal (von Heyden) .....	℥ i.
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One teaspoonful (1¼ drachms) morning and night in a cup of hot, sugared milk.

For children:

Up to 1 year of age, 4 to 15 grains of creosotal.

From 1 to 4 years, ¼ to ¾ drachm creosotal.

From 4 to 6 years, ¾ to 1 drachm of creosotal.

From 6 to 10 years, 1 to 1¼ drachms of creosotal.

℞ Creosotal, according to age, as above.	
Emulsion or syrup.....	℥ ij.

To be taken daily in four divided doses.

These doses can be increased without any danger. The administration of the creosotal must be stopped gradually, the doses being diminished in amount and given less frequently, until the last auscultatory sign has disappeared.

**Subacute or Chronic Bronchitis.**

- ℞ Terpini hydratis . . . . . gr. lxxx.  
 Glycerini,  
 Spiritus, of each . . . . . ℥ iiss.  
 Mellis despumat . . . . . ℥ ij.  
 Tinct. vanillæ . . . . . m. lxxv.
- M. Sig.: Two to four tablespoonfuls a day.

**Superfluous Hair.**

- ℞ Barii sulph . . . . . ℥ ip.  
 Zinci oxidi . . . . . ℥ iv.

M. S. Make paste with water, apply three minutes, then wash off.

**Bed-Sores.**

- ℞ Zinc sulphat . . . . . gr. xlv.  
 Lead acetat. . . . . ℥ ss.  
 Tinct. myrrh . . . . . m. xx.  
 Vaseline . . . . . q.s ad. ℥ ij.

M. S. For external use.—FREYBERGER.

**Administration of Iron with Frequent Blood Counts.**

W. H. B. Aikins, M.D.

The value of making microscopical examinations of the blood during the administration of iron is, of course, well known, but it is not made practical use of as frequently in general practice as it should be. The following cases illustrate its utility in scientifically estimating the increase in the red blood constituents. Dr. H. J. Hamilton, assistant pathologist to the Toronto General Hospital, examined and reported upon a series of cases.

CASE 1.—A. R. was admitted to the Toronto General Hospital suffering from tropical malaria contracted in Cuba; after this condition was relieved an examination of the blood was made. This showed hemoglobin 48 per cent. and the number of red corpuscles c.c.m. to be 2,640,000. Pepto-Mangan (Gude) was then prescribed for this condition in teaspoonful doses four times a day, and the recovery of the patient was rapid indeed. While taking this preparation a second examination was made on the 29th of March, showing hemoglobin 74 per cent., and red corpuscles 3,820,000. Another examination was made April 7th, giving hemoglobin at 80 per cent., and red corpuscles 4,260,000. A final examination April 20th, hemoglobin 90 per cent., red corpuscles 4,850,000.

CASE 2.—Effie S., aged 24. A case of simple anemia, was admitted to the hospital in April. The following blood counts were made; marked improvement on administration of Gude's

Pepto-Mangan three or four times daily. First count April 14th, 1899: hemoglobin 33 per cent., red corpuscles 2,160,000. Second count May 5th: hemoglobin 39 per cent., red corpuscles 2,560,000. Third count January 19th: hemoglobin 72 per cent., red corpuscles 4,360,000.

CASE 3.—O. C., aged 20. Was admitted to Toronto General Hospital suffering as the result of severe hemoptysis, followed by marked anemia. First count March 24th, 1899: hemoglobin 47 per cent., red corpuscles 2,800,000. Pepto-Mangan was administered. Second count shortly before leaving the hospital: hemoglobin 65 per cent., red corpuscles 3,800,000.

CASE 4.—E. W., aged 22. Seen at the Toronto Dispensary, suffering from simple anemia. Pepto-Mangan was administered, drachm doses, four times daily for three months. When first prescribed the hemoglobin was 45 per cent., red corpuscles 2,800,000. Second count April 21st: hemoglobin 60 per cent., red corpuscles 3,448,000 corpuscles. Fourth count June 10th: hemoglobin 69 per cent., red corpuscles 4,230,000.

CASE 5.—Mrs. C. was admitted to the Toronto General Hospital, suffering from anemia. The first blood count was made June 19th, 1899: hemoglobin 47 per cent., red corpuscles 2,812,000 c.m. Gude's Pepto-Mangan was prescribed in teaspoonful doses three times daily. Second count was made July 14th, showed hemoglobin 66 per cent., red corpuscles 3,900,000.

CASE 6.—A. H., suffering from amenorrhœa, with marked anemia and hemic murmur. First blood count June 19th, 1899: hemoglobin 58 per cent., red corpuscles 2,904,000. Second count July 14th: hemoglobin 64 per cent., red corpuscles 3,750,000. She left the hospital shortly afterward fully restored to health.

CASE 7.—C. M., Chinaman. Admitted to the hospital suffering from chronic nephritis with marked albuminuria. First count March 25th, 1899: red corpuscles 3,340,000. Second count May 15th: red blood corpuscles 4,201,000. His general condition improved greatly with reduction in the quantity of albumen.

CASE 8.—E. H., aged 26. Suffered greatly from insomnia and anemic headaches. Pepto-Mangan (Gude) was prescribed on March 20th, when the first count was made. This showed hemoglobin 45 per cent., red corpuscles 2,420,000. Second count April 21st: hemoglobin 65 per cent., red corpuscles 3,615,000.

CASE 9.—Mrs. E., aged 29. Mother of two children, suffering from laceration of the cervix, accompanied by a profuse leucorrhœa and with the following blood counts: hemoglobin 50 per cent., red corpuscles 2,900,000, March 20th, 1899. Second count, April 30th: hemoglobin 61 per cent., red corpuscles 3,700,000.

In addition to giving Gude's Pepto-Mangan, two-drachm doses, local treatment was adopted with marked improvement.

CASE 10.—Mrs. L. Recently married, of a highly neurotic temperament, anemic and suffering from acute simple vaginitis. Was given Pepto-Mangan (Gude), two-drachm doses, four times daily in addition to local treatment. After six weeks' administration of the preparation her general health was very much restored, and the headaches from which she had suffered were relieved. There were no blood counts made in this case. The results appeared to be quite as satisfactory in improving the condition of the blood as in those previously reported.

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## OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, JAMES F. W. ROSS, ALBERT A. MACDONALD,  
H. C. SCADDING AND K. C. McILWRAITH.

### Acetonuria and Death of the Fetus.

Convelaire (*Arch. de Gynecol.*) has investigated the claim of Vicarelli that acetone occurs in women with retention of dead fetus in utero, and has come to the conclusion that the dead fetus cannot by itself determine this condition. He agrees with Mercier and Menu that acetonuria in a pregnant woman is not a sign of death of the fetus.

### The Vomiting of Pregnancy.

Dr. John P. Dow (*Massachusetts Med. Jour.*, August, 1899,) says that in mild cases of the vomiting of pregnancy, when medication is not desirable or feasible, he is very fond of following an old German custom. He advises the patient to take a small cup of strong coffee upon waking in the morning—best without sugar and cream—then to remain quietly in bed for an hour before getting up.—*N. Y. Med. Jour.*

### Golden Rules of Obstetric Practice.

Do not be unduly hopeful if a tubercular patient seems to improve during pregnancy. She will probably lose ground rapidly when gestation is ended.

Improvement in the later manifestations of syphilis is often observed during pregnancy. But it does not indicate that treatment may be neglected.

If albumen appears in the urine for the first time during pregnancy, be prepared for eclampsia. Where chronic renal disease is known to exist there need be less fear of this complication, though the disease is aggravated by pregnancy.

FOTHERGILL.



### Blood Examination in Gynecology.

W. R. Griess (*Amer. Jour. Obst.*, xl., 226, August, 1899) emphasizes the value of a leucocyte count in certain gynecological affections. A leucocytosis of 10,000 per cubic millimetre or more in a woman with pelvic pain, after all acute symptoms have subsided, is (eliminating diseased conditions of the blood and of other organs by examination and history) strongly indicative of suppuration of some of the pelvic organs. In the diagnosis between typhoid fever and pus tubes leucocytosis determines that it is the latter.—*Epitome, Brit. Med. Jour.*

### Unguentum Cr  d   in the Treatment of Pelvic Exudate.

Dr. John O. Polak said at a meeting of the Brooklyn Gynecological Society: I have recently been using unguentum Cr  d   in several cases of pelvic exudate with the most happy results. It is surprising how it reduced the temperature and diminished the exudate. In one of the cases the exudate reached to the umbilicus, and the temperature was 102° to 103° F. There did not seem to be much toxemia present, and the case was one of those in which we usually prescribe rest in bed and laxatives. In two post-operative cases in which there was a temperature of 100° to 101° F. even after drainage was established, the ointment seemed to have a good effect upon the general condition of the patient in addition to controlling the temperature and reducing the size of the exudate. It is extremely good in cellulitis, and I believe that one man, a Dr. Jones, of New York, has had the courage to use it in a case of puerperal sepsis with no other treatment. I am so well satisfied with the results obtained from the use of this ointment that I wish to call your attention to it in this preliminary report of my cases.—*Brooklyn Med. Jour.*

### Eclampsia.

Bayer (*Monats. f. Geburt. u. Gyn.*, July) says that his series of fifty cases of eclampsia well illustrated the tendency of the very ill to unexpectedly recover now and then, while the mild cases occasionally terminated with sudden fatality. Albuminuria was invariably present, with or without oliguria (anuria). Upon section the usual renal lesions and necrosis of the liver were prominent. In every one of his fifty cases the vertex presented, even in the six cases of twins; this finding appears to harmonize with L  hlein's pressure theory of eclampsia; in no case, however, did autopsy reveal any urethral lesion. Bayer states that eclampsia is quasi-epidemic in the spring and fall because of the weather influences then predominant, which tend to cause nephritis. He was unable to find any suspicious

micro-organisms, although germ-life as a general rule was abundant enough in blood, urine, etc. He adds nothing new to the treatment, and concludes by stating that the mortality from eclampsia is still fearful, but that each new series of reported cases may add something to our knowledge of and ability to control the disease, even though the contributor himself may not understand the value of this work.

### The Decadence of Anti-Streptococcic Serum.

It now seems quite settled that Marmorek's serum, the anti-streptococcic serum that we had all hoped would give direct control of the germs of puerperal sepsis, is a failure. Before the Société Obstétricale de France, Macé reported in April adversely to its use, and stated that its employment was rapidly being abandoned.

His views were endorsed by others present. The dissatisfaction of the Institute Pasteur was likewise mentioned, which, in itself, is the most deadly blow the remedy (?) has received. The report of the committee of the American Gynecological Society at its recent meeting was distinctly adverse.

A large majority of cases of puerperal sepsis are of mixed infection, and it was scarcely to be expected that a serum whose potentiality was limited (in theory) to the destruction of but one germ, the streptococcus, would prove successful.

Denise, of Tourain, allows for at least fifteen varieties of bacteria in the production of puerperal sepsis. He has prepared a serum with which sufficiently good results have been obtained to lead to further experimentation.

Because of the failure of Marmorek's serum, we need not fear that serum therapy in this disease is unavailable. A successful serum will yet surely be discovered.—Extract from Editorial in *Obstetrics*.

### Surgical Treatment of Uterine Fibromyomata.

At the recent meeting of the International Congress of Gynecology and Obstetrics, E. Doyen, of Paris, in a paper on this subject, reaches the following conclusions:

1. The surgical treatment of fibromyomata should consist in their ablation.
2. The bilateral extirpation of the annexa by laparotomy has been generally abandoned, and is indicated only as a complement to ovariectomy when uterine fibromata exist without causing serious symptoms.
3. Fibromata should be ablated by the vagina when operation by that route is easy.
4. Laparotomy is preferable when the vaginal operation seems to present real difficulties.

5. Vaginal myomectomy and hysterectomy should be performed by simple or V-shaped anterior median section of the uterus.

6. Large interstitial tumors are scooped out by the cutting-tube (tube tranchant) and extirpated by morcellation in "lozenges."

7. The ablation of large pedunculated fibromata by laparotomy presents its special indications. Abdominal myomectomy is only rarely indicated.

8. The operation of choice for multiple and large interstitial fibromata is total abdominal hysterectomy by subserous decoration of the inferior segment of the uterus, with closure of the pelvic peritoneum.

### Differential Diagnosis of Pelvic Peritonitis and Pelvic Cellulitis.

Ely Van de Warker, in the *American Gynecological and Obstetrical Journal* for March, 1899, gives the following differentiating points:

PELVIC PERITONITIS.	PELVIC CELLULITIS.
Following labor or abortion in a few days.	Eighteen to twenty days after.
Beginning in a rigor.	No rigor (Bernutz).
Severe fever, face pinched, prostration.	Less fever, no facial or general reaction.
Pain acute, sharp.	Pain dull, throbbing-like, beginning abscess.
Great tenderness of abdomen.	Lesser tenderness.
Tumor generally behind pubis.	Tumor usually in iliac fossa.
Tumor, as a rule, not above pelvic brim.	Tumor at or above brim.
In early stage more evident in vaginal cul-de-sac.	In early stage less evident in cul-de-sac.
Suppuration rare.	Suppuration very frequent in phlegmons (Bernutz).
Purulent pelvic peritonitis attended with symptoms of peritonitis.	No symptoms of peritonitis.
Purulent mass, intra-abdominal.	Purulent mass in iliac fossa, subperitoneal.
Pus confined.	Pus often diffused and burrowing.
Pus tends towards viscera, or encysted.	Pus tends toward abdominal wall or deep iliac fossa.
No retraction of thigh.	Retraction of thigh.
When mass extends into the iliac fossa it is not well defined.	In cellulitis always well defined.
Tumor elastic or fluctuating.	Tumor more solid.
Always uterine displacement with peritoneal mass.	May be absent with very large pelvic mass.
Never involves abdominal wall.	Often involves abdominal wall.
Relapses from slight causes frequent.	Relapses rare.
Sometimes an intestinal percussion note over mass.	Dull on percussion.
Never extends to vaginal wall.	Extension of cellulitis from broad ligament or iliac fossa into vaginal wall.
Often associated with specific infection of vagina.	Usually no specific infection.
Occurring without lesion of genitalia.	Often following lesion.
Pain always intrapelvic.	In addition, pain in anterior and inner side of thigh to leg and foot.
Phlebitis not observed.	Phlebitis an occasional complication.

—*Medicine*.

### Repair of Injuries of the Pelvic Floor.

Charles Jewett, M.D.

For some time most of the extensive pelvic-floor injuries in my service at the Long Island College Hospital have been repaired at intervals of one or two days to a week or more

after labor. This was necessitated in many instances by the fact that the women were not admitted till after labor. Late suturing proved so satisfactory in these cases that it was adopted for practically all extensive lacerations. Granulating wounds were found to unite perfectly when closed without vivifying at any time before they began to cicatrize. In patients becoming septic union very rarely occurs, even under immediate suturing. The advantages of late repair in severe injuries are several. The character of the injury is better defined, the work is not obscured by the bloody flow from the uterus, a good light, plenty of help, and ample preparation are possible. Thus the work is more exact and complete, and restoration of the parts to their primal condition in nearly all cases results. When the wounds are repaired at the close of labor, often in insufficient light, at the time when the structures are more or less disturbed from their normal relations and the preparation inadequate, perfect restoration fails in a considerable proportion of cases.

The objections to late repair are that the patient is, perhaps, subjected to a second anesthesia, and that she is kept somewhat longer in bed. But these considerations are of minor importance.

The technique is substantially the same as that adopted by Emmet in the secondary operation, and in injuries not involving the sphincter is as follows:

Normally the posterior rests against the anterior vaginal wall. The centre point of its lower end falls just below the meatus. Catching the posterior wall with a volsella at its centre point close to the wound-surface, its lower extremity is held up against the anterior wall immediately behind the meatus. Thus a trough-shaped tear is developed, running up one or each sulcus as the case may be. The gutter-shaped wound is closed with interrupted sutures, introduced from the vaginal surface. Beginning at the upper angle of the tear they are applied in succession from above downward nearly to the skin surface. The other sulcus if torn is treated in like manner. The sutures are so laid that the loop or hight of each is nearer to the operator than the points of entrance and emergence. The plane of each is oblique to the suture line. This has the effect, as the sutures are tied, to draw upward the sagging pelvic floor. The sutures are tied as fast as placed. A shallow wound of little more than skin depth now remains on the perineal surface. This is best closed with interrupted sutures introduced from the skin side. The entire length of the suture-line is carefully examined, and at every gaping point, on skin or mucous membrane, a superficial suture is applied. The skin-sutures are subject to very little strain. The vaginal sutures

rest on structures much less sensitive than the skin, and the woman thus experiences comparatively little discomfort from the stitches. The anatomical relations are restored *ad integrum*, which is scarcely possible, except in superficial lacerations, when the suturing is done from the skin-surface. Notwithstanding the risk of infecting the wound by passing the finger into the bowel it is scarcely possible otherwise to guard against occasionally carrying the needle into the rectum. When in doubt I introduce the little finger of the left hand into the bowel as the needle is passed. This finger is rinsed frequently in the antiseptic solution, and is kept from contact with the wound and the sutures.

The suture material which has given the most satisfactory results is silkworm gut. The ends are left of full length, and at the close of the operation they are bundled and tied together and enveloped in cheesecloth to prevent irritation from friction. The nurse changes the dressing as required. Stitches of silkworm gut, if properly applied, may be left from fourteen to seventeen days. No suppuration occurs, and, with the exception of, perhaps, a slight lochial discharge, and the natural secretion, the suture-line will at the end of that time be found dry. It is, of course, necessary that the stitches be not tight. To make allowance for swelling I usually leave them so that if drawn up after tying, the pointed ends of a hemostatic forceps can be passed beneath the lifted portion of the loop.—*Brooklyn Medical Journal, Brooklyn Gynecological Society.*

[For several years in the Burnside Lying-in Hospital we have waited until the second or third day after labor before repairing injuries to the pelvic floor, with very satisfactory results, *i.e.*, the operations have been better performed and have less frequently been followed by sepsis.]

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## LARYNGOLOGY AND RHINOLOGY.

IN CHARGE OF J. PRICE-BROWN.

### Acute Septic Rhinitis of Childhood.

Lewis P. Somers (*Laryngoscope*, September, 1899). In adopting Tissier's classification of rhinitis of childhood, into simple, membranous and septic, Somers records a case of the latter. It occurred in a boy aged four years. There was a history of purulent discharge from both nostrils of only a few days' duration, accompanied by stuffiness of the nose and development of vesicles of the nares and upper lip. The vestibules were lined with little pustules, and the discharges were very irritating, consisting of yellow pus. The epithelial lining of the septum

as well as middle and inferior turbinals was necrosed and of a white color, in contrast to the adjacent inflamed areas. There was effusion of serum into the deeper tissue layers; and the mucous membrane of the floor and dependent portion of the turbinals presented a boggy appearance. The destruction of tissue was considerable, and phlyctenular conjunctivitis was well marked, arising, no doubt, from the nasal inflammation. Constitutional symptoms were almost absent, the temperature being only slightly above the normal.

The treatment consisted of antiseptic alkaline spray- followed by dilute solution of peroxide of hydrogen, each repeated two or three times a day. The treatment was continued for about two weeks, by which time the affection had disappeared.

### The Rhinitis of Inherited Syphilis.

St. Clair Thomson (*Jour. of Lar., Rhin. and Otol.*, August, 1899). Inherited syphilis, as a rule, makes its first appearance a few weeks after birth. The symptoms are usually secondary. The snuffles and chronic coryza are very characteristic. Later on, at the age of four or five years, or upwards, the symptoms indicate somewhat indefinitely the tertiary stage.

The history of a case occurring in a little girl is given. At the age of six years the mucous discharge from the nostrils was bluish, and the bridge of the nose was becoming depressed. The temporary teeth were all present and nothing amiss was noticed with them. Eighteen months later she was again observed, and St. Clair Thomson describes her condition as follows:

"She was seven years and nine months old. She had during the interval shed her temporary upper incisor and canine teeth. These had been replaced only by the two central incisors. These latter presented incontestable evidence of congenital syphilis, and are typical of Hutchinson's teeth. The characteristic peculiarities are that they are dwarfed; the portion of the upper jaw from which they grow is stunted in its development, giving a certain 'underhung' appearance. The two incisors stand somewhat apart, and slope away from one another; they are unusually rounded, instead of being quadrilateral; they are larger near the gum than at the free edge ('pegged'), and they are notched. This notch occupies the centre of the edge; it is deeper and wider in the centre, and is shallower and narrower as it approaches the lateral borders. The dentine is exposed at the bottom of it."

### The Offending Middle Turbinal.

Edwin Pynchon (*Laryngoscope*, September, 1899). In this article there is a comprehensive *résumé* of our knowledge

concerning hypertrophy of the middle turbinated body, with an expression of the views of leading authors upon the subject. Anterior enlargement is frequently simply an overgrowth, and but for the fact that it occurs in a confined space, resulting in pressure upon healthy tissues, would of itself lead to no bad results. To do its physiological work properly a clear space, however narrow, is required between the middle turbinal and the septum. When there is much enlargement, occlusion of the superior meatus and attic may occur, as well as obstruction of the middle meatus and ostium maxillare. Free nasal respiration being impeded, the secretions in the naso-pharynx lose their normal character, and postrhinal catarrh is the result.

Headache is often caused by pressure of the middle turbinal upon the septum. When the enlargement is of a soft non-osseous character, the headache is likely to be transient, subsiding as the engorgement is temporarily relieved. When the pressure is constant, from firm or osseous thickening, the headache likewise is likely to be continuous. Any headache caused by one-sided turbinal pressure is usually unilateral.

Other results of a reflex character are hay-fever, asthma, pharyngitis sicca, etc.

In treatment, partial turbinectomy is advised: and Pyncheon advocates the use of a guarded trephine.

### **Nasal Disease as a Cause of Headache.**

Dundas Grant (*Jour. Lar., Rhin. and Otol.*, September, 1899). In speaking upon this subject, the writer says: "As regards the forms of nasal disease which may give rise to headache, the most common may be first quoted, namely, adenoid vegetations in the naso-pharynx. It is a most usual experience after the removal of adenoids to observe the disappearance of headaches which were previously of frequent occurrence.

"Hypertrophy of the middle turbinated is another frequent cause, and that it should be so is very readily understood, when we consider the comparative narrowness of the space in which it lies, and the rigidity of the walls which bound that space, all being richly supplied by branches of the great sensory fifth nerve."

### **The Importance of Septa and Pockets in the Antrum of Highmore with Reference to Operation.**

John O. Roe (*Jour. Lar., Rhin. and Otol.*, September, 1899.) Four features should always be taken into consideration with reference to operation: (1) The position of the sinus; (2) Its size, shape and conformation; (3) The thickness of its walls; (4) Its relation to the roots of the teeth. He also believed in

using an antrum searcher, which he had invented. This consisted of a flexible wire spring with probe point. It ran in a cannula, and could be extended from the latter after it had passed into the antrum. In this way it was possible to get a very accurate idea of the interior of the cavity, even through a very small opening.

### Cyst of the Epiglottis.

H. D. Hamilton (*Montreal Medical Journal*, August, 1899). A youth of eighteen had dysphagia, nasal voice, snoring and cough; and required to make what he called a "right turn" of his head in swallowing. On depressing the tongue a bladder-like mass, as large as a hen's egg, was seen to fill the lower part of pharynx, particularly on right side. Laryngeal examination proved it to be attached to upper and right side of epiglottis.

The treatment consisted of evacuating the pale-green gelatinous contents, and injecting a few drops of a 5 per cent. solution of carbolic acid in glycerine and water. The fluid reformed in lesser quantity, and week by week the evacuation was repeated and the injection increased in strength. Four weeks from the commencement of treatment an attack of tonsillitis supervened, after which the cyst wall was lifted out in a sloughing mass. This was followed by complete healing, leaving a flattened surface. There was no return.

### Graves' Disease, with Report of the Successful Treatment of a Case.

Robinson Cox (*Maritime Medical News*, September, 1899.) In this case the patient was a lady, aged 29, married, and the mother of one child, aged fifteen months. The goitre and the exophthalmos were both prominent; pulse 135 per minute; great prostration and loss of appetite; on the slightest exertion perspirations were profuse.

In treatment arterial sedatives, iodide of potassium, hydrochloric acid and thyroid extract were all tried faithfully, without avail. The pulse by this time was 140 per minute. Then on recommendation of W. S. Muir, of Truro, the patient was put upon salicylate of bismuth combined with salol, together with an occasional mercurial purge. The diet consisted of milk and eggs almost exclusively, no meat of any kind, or fruit or vegetables being given. Absolute rest in bed was enjoined. In six weeks there was marked improvement in every way, with pulse reduced to 100 per minute. In four months she was able to be up without injurious effect. Improvement continued, and a few months later exophthalmos was gone; thyroid enlargement not noticeable; and pulse reduced to 82 per minute.



### Report of a Case of Laryngeal Chorea of Reflex Origin.

J. A. Stucky (*Ann. of Otol., Rhin. and Lar.*, August, 1899) gives the history of this peculiar case. The patient was an unmarried woman, aged 23. Menstruation had commenced at the age of twelve. This function remained normal for several years. Subsequently she became an invalid, suffering severely from dysmenorrhea, to relieve which both ovaries were finally removed.

At the time she came under Stucky's care she had been troubled with a peculiar barking or yelping cough, which had lasted for four or five years. The convulsive seizures were frequent and prolonged, and were always aggravated by the recumbent posture. Sleep did not prevent the cough unless the patient was narcotized. The hoarse yelping was very aggravating to herself and others, and was accompanied with chronic twitchings of the throat.

A round of rest and medication was tried, ineffectually. Finally it was discovered that a spray of 10 per cent. solution of cocaine thrown into the nasal passages would give almost immediate relief; and, on examination, it was observed that the inferior turbinateds were hypertrophied from one end to the other.

Two applications of chromic acid were made to both inferior turbinals throughout their length, the interval between applications being two weeks. The result was excellent, with entire relief from the symptoms.

### Hysterical Aphonia Lasting for Eleven Years.

Lennox Browne (*Jour. Lar., Rhin. and Otol.*, June, 1899). After a severe mental shock, the patient, a woman, became suddenly mute, and continued so for three or four years. She then commenced to whisper. After three or four years more a deep, rough voice was developed by vibration of the ventricular bands, as seen by the laryngoscope. Different methods of treatment were tried without avail. Finally, after exposure to intense excitement, the voice suddenly returned and remained normal ever afterwards.

### Laryngeal Paralysis.

G. T. Ross (*Canada Medical Record*, July, 1899). In a lecture on "Laryngeal Paralysis," the writer gives the history of an interesting case occurring in a man, age not given. The patient had lived for years in poverty combined with chronic alcoholism. Family history: Tubercular; nose, naso-pharynx and pharynx in a chronic catarrhal condition; epiglottis, ary-epiglottic folds and arytenoids likewise suffering from chronic irritation; vocal cords of a brownish-red color, and partially

overlapped by the ventricular bands. The anterior half of the vocal cords had lost their mobility, leaving the anterior commissure open during phonation; while in the posterior half abduction and adduction were normal. The position of the cords was like that found when falsetto notes are produced, the glottis being tightly closed behind but gaping wide in front. It also somewhat resembled the position of the cords in the so-called abdominal notes produced by the ventriloquist. There were no tabetic symptoms; but the man had complained of aphonia for three and a half years. The case was an unusual one, being paralysis of the adductors of the anterior half of the vocal cords.

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## HYGIENE.

IN CHARGE OF WM. OLDRIGHT, M.A., M.D.

### The Prevention of Tuberculosis.

In a paper read at the National Conference of Charities and Correction in Cincinnati, May 18th, 1899, Dr. George F. Keene, of Howard, R.I., gives some startling statistics and some forceful remarks—none too forcible, however, on the above subject. We give a few extracts:

“This is a disease which has claimed more victims than all the wars and all the plagues and scourges of the human race. Even during the few short years since Koch’s discovery, over 2,000,000 persons on this continent have succumbed to its fatal infection. In the last two decades right in Cincinnati, out of a total mortality of 119,089, there have been 17,353 deaths from this dread disease. The annual tribute of the United States to this scourge is 100,000 of its inhabitants. Each year the world yields up 1,095,000; each day, 300; each minute, two of its people as a sacrifice to this plague. Of the 70,000,000 individuals now peopling these United States, 10,000,000 must inevitably die of this disease if the present ratio is kept up. It is confined to no race, it is limited to no country, but it is ubiquitous and universal.

“When we realize that the best time to deal with this disease, as with any other, in fact, is before we get it; when we realize that sanitation applied by the public and for the public, is mightier in results than scientific medication in the most skilled hands of individual cases; when we realize that the life of each individual citizen is a public responsibility and his untimely death a public misfortune—we will be ready to enter a public crusade against this scourge; and it is only by such a crusade that tuberculosis can be held in check.

“The people must be taught that the chief agent of con-

tamination in the human family is the sputum. It has been estimated that a patient in whom this disease is but moderately advanced, throws off from his lungs by expectoration four and a third billions of the germs of this disease every twenty-four hours. Dry expectoration soon becomes dust, and dust which the wind 'bloweth where it listeth.' Tubercle bacilli in dust have been shown by Dr. Stone, of Boston, to retain some of their virulence for at least three years.

"The cure of this disease has almost been a forlorn hope for ages. We know, however, that not a few have recovered completely from tuberculosis, as every pathologist can testify, for he has indisputable evidence of the fact in the cicatrized lungs he has seen, showing that they have healed after partial disintegration from the disease. Cure of this disease has been due to fresh air and a generous diet sometimes, perhaps, in spite of treatment. Consumption is an indoor disease. Where sunlight and pure air are bountifully enjoyed, there tuberculosis can find but little lodgment.

"Let every means be employed to stimulate public charity. Let societies be organized everywhere for the prevention of this scourge and to encourage philanthropic bequests for the building of sanatoria, for charity must be the ally of education in this great struggle. Let us, then, bear constantly in mind that it is no small part of our mission to save the individual from himself and the contamination of others; to institute and accomplish that bodily regeneration so vital to reforms; to preach everywhere the gospel of cleanliness, so essential in good morals; to drive contagion out that seeks consort with vice, ever remembering that we must be surveyors of the highway of health as well as pilots in the storm of disease."

### Sewers and Health.

In the *Commercial-Appeal* (Memphis, Tenn., July 30th, 1899), we find some new statistics on this subject. Such statistics, when reliable, are always a valuable addition to our stock of knowledge :

The Board of Health last year kept tab on its health reports and located the principal diseases to the districts and wards from which they were reported.

There were only two districts, so far as Dr. Jones, the health officer, was concerned. The sewered district offered one, and the unsewered district offered the other. Whenever a case of scarlet fever, diphtheria or typhoid was reported, it was duly recorded, and if it was in the sewered district it was so stated, and in the unsewered district it was so recorded.

The result is startling. It offers a percentage that will astonish even those who have most strongly advocated the sewer system.

There were differences in population to be considered, too, and the sewer and sanitary census shows that in the sewered district the population was five times that of the population in the unsewered district. This is a fact to be borne most prominently in mind in considering the result, that the sewered district outnumbered the unsewered district five to one, offering 80 per cent. more population in which sickness might spread, and yet the following results are shown :

In the sewered district, with its great population, there were reported, in 1898, twenty-eight cases of diphtheria, while in the unsewered district, with only 20 per cent. of the population, there were thirty-eight cases, showing an increased difference of ten cases.

In the unsewered district, with its small population, there were reported during the year forty cases of scarlet fever, while in the sewered district, with five times the population, there were only twenty-four cases, very nearly a 50 per cent. reduction, with every reason, in point of numbers, why the percentage should have been reversed.

There were twenty-three deaths from typhoid fever, thirteen of the fatalities occurring in the place they were first reported from in the unsewered district. Six cases were reported from the sewered district and four cases died in the city hospital, having been carried there from the annexed territory, showing really that seventeen of the fatalities from typhoid occurred in the unsewered district and only six in the sewered district.

The report on cases of malaria was not kept up, but the physicians of the city can judge best where they visited the most cases. Dr. Jones says that the record, had it been kept, would have offered still more convincing proof of the efficiency of the sewer system in promoting good health.

These facts are correctly arrived at because the Board of Health was anxious to ascertain what was the direct benefit to be derived from sewers, and the result has been more than satisfactory.

Dr. Jones says he is going to show next year, when the sewerage system of Greater Memphis is nearly completed, other facts of interest, and he expects to see a decrease in the death rate of  $33\frac{1}{2}$  per cent., or very nearly that, and will compare the death rate of 1900 with years in the past.

### **Lead Poisoning from Water Pipes.**

At the present time the State Board of Health of Massachusetts and the local Board of Milford are engaged in a discussion of alleged cases of lead poisoning, arising, as is alleged, from a certain excess of carbon dioxide in the water supply. Some difference of opinion exists as to the number and nature of the cases and the causes of it.

**Mosquitoes and Malaria.**

The Italian observers, Grassi, Bastinelli, and Bignami, who are associated in carrying out a series of investigations at the hospital of Santo Spirito, with the object of throwing light upon the etiology of malarial fever, have again met with success in their inoculation experiments with mosquitoes. On this occasion only one species of these insects was employed in the experiment, namely, *Anopheles claviger*, captured as before in the adult stage in the malarious region about Maccarese. The subject of the experiment was a young man who had never suffered from malarial fever, and who was received into the hospital of Santo Spirito for hysteria about four years ago, during which time he has been constantly under observation, and has had no kind of fever whatever. This man for nineteen days slept in a room in which were set at liberty from time to time numerous specimens of *Anopheles claviger*. On December 2nd (eighteenth day) he began to feel unwell, and on December 3rd the blood, on examination, was found to contain the parasites of malarial fever, exclusively of the common tertiary type (the spring tertian of Italian writers). This form of fever is prevalent at Maccarese. Considerable difficulty is experienced in continuing these experiments on account of many of the mosquitoes dying and others refusing to feed. This is probably due to the lateness of the season.—*Scientific American* (Supplement.)

## Editorials.

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### THE CARE OF LUNATICS AND INEBRIATES.

It is a sad if not a disgraceful thing to have an unfortunate lunatic confined in a common gaol. A large deputation from the Prisoners' Aid Association had an interview with the Hon. G. W. Ross and Hon. E. J. Davis during the past summer, and gave expression to certain opinions on the treatment of lunatics and inebriates. It was stated that there were 208 prisoners in the Toronto Gaol on February 16th; and of these, 30 were vagrants, 28 were lunatics, while 35 were incarcerated for drunkenness. The whole number far exceeded the normal capacity of the gaol, and prevented a proper classification of the prisoners. It was recommended that all the insane, or at least those who have been in gaol over two months, be removed to an asylum, and that those who were imprisoned for drunkenness be sent to a reformatory, a special hospital, or a special department of a general hospital, where they could receive scientific treatment.

Dr. Oldright, speaking on behalf of the Inebriety Committee of the Ontario Medical Association, said that inebriates, or at least a certain proportion of them, require special treatment almost, if not quite, as much as the insane. In the same connection he referred to the Massachusetts Hospital for Inebriates—a State institution, where over 42 per cent. of those discharged are reformed. Dr. Roe, of Georgetown, and several laymen spoke in the same strain.

It is of course unnecessary to add any arguments to those already brought forward, or even to say anything special in the way of supporting them, because the profession of the Province, probably without exception, fully agree with the views expressed at the meeting. The chief point of interest now is to learn the views of the Government on the subject. We believe the members of the delegation were well pleased with the replies of the ministers.

The Hon. Mr. Davis admitted that the insane were detained in gaol longer than they should be, but that the condition in that respect would be improved when the new addition to the

Brockville Asylum was completed. With reference to inebriates, he hoped the general hospitals would take the initiative and test the effects of the proposed treatment. The Hon. Dr. Ross announced that the removal of the boys from the Penetanguishene reformatory to a new institution in Oxford County would make that building available for the reception of some of the lunatics. He also supported Mr. Davis's view as to the initiative being taken by the general hospitals in the treatment of inebriates.

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### THE TORONTO GENERAL HOSPITAL TRAINING SCHOOL FOR NURSES.

The graduating exercises of this excellent training school for nurses, on Friday evening, October 20th, were very interesting. Certificates and medals were presented to the large graduating class of seventeen. The most important feature, as far as the school is concerned, was the fact that this is the first class that has completed the "three years' course" which was inaugurated in 1896.

The course of study was then increased from two to three years, partly because it had been done in Great Britain, and in one of the nursing schools in the United States, but chiefly because it was thought that a great improvement in the character of the instruction would ensue, and that the nurses would acquire more accurate knowledge and practical skill.

The working of the school during the last three years has been watched with great interest, and the results of the recent examination were studied with considerable care. As a result we can say without any doubt that there is now a general consensus of opinion that the change has increased the efficiency of the school, and it is altogether unlikely that any one will in the future recommend a return to the old system.

We notice in the *Globe* a word of warning given in a friendly way, to the effect that a well-trained nurse should be thoughtful and considerate to all parties living in a house, especially towards the mistress, and avoid making extra work for the servants and others. We quite agree with "Chit Chat," although we hope that such a note of warning is scarcely needed

by recent graduates if they bear in mind the hints they get on this subject from their teachers. However, much depends on the make-up of the nurse. If she has neither tact nor common sense, no teaching staff can make her a good nurse. The chief aim of the superintendent is to select only the right sort, but that task is sometimes a very difficult one.

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### THE TREATMENT OF DIPHTHERIA.

Dr. Peter H. Bryce, Secretary of the Provincial Board of Health, has sent a circular letter to the chairman and members of each Board of Health in Ontario, dealing with that very important subject—the treatment of diphtheria. He calls attention to the Annual Report for 1898 of the Metropolitan Asylums Board Hospitals of London, England, and shows the difference in the mortality rates since 1895, when the treatment by antitoxin was commenced. The effect of the change has been to reduce the mortality rate from 30 to 18 per cent.

There are, however, other important considerations in addition to decreased mortality rate, the chief one being the influence of antitoxin in the occurrence and course of diphtheritic paralysis. An analysis of the results shows that early injections of antitoxin diminishes very materially the tendency to paralysis. Dr. Bryce desires to convey the idea to all boards of health and all physicians that the *early* injection of antitoxin is the proper method of treatment to all cases of diphtheria.



## Personals.

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Dr. Jas. F. W. Ross left Toronto for St. Clair Flats, October 12th, for duck shooting.

Dr. Algernon Temple, of Toronto, left for Bothwell, October 15th, for a week's quail shooting.

Drs. Allen Baines and Crawford Scadding returned to Toronto, October 8th, after a visit to New York.

Dr. L. Sweetnam returned to Toronto, October 11th, after spending a couple of weeks in travelling, mostly in canoe, through Algonquin Park.

Dr. Norman E. Farawell (Trin. '98), of Oshawa, one of the house staff, Toronto General Hospital, has been appointed Medical Superintendent of the Protestant Hospital of Ottawa.

The Detroit Academy of Medicine held its annual meeting October 10th, and elected the following officers: Dr. George Duffield, President; Dr. L. E. Maire, Vice-President; and Dr. H. D. Jenks, Secretary.

Mr. Archie Anderson, a student of Trinity Medical College, has gone away with the African contingent. His fellow-students presented him with a beautiful silver-mounted pipe and tobacco-case, engraved with the words, "Trinity Meds., '99, as a token of esteem."

Mr. J. Jordan, otherwise known as Corporal Jordan, a senior student in the Medical Faculty of the University of Toronto, has left Canada with the African contingent. His fellow-students presented him with a gold watch and a purse containing twenty gold dollars. The presentation was made in the Biological Department of the University on the afternoon of October 24th, the day before the departure of the "Toronto Unit."

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## Obituary.

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### DR. WILLIAM COMFORT.

Dr. Comfort, of North Pelham, died October 23rd, 1899. He was in his seventy-eighth year, and was one of the oldest practitioners of the Niagara Peninsula, and an able and respected physician. Cardiac syncope is given as the immediate cause of death.

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### DR. JOHN HYNDMAN.

Dr. Hyndman, of Exeter, died October 5th, 1899, after an illness of but a few days. Heart failure is given as the cause of death. He became a licentiate of the old Medical Board of Upper Canada in 1851, and practised in Exeter for more than forty years. He was a good citizen, a good doctor, a good Tory, and was highly respected by the inhabitants of Huron and adjacent counties.

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### DR. JAMES B. CAMPBELL.

Dr. J. B. Campbell, of London, Ont., died at his home, October 12th, aged 56. He was born in Yarmouth Township, Elgin County. After completing his course in medicine, he passed the final examination of the Ontario Medical Council, and obtained a license to practise in 1875. He then commenced practice in the village of Belmont, where he remained until 1887, when he removed to London. He soon built up a large practice, and, in addition, took much interest in educational matters. He was a member of the Educational Board of London for nine years, and one year its chairman.

## Book Reviews.

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*The Nervous System and Its Constituent Neurons.* Designed for the use of Practitioners of Medicine and of Students of Medicine and Psychology. By LEWELLYS F. BARKER, M.B. (Tor.), Associate Professor of Anatomy in the Johns Hopkins University, and Assistant Resident Pathologist to the Johns Hopkins Hospital. With two colored plates and 676 illustrations in the text. New York: D. Appleton & Co. Toronto: Geo. N. Morang & Co. 1899.

It has been known for some time that Dr. Barker was engaged upon a work on the nervous system, and it was presumed that it would be constructed along the lines of anatomical and pathological research. The work is now before us, and contains 1,122 pages. This is certainly a large treatise on any subject, and it behoves the author, who claims the reader's attention to so large a work, to have something valuable to say, either as original matter, or as a careful review of the state of knowledge to the date of writing. In Dr. Barker's book we have both requirements fulfilled in a very remarkable manner. In a work so large, it is difficult to apportion that which is really original with the author and that which is compiled and arranged from many sources. It must also be remembered that a certain statement may not be original, and yet much original research be expended upon it in order to prove its correctness. We have here a great work on the histology of the nervous system, which is intended as a sure foundation from which its pathology must be studied.

During the past ten years an immense amount of study has been devoted to the minute anatomy of the nervous system. As the result of these studies our views have undergone many and important changes. The first of these epoch-making studies was made by Ramon y Cajal, of Barcelona, Kolliker and Waldeyer. It was Waldeyer who introduced the term neuron; and with this term came a complete revolution in the teachings regarding the minute anatomy of the nervous system. The neurons are the essential elements, and consist of the cell, the axon and the dendron. It is to bring our knowledge of these up to date that Dr. Barker has written his work.

A feature that at once attracts attention, and gives confidence in the book, is the evident thorough acquaintanceship the author has with the literature upon the subject. To say this is to say a great deal, for the literature upon the nervous system is now a most extensive one. It is apparent, however, that none

are overlooked. The names of such investigators as Apathy, Bechterew, Beevor, Berkeley, Bolk, Dieters, Dejerine, Dogiel, Edinger, Ferrier, Flechsig, Forel, Gehuchten, Golgi, Gowers, Gudden, Held, Heule, Hewetson, His, Horsley, Kolliker, Lenhossék, Lugaro, Marchi, Monakow, Ramon y Cajal, Retzius, Nisse, Waldeyer, Weigert, and such like noted investigators, receive a large share of the author's attention and study. It may be said of the work, what can be said of very few works, that the best has been garnered from all fields.

That the neuron theory has not yet been accepted by all is true, but that it must be accepted by all is equally true. The present work of Dr. Barker's will do much to place this difficult subject in its true light, and establish the correct views and remove the incorrect conceptions that have grown up around this recent view of the construction of the nervous system. The author has a brief in his hand, and he holds it throughout with great vigor.

The nervous system consists of an enormous number of neurons. These are the essential elements. The lymphatics, blood vessels and neuroglia all play an important but an entirely secondary part. It is the neurons alone that conduct nervous energy. This view has done away with the older one of a diffuse nervous network.

The evidence in favor of the neuron theory, derived from the study of degenerations and by differential staining, is well stated, and affords unanswerable proof of its soundness. From these researches we come to regard each unit, or neuron, as being an independent part of the nervous system; and that disease or injury of one portion of the neuron causes disease and degeneration in its other portions. Throughout the work the idea is steadily and clearly held up before the reader of the cerebro-spinal and spino-neural sets of neurons. The upper motor neuron has its origin in the brain cortex, and thence by means of its axons passes down to the anterior coruna of the cord, where it ends without actual junction with the cells of the coruna. The lower motor neurons are the cells of these coruna, and their axons continuing to their ending in a muscle fibre, or gland, or vessel. On the other hand, the sensory neurons come from the periphery as general or special sensation, and pass centrally to the ganglia in connection with the cord, medulla, or brain; and from these a new set of neurons proceed to the ultimate centre. The nerve currents, sensory or motor, pass from one neuron to another as a chain, and not laterally. Then come the neurons that in the centres associate the lower neurons into a composite system, and establish endless associations and reflexes.

An unusually able section of the work deals with the neuron

as a unit in physiology and pathology. A good statement of the case is made, that when the peripheral motor axons are destroyed, degeneration sets in upwards towards the cells in the cord, and that this degeneration may become complete, though not so rapid as that which takes a downward course. The remarkable influence of poisons, and consequently the toxins of diseases, are discussed. There is here a large field for future study; but enough has been done to show that certain neurons are injured by some agents which do not affect other neurons; as, for instance, the selective action of atropia, curare, strychnia and drugs; and syphilis and poliomyelitis among diseases.

The entire work is profoundly interesting reading. It is written in a clear and liquid style; and, while thoroughly scientific, is not dull nor heavy.

The paper, binding and type are excellent; and the many illustrations, plain and colored, are of the highest order of merit.

We congratulate Dr. Barker on the completion of this work; and would express the hope that it may find many readers, as we feel none will be disappointed. To read the work is a great pleasure.

J. F.

*Extra-Uterine Pregnancy.* A clinical and operative study.

By JOHN W. TAYLOR, F.R.C.S. (Eng.), Senior In-patient Surgeon to the Birmingham and Midland Hospital for Women, etc. London: H. K. Lewis. 1899.

A monograph from Mr. Taylor's pen on a subject so interesting and yet so imperfectly understood as extra-uterine pregnancy naturally excites much interest. In treating of the causation and pathological anatomy of the trouble, the author differs from the hitherto accepted theories, and, we think, gives good reasons for so doing. Desquamative salpingitis, which Lawson Tait considered the chief etiological factor, was not present in any of his series of forty-three cases. He considers mechanical difficulties in the passage of the oöspERM down the tube to be of chief importance, and of these mentions specially an atrophic condition of the tube, due to hyper involution or congenital want of development, as bearing on the phenomenon of early rupture.

All cases are regarded as primarily tubal, and the classification adopted is: (1) Tubo-abdominal—abdomen secondarily invaded; (2) tubo-ligamentary—broad ligament secondarily invaded; (3) tubo uterine (interstitial)—uterus secondarily invaded. Mr. Lawson Tait and Mr. Bland Sutton have maintained that "in all tubal pregnancies which survive primary rupture and continue their development, the gestation sack is formed in part by

the expanded tube, but mainly by the layers of mesometrium." Mr. Taylor, on the other hand, states that the pregnancy often becomes directly "abdominal," and that the requisites for the survival are an unruptured amnion, which forms the sack, and a placental attachment to tube.

Chapter VIII., on tubo-ligamentary or broad ligament pregnancy, is a most interesting exposition of the subject "Hematomata of the broad ligament is in only a minority of cases, due to extra-uterine pregnancy," is a statement that is not universally accepted. There is a little confusion in the author's use of the term "intra-peritoneal," *e.g.*, "It must be remarked that every normal intra-uterine pregnancy is, from an anatomical standpoint, entirely sub-peritoneal throughout, and yet the distended uterus forms an intra-peritoneal tumor." It is not clear what standpoint the author takes.

Chapter X., devoted to review and classification, is excellent.

Chapters XI and XII deal with the diagnosis. In the section on diagnosis proper, fourteen signs and symptoms are enumerated, and the difficulties attending their proper recognition are well dealt with. In cases of early rupture the author says of the evidence to be obtained from the breasts and areolæ: "These are always feeble and more often wanting in the early stages of extra-uterine pregnancy, and any search for them with reliance on their importance will probably increase doubt at a time when certainty and action are of the utmost value."

The section on differential diagnosis makes evident the necessity of the "tactus cruditus." In diagnosing from a retroflexion of the gravid uterus at a comparatively late period, "In one way or another the position of the fundus must be ascertained: its presence or its absence in front of the tumor must be satisfactorily determined." Again, in diagnosing from blood tumors of the tube or ovary with twisted pedicle, "The tumor itself, however, is not so intimately connected with the uterus as a tubal pregnancy would be." The latter part of the section on diagnosis deals with cases of growing, full-term, and dead pregnancies, and of interstitial pregnancy.

In Chapters XIII. and XIV., treatment is taken up. This is almost entirely operative. The author recognizes that where there is cessation of growth, cessation of hemorrhage, and cessation of pain, a certain percentage of cases may recover, and absorption take place: but he finds that this process of cure is rarely satisfactory, and contrasts unfavorably with operative interference. In cases which have advanced nearly to term he prefers to operate at the most convenient date in the ninth month, but not to wait for the occurrence of spurious labor. The vaginal and abdominal operations, and the after treatment are all carefully described.

Chapter XV. deals with the questions of retained fetus and secondary infection of the pregnancy. The author finds that tubal pregnancy recurs in about 4 per cent. of cases, but does not think this justifies the removal of both appendages at the original operation, unless there are found special indications for it.

There are sixty-five illustrations, principally simple diagrams, which aid very materially in elucidating the text. We cannot approve the fashion of giving important information in the form of lengthy foot-notes, but apart from this the writing is clear and forcible. The book is of convenient size and well produced, as all of Lewis' publications are.

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*A Text-Book of Diseases of the Nose and Throat.* By D. BRADEN KYLE, M.D., Clinical Professor of Laryngology and Rhinology, Jefferson Medical College; Consulting Laryngologist, Rhinologist and Otologist St. Agnes' Hospital; Bacteriologist to Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases; Fellow of the American Laryngological Association, etc. Philadelphia: W. B. Saunders.

This admirable work has just been issued from the press. In concise and comprehensive style the author throws open a new field of thought to the student of laryngology and rhinology. As a pathologist he has endeavored to classify diseases, not according to location of the organ affected, but according to existing pathological conditions. This plan has necessitated much thoughtful study, as well as greatly increased labor; but the reward has been the clearness and conciseness with which he has placed the subject in the new light.

In his treatment of the various subjects, he has kept in line with the advanced thinkers of the day, and he can scarcely fail to impress his readers with the vital importance of his theme.

The divisions covered by his chapters are, in some instances, very wide. For instance, his chapter on "Neoplasms of the Respiratory Tract" extends over more than fifty pages, and includes all neoplasms benign and malignant, from simple papilloma of the naris to carcinoma of the larynx; while the chapter on "Diseases of the Larynx" covers ninety pages, and includes within its limits methods of examination, malformations and deformities, as well as all acute and chronic diseases. The plan is a new one, but whether a wise one or not remains to be seen. Still, the amount of material that he has crowded into the given space, and the lucidity with which he has entered into the details of his subject, cannot but impress the reader with the beauty as well as thoroughness of his style.

There are some subjects that are dealt with much more fully