

The Canada Lancel

VOL. XLIII. TORONTO, OCTOBER, 1909

No. 2

EDITORIAL.

EXPERT EVIDENCE.

There is, perhaps, nothing that can tend to lower the tone and standing of the medical profession more than the present tendency of calling in expert medical witnesses in cases. To the giving of medical evidence in cases where such evidence is necessary there can be no objection. Indeed, justice might often fail if it were not for the valuable assistance the court receives from the medical witness. But it is painful beyond expression to see a bold attempt made by medical men of high standing to prove a certain condition true by wrenching all the facts into some perverted relationship to each other.

The storm centre of this expert evidence is usually the plea of insanity as an excuse for some monstrous act. There must always be a strong distinction drawn between mere badness and real madness. The difficulty, however, comes in to decide where the one ends and the other begins. The borderland as it is called. While there is no doubt much trouble and difficulty in making a safe distinction, yet we think if medical experts would get together and weigh all the facts in a true, scientific and honest manner, as is done in a proper consultation, there would be but few conflicts of medical experts, as has been seen in several recent noted trials in this country and in the States.

It is almost impossible to take away from the citizen the right to a full and complete trial, and this means the right to call such witnesses as he may deem necessary for his defence. The size of the purse will, to a great extent, secure the amount and nature of the evidence. The painful part is, that prominent medical men are evidently open for the best bid for their assistance in the case. A skilful artist may make a small amount of paint cover a large canvass. So it is that a doctor with a good deal of knowledge may make a marked showing out of very little real material. A fit of ordinary temper is enlarged into a brain storm; or a little eccentricity is made to do duty for some profound lapse of memory that could account for the gravest of misdeeds.

In this country the number of experts are limited to five. We think that some further limitation should be placed upon the method of giving their evidence. As things are now it is well nigh impossible for judge and jury to extract the truth out of the contradictions so common in medical evidence. The result is that it is frequently ignored altogether.

HILLYER VERSUS ST. BARTHOLOMEW'S HOSPITAL.

A patient by the name of Dr. Hillyer was in St. Bartholomew's Hospital for treatment. He was examined by Mr. Lockwood, and, while under anaesthetic, his hand came in contact with a hot water tin, and also his arm was allowed to hang over the table in such a manner that he claimed a neuritis was caused.

The case went to the court of appeal, where a decision was given in favor of the hospital. It was held in the judgment that the staff of a hospital are not mere servants and their actions do not create direct liability as if they were agents or employees of the institution. The case of Glavin versus Rhode Island Hospital was referred to, where the judgment held that if one person sent a physician to attend another person, the physician did not become thereby the servant of the former.

The judgment goes further, and states that nurses and orderlies in the operating room are under the surgeon and that the hospital is not liable for what may occur. They are assistants for the time being of the surgeon in charge.

THE STUDENTS' NEW YEAR.

The students are once more assembled for the season's work. The colleges are now in full swing. With the "old students" who return to their college halls, come many "new students" who have yet to learn their experience as the followers of Aesculapius.

The practice of medicine—using that word in the broadest sense—has ever held out many attractions. It has been called the noble profession and many there are who wish to walk in it. But it may be noble or very ignoble, just as its members make it. There is nothing noble about two neighboring practitioners being at constant loggerheads with each other. There is no creature so noble as the angel, and none so ignoble as the fallen angel. We would counsel the profession to cultivate a thoroughly brotherly spirit in its ranks.

To many there is the hope of making a good income by following the medical profession. This is as a rule true. We have asked reputable bankers in various places how the doctors compare with other citizens in the matter of material success. The answer has always been to the effect that the comparison is a very favorable one. This is so far very well, and is some prospect ahead of the student. He will have his waiting years, but so must always those who follow any calling, unless it be the odd lucky speculator.

Then, there is an attractiveness about the medical profession in that its disciples are not tied to the same sort of hours as most trades or businesses. The doctor can direct his movements with a freedom that few enjoy. He can arrange for an hour or a day off when it suits his convenience. There is in one way a peculiar sort of freedom about the medical profession. Sir Henry Holland, the eminent London physician, declared that he would never work more than ten months in any year, and never make more than £12,000 a year. He succeeded.

The thought that doctors are agents for the relief of suffering appeals to not a few. While the mind is youthful and the emotional side at its highest, there is some attractiveness in the thought of easing pain and saving life. This is true, and one of the noblest assets in the profession. It should be cultivated all the way through life. We once heard a great scholar in an after-dinner speech state that there were no persecutions and bloodsheds to mar the history of the medical profession. It had journeyed its way down through the long centuries wearing the white wings of peace and bearing in its hands the olive branch.

But with all these advantages, and as long as death, in the language of the Roman poet, beats with impartial tread at the door of the cottage and the palace gate, the doctor will find his way into all homes among all conditions of men. There will ever be present great responsibilities. Often alone and far away from assistance or the advice of a brother practitioner he will be called upon to act on his own initiative.—

To every man and nation comes a moment to decide,

Then it is the brave man chooses and the coward stands aside.

Carlyle said once that he saw no reason why he should pay any special respect to a king or a mitred bishop; but to the doctor, making his lonely and remote midnight calls for the relief of suffering, he would gladly take off his hat.

The doctor's life is no sinecure. He must cultivate the best qualities of both head and heart; and we would say, also of body. A clear mind well stored with learning, a kind heart backed with courage for any

emergency, and such strength of body as will make it possible for him to be a real help to his patients, are of prime importance. But the doctor might have all these and fall far short of the true ideal. He must be a true gentleman in every sense of the word; and to be this in the midst of life's strenuous battle is no easy matter. It can only be secured by an effort. But the finer the fruit the harder it is to cultivate.

There are many disappointments in the future for every doctor. He will "find mankind an unco squad, and muckle they may grieve him," in the words of Burns. He will be called upon to endure much ingratitude and experience dishonesty at the hands of those for whom he may have rendered his best services. This must ever be. Cæsar had his Brutus.

In the language of one of the old Latin authors, "One is never less alone than when alone." We would impress upon every medical student the habit of being alone with himself. He should often take stock of his whereabouts in his academic work and his scientific studies. It was that custom that has given the world such men as Justinian, Goethe, Darwin, Lister, Hunter, Harvey. So it will be in the future. There is great fear for the student who is always in the crowd.

A MINISTER OF HEALTH.

We take the present occasion of once more emphasizing what we have often emphasized on former occasions, that there should be a Federal Bureau of Health. There is much for such a body to do. What is every one's business is no one's business. The several provinces have their own ways of dealing with their own health affairs. But above all this we need some well organized control, medical control, of our national sanitary matters. We hope soon to see such a Bureau of Health for Canada.

THE CANADIAN MEDICAL ASSOCIATION.

The meeting this year was a very successful one. The attendance was large and the interest in the papers and discussions was well sustained.

One of the topics that affects the general public very much was the milk question. This subject was discussed fully. Dr. Machell's paper covered the ground very carefully. He argued for the importance of

clean milk, and pointed out how this could be obtained. The question is a very important one for all cities.

"The Relation of the General Hospital and the Community," was the subject of Dr. Bruce Smith's paper. This we publish in another part of the present issue. He pointed out the growth of hospital work in Canada, advances in hospital architecture, the classes of patients and pauperization should be avoided, the appointments of the hospital staff, the educational value of the hospital, that municipal control was a bad system, that the municipality should support the hospital, and illustrated what constituted a model hospital for a town.

Dr. G. D. Porter's paper, "Sources of Infection in Tuberculosis and their Prevention," brought out many interesting points. There was first infection from animals through meat or milk, and from man through coughing, sneezing, loud talking, kissing. Then again, there was danger in soiled linen, dressings, cups, etc., from tuberculous mothers and nurses waiting on others; the risk of flies carrying the infection to food and milk; and the danger of occupying infected rooms. This was thought to be the most common source of infection. This could be prevented by disinfection and ventilation.

In the section on pathology, several papers were read that were of a public, rather than strictly professional character. One of these, by Drs. Leslie and Dickson, of Toronto, discussed the subject of discharging as cured cases of typhoid fever who still harbored the bacillus. These typhoid carriers are a real danger to the public. Some cases become chronic typhoid carriers. These cases should be sought out as far as possible and efforts made to lessen the dangers to the public. Much is now being done in the successful management and treatment of these cases.

The analysis of the papers from the standpoint of their scientific value will be dealt with in a future issue.

HOSPITAL FOR MINOR INFECTIONS.

There is need in all the large cities for some accommodation for the minor infectious diseases, such as measles and chicken pox. From time to time measles appears in hotels, boarding houses, resident schools, etc., and it is very difficult to know what to do with these cases.

Some years ago a young man was dying of tuberculosis in a boarding house in Toronto. He was advised to leave. He had no home and the hospitals would not admit him. The Toronto Western Hospital put

up a large tent which was divided into two parts. One of these gave accommodation for six males and the other for six females. This was carried on for several years. It did good in so far as it roused public attention to the need for accommodation for such cases.

In Montreal, about two years ago, a patient died on the door steps of a hospital while the officers were considering whether he could be admitted or not. The patient had tried other hospitals and had been refused. This did good, however, and now in Montreal there is accommodation for tubercular cases.

Here in Toronto, of recent date, there was a little patient with measles driven about the city, but could not find admission anywhere. The Lady Superintendent of the Western Hospital had a tent put up and had the patient cared for in it.

Some steps should be taken to secure a reasonable amount of accommodation for such cases. If it was done by the city the cost would not be great. It might be possible to arrange with one of the general hospitals now in existence to furnish well isolated accommodation for measles. However the matter may be done, it should be done; and we urge this matter upon the attention of both the Council and the hospital boards.

WASSERMAN'S REACTION IN CONGENITAL SYPHILIS.

Thomsen and Boas have examined many cases of congenital syphilis in reference to the presence of Wassermann reaction, and have come to the following conclusions: The anatomical examination of the placenta and the umbilical cord, with the examination of the blood according to Wassermann's technique, are sufficient to show whether an infant is or is not suffering from congenital syphilis. A positive reaction with the blood of the mother before labor has occurred makes it probable that the child, too, will be infected. In the organism of an infant, suffering from latent syphilis, there takes place an increase in the materials responsible for the appearance of the Wassermann reaction, which increase continues for the first few weeks of life. The reaction, therefore, if negative at birth, must be sought for later. The reaction seems to be constant in little children having clinical symptoms of syphilis; the same is true of children who are suffering from symptoms of late hereditary infection. It is possible, though not probable, that occasionally the substances that produce Wassermann's reaction may find their way from the mother into the organism of the infant, though the latter is not infected. In such a case the appearance of the reaction in the infant may mislead the physician.—*Medical World*.

ORIGINAL CONTRIBUTIONS.

ABSTRACT OF THE PRESIDENTIAL ADDRESS AT THE CANADIAN MEDICAL ASSOCIATION, AUGUST 23rd, 1909.

By R. J. BLANCHARD M.D., Winnipeg.

“IN the evolution of society we have been accorded a position of great responsibility, and if we succeeded, a position of great honor, viz.: the study of every condition bearing on the health and strength of our fellow-citizens, the cure or prevention of every form of disease, and the relief of every form of bodily suffering. It has proved a heavy contract and one in which, unfortunately, very little assistance is coming from the government or even from the people who are so directly concerned. For while it is true that individually we are accorded, as a rule, more than our due credit, on the other hand as a combination seeking only the highest interests, we are regarded with scant courtesy or even with suspicion. Without attempting to account for this anomaly, I venture to express the belief that we are at the dawn of better days, when we shall have even encouragement and assistance from the public in our endeavor to bring the profession to the highest possible efficiency.

“The situation in Canada demands in the first place organization. We have over 6,000 medical men in Canada whose views on many questions effecting profoundly the status of their profession and the public weal are practically identical, but for want of united effort our currents turn away and lose the name of action. The roster of the Canadian Medical association should include the names of every licensed practitioner in Canada; having every local organization affiliated and giving expression to its influence through its representatives and through the journal of the association, which we are now in a position to establish without further delay. When Canadians definitely settle in their minds that there is an advantage in the organization of medical work and that the profession has an important function in the body politic, its statement will find it to their advantage to see that the people get the greatest possible benefit from those set apart in the evolution of society for this work.

“The medical profession has been from the beginning and probably will exist to the end of human history.”

Dr. Blanchard next referred to the Medical Acts of the legislatures, and claimed that they were put there because they were beneficial to the community and should be either made effective or abolished.

The doctor next dwelt on the question of quacks in medicine, and stated that the prosecution of such a man or woman should be left in the hands of the medical profession.

The president next referred to expert testimony and suggested that through consultation with the legal profession some method might be devised for the improvement of such testimony. Dealing with this, Dr. Blanchard commented: "It is a peculiar state of affairs whereby an expert witness considers himself employed in the interest of one part and denies to the other access to facts which he, having been consulted by the latter feels honor bound to conceal. By what code or custom of ethics have we become so narrow minded? How can we serve the interests of justice by clouding our minds to every ray of light that might disclose truth on the other side of the case?"

Dr. Blanchard next referred to the laws which would not permit a doctor qualified in one province to practice in another, and declared in favor of Dominion registration, which would permit of one standard for all Canada.

Dr. Blanchard next referred to the medical man and the fraternal society, and said: "Let brotherly love continue, but the way in which these brethren sweat the medical men leads to no end of trouble and injury to all concerned." The doctor said that the present policy of fraternal society doctors was penny wise and merchantable, and led to carelessness and inefficiency in medical work.

Dr. Blanchard next paid a tribute to the improvement in the medical work amongst the military, and said that if the same intelligence was shown by the civil doctors, a marked improvement would be noticeable.

Referring to typhoid fever the president said: "Typhoid fever, a case entirely preventable, within a recent period of three years in the city of Winnipeg, cost the people afflicted not less than a million dollars, allowing that we had in that time about 5,000 cases at the expense of \$200 each; leaving out of account the economic loss to the city from the death of men in the prime of life.

"Other places have had similar experiences, notably Saskatoon and Fort William, where the importance of pure water has been ignored. In the former town with a population of 7,000 they had 205 cases of typhoid last year. At Fort William they had an outbreak in the winter of 1905 and 1906 due to polluted water, although the council had been warned of the danger by the provincial health officers. Within one year 900 people were affected out of a population of 9,000, and 90 of these died of the disease.

"The mass of the people is not so much to be blamed. Individuals being busily engaged in attending to their own life work, but the men who are presumed to keep in touch with facts and to initiate measures relating to the public health are responsible not only for satisfying public opinion but for the much more important function of giving their clients the benefit of knowledge which is within their reach."

Dealing with the class of men in the medical profession, Dr. Blanchard said that the politicians, judging by the laws, appeared to desire rather quantity than quality. At least, they have no definite ideas; they are quite indifferent, and the same indifference extends to the cultivation of pure science upon which rests largely the advancement of civilization.

It would be better for the public if they had fewer doctors and those more competent.

“A reduction in the number of medical men may be best attained by raising the standard of education. Not so much by increasing the years of study as by perfecting methods demanding harder work, better brain and by weeding out the undesirables.”

It was suggested that better facilities should be offered by the state for sound, scientific and practical training, and the facilities for education and good work should not end with graduation.

Suggesting a remedy the president said:

“In this western country the question may be solved by the combination of free and charity wards under one management. The only difficulty in sight is financial.”

Dr. Blanchard next referred to the insane in the country and lamented that better facilities were not afforded in this country for teaching mental diseases. He expressed the opinion that the average doctor knew very little about insanity.

The president, as a remedy to the existing conditions, suggested that in large centres the remedy would be to bring the treatment of incipient cases within the sphere of general hospitals. The present method of arresting patients and confining them in the jail or police cells the doctor characterized as “revolting and barbarous.”

The medical profession could not but recognize the fact that physical as well as mental training were essential to national development. When Greece was at the height of its glory this was one of the first laws of the country, and to-day in Sweden the matter was being taken up actively and intelligently. In the opinion of the speaker boys between the ages of 14 and 18 years of age could not do better for themselves than to spend three months of the summer in the country under military discipline. Now they loaf about the theatres or in the parks where they get a low ideal of sports as they are now carried on. A sound, healthy constitution and a willingness to obey orders were learned by boys under military training, and those were matters which a nation could not afford to ignore. At the present time Canada is far behind the nations of the world in social and other development. An excuse was made that the country was young, but that excuse should not have to be made. For instance, in the study of the handling of tuberculosis, Canada ranks very low and has made but little real progress. As a starter school teachers should

be paid better than starvation wages when better teachers would be induced to stay in the ranks. The country must afford it. People should give up a few of their luxuries if necessary, and there were huge sums spent on public work which was not nearly so important. It means the development and growth of the children of the nation. Advanced education is all well enough but it is not so essential. And then this advanced education is the reason for a great many failures and social misfits. There should be an awakening of public interest in the public health. At the present time hundreds of thousands of dollars would be subscribed for the treatment of a disease, but it was impossible to raise anything for the prevention of a disease. This could not be better evidenced than in the hiring of cheap, inefficient men to fill the posts of city engineer or medical health officer. The men in those positions should be the best available. The children in the public schools should be medically examined by competent men either at the expense of the parents or, if necessary, of the state.

Concluding, Dr. Blanchard said: "The greatness of Canada will depend not on our opportunities, which are assured, but on the average capacity of our people to grapple with the intellectual problems of the future in every phase of human activity. We shall most successfully lay the foundation of that average capacity in a strong, hardy and healthy race of people.

Towards the attainment of this end we shall be pre-eminently qualified to render assistance. How much will depend on the character and education of the men who devote themselves to our profession.

PREVENTION OF TUBERCULOSIS BY MASSAGE, AND ELECTRICITY.*

By Sir JAMES GRANT, K.C.M.G., F.R.C.P., London, Consulting Physician General Hospital and St. Luke's Hospital, Ottawa.

IN tracing the supply of nerve structure to the various parts of the human system, it is remarkable, the extent and variety of distribution to the abdominal cavity, the very centre of reproductive and digestive power. The umbilicus is a storm centre as far as collateral influence of the nervous system is concerned. In this region, the solar plexus, approaches nearest the surface, through its many filaments, which in turn accompany all the branches given off by the abdominal aorta. It also interlaces with the nerve fibres of the phrenic gastric, hepatic, splenic, suprarenal, renal, mesenteric, and spermatic plexuses, and Bastion favors the idea, that the sympathetic system of nerves, is to a certain extent, an independent

*Read before Canadian Medical Association, Winnipeg, Man., August, 1909.

nervous system, penetrating deeply by its roots, into the cerebrospinal axis, and its fibres conducted to and from the viscera, along the course of the blood vessels. The peripheral ganglia, are dominated by a still higher regulating centre, in the medulla oblongata, in relation with the vaso-motor nerves. The sympathetic nervous system, is beyond doubt, to the front, as a central motive power. Gastro-intestinal debility, like every other source of weakness, has an initial stage of development. As a rule, it is slow, and progressive in character, but in time it makes its mark in an unmistakable manner. How frequently the child attending school, has the morning appetite destroyed by unhygienic surroundings. Robert Hunter (*Literary Digest*, July 10, 1909) states, that 70,000 children were found in New York schools underfed, and a much more numerous class of children chronically underfed, from food insufficient in quantity, poor in quality, and lacking in nutriment. John Spargo, in his "*Bitter Cry of the Children*," after careful investigation states, that in New York, Philadelphia, Buffalo, and Chicago, of 40,746 children,—12,121 or 34.65 per cent. had gone to school breakfastless, or nothing more than bread, and tea, or coffee, a poor outfit for a day's work. Foreign nations, and the English in particular, have frequently debated on the *underfed* school child. In April, 1905, Sir John Gorst applied to the British Government the words of the Apostle: "*They are ever learning and never come to a knowledge of the truth.*"

Royal Commissions, and departmental committees on such social problems, cannot be favorably impressed with the practical results. Poverty, or want of food, is not the real trouble, but generally the personal, or domiciliary hygiene of the poorer classes, careless mothers, unclean bedrooms, close and illy-ventilated, late retiring hours, unsuitable dinners, neglect of *the morning bath*, hurried off to school, badly cared for, and frequently with an empty digestive organ. Such faults are not uncommon, and should be carefully guarded against. As to tuberculosis in child life, an important statement of Dr. Philip, of Edinburgh, at recent meeting of the British Medical Association, Belfast, that of groups of school children, from 6 to 14 years of age, no fewer than 30 per cent. presented stigmata of tuberculosis, and that it is especially *in childhood* that *the tuberculosis seed* is sown, and the ratio of increase is greatest about the time the child *enters school life*. The relatively airless condition of the home, and the school, are important etiological factors in the development of the White Plague. Aero-Therapy is a measure of widest applicability in tuberculosis, both from a curative and preventive aspect, and we are only becoming alive to the vast importance of the great cleansing and vitalizing principle, which as a therapeutic measure is attended by remarkable results, the outcome of one of nature's *chief elementary products*. In the period of youth, the corner stones of future strength,

and constitutional development, are placed, to build up tissue, possessing the elements of vitality. The brick and mortar of the system, cannot be held together, while such irregularities in air and diet are in operation, during the developing period of mental activity. Within *this Citadel* is the seat of gastro-intestinal debility, the precursor of tuberculosis. Healthy blood is the very pabulum of life, but how long can blood be life-sustaining under such trying circumstances. The anxious expression, the exsanguine face, the feeble pulse, flabby muscular tissue, and inability to perform responsible duties, with ordinary activity, all point to a lowered degree of vitality, and a system, a fit nidus, for the *Bacillus Tuberculosis*. The problem is, how can such be counteracted. Tuberculosis has a preparatory stage, the chief period for action. In the life history of such cases, great care should be devoted to the abdomen, as to whether or not, a *dilated colon* is present, the outcome of defective food assimilation, and the associate—of a cleft axis cylinder. Professors Sherrington of Manchester, and McDonald of Sheffield, England, by their researches, defined the saline constituents of the Axis Cylinder. Poisonous gasses in the bowels, the outcome of imperfect, assimilation of food products, acting directly on these salines, produce clefts, in the axis cylinder, arresting the process of healthy blood elaboration. Under such circumstances great benefit is derived from abdominal massage, *saponaceous and electric*, increasing the blood supply, and obviating the development of tuberculosis in its varied forms.

Sir Michael Foster, says in his "Physiology," p. 122: "So long as the nerve is in a fresh, living, perfectly normal condition, the medulla appears smooth and continuous, showing no marks beyond the double contour, but in nerves removed from the body for examination, and according to some observers, at times, in nerves still within the body, clefts made their appearance in the medulla running obliquely inward, from the neurilemma to the axis cylinder. The clefts are spoken of as indentations. We may conclude that the changes, making up what we have called a nervous impulse, take place primarily, and chiefly at all events, in this essential part of the nerve fibre, the axis cylinder. Possibly it may also play a part, as an insulator in the electric phenomena. It is along the axis cylinder that the nervous impulses sweep."

These clefts are the chief factors in production of an imperfect nervous impulse, amply demonstrated by the frequent defective transmission of the electric current, and this current re-established, brings to light the fact, that the internal solution of conductivity, the highest order, in the transmission, in the axis cylinder, depends as to electrical phenomena, on the organic salts, which it contains, and the change evolved by electricity, *the result of a dislocation of pre-existing discrete particles*, restoring the *continuity and conductivity* of the medulla of the axis cylinder.

der. The histogenetic action of the abdominal ganglionic nerve centres, is a complex problem, in the remarkable transformation, from food to blood. A broken electric wire will not transmit an electric message, nor will a *cleft axis cylinder* convey a normal nervous impulse, the very basis of irregularity in blood making power. The remarkable results of abdominal massage, medicinal and electric, in gastro-intestinal defective digestive functions, as well as marked increased general vitality, associated with rapid reduction of colon distention, give to this subject, a degree of attractiveness, unsurpassed in the domain of physiological enquiry, and most likely to be followed by a lengthened lifetime, when entirely free from organic disease. The pre-tubercular period of a system diagnosed, by *the entire absence* of low, rough inspiratory murmurs, over one apex only, with feeble, jerky respiration, earlier signs in fact, than those determined by percussion, and favored by a good family history, habits, and non-exposure to infection, with no active disease, but a well defined debilitated state of the system, the outcome chiefly of defective activity in the gastro-intestinal nervous structures, having in association well defined dilated colon, this is the time for action. Dr. Walsh, of the Phipps Institute, Phil., defines a class of cases, with diarrhoea, enlargement of the mesenteric glands, abdominal pain, tenderness, rigidity in the region of the iliocaecal valve, as diagnostic of intestinal tuberculosis. In all such cases, the proposed treatment is contraindicated.

DIRECTIONS FOR THE ELECTRICAL TREATMENT.

1. Moisten the skin of the abdomen with warm water and a sponge, before applying the electrical current, to the space, midway between the hip crest, and the last rib, about three inches to the right of the navel—this application to continue about ten minutes. Afterward pass the current mildly over the entire abdomen for five minutes and dry the surface carefully after each application.

2. Moisten each leg, from the knee to the ankle, and apply the current freely, for five minutes to each leg, and dry carefully. The object in view, in the application of the current to the extremities is to arouse increased nervous activity in the terminals of the sciatic and saphenous nerves, and their varied communications, in the pelvic and abdominal regions, accessories, to the remarkable histogenetic spaces, where is produced the very pabulum of life.

These applications will be repeated each day, at bed time for two weeks or more, and repeated once or twice afterwards each week for three or four weeks, should any evidence of weakness continue. No application of the treatment should be made less than two hours after a meal. Before the application of the electrical current, drop fifteen or twenty drops

of liquid antiseptic soap over the navel, and use vigorous massage for ten minutes, over the entire abdomen, with open hand, placed in warm water, and then dry carefully. This massage to take place before each application to the abdomen of the current. In no case where any form of paralysis is in evidence, should electricity be used as such is contraindicated. Close attention to the diet and freedom from alcohol, are important factors in the prolongation of life.

The following typical case, will convey an idea of treatment under ordinary conditions.

Reverend T. C. B., aged 35 years, usually of vigorous habit of body, and generally enjoying excellent health until February, 1905, when the loss of appetite, with a sense of lassitude and insomnia, gradually supervened, marked by incapacity for ministerial duties. About March, 1908, he experienced difficulty in digesting food, associated with a feeling of uneasiness in the stomach. No nausea or vomiting, but inability to sleep for more than an hour at a time. No pain in stomach, but a sense of pressure, from accumulation of gas, bowels confined, but responded to salines. Falling off in weight 20 lb. in three months. Feeling of depression and languor. Tongue coated and frequent eructation of gas. Little desire for food, and only for liquid material, drinking largely of water. Urine normal, also the reflexes, with marked distention of colon.

On July 20th, 1908, he was placed under daily electrical treatment and massage, over the abdominal region, particularly the blood making ganglionic centre. At the first, the superficial cutaneous abdominal nerves responded indifferently to the electrical current, but after the fourth application, the sensation became quite acute, and continued so until the twelfth application, at which the entire nervous power, and tone, were quite restored. Gradually the digestion became active and vigorous, and as usual, attended by a return of normal mental equilibrium, marked also by regular and uninterrupted sleep, tongue quite clean, pulse and temperature normal, also entire reflexes.

August 13th. At present he feels quite restored in health and in every way equal to his usual duties.

As to remedial agents, the only medicines used were syrup of the phosphates, to feed the nerve centres, elixer of lactopeptine, to tone the alimentary mucous membrane, and taka diastase, a potent remedy, in failing digestive power.

Jacques Bertillon (*Revue Scientifique*, Paris, June, 1909) makes the statement, "that tuberculosis is much greater in the regions, where most alcohol is consumed, and that it is more frequent among saloon keepers, than with other merchants." The home and the school are interdependent, and Dr. Norman Kerr, of England, made the remarkable statement,

that of 260,000 deaths amongst children, below the age of *five years*, 65,000 due to intemperance. Under such circumstances how important is temperance, in staying the development of tuberculosis.

The highest aim of medicine is no longer cure, but prevention, and if by the method defined, a change is brought about in the blood elaborating centres of the system, to fortify it against the invasion of the bacillus tuberculosis a grand object will be accomplished. In conclusion, the opinion of Coleridge, may not be out of place:

“Beware of condemning a new theory, for it may be the refraction of some great truth, as yet below the horizon.”

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THE TOILET OF THE TYMPANUM AND ITS RELATION TO THE SUCCESS OF THE RADICAL MASTOID OPERATION.

By GILBERT ROYCE, M.D., Toronto.

ALTHOUGH the first consideration in operating on a case presenting a chronic purulent otitis media, is the cure of the discharge, the preservation of what hearing the patient may have in the affected ear should not be lost sight of. The loss of hearing following the Radical operation has been urged by many as a point against its employment, together with the fact that in some cases the discharge is not cured. This has led to various modifications, and Heath and others have advocated procedures reputed to obviate the tendency to loss of function on the part of the diseased member.

It is not the purpose of this paper to discuss the merits of the different operative measures, but to account to some extent for the failure of

the radical operation in certain cases. From a personal experience with many of these operations, performed by different surgeons of varying ability, the writer has been led to the conclusion that a considerable number of the failures are due to improper treatment of the tympanic cavity. In other words, the toilet of this space has not been thorough enough; diseased bone has been left behind and the discharge keeps up; interference with the stapes and windows, or the various structures of the internal ear, results in loss of function; neglect to smooth the surface and to eradicate all ridges and pockets renders certain parts inaccessible to the after treatment, thereby delaying dermatization and favoring the formation of excessive granulation tissue, which acts as a buffer to sound waves.

But the question is sometimes asked, "What can one do in the tympanum, surrounded as it is by so many vital structures?" The answer is, a great deal can be done provided the operator possesses an intimate knowledge of the relation of its parts, and a safe technique. Such can only be acquired by witnessing many operations, or by considerable work on the cadaver, for the tympanum is not constant in its general contour. The chisel or gouge, although satisfactory enough in the mastoid operation is not a safe instrument in tympanic work. Here the motor driven burr, or a properly made curette lend to a more finished result. The disadvantage of the burr is that the teeth become clogged with fine bone dust which forms a cement with the blood, this necessitates frequent cleansing, thus prolonging the operation. The curette devised by J. D. Richards, of New York, is a most efficient instrument and has proved satisfactory in the writer's hands.

As the tympanum is frequently crowded with debris and granulations, a view of the condition of its walls can only be obtained by cautiously removing these, care being taken not to disrupt the stapes, or to curette over the facial canal for fear of injuring an exposed nerve. The subsequent examination should be done under a good light.

The stapes if present appears as a small white knob just below the horizontal semi-circular canal. Running from beneath this canal, across the inner wall, may some times be seen a small ridge of bone which marks the course of the facial nerve across the tympanum it is not wise to curette over this or about the oval window for obvious reasons.

The most frequent spots for the occurrence of necrosing bone are the mouth of the Eustachian tube, the posterior segment of the tympanum, the roof of the attic, and the promontory.

The presence or absence of fistulæ leading to the internal ear should be carefully determined as their presence would account for a loss of function and affect the prognosis of the case. In curetting the mouth of the Eustachian tube only one direction is safe and that in a direction towards the chin, for below and behind is the carotid artery, which is

covered by a very thin plate of bone, while above is the facial nerve as it leaves the tympanic cavity. The tube should not only be curetted out, but its outer lip shaved down so that one can look directly into it; this procedure favors the obliteration of its lumen, thereby preventing the evacuation of mucous from its interior, and disposes of a ridge which so often retards the progress of dermatization. Just above the tube is the processus cochleariformis which is often prominent; in removing this care must be exercised as it is in intimate relation with the facial nerve. The remains of the tensor tympani muscle can sometimes be seen alongside the processus, and appears as a small flag of tissue; it is a potent producer of granulations in this region and should be curetted out, always with considerable caution. Having flattened the facial spur or ridge as far as one can with safety, that is to the level of the top of the eminence of the horizontal semi-circular canal, its anterior face should be thoroughly examined for necrotic bone, for it is here that it frequently occurs. Its removal should be carefully done, the facial nerve being only about 2-4 m posterior to it.

It is not wise to curette about the round window, although the tympanic wall in this region is often exceedingly irregular. After the removal of the outer wall of the attic, the roof should be explored, for the dura will sometimes be found exposed, in which case it is well to clip away the bone from the margin of the exposed area until a healthy membrane is seen. Attention can now be paid to obliterating the outer wall of the hypotympanum and levelling the inferior meatal wall. Whiting lays great stress on this point for if it is not done a recess exists for the accumulation of discharge. Care is required here not to allow the instrument to impinge on the inner tympanic wall as the carotid artery is in relation in front, and the jugular bulb behind, both being covered by a thin shell of bone. With regard to caries over the promontory, only the very lightest curetting is permissible, or perhaps none at all, the diseased parts being allowed to exfoliate. In some cases, owing to the peculiar shape of the tympanic space, the anterior wall shuts off a view of the region about the tube and parts above this, these being at the apex of a narrow acute angle and hence inaccessible to after treatment. The convexity should be trimmed down, care being taken not to break through into the maxillary joint.

The whole cavity can now be cleansed with alcohol and packed with iodoform gauze, which is removed on the fourth day and firmly repacked with narrow short strips of plain gauze, filling tightly in every angle. This is a very important point and should be repeated daily. On no account should dressing of a stimulating character be used, otherwise granulation will spring up and rapidly fill the cavity. No syringing is necessary as the cavity, being accessible in all its parts, can be cleansed

thoroughly with cotton bearing applicators dipped in solutions of biniodide of mercury. Granulations can be curetted down or discouraged with solutions of alcohol and bichloride. An excellent non-stimulating powder is stearate of zinc which serves to keep the cavity dry, a condition so essential to rapid dermatization.

In the writer's experience firm packing is the only reliable prophylactic measure against excessive granulation, although it may cause some discomfort to the patient.

The hearing of these cases after operation should not suffer much more than in an ordinary ossiculectomy, provided such precautions as are detailed above be carried out, in fact it will often be improved. For the retention of what hearing exists the after treatment is quite as important as the operative part, and it is our experience that the longer dermatization is delayed the more likely are we to have impaired function. The tympanic cavity is usually the last to dermatize, being the most remote from the skin margins. However, we have seen cases in which the dermatization of this cavity proceeded rapidly from the skin of the anterior canal wall so that it was really covered before the mastoid portions. This depends on careful and thorough work done about the tube and anterior tympanic wall. In these cases the hearing power was especially good for watch being 24/60, and whisper at 8 feet.

Dench, in a series of ill cases, in which hearing records were kept, obtained good hearing in 99, (whisper at 5-15 feet); fair in 9, (whisper at 6-3 feet); and bad in three cases.

Arnold Knapp reports the hearing in fourteen cases to be seven improved, four stationary, and three worse.

Jordan out of fifteen cases obtained ten improved and five stationary.

These were nearly all cases of caries in the tympanum.

From our own experience, although limited to a series of but twenty cases, diminution or loss of function has been the exception. Those in which the results were especially good, considerable care had been paid to the tympanic cleansing, both in the operative part and in the after treatment. In many other cases, the post operative treatment of which fell to the writer to carry out, there occurred some with delayed healing, and in these roughened bone could be detected most commonly about the mouth of the Eustachian tube, or on the posterior tympanic wall. In others the hypotympanic recess was not obliterated, so that drainage was imperfect.

It might be mentioned here that young children are not good subjects for the radical operation, for the bone being of a diploic nature granulations are formed with great rapidity, and it is very difficult to prevent the tympanum from filling, with loss of function as a result.

THE DIAGNOSIS AND TREATMENT OF ACUTE INTUSSUSCEPTION.

By A. E. ATHERTON, M.D., L.R.C.P. & S. (Edin.), Fredericton, N.B., Canada.

ACCORDING to Treves, about fifty per cent. of cases of acute intussusception occur during the first ten years of life, half of these being met with in the first year. After the first year the trouble is most common in the third and fourth decades.

There are four variations of the disease:—(1) Enteric, (2) Colic, (3) ileo-caecal, (4) ileo-colic. The first variety usually involves the jejunum and ileum, and is generally short. The colic occurs most commonly in the descending colon and sigmoid flexure. In the ileo-caecal form the ileum and caecum pass into the colon preceded by the ileo-caecal valve which forms the apex of the intussusception. In the ileo-colic variety the ileum is prolapsed through the ileo-caecal valve, the ileum forming the apex.

Out of a hundred cases forty-four are found to be of the ileo-caecal variety, thirty enteric, eighteen colic, and eight ileo-colic.

In making a diagnosis, the age of the patient of course is one of the important factors, as the affection occurs so much more frequently in young children. The onset of pain in these cases is usually severe and sudden. At first it is distinctly intermittent; later it becomes more continuous, but with exacerbations. Vomiting is not usually so early or so pronounced a symptom as in other forms of acute obstruction of the bowels. Constipation is generally absent, and instead we often have a discharge of bloody fluid mixed with some mucous. With this there is a good deal of tenesmus. The bloody discharges, as far as I have seen, are of a brighter hue than we get in acute dysentery, for which disease it is apt to be mistaken. In dysentery there is a distinct rise of temperature, while in intussusception, during the first few hours at least, there is little or no fever. Furthermore, in the latter the pain is much more acute than in dysentery.

When in cases of intussusception we get neither bloody discharges, nor tenesmus, nor the presence of a sausage-shaped tumor, as occurred in case 4 of the series reported below, it is impossible to differentiate it from an ordinary one of intestinal obstruction. Its treatment, however, by forcible injections would do no harm, and if this failed to afford relief a laparotomy would be in order in any case.

I once saw a case of thrombus of the inferior mesenteric vessels which considerably resembled acute intussusception. There were severe pain, bloody stools and more or less tenesmus present. The young woman had had typhoid fever two or three months before, and seemed

to have made a fair recovery, when she suddenly developed acute symptoms accompanied by high fever. At the *post mortem* we found the whole large intestine gangrenous and a nearly healed ulcer in the descending colon. The latter doubtless was the starting point of the thrombus.

Meteorism is usually absent during the first hours of an intussusception. In about half the cases a sausage-shaped tumor can be felt in the course of the transverse or descending colon. Sometimes it can be reached by a finger in the rectus. In infants we often have profound symptoms of collapse. A diarrhoea or the griping produced by a cathartic seems sometimes to be the starting point of the trouble, owing no doubt to some irregular contraction of the bowel muscles.

Among the diseases which resemble most closely acute intussusception is Henoch's purpura. In this we get an effusion of blood into the wall of the bowel accompanied with symptoms which are very much like those we meet with in the former ailment. Sometimes there is even a small tumor to be felt, but it is not as large as the tumor of an intussusception. Then, too, we do not often have any tenesmus in Henoch's disease. The previous history may elicit some account of attacks of erythema or urticaria, or we may find on examination some purpuric spots on the skin which would help in forming a correct diagnosis. Judging from some published reports of this disease we may even have an intussusception occur as a result of the effusion of blood or serum into the bowel wall. In such an event it would be of course impossible to clear up the case except by an ocular inspection of the parts.

As to the treatment of acute intussusception, formerly the chief reliance used to be placed upon injections of air or warm water, an anæsthetic being often administered in order to render the measure more effectual. Of late, however, it seems to be the fashion with many surgeons to ignore these altogether, and advise instead a resort to immediate operation and the manual reduction of the displaced gut. Judging from my own limited experience, I cannot agree with this. One is apt to be influenced more by his own observation than by the dictum of others, however eminent they may be. I cannot help thinking that the consulting surgeon, who is generally called at a somewhat late stage of acute diseases, is apt to place too low an estimate on measures other than operative, because of this fact, for it is then not infrequently too late for their successful employment. Then again, such methods may have already been resorted to by the physician in attendance and perhaps have failed because they have not been properly used, and this is likely to lead the surgeon to think they are no good.

In giving these injections for intussusception, I think it is important to administer them with considerable force. It is also well to press a napkin firmly for some minutes against the anus after the removal of

the nozzle of the syringe, so as to keep up the backward pressure on the bowel and make more certain of its going into place and staying there.

After a faithful trial of this method of treatment, if relief is not obtained, the abdomen should be opened and the bowel manually replaced. One is sometimes aided in this by the further injection of warm water. The replacement is accomplished more easily by pushing and squeezing on the lower end of the intussusception than by pulling on the bowel from above. After returning the gut, any distended coils should be punctured to allow the septic gases and fluids to escape, the punctures being afterwards closed by a continuous Lembert's suture. The emptying of these distended coils serve the double purpose of getting rid of the poisonous material in them and also enables one to replace them more readily within the abdomen. If there seems to be any tendency for the bowel to return to its faulty position a few stitches may be placed in such a manner as to prevent this. Should reduction of the intussusception be found impossible or the strangulated gut be gangrenous the situation is indeed a desperate one. If the patient seems to be in a condition to stand it, one will do best probably to proceed to excise the intussusception through an incision in the intussusception near the line of strangulation, great care being taken to prevent soiling the peritoneum. After its removal a button-hole suture should be used to unite the cut edges of gut, and the incision in the intussusceptions closed in the ordinary way. A few stitches should also be placed in the peritoneal coats of the bowel at the line of the adhesion of their surfaces so as to prevent the parts from separating. Should the patient seem unable to undergo this rather severe ordeal we may make an opening in the bowel above the obstruction and secure a glass tube in it to carry off the contents of the intestine temporarily, and subsequently, if the patient survives, resect the offending portion.

Short-circuiting, or the uniting a loop of the gut above to a loop below has sometimes been done, but it does not seem to have found much favor.

Permit me now to report a few cases which have been observed by myself.

Case 1.—At 5 a.m., October 19th, 1883, I was called to see a female child 11 months old, who had always been healthy until two weeks before, when it had an attack of measles with a good deal of bronchitis. Two days before my visit the child was seized with diarrhoea and vomiting but did not seem to require medical attention. She rested fairly well the night before I saw her till between two and three o'clock, when she awoke with severe pain and vomiting. Also there were thin bloody discharges with a very little mucus. I gave seven drops of laudanum in a little water by rectum and ordered two drops by the mouth every hour

till pain was relieved. During the next six hours the patient was easier and vomited only a few times, while but two motions of a similar character were passed. She was very pale and appeared somewhat collapsed. Subsequently the vomiting and bloody discharges became more frequent and the child looked worse. At 8 p.m. the pulse was 160 and the temperature 100°. On examination I found a tumor $3\frac{1}{2} \times 1\frac{3}{4}$ inches occupying the left side of the abdomen, its longest diameter being parallel to the median line and an inch or so from it. It did not appear quite so resonant as the surrounding abdomen. There was but little general distention. The anus seemed to be somewhat patulous but no tumor could be reached by the finger in the rectum.

Feeling convinced that I had to deal with a case of intussusception, I at once proceeded to inject warm water, no anæsthetic being administered because of the collapsed condition of the patient. The nozzle of an ordinary Davidson syringe was introduced and a rag wound around it and pressed well up against the anus to prevent the water from returning while it was being thrown in. After a few syringefuls had been injected there seemed to be some considerable resistance to its further entrance, but I continued to force it in until I introduced about thirty ounces, at the same time manipulating the tumor until I could feel it move upwards and to the right, and apparently disappear. In a few minutes I allowed the water to escape. About half of it came away. On examining the parts after this I thought I could feel some hardness in the epigastrium and to the right just below the ribs. I therefore threw in more water until there was a gush of greenish fluid from the mouth. Two hours afterwards I saw the child again and found her quite comfortable and learned she had been so ever since the injections. There had been no vomiting and no further discharges. No tumor could be now felt. Pulse 145.

During the ensuing day she had two or three loose stools, but there was no sign of blood in them, and she went on to speedy recovery.

Case 2.—About the same date as that of the one just reported I had another in a boy three years old, who had similar symptoms and was as promptly relieved by the same treatment. As I cannot find any notes of the case I am unable to give a detailed account of it.

Case 3.—B. P.—, aged 25 years, male. Was laid up with "la grippe" two weeks before I saw him, but had got about well again when two days ago he felt poorly again and had a headache. Dr. Fisher, of Marysville, was called and gave him a dose of calomel, which acted well in a few hours. Soon afterwards, however, he began to have paroxysms of pain, accompanied with tenesmus and the discharge of small quantities of bloody fluid. I was called to see him in consultation about six hours after the acute symptoms had set in, on the evening of the 6th of April,

1908. I found him writhing about the bed with pain at short intervals, and at these times desiring to go to stool and passing a few drachms of thin bloody matter. The pulse and temperature were normal. There was no abdominal distension, and but little or no tenderness anywhere. No tumor was felt either through the belly wall or by rectum. Thinking we had an acute intussusception on our hands, we at once began to administer an enema of warm water by means of a fountain syringe held six or seven feet above the bed. This seemed to increase his pain and he struggled so much against it that we were obliged to give him chloroform. Even then he continued to struggle until about three quarts were thrown in, when Dr. Fisher, who was holding the nozzle, felt some gas escape and at the same time several ounces of fluid burst from his mouth. Immediately he became quiet and apparently easy. The next twenty-four hours he passed a few loose fecal motions with no sign of blood in them. There had been but little or no pain since the enema, and in a few days he was quite well again.

The two following cases are ones in which an abdominal section was performed.

Case 4.—On November 21st, 1899, I was asked by Dr. Peake, of Oromocto, to see with him a boy four years of age who lived twelve miles out of the town, and who on the morning of the 19th had been seized with severe cramps and vomiting. He had been subject to slight attacks of this kind all his life. His parents gave him a dose of senna tea, but without effect. As the pain and vomiting continued they sent for Dr. Peake on the following day. He administered an enema but it brought nothing away. He then gave four grains of calomel. This also had no effect, and the Doctor at his next visit on the following day repeated the enema with no better result. I saw him about six o'clock in the evening, and found him suffering at short intervals with pain in the belly and occasional vomiting. The pulse was 120 and temperature normal. As far as I could learn the constipation had been complete from the very first, not even gas passing. The abdomen was considerably distended, and no tumor could be felt either through its walls or by rectum. There was a little tenderness on the right side where the pain was most severe. I advised his immediate removal to hospital for operation. An opiate being first given he was moved to town with but little discomfort.

At 10 p.m. I operated. The presenting coils of bowel were much distended and were allowed to escape. The appendix was found firmly adherent to the neck of the intussusception, which proved to be of the ileo-caecal variety. This was ligatured and removed. By pressing upon the lower end of the imprisoned gut and pulling gently on the bowel above I was able to reduce it. I found the intussusception very much

congested, thickened and hard, especially at its lower end. I now punctured the distended coils in two places and let out a considerable amount of thin fæcal matter. After suturing these punctures I returned the intestine and closed the abdominal wound.

The operation was followed by a good deal of shock, but by the use of a saline enema containing a stimulant and a hypodermic of an eightieth of strychnine he rallied fairly well. He soon became restless, however, and died at 2 a.m.

In this case it is probable that the former attacks of cramps and vomiting were due to appendicitis. Also the old firm adhesions around the neck of the intussusception may have helped to produce the complete constipation that was present.

The last case I shall mention occurred in the practice of one of the most noted surgeons on the continent. The symptoms had been going on for twenty-four hours. I do not know whether the child had been treated by injections, but I think not. She was just a year old, and there was a good deal of abdominal distension. A laparotomy was done and the bowel got back all right but the patient died in a few hours.

THE RELATION OF THE HOSPITAL TO THE COMMUNITY.*

By R. W. BRUCE SMITH, M.D., Inspector of Hospitals for Ontario.

THE question of hospital extension has now become so general that before very long every large Canadian town will have its own local institution for the care of the sick. It is only one hundred and fifty-seven years since the first hospital in America opened its doors. At that time only a few hospitals existed in the principal cities of England and continental Europe.

Fifty years ago there were only eleven hospitals within the present boundaries of Canada, while to-day there are 151 such institutions. Twenty-five years ago there were seven hospitals in the Province of Ontario; to-day we have 73 general public hospitals, with a total expenditure for maintenance during the past year of \$1,240,000.

When we think of the growth in the work and note the progress that has been made and that largely through the sacrificing efforts of the medical profession, we may well consider the question of the relation which the hospital bears to the community and the improvements which may be worthy of earnest consideration and seem most likely to make the hospitals of Canada models in the national features that we possess.

The questions which naturally arise in the establishing of an hospital are as to what plan of construction is to be followed and what classes

* Read at the Canadian Medical Association, Winnipeg, August 23rd, 1909.

of patients are to be admitted. The time for this paper renders it impossible to dwell at any length on the importance of proper planning and construction.

No branch of architecture has shown more evidence of improvement than hospital buildings. This is in a large measure due to the knowledge gained during recent years of the possibility of having aseptic conditions and making hospital wards and their accessories by construction and care as free as possible from dust and rendering, as far as we are able, the air inside as pure at least as that nature provides without. No hospital should be planned except as a unit to which additions in the future may be advantageously added.

Every community should be warned of the danger of establishing hospitals that might overlap those already established. This is one of the many reasons why in every large community there should be an independent board of citizens to act as a commission on Associated Charities, and to whom all schemes for the organization of additional hospitals and charities should be referred. If such a course had been followed in many of our large Canadian cities, what a large amount of money might have been directed into channels, where it might have been of greater service to the community.

In regard to the different classes of patients who shall be admitted, Canada's hospital policy must continue to be different from the policy followed in large British and European hospitals. There the large public hospitals are designed for the care of the sick poor alone. Social conditions fully justify following a different plan in this country.

In our Canadian hospitals it is often felt that it is a great charity to provide accommodation for those able and willing to pay for their maintenance as it is to afford shelter for those of destitute circumstances. In this growing country those in comparatively comfortable circumstances are often without suitable home surroundings when overtaken by sickness or injury.

In dealing with the management of all charities in Canada, we must discourage everything that might have a tendency to establish a pauper class in any Canadian community. We must seek to avoid the mistakes which older countries are now seeking, when too late, to correct.

There is no room for a pauper class in Canada. Experience has proved that it is not only possible but profitable for many reasons to afford accommodation for private, semi-private, and public ward patients in the same hospital. The private patient should contribute for his maintenance more than it costs, and this surplus is added to the total amount received from local philanthropy and municipal grants.

There are also indirect benefits accruing from the presence of a private patient in the hospital. The nurses, the doctors, the house staff

are brought in contact with a different class of patients from those they are in contact with in the public wards and under different conditions somewhat akin to those they will meet with in private practice.

There are criticisms that come to them, and there are restraints upon them in dealing with a private patient that must be recognized. The training of no nurse is complete who has not had to deal with and care for both public and private patients.

The same kindness, the same devotion to duty are needed in public ward as in private room and the same facilities must be provided, but there is an influence from the patient that must be recognized and felt.

Then again, the private patient often becomes the friend of the hospital and the instances are many where the treatment received at the hospital by the patient has stimulated a liberality that probably nothing else than a personal acquaintance with the work being done by the institution would have brought about.

No private patient should ever be allowed to leave the hospital without seeing what is being done for those who, from circumstances of unforeseen misfortune or calamity, have been reduced to the necessity of becoming free patients. Every hospital superintendent knows that the best friend the institution has is the one who has been favorably impressed with the care and attention received while a patient.

If we concede that our hospitals are to receive both paying and non-paying patients the community is interested in the settlement of the question as to who are to be the medical and surgical attendants on those for whom accommodation is provided.

The answer to this question may, in my judgment be briefly stated :

1. Private patients can have their own physician or surgeon attend them.
2. Semi-private patients who contribute for their maintenance a sum equal to the per capita cost of maintenance of the hospital for the past year have the same privilege.
3. Every public ward patient should be attended by the member of the staff assigned for the week or the month, as the case may be, to the particular ward to which the patient has been admitted.

We sometimes hear a great deal of criticism of the rule which prevents every medical man having access to the public wards of a hospital, but those who are acquainted with hospital management know that to permit such a course is inimical to the patient and disastrous to the management and discipline of the hospital.

Yet it is along such lines and to bring about such conditions that the ward politician gloats over the prospect of posing as the poor man's friend. The public is fortunately not seriously led away with such buncombe.

A regularly organized staff is essential to every city hospital, as the poor when admitted to the public wards have the right to expect that all the skill of the staff, as well as all the facilities of the institution will be exercised on his behalf.

These can only be obtained by methodical arrangement of the ward service. Take a public ward of 24 beds and allow each patient to be followed thereto by the physician or surgeon of his own choice, the usual visiting hours being observed. Imagine the confusion, out of which provoking errors would be sure to arise, and picture to yourself the difficulty of providing a nursing staff that would be adequate for such conditions.

The few who have advocated the expediency of establishing city hospitals where every medical man might follow his patients and treat them in public wards have, I fear, not given the matter the consideration which such a radical change should have.

The medical and surgical staff of a hospital must be selected by the trustees of the institution without regard to sectional or party feeling, and from the best available physicians and surgeons in the community.

The free patient must be made to feel that those charged by the community with the selection of the visiting staff have endeavored to provide the best men available. Those thus selected must on their part render regular and faithful attendance, and be given to understand that neglect of duty is tantamount to an expression of a desire to be relieved from membership on the staff.

The patient who became a free patient should be given to understand that he is in duty bound to allow his ailment to be used, if necessary, for illustration either to students or nurses, or for the promotion of scientific research and study. This brings us to another and most important part of the relation which the hospital bears to the community.

A great hospital must play an important part in the philanthropic activities of the community. The relief of individual suffering and the cure of individual cases must not, however, be considered the only reasons for such a hospital's existence. That would, indeed, be a narrow view to take. Great as its service to the community is in those particulars, it is only a small part of the service which it really renders.

It is as an educational institution, an institution through which alone doctors and nurses can be trained, and through which alone medical science can be advanced that a large hospital under enlightened management has its chief claim upon the public. Dr. Osler has well said, "The whole art of medicine is in observation, but to educate the eye to see, the ear to hear, and the finger to feel, takes time, and to start a man in the right direction is all that we can do."

Dr. John S. Billings testifies: "Teaching hospitals are those where the patient is best observed, best cared for, and receives the greatest

benefit." It is only by providing hospitals where the art of healing can be practically taught that doctors and nurses can be prepared for their ministrations of mercy, whether to the sick who can afford to pay in money, or to the poor whose only recompense is thankfulness.

It is by providing our universities with hospitals where medical and surgical science may be equipped with the knowledge that is power in alleviating human ills. At one time the instruction in the lecture room of the medical school was followed by perfunctory and haphazard walks through a hospital ward. Scores of students sauntered along between rows of beds and listened at an almost out-of-earshot distance. A student rarely touched a patient, seldom listened to the physical signs of pulmonary or cardiac disease, and never really studied a ward case. The surgical operations in the amphitheatre could only be vaguely seen.

Thanks to the impulse given by the denomination, all that is now rapidly changing. Now in small groups, or individually, students are permitted to work out some phase of a specified disease. The student sees the patient, touches the patient, comes in personal contact with the disease of the patient, and begins to get a grip on its meaning.

Then when each student has familiarized himself with the details of the case an opportunity is afforded for discussion on the points brought out.

In the evolution of medical instruction it has come to be recognized that the arena of teaching must be transferred from the lecture room to the hospital wards. The hospital is the real school of the medical student. The future will surely disclose how advantageous to the public it was to provide facilities for hospital instruction for those who are the guardians of the nation's wealth in the years to come.

Dr. Osler recently said: "For the student of medicine and surgery it is a safer rule to have no teaching without a patient for a text, and the best teaching is that taught by the patient himself."

In such a hospital will be assembled the sick and maimed, who will not merely be healed themselves, but by whose healing that is learned which will heal others in generations to come; the physicians and the nurses, who are there both to heal and to learn; the laboratories and surgical appliances with which they are to put their learning to the highest use.

Such a combination in a great hospital will prevent more disease in generations to come than it actually cures in generations with which it is immediately and personally dealing. The educational function of such a hospital should receive the same prominence which is given to its actual relief of human suffering.

Then again the well equipped hospital not only relieves human suffering, educates doctors and trains nurses, but sets standard for the countless

many who for the first time perhaps in their lives have the chance to see cleanliness, and the importance of detail in the beauty of a well ordered, self-contained life.

The hospital indeed now plays such an important part in the world's progress that the erection of every well equipped modern hospital is cheering evidence of a determination to share in this great forward movement.

When a town or city contemplates the establishment of a hospital my first advice is to make sure that class, partyism or sectional feeling of every kind is kept separate and complete. Ward politics are decidedly incompatible with hospital management.

The contrast between municipal hospitals and those institutions which are controlled and directed by local boards is most marked. Fortunately in this country we have not the experience which has been so expensive in some of the American cities during the past year.

There are only two or three that might be termed municipal hospitals in Ontario. Where these are located there is an absence of hospital spirit among the people of the community. Local philanthropy is never exerted for the benefit of the hospital. It would, indeed, be a surprise for such a hospital to receive a contribution or become the object of a bequest.

Not only is the hospital deprived of the contributions, and sympathy of the people of the community, but the greater privilege of giving is kept from those who would otherwise find comfort and delight in practical benevolence.

There are one or two places in Ontario where the people would as soon think of making a donation to the City Hall or Street Railway as to the local hospital under municipal control and management. There is no room in Canada for more hospitals solely under municipal control.

The ideal plan is as so largely prevails in this province, local management under the direction of those who are actuated by a spirit of philanthropy coupled with civic pride, and are willing to administer the important trust committed to their care. These local boards, however, deserve liberal municipal support.

The municipal act of Ontario gives power to vote an annual grant each year for hospital support. Every city town and village, township, and county council can exercise that power. Some of the municipalities make liberal grants towards the support of the hospitals in their midst.

Unfortunately, there are many that will not take advantage of the power they possess to vote hospital grants. Some municipalities decline to contribute anything towards paying for the hospital care and treatment their indigent patients receive. The time has come when municipalities

should be awakened to a sense of the duty they owe to the local hospitals who care for their sick poor.

A statutory amendment might with great advantage be introduced giving hospital boards the power to collect from a municipality the actual cost of maintenance of a patient who is unable to pay for what the hospital has afforded him during his illness. The municipal act of Ontario now gives the power for the municipality to make the grant; why not give hospitals the power to collect what the municipality owes for the care of the indigents?

In the Province of Ontario government aid is voted each year to hospitals on the following terms:

1. A Provincial grant is made for all patients in a hospital during the first ten years of its existence at the rate of twenty cents per day, irrespective of what sum is contributed by the patients themselves.

2. After a hospital has been in existence for ten years the grant is paid only for patients for whose maintenance \$4.00 per week or less is contributed.

3. In all cases the limit is 120 days, and if patients remain in the hospital longer than that period the refuge rate of seven cents per day is allowed.

4. Children over one year and under twelve years are allowed for at the rate of seven cents per day.

5. No allowance is made for infants under one year of age.

Each hospital is visited each year and a report prepared showing the condition in which the hospital is found. A copy of the report of the inspection is sent to the hospital visited and another copy sent to the provincial secretary.

Each hospital in addition makes a monthly return to the Inspector, giving the names of all patients admitted discharged and who died during the month. In this way a record is kept at the Department of the work each hospital is doing. At the close of the year a financial statement is made by each hospital showing in detail the financial receipts and expenditures.

These returns are carefully compiled at the Department, so that a knowledge is obtained of all details of expenditures, and if a hospital is extravagantly managed, it is easily detected.

I may be pardoned for expressing the opinion that Government supervision and inspection of hospitals has great advantages. The average rate for maintenance of hospitals of Ontario for the past year was \$1.21 per day, and considering the work being done, the financial records are certainly satisfactory.

I am sometimes asked what I consider the model plan for a young and growing city desirous of planning for a hospital that is to serve

future generations. My answer, founded on observation, is this: In my judgment, the model plan is to have a large section carefully selected outside and away from the noise and dust of the city, and on this large area lay out the hospital village which will care for and receive all classes of diseases in distinctly separate pavilions and provided with all the facilities for outdoor treatment when practicable.

With such a scheme, one or more small reception hospitals in the centre of the city would meet all the requirements for emergency cases. This hospital village would have as a leading feature, the convalescent home, to which the patient could be transferred as soon as convalescence became well established.

This leads me to refer to the fact that at present there is not sufficient attention paid to providing large convalescent homes. The poor man has to be kept in our hospitals long after his recovery has commenced—too sick to be sent home, and really not sick enough to be kept in bed which might with advantage be taken by an acute case.

On the grounds of economy alone, it would be particularly advantageous to every large hospital to have a convalescent home to which its recovering patients might be transferred.

HYPERPYREXIA AND DEATH AFTER TONSILLOTOMY.

By D. J. GIBB WISHART,

Senior Surgeon, Department of Oto-Laryngology, Toronto General Hospital, late Senior Surgeon, Department of Oto-Laryngology, Hospital for Sick Children.

A. R.—, female, aged 14 years, entered Hospital for Sick Children early in the morning of October 7th, 1908, complaining of persistent mouth breathing, defective hearing and frequent colds in the head. Had adenoids removed two years ago. Suffered from pleurisy last May, otherwise perfectly healthy. A swab had been taken from the throat the day previous, and reported free from *K. L. bacilli*. The patient is moderately nourished, and well developed. There is no glandular enlargement. The skin is cold and pale. The eyes, nose and ears are free from discharge. Bones and joints appear normal. The chest is symmetrical, expansion good, mammary glands show commencing development. Breath sounds vesicular, clear. Heart sounds, clear, no accompaniment. Pulse of good volume and tension. Tongue clear, tonsils well enlarged, adenoids. Abdomen, flat, soft, tympanitic, no rigidity, no tenderness. Spleen not palpable. Liver not enlarged.

Reflexes: Pupils react to L. and D, abdominal present, patellar active, plantar flexion, no ankle clonus.

The patient looked somewhat pale during the forenoon and was nauseated, at 12 p.m. she vomited. The gastric disturbance was attri-

buted to calomel and mag. sulphate catharsis. At 1 p.m. the temperature was 99 and the pulse of fair quality. On examination the tonsils appeared smeared over with a glairy mucous pus, the crypts were probed and found filled with caseous debris. There was a suggestion of quinsy in the appearance of the pharynx, but no other clinical evidence. At 2 p.m. a general anæsthetic, chloroform, was administered, and the tonsils and adenoids removed. She was not very fully anesthetised, but took a good deal of chloroform, and struggled a little. There was a moderate hæmorrhage during the operation. When the tonsils were seized in the guillotine, a quantity of offensive, cheesy debris exuded. During the next two hours she vomited about a pint of bloody fluid. The pulse was small in volume and at 4.35, 6 ozs. of a saline were administered per rectum. At 5 p.m. the temperature was 104. At 7 p.m. the temperature was 105, and she was cyanosed. She was carefully examined at this time and no cause discovered for the rise of temperature. There was then no bleeding, the skin was cold, and pulse running at 110, of small volume. Heat was applied to the extremities (and whiskey given per rectum with a saline. Calcium Lactate gr. XX. was given to anticipate bleeding. At 9 p.m. the temperature was 105. She was still cyanosed. Strychnia Sulphate gr. 1/20 was administered, and the rectal saline with whiskey 1/2 oz. repeated. Hydrotherapy was thought to be contra indicated on account of the cold extremities. An intestinal saline with adrenalin was administered. At 11 p.m. the respirations were hollow and infrequent and atropine gr. 1/100 was administered with strychnine gr. 1/60, a little later oxygen was administered cautiously, she showed some improvement in the lessening of cyanosis and restoration of the normal respiration. Heat had been applied to the extremities from the commencement. At 1 a.m. the temperature reached 106, and she was delirious at times. There was no complaint of pain, and she was conscious but wandered a little. At 5 p.m. the temperature reached 107, the pulse was small, she was cyanosed, extremities cold and prostration marked, she became progressively weaker and died at 6.53 a.m.

Professor J. J. Mackenzie made the following report of the autopsy :

On opening abdomen, peritoneum is apparently normal, the mesenteric and posterior glands are markedly enlarged. On opening the thorax, lungs do not react, but meet in the middle line, at third space. Heart space normal; thymus at upper border of second rib, not enlarged; right pleural cavity, no fluid, no adhesions, left pleural cavity, no fluid, no adhesions. Pericardial cavity, normal amount of fluid. Left lung, pleura sticky in one or two places, small sub-pleural hæmorrhages, lung crepitant throughout but very emphysematous. On section lungs are of even consistence and apparently normal.

Heart, pericardium normal, valve normal.

Liver, dark in color, soft and friable, considerable fat and oedema present, lobules indistinct.

Kidneys, about normal in size, capsule strips with slight difficulty, on section cortex markedly striated, slightly swollen, shows possible yellow streaking.

Spleen, fairly firm, capsule, smooth, trabeculæ not very firm, one small tubercular nodule found.

Intestines, Peyer's patches and lymphoid follicles markedly swollen, in one or two places small ulcers were found. Mesenteric and retroperitoneal glands swollen, and one gland being especially large, of the size of a large marble and cascated. Pelvic organs normal. Anatomical diagnosis; early intestinal tuberculosis, with marked swelling of mesenteric and retroperitoneal glands; old tuberculosis with caseation of one gland; acute nephritis; emphysema of lungs; acute hepatitis.

The explanation of this case is one that I cannot fathom. That the debris from the tonsils could have been charged with a highly toxic bacteria is possible, but why should the small quantity that was not removed with the tonsils and blood have caused so speedy a death from septicaemia. In another later instance where the tonsils were similarly laden, the debris from the depths of the crypts revealed only staphylococcus. I regret that I did not attempt serum treatment but there was no time to attempt the isolation of the particular coccus present. Death was evidently due to a virulent toxæmia, but why?

TO MISS FLORENCE NIGHTINGALE.

By E. S. McKEE, M.D., Cincinnati.

AFTER her great work in the Crimean War, Florence Nightingale was offered a warship to bring her home, and England stood on tiptoe on her shore ready to pay her homage. Florence Nightingale was as modest as noble. She slipped into England on a French vessel under the assumed name of Miss Smith and was quietly resting at her Derbyshire home ere England knew that she had returned. *Punch*, who in writing and cartoon had poked all sorts of fun at the nightingales when they went to war published the following beautiful and sublime verse on the woman and the incident:

“Then leave her to her quiet she hath chosen; she demands
 No greeting from our brasn throats and vulgar clapping hands,
 Leave her to the still comfort the saints know that have striven,
 What are our earthly honors? Her honors are in Heaven.”

The Lady with the Lamp was the title given Miss Nightingale from her habit of inspecting the wards and everything at Scutari at all times of the night, lamp in hand. This idea of the lamp is carried out in both the statue of Miss Nightingale at St. Thomas' Hospital, and the beautiful parian marble statue of her at the Johns Hopkins School for nurses. Longfellow's poem *Santa Filomelia* refers to Miss Nightingale. Perhaps he drew somewhat from the Latin word *philomela*, meaning nightingale. We will quote but one verse from this and advise our readers to look up and read the whole poem :

“ A lady with a lamp shall stand,
In the great history of the land,
A noble type of good,
Heroic womanhood.”

The following simple sentence from a wounded soldier at the Barracks Hospital at Suctari is said to have brought a hundred thousand dollars to the Nightingale fund. It was worth it. “She would speak to one and another and nod and smile to many more, but she could not do it to all, you know, for we lay there by hundreds; but we could kiss her shadow as it fell, and lay our heads on the pillow again content.

Whittier has delicately described her :

“The sweetest woman ever fate
Perverse, denied a household mate.”

Florence, Italy, the city of flowers, was the fitting birthplace of Florence Nightingale. Flora, the goddess of flowers. Florence comes from it and means flourishing. Nightingale is the sweet song bird which works at night as does the nurse. She was born the twelfth day of the month of May flowers, 1820, and is living now in England, beloved by all, in her ninetieth year. Some whom the gods love live to be old, but they retain their youthful appearance.

Byron in “*Bride of Abydos*” mentions the fondness of the nightingale for the rose, also in the “*Giaour*,” where we find the lines :

“—the rose 'oer crag or vale,
Sultana of the Nightingale.”

There is a pretty Persian fable which relates that the *Bul-Bul*, or Nightingale, once fell in love with a rose. The rose wakened from maiden sleep by the love song of the nightingale, trembled on her stem. At the time of this fable the roses were all white, innocent and virginal. Listening to the sweet song the little rose heart was stirred, then the nightingale came nearer and whispered, “*Sen severim sana, Cul-Cul.*” At these warm words of love the little heart blushed and then we had

pink roses. The rose alone of all created things was intended by Allah, when he created the world, never to know earthly love, yet the silly thing opened its petals to the persistent Bul-Bul, thus relinquishing her virginity. In the morning the sun rose red and saw at once that his little flower friend had turned red from shame. Result, red roses. Since that long ago night the nightingale comes nightly when all nature and nature's life lie hidden in the deep sleep of night and implores for love in his sweetest song, but the rose refuses. Each sad successive night the bird seeks anew its love only to be again refused. Though the rose trembles with feeling when it hears the voice of its little feathered lover its petals remain firmly closed. The nightingale sings till he sees night melt away before the orb of day as pity melts the maiden heart to love, but the rose remains re'entless. The nightingale prolongs his sweet song till he at last dies of unrequited love, singing to his rose. Chilled by the winter of love's last adieu, he is buried by the other nightingales at the foot of the rose bush on which his rose love trembles, his first love and his last. From this long suppression of love and the tragic fate of her lover the rose turned yellow. We now have the white, pink, red and yellow roses. Izaak Walton has beautifully described the nightingales' singing in England, and has done it very well. He had not heard the nightingale sing in the Orient. In the land of Mohammed they are supposed to be souls starved for love. All this poetry, songs, flowers and birds has led me into the mood and I send forward the following verse to Florence Nightingale, hoping that the appellation in the last line may be deemed appropriate :

Purest, sweetest woman cruel Fate,
 Unkind, refused her heart to mate.
 Oh ! rose, Sultana of the Nightingale,
 Sultana of the Suffering, Florence, Hail !

Salerno's school in conclave high unites
 To counsel England's King, and thus indites :
 If thou to health and vigor would attain,
 Shun mighty cares ; all anger deem profane ;
 From heavy suppers and much wine abstain ;
 Nor trivial count it, after pompous fare,
 To rise from table, and to take the air.
 Shun idle noonday slumbers, nor delay
 The urgent calls of nature to obey.
 These cures, if thou wilt follow to the end,
 Thy life to greater length thou may'st extend.

CURRENT MEDICAL LITERATURE

MEDICINE.

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

THE ENZYME TREATMENT FOR CANCER.

In the *Medical Record*, New York, July 17th, Bainbridge, Secretary to the Committee on Scientific Research of the New York Skin and Cancer Hospital, gives his final report on the above method, introduced and advocated by Beard, of Edinburgh, which, with the skillful assistance of a number of scientists, has been tested during the past three years on over a hundred selected cases, a detailed report of which will be published later. The cases were followed as closely as the difficulties of such will permit, the regimen was carried out according to the directions and instructions of Dr. Beard, and with interim suggestions from him, and were probably as fair a test as could well be given. The materials were:

Oral Treatment: (1) *Holadin*, 1 capsule t.i.d., one hour before meals.
(2) "Pepule" oxgall compound, 1 to 2 pills at night, according to requirements (to give tone to the bowels).

Local Treatment: *Lotio Pancreatis*.—To the quantity required for a single application, add an equal volume of freshly distilled water (unless ordered to be employed undiluted) and apply freely. Use twice daily, flushing the surface carefully with boiled water previous to renewal of solvent.

Hypodermatic Treatment: (1) *Injectio Trypsini* (Special XX.). Begin with ten minims daily, increasing five minims each day until some marked reaction takes place, or until two ampoules (20 minims each) are being taken each day.

(2) *Injectio Amylopsini*. When the trypsin injections have been increased to 40 minims daily, injections of amylopsin are then begun on alternate days with trypsin, never on the same day. Commence with ten minims, increasing five minims each day until the maximum dose is reached, viz., 40 minims of trypsin one day and 40 minims of amylopsin the next.

The Materials: (1) *Holadin* capsule, a pancreas gland extract containing all the pancreas enzymes—trypsin, amylopsin and lipase—and the milk-curdling ferment. This is given to aid digestion. (2) "Pepule" oxgall compound, which contains inspissated oxgall, *extractum pancreatis*, and extract of *nux vomica*. This

gives tone to the bowel and aids in elimination. (3) *Lotio pancreatis*, a glycerin extract prepared directly from the fresh gland and carrying in solution the entire soluble gland constituents. This solvent of broken-down tissue is applied topically to the ulcerating surfaces. (4) *Injectio trypsinii*, a glycerin extract of trypsin, which, according to Beard, was supposed to "kill" the cancer cells. (5) *Injectio amylopsini*, a glycerin extract of amylopsin, which was thought to "digest" the dead cancer cells.

Increasing strengths were used and careful examination of urine, blood pressure and blood were made wherever possible at regular intervals. The summary of results is as follows :

From careful clinical and laboratory observations, extending over a period of three years, the following deductions may be drawn :

(1) That the internal medication with *Holadin* and *oxgall* aids digestion and increases elimination.

(2) That *lotio pancreatis* applied locally clears the ulcerating surface by removing organisms, thus aiding in diminishing the absorption of their products.

(3) That aiding digestion, increasing elimination (by skin, kidneys, and bowels), and decreasing local absorption are the most important features of the treatment.

(4) That the regime by increasing resistance may in some cases decrease the rapidity of the malignant process.

(5) That control cases given injections of glycerin and water or sterile water alone, plus the regime, did as well as those on the full enzyme treatment.

(6) That *injectio trypsinii*, in some cases, seems to cause more rapid disintegration of (to "liquify," according to Beard) cancerous tissue.

(7) That while it may accelerate the breaking down in the center of the tumor mass, the periphery is found to be actively growing, as was true of case VII. (Case I. of Dr. Morton's published series). When injected into the tumor itself this disintegration is more marked.

(8) That because of the tendency of *injectio trypsinii* to disintegrate the tissues, it may be a direct menace to life (a) by eroding large blood vessels (when the disease is contagious to these structures, as when deep in the neck of the pelvis), thus causing death from hemorrhage; (b) when given in large doses, over considerable periods of time, by overwhelming the system with toxic products (tumor toxins), thus, in some cases, hastening death.

(9) That the injections are often painful, and patients many times refuse to take them.

(10) That the so-called "trypsin abscess" proved, upon examination of the material, to be unabsorbed *injectio trypsinii* plus broken-down tissue.

(11) That when real abscesses formed they were due to faulty technique, to localization of a general sepsis resulting from the absorption of toxic products, to an accompanying sepsis of whatever origin, or to a complicating acute infection.

(12) That injectio amylopsini seems to diminish cachexia in some cases, in accordance with the claims of Beard and others.

(13) That in some cases there was no reason to believe that injectio amylopsini exerted the action claimed for it.

(14) That when amylopsin was injected directly into the indurated area left after injecting trypsin, absorption of the trypsin solution was not hastened.

(15) That 100 minims daily of the "Quadruple X" solution, the strongest made, were given in some cases with no untoward effects.

(16) That improvement in hemoglobin (5 to 12 per cent.) during the first few weeks of trypsin treatment occurs in about one-third of the cases examined. In only one-third of these was the increase ascribable to the trypsin alone.

(17) That a gradual and moderate increase in the number of polymorphonuclear neutrophile cells was noted during the first two weeks of the trypsin treatment in a few of the cases.

(18) That with the exception of two cases such leucocytosis as was noted was attributable to the occurrence of complications during the first two weeks of trypsin treatment.

(19) That in fifteen out of the twenty-two cases above mentioned a steady increase (6 to 12 per cent.) in the number of eosinophile cells was noted, while patients were on the trypsin injections. There was no eosinophilia in the control cases, nor in the cases treated by trypsin given by the mouth.

(20) That eosinophilia occurred regularly in cases of carcinoma involving the bones or the intestines, even without the exhibition of trypsin.

(21) That the claims for eosinophilia as a test have not been substantiated in our experience.

(22) That albumin and casts were found in the urine before treatment was begun in two cases. In neither of these was the amount of albumin or the number of casts increased at any time throughout the continuation of the trypsin injections.

(23) That in severe cases in the very last stages of the disease hyaline, granular, few pus casts, and occasionally albumin, made their appearance.

(24) That in two other cases in which it was impossible to obtain specimens of urine before beginning the treatment, albumin and casts were present when the cases came under examination; and as the trypsin

doses were increased the amount of albumin and the number of casts were increased.

(25) That dextrose was at no time found in any of the urine specimens examined, not even when untoward manifestations of trypsin were present and large doses of amylopsin were being given.

(26) That the series of experiments which were conducted for the purpose of ascertaining the presence or absence of an enzyme in the urine with properties of digestion similar to trypsin, showed the presence of such an enzyme body (irregularly present) in (a) trypsin treated cancer cases; (b) non-cancerous untreated cases; (c) cancer cases which had not received trypsin treatment.

(27) That the exact constancy of this enzyme body in the urine with reference to the treatment was not ascertained. No enzyme body was found in urines in which there was ammoniacal decomposition.

(28) That the enzyme treatment as administered in the cases herewith reported, and according to the suggestions of Dr. Beard, plus important details of regime, does not check the cancerous process.

(29) That it does not prevent metastasis.

(30) That it *does not cure cancer*,

DIABETIC COMA.

The *New York Medical Journal* for July 31, quotes Albert Robin (*Journal de Médecine de Paris*) as to the prevention of diabetic coma. When, says Robin, a diabetic is losing flesh and appetite; finds his muscular strength enfeebled; has imperfect digestion; shows cerebral or nervous excitement, or depression; has the odor of acetone in the breath, and has trouble with his breathing, no matter how slight; with Gerhard's reaction of the urine; look upon him as on the verge of diabetic coma and make haste to adopt preventive measures. Stop the antidiabetic diet immediately and entirely, do not bother about the glycosuria; order an absolute diet of skimmed milk, to avoid the action of fatty bodies. This milk diet is for the purpose of nourishing the patient generously and the quantity should be three quarts a day. Put the patient to bed and maintain as complete physical and mental repose as possible. Take good care of the stomach, especially guarding against gastric fermentation. Give enough of some alkali to neutralize the acid in the stomach. If magnesia is administered, its laxative action should be moderated by the addition of bismuth subnitrate. Such laxative action is necessary because it is eliminative, but it should be kept within bounds. Pulmonary exhalation will be favored by copious inhalations of oxygen. The skin may be stimulated by friction with a mild liniment

and the nervous activity sustained by daily hypodermic injections of a 25 per cent. solution of pure sodium glycerophosphate. If the circulation flags, the pulse becoming soft and compressible without acceleration, it is best to resort to caffeine orally or subcutaneously. If the pulse is very much accelerated and grows irregular, digitalis should be employed in cardiotoxic doses.—*Cleveland Medical Journal*.

CAMMIDGE REACTION.

In the *Medical Record*, April 10th, Kinnicutt discusses this reaction for the diagnosis of the pancreas. The studies indicate that in inflammatory diseases of this organ there is excreted by the kidneys a substance which on hydrolysis yields a body giving the reaction of the pentoses a precipitate of golden yellow crystals, exceedingly fine and hair-like in form and arranged in sheaves and rosettes. The technique is rather involved and is more suitable for hospitals than private work, but in doubtful cases it should render valuable assistance. The reports of a number of observers are given showing that the reaction is never found in the urine from normal subjects, that it is found in about 75 per cent. of diabetics, and that in cases giving a positive reaction which have come to autopsy, it has invariably been found reliable.

ORTHOSTATIC ALBUMINURIA.

Ernesto Ferraris-Wyss found among 338 children treated six cases of orthostatic albuminuria. He defines orthostatic albuminuria as that type caused in delicate children by the upright position, occurring only in the day time, and disappearing when the child is put to bed. The young patients are pale, have headache, dizziness, nausea, and other symptoms of general debility, but no kidney disease can be demonstrated. No casts or diseased epithelial elements are found in the urine. Autopsy has shown perfectly healthy kidneys when these patients have died of intercurrent disease. According to some authors, there is a debility of the heart present with rapid pulse. Of the nature of the albuminous body that appears little is known. There is nothing abnormal in the ocular fundus. The amount of albumin is one part to one and a half per thousand. Senator attributes this condition to circulatory disturbances or abnormal permeability of the intestinal walls, congenital or acquired. This condition does not occur after infective diseases; it is never transformed into a true nephritis; it is often cured; infectious diseases do not seem to be affected by this condition for the worse, the children passing through them like any

other child, with no worse kidney complications. From the study of the author's six cases he concludes that this condition is not due to an alteration in the parenchyma of the kidney, nor to a pre-tubercular condition. The cause is probably of a circulatory nature, combined with disturbance of the metabolism of the individual.—*Rivista di Clinica Pediatrica*, January, 1909. *Medical World*.

. ANTITOXIN PER RECTUM.

A writer in *The Lancet* urges the advantages of the rectal administration of diphtheria antitoxin. The mucous membrane of the rectum readily absorbs the serum. The patient lies on the left side on a couch, and a catheter is passed as far as possible into the rectum; to the catheter is attached the barrel of a glass urethral syringe into which the serum is poured; as a rule gravity is sufficient, but if the fluid does not flow readily the piston can be used in the ordinary way.—*Medical World*.

OBSTETRICS AND DISEASES OF CHILDREN.

Under the charge of D. J. EVANS, M.D., G.M., Lecturer on Obstetrics, Medical Faculty, McGill University, Montreal.

A PLEA FOR A RATIONAL PUERPERIUM.

F. W. N. Haultain, in *British Medical Journal*, August 7th, 1909, records that one hundred cases in the author's clinic have been allowed to get up after delivery as soon as they felt able to do so. The patient was allowed to sit up in bed for meals on the second day as early as she felt inclined. Thereafter she was permitted to walk to the fireside and sit there for an hour. On the following day this procedure was repeated morning and evening. The next day the patient was permitted to sit up out of bed for two hours, morning and evening, and even to walk about a little. After the fifth day the patient remained practically out of bed entirely, simply resting on the bed for a couple of hours in the afternoon. As a rule the patients left the hospital on the tenth day. Of the hundred cases, 47 were primiparæ and 53 multiparæ.

Each case was carefully examined on discharge from the hospital, and many of them after an interval of six weeks. But three of the cases developed a temperature of over 100 degrees F.

Pelvic examination on the day of discharge from the hospital showed the pelvic organs to be normal except in two, in which a slight retroversion of the uterus was found to be present.

Those cases examined after an interval of six weeks or more showed the involution to be complete and the position of the uterus to be normal with the exception of two, these being those previously noted as having retroversion.

All the women used uniformly eulogistic terms in describing their convalescence.

If a woman feels fit and able to rise after child-birth, the question is, "what harm can result?" as the condition should be physiological in a large proportion of cases. Involution of the uterus and readjustment of the pelvic and abdominal circulation occur during the puerperium, the former being chiefly influenced by the latter.

The author then argues, that by permitting the patient to rise, the abdominal muscles are allowed to functionate more naturally, in the same way that the involuntary contraction of the muscle of the uterus induces retraction. The increased abdominal pressure relieves the pelvic passive venous congestion and thus accelerates the circulation.

Four varieties of complication may be said to arise in the puerperium. With regard to the first of these, septic inflammation, the author argues that the upright position favors drainage of the genital tract. This is also aided by the increased abdominal pressure induced by contraction of the abdominal muscles. He states that in several instances the patients expelled large clots during their first day's exercise, which he thinks would have remained in the genital passage much longer had the erect position not been adopted.

Involution is favored by the activity of the patient as has been proved repeatedly, sub-involution being extremely rare in cases allowed to rise early.

Uterine displacement, on first impression would be expected to occur frequently in cases permitted to rise early. The clinical facts, however, not only in the author's experience, but in the experience of others as well, show that this is not the case. He thinks that the erect posture may be considered as a very important factor in preserving the normal forward position of the uterus and as being infinitely superior to the recumbent dorsal position at present so common. The dorsal position favors the stretching of the round ligaments while the erect position tends to accentuate the normal forward inclination of the fundus by the intra-abdominal pressure directing it downwards towards the pubis, thus avoiding traction on the round ligaments.

Discussing venous derangements and the dread of sudden death occurring from pulmonary thrombosis and embolism in cases allowed to rise early, the author calls attention to the fact that this rare accident and thrombo phlebitis easily develop about the tenth or twelfth day.

He argues that the co-agulation of the blood is prevented by accelerating the venous circulation by means of muscular exertion.

One great benefit of early rising after confinement is that the normal tone of the muscles is but slightly interfered with. This favors the stimulation of the circulation and the increased abdominal pressure seems to obviate that very troublesome complication of the puerperium, constipation.

The author then makes a brief excursion into the realms of ancient literature and history as to the customs of early times in regard to the treatment of the puerperal woman.

The author concludes by stating that he feels convinced from practical proof and scientific reasoning that a great change is bound to come in our treatment of puerperal women. He considers that the present treatment rests theoretically only on precept founded on empiricism; that practically it has no foundation whatever.

INFECTION OF THE URINE AND THE URINARY TRACT BY BACILLUS COLI IN INFANCY.

John Lovett Morse, in *Amer. Jour. Med. Sciences*, September, 1909, claims that bacterial infection of the urine and urinary tract in infancy is not at all uncommon. In the larger proportion of cases the infection is with the colon bacillus, though others may be found in rare instances. It is a matter of great difficulty to locate the exact seat of the lesion.

Infection may occur in three ways:--Through the blood, through the urethra, and through the tissues between the rectum and the bladder. The author considers that in the majority of cases in girls, infection is through the urethra, while in boys this route is unusual and follows very evident lesion, such as phimosis, causing stasis, severe balanitis, or an infected wound from circumcision. In most cases in boys, and in a fair proportion of those in girls, infection is probably transperietal, while in both sexes it is occasionally hæmatogenous.

The pathological changes are slight, consisting chiefly of reddening and swelling of the mucous membrane in various portions of the urinary tract, associated with desquamation of the epithelium and possibly degeneration of the lower kidney.

The condition may vary from simple bacteraemia without lesion of the kidney or of the bladder wall to one in which not only the bladder wall and the pelvis of the kidney, but also the real kidney itself is involved.

The urine in most cases is pale and uniformly cloudy and turbid, and contains a large quantity of bacteria and pus cells. The odour may be very foul. The reaction is almost invariably acid, and it usually contains traces of albumin.

In the majority of cases there is nothing in the symptomatology to direct attention to the urinary tract, the symptoms being merely an elevation of temperature and resulting evidences of malaise. Frequently a yellow stain on the napkin is the first thing that calls attention to the urinary tract. In many cases there is evidence of disturbances of the gastro intestinal tract and the bowel movements are usually abnormal. The temperature is very regular and suggestive of septic infection. Pain is rarely complained of, though tenderness over the bladder is not uncommon. Frequency of micturition is not uncommon, and sometimes there is partial retention. Loss of weight is usually rapid and marked. Anaemia develops rapidly.

The author states that in all diseased conditions with indefinite symptoms in infancy, especially if febrile, the urine should be carefully examined, as in this way alone can the diagnosis be made.

The author then gives a series of illustrative cases.

Of fifty patients coming under his observation, but one died.

The prognosis as to recovery was very good. Some cases recovered entirely in two or three weeks, but some dragged on for several weeks in spite of treatment. Complications are extremely rare.

The author discusses somewhat fully the serum treatment of these cases, but concludes that alkalis are most likely to do good and should therefore be tried first. If there is no improvement while they are being given, hexamethylenamine should be used. If the condition tends to become chronic, autogenous vaccines should be tried. Circumcision should not be performed in these cases, as a resulting local reaction is liable to cause stasis and favor further infection.

APPENDICITIS COMPLICATING PREGNANCY WITH REPORT OF FOUR CASES.

Charles O. Cooke, A.M., M.D., Providence, R. I., in the *New York Medical Journal* of May 1st, writes an interesting and instructive article on the above subject. He gives the following points in differential diagnosis, and concludes with interesting summary:—

In making a diagnosis the following disease must always be borne in mind and ruled out. I have briefly indicated under each one the most important symptoms in the diagnosis. Pain in the right side may be due to the following conditions:—

1. Myalgia due to stretching of muscles of anterior abdominal parietes.

2. Ectopic gestation with rupture; (a) temperature may be high but usually subnormal at onset; (b) pain is more paroxysmal and severe; (c)

rigidity and tenderness over McBurney's point not marked; (*d*) usually bloody flow from vagina intermittent in character; (*e*) bimanual examination usually shows mass on side of uterus; (*f*) symptoms of internal hæmorrhage.

3. Pyelitis; (*a*) Onset with chill; (*b*) temperature high, 104° to 105° F., while pulse may be low; (*c*) bladder symptoms, frequent and painful micturition; (*d*) thickening of ureter as it courses anterior vaginal wall; (*e*) pus in urine which is acid; (*f*) tenderness over ureter may be misleading if it is near McBurney's point.

4. Typhoid fever, Widal test.

5. Diseases of right adnexa; (*a*) pain frequently radiates down the thigh; (*b*) history of gonorrhœal infection soon after marriage; (*c*) local examination; (*d*) a differential diagnosis is often impossible in those cases in which the appendix is adherent to the right annexa.

6. Ureteral calculus; under this head I would call attention to the fact that blood in the urine may be associated with an inflamed appendix in close relation with the ureter.

7. Gallstones.

8. Ovarian cyst with twisted pedicle; pain paroxysmal, severe, often out of proportion to the constitutional symptoms.

9. Floating kidney; with torsion or kinking of ureter. It should be remembered that appendicitis may occur coincidentally with any or all of these conditions.

10. Perforated gastric or duodenal ulcer.

11. Perforation of large intestine.

In conclusion I wish to emphasize the following points:—

(1) Appendicitis should be suspected in all cases of right sided pain occurring during pregnancy.

(2) Inasmuch as constipation is an important factor in the etiology of the disease, the physician should see that the bowels are kept free throughout the pregnant state.

(3) The symptoms are often misleading.

(4) The diagnosis is not easy.

(5) The prognosis is good in the acute catarrhal and chronic recurrent types, but extremely grave in the gangrenous, perforative, and abscess type.

(6) The treatment is operation in every case as soon as the diagnosis is established. In cases of doubt operation is safer than waiting.

(7) The mortality of appendicitis complicating pregnancy is the mortality of delay.

(8) Appendicitis during pregnancy is more dangerous than in the nonpregnant state.

(9) The true prophylaxis in a child-bearing woman who has had a well marked attack of appendicitis is an interval operation.

(10) The possibility of appendicitis after labor in predisposed patients should be borne in mind in order not to mistake such for puerperal sepsis.

(11) In the perforative cases with general diffuse suppurative peritonitis, occurring at the end of pregnancy *accauchement forcé* is indicated followed by incision and drainage of the peritoneal cavity.

TORONTO ACADEMY OF MEDICINE.

SECTION OF OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

February, 1909.

D. J. GIBB WISHART, M.D., Chairman.

ABSTRACT OF PROCEEDINGS, WITH EXHIBITION OF CASES.

Reported by J. PRICE-BROWN.

CASES SHOWN BY PERRY D. GOLDSMITH, M.D.

1. Epithelioma of the nose in a middle aged man. The growth protruded from each nostril. The doctor proposed to do a Rouge operation as a palliative measure.

The chairman was under the impression that operation would be followed by quick return.

Dr. Stewart had seen three similar case while acting as House Surgeon. He thought that operation would be followed by recurrence within a year.

2. Perisinusitis in a girl aged twenty in which free drainage had been secured by intra-nasal operations. There remained some discharge from frontal sinus, which irrigation and antiseptics failed to cure. Dr. Goldsmith did not feel justified in risking disfigurement by further operation.

The chairman suggested the injection of tincture of Iodine into the sinus. He had used it with good results in similar case.

Dr. Ryerson said that to leave it alone met with his approval.

3. A patient operated on for Mastoid disease with successful heal-over a blood clot. He did not, however, advocate this as the best method of treatment, although attended by a good result in this case.

CASES SHOWN BY DR. D. J. GIBB WISHART.

1. One in which Killian's operation for frontal sinusitis had been done. A radical antrum operation and submucous resection of septum also were done in this case; the combined operations and treatment resulting in cure of symptoms and cessation of discharge.

2. This was one that had been shown at a previous meeting and diagnosed as prolapse of the laryngeal ventricle. Under direct laryngoscopy a portion of the tumor was removed and examined. The pathologist reported it as papilloma. There is still redness and thickening above the cord but hoarseness has improved.

Dr. Gilbert Royce showed a case of meningitis of Otitic origin. Operation and recovery.

This patient had had a discharging ear for two years. He presented himself at the hospital with the symptoms of intense pain in the head with dizziness, together with pain and stiffness in the neck. Temp. 103°, pulse 110 and weak. On examination the neck was rigid, the eyes showed internal strabismus and the discs were blurred, the left more so than the right. There was horizontal nystagmus, most marked when looking away from the diseased side (left). He could not raise the right arm above his head. There was no mastoid tenderness, but a thin foul discharge flowed from the left ear, the fundus of which was crowded with granulations.

A radical operation was done and necrotic bone traced in from the sinus toward the posterior semicircular canal. On retracing the dura, pus flowed from between it and the bone. A gauze drain was inserted and the ear dressed. The patient made an uneventful recovery. The canal is now dry and the hearing, which was very poor before the operation, is now, watch, 4 inches, whisper, 5 feet.

Dr. Royce also exhibited a new tonsil grasping forceps, devised chiefly to assist in the operation for the removal of buried tonsils. The handle is so made that when the instrument is locked on the tonsil, a snare or a tonsillotome can be passed over the forceps without removing it. The jaw is fenestrated and devoid of projecting teeth or claws, so that when the tonsil is grasped the instrument will not pull off.

MEETING OF SECTION.

March, 1909.

DR. D. J. GIBB WISHART, Chairman.

CASES IN PRACTICE.

1. One of nasal carcinoma presented for the second time by Dr. Perry Goldsmith. This case was shown at the last meeting. Since

then Rouge's operation had been done. Very evident intra-nasal disease was found and the structures removed. Disease was also present in the floor of the nose. The haemorrhage accompanying the operation was very severe. For the ensuing two weeks the patient was free from pain and had good respiration. Then within twenty-four hours the nose filled up again, the growth protruding from each nostril. The patient said that he could see it growing. The doctor said that he proposed to operate again and to use Coley's fluid.

SOCIETY PROCEEDINGS.

Dr. Price Brown said that the prognosis being very bad, he would advise against further operation. In a case of sarcoma of the maxillary antrum he had first removed the affected side of the jaw; and then treated by electro-Cantery and Coley's fluid. In this case, while the Cantery had a temporary effect; he thought the fluid aggravated the disease. The reactions were so strong that they seriously weakened the patient, and perhaps hastened the fatal issue.

Dr. Stewart would not operate. He thought that X-rays might be of benefit.

The Chairman thought the wisdom of further operation very doubtful. Possibly X-rays or Finsen light might relieve.

DR. PRICE BROWN PRESENTED.

1. A case of Phantom tumor of the neck. The patient, a young lady aged twenty-six, has had a variable tumor in the central thyrohyoid region ever since childhood. It is soft and gives no pain. She says that in deep inspiration, she can feel it empty itself as though air were escaping as it disappears completely between the two sterno-cleido mastoid musc.es. On forcible expiration it comes out and becomes distended again. The observer can follow its recession with his fingers, and with slight pressure can prevent its protrusion during expiration.

The doctor was inclined to believe that it was an incomplete internal fistula of the second Branchial cleft, which became distended during expiration. He could find no similar case reported so far as the phantom character was concerned.

Dr. Boyd thought it was a case of cystic goitre which during inspiration became substernal. There was no cracking such as one gets in an air tumor. The tension is that of a cystic goitre. If it contained air he thought this could be seen by laryngoscopic examination.

Dr. Stewart thought it might be a cyst of the thyroid gland. It was too high on the neck to be a thymus.

The chairman noted no sounds over the tumor apart from those of the trachea. If open to the throat he thought secretions would appear

later. He favored the idea that it was a cystic tumor of the thymus. Did not think it contained air.

Dr. Price Brown in reply said, that, as the tumor disappeared entirely with deep inspiration, and protruded prominently with forced expiration, coupled with the statements of the patient, that she could always feel air escape during the former, and at the same time feel more comfortable during the act, he still was of the opinion that the tumor was an air sac thickened walls, subject to alternate expansion and contraction.

2. A male patient aged thirty-five, upon whom he had done a tracheotomy six years ago for the relief of stenotic infiltration of the larynx, due to tuberculosis. The apices of both lungs were at that time affected as well as the larynx; but a summer's sojourn in Gravenhurst Sanitarium had benefitted the former. The man's weight had greatly increased, cough had subsided, and tubercle bacilli had almost disappeared from the sputum. The infiltration, however, increased and cyanosis developed. Finally the physician in charge referred him back to the doctor for operative relief; and he opened the trachea and inserted a tube which the patient was still wearing. After the operation the cough subsided and finally disappeared. As he regained strength, he returned to his regular employment in a piano factory—which he has been following now for the last five years.

Dr. Trow asked if the patient had ever had syphilis?

Dr. Stewart asked if T. B. were now present in the sputum? He stated that he had only seen one case similarly operated upon for tuberculosis of the larynx. At the Golden Square Hospital, the practice of operation in these cases was not approved of.

Dr. Hunter said that the case was remarkable, inasmuch as the pulmonary trouble had not been aggravated by the mixed infection that was likely to have occurred through the permanent cut; and also that the dry air inhaled directly into the lungs had done no harm.

Dr. Goldsmith thought that tracheotomy had acted by giving rest to the diseased larynx. Evidently both larynx and lungs had recovered.

The chairman thanked Dr. Price Brown for exhibiting this rare and interesting case, which though he had heard of, he had never seen before.

In reply Dr. Price Brown said that the man never had syphilis. Although T. B. had at one time been abundant in the sputum, for a long time now there had been none. He agreed with Dr. Goldsmith in the idea that it was a case of rest cure combined of course with tent life and good hygienic conditions.

3. This was the case of a young man, previously shown before operation for deviated septum; and now shown after cure by means of the H. operation. The patient had been a mouth breather from childhood,

with curve of the septum to the right. It was attached to the inferior turbinal and completely filled the passage. He showed the case in protest against the indiscriminate operation by submucous resection.

Dr. Goldsmith objected that the septum was not quite straight. A patient who wore a splint thirty-five days deserved a better result. A submucous resection was complete in a few days.

Dr. Stewart said that a good deal of right inferior turbinal had been removed and the septum was not in the middle line.

The Chairman admitted that the man had now very good breathing on both sides. He was not tied to the submucous resection; but believed it was the better plan.

Dr. Bell thought there was dryness on left side due to too great space; and that the right side could not remain free much longer.

Dr. Price Brown in closing said that although the septum in this case was not exactly in the middle line, it was so nearly, that the patient, as stated by the chairman, had very free breathing on both sides. The objection to wearing a rubber splint was not a valid one. After the first two or three days it created no distress, and after the first week the patient was able to discharge his ordinary duties without discomfort. The splint was aseptic, could be cleansed readily, and it kept the flaps of the septum in position until healing took place. The statement made by one of the speakers that a good deal of the right turbinal had been removed was not correct. No part of it had been removed by operation. The turbinal body had shrunk away by pressure from the displaced septum. The statement made by another speaker that the right cavity would soon fill up again was a fallacy. It would never fill again. The septum as replaced would remain in situ and would be much better for the patient than if the cartilage had been resected away.

SYNOPSIS OF PAPER UPON "THE LARYNX IN VOICE PRODUCTION."

By Dr. L. ALEXANDER DAVIES.

WHILE the art of voice production was cultivated extensively by the ancient Greeks, the science of the art only began with the advances of Anatomy and Physiology about the middle of the 18th century, when experiments were carried on by Ferrein and Hempelen, and later by Lebfeldt, Magendie and Mueller.

Various attempts to view the larynx in tone production were made by many observers, the first account of a laryngoscope being given in 1743 by M. Levrail. But to Signor Manuel Garcia, in 1854, fell the honor of showing to the world the true value of the laryngeal mirror. His observations were treated with considerable indifference in England; but

Prof. Tuerck, of Vienna, and Czermak, of Pesth, became possessed of the importance of these observations and soon affected a revolution in the investigations and treatment of laryngeal diseases.

Much has been demonstrated by Dr. Lennox Browne and Prof. Emil Behnke and others in photographing the larynx during the various movements in the production of tone. One observes that in breathing the glottis is widely open, the arytenoids being held apart by the action of the Post-Crico-arytenoid muscles, the latter contracting more vigorously on deep inspiration. On attempting phonation, the pyramids are brought rapidly together by the action of the arytenoideus-transversus and obliquus, and their processes rotated inwards by the action of the lateral crico-arytenoideus muscles, the external thyroarytenoid also takes part in this sphincter action. It will be noted that the ventricular bands in a state of health never meet in phonation. Tone is produced by the vibration of the elastic vocal ligaments. This is the primary sound but not the human voice in its entirety, for this is markedly influenced by the condition of the adjacent resonating cavities of the chest, ventricular pouches, pharynx, mouth, nose, etc. What makes a voice rich and graceful to the ear is the abundance of overtones or harmonics. It is the harmonics which give to a voice its color or timbre.

The writer then went on to describe in an interesting and exhaustive manner the registers of the voice, quoting Sir Morell Mackenzie, Prof. Emil Behnke and Griffiths of Liverpool as authorities, concluding in the words of Foster: "The power to sing is determined not by the build of the larynx, but by the possession of an adequate nervous mechanism, through which finely appreciated auditory impulses are enabled so to guide the impulses of the will, that these find their way with sureness and precision to the appropriate muscle bundles."

Dr. Stewart congratulated Dr. Davis upon taking up a neglected subject. He had noticed how singers controlled the larynx. He had had the privilege of examining Manuel Garcia's larynx when he was ninety-one years of age, and was struck by the perfect control of the organ which he exercised.

Dr. Trow also congratulated the writer of the paper.

Dr. Boyd recollected a freak who could whistle with her larynx. Examination of her vocal cords, while in the act of whistling showed the cords in the position of the small register.

The Chairman felt that the laryngologist and the singer must draw closer together.

Dr. Davis closed the discussion.

INSTRUMENTS SHOWN.

Dr. Stewart showed a new intranasal maxillary antrum trephine. In using it the patient must be under a general anesthetic, but it is an

advantage to use cocaine first, as by the shrinkage it produces, more room in the nose is obtained for operation. The instrument is then passed through a speculum, (a Thadicum preferred) so that it rests on the floor of the nose about half an inch behind the anterior end of the inferior turbinal. By pressing forcibly outwards, and moving the handles of the instrument in the arc of a circle, a button of bone is forced into the antrum. The button is easily removed by curved forceps. If, however, an opening has also been made in the canine fossa, the button may be removed by that route. The shank of this instrument is purposely small, so as to allow a good view into the nose. It is also slightly curved so as not to interfere with the anterior end of the inferior turbinal. The instrument is reversible, so will answer for either side of the nose.

Both the glass tubes and the trephine were made by the Hartz Co.

Dr. Stewart also showed glass meatal tubes for mastoid operations. Two sizes were shown but any size required might be obtained. After radical mastoid operation, a good size to insert would be of outside diameter one-half inch with length three-fourths of an inch. Later on the size may be diminished to one of outside diameter of two-fifths of an inch.

Advantages :

1. Tubes are clean and easily sterilized.
2. Their removal is painless. They do not stick in the wall of the canal like gauze or rubber.
3. If the larger one is worn for a fortnight, it may then be discarded and the canal will likely remain large enough for the rest of the after treatment.
4. They tend to keep the flaps in place.
5. There is no danger of them breaking as they are made of thick glass with rounded edges.

Dr. Wishart showed an extension tube with needle curved at right angles, attachable to a Killian Submucous Syringe for use in tonsil resection under local anesthesia. The curve of the needle permitted the solution to be injected with great accuracy into the anterior and posterior pillars and supra-tonsillar fossae.

MEETING OF SECTION.

April, 1909.

DR. D. J. GIBB WISHART, Chairman.

CASES IN PRACTICE.

Dr. Boyd showed a case of bilateral fronto-sinusitis, which had been previously opened through the floor. Nasal operations had also been

done, which failed to cure. Upon the patient he had done a Killian with good results.

Dr. Goldsmith congratulated the operator upon the result, the deformity being slight.

Dr. R. A. Reeve remembered treating this case twenty years ago, when the man was suffering from peritonitis of left orbital ring.

Dr. Christian Holmes, of Cincinnati, who was the guest of the evening, said that the cases in which there was doubt whether frontal sinusitis existed or not, we might explore. Intra-nasal operations were useful, but not knowing the number or location of cells opening into the middle meatus, we need to open externally to make sure. He used a small exploration trephine. We should also remember that syphilis sometimes complicated this disease.

Dr. Price Brown exhibited a male patient, aged 35, referred to him three weeks ago by Dr. Kerr, of Toronto, for treatment of sarcoma of the nose. At that time left nasal passage from anterior to posterior naris was filled by a dark, dense growth, causing complete nasal stenosis. The tumor bled on being touched. The sense of smell and taste were gone. The growth did not extend at all into the post-nasal space. A section being removed, it was examined by pathologists, who declared it to be a round celled sarcoma. The doctor had removed the tumor piece by piece by electric-cautery operations, according to the method he usually followed in these cases. The operative treatment had been over for a week, and the patient was practically well, with free respiration through each nostril. The senses of smell and taste were both returning.

The chairman asked how deeply the cautery was applied and what kind of a blade was used?

Dr. Holmes, while he approved of electro-cautery, and also of caustic treatment in some of these cases, drew attention to the possibility of mistakes in diagnosis—syphilis resembling sarcoma pathologically. He mentioned cases where such mistakes had been made. Sarcoma of the nose undoubtedly required heroic treatment to be successful.

Dr. Cuthbertson asked if the use of the electro-cautery snare would not be of material advantage in these cases.

In closing the discussion, Dr. Price Brown said that he used the ordinary electro-cautery knife, bent at an angle to secure clear vision of the part operated upon. The depth of each cut depended upon the control of the bleeding. The rule was, after applying cocaine and adrenalin, to insert the cautery knife at any point chosen, turning on the current for a few seconds then to break the connection without removing the knife; repeating the current again, off and on, as long as was considered advisable. Sometimes different parts of the tumor were attacked

successively at one sitting, the shell of the tumor being the last to be operated upon. The use of the cautery snare, while not contra-indicated, would not be of service in cases of multiple attachments with sessile base. In purely pedunculated cases it might be available. The electro-cautery method deserves the title, "heroic," as it entails the facing of many possible haemorrhages, oft-repeated and long continued sittings, great patience and continued watchfulness but it has, as a reward, a well-founded expectation of a permanent recovery from a terrible disease.

A case of Litrolysin pharyngitis was shown by Dr. Perry Goldsmith.

A man twenty-eight, was suffering from deafness, due to changes in the middle ear and labyrinth, for which a course of litrolysin (Merck) was being used. After the third injection, which was given every three days, the patient remarked that the medicine made his throat sore, and he asked the doctor to see his throat, twelve hours after the injection. He did so and found an intense inflammation of the pillars of the fauces and lower part of soft palate. There was neither exudation nor swelling. As an injection had been given that morning, the members were asked to examine the throat; which showed indications similar to those reported about the case. The patient, however, was developing a tolerance to the drug, manifested by lessened soreness and inflammation following each successive injection.

Dr. Goldsmith next showed a case of fistula of semicircular canal in a girl aged twenty years. Chronic suppuration of the left ear had existed nearly all her life, notwithstanding careful treatment by different men. Recently had complained of headache, nausea and vertigo. The latter symptom had become very troublesome, rendering her unable to do her work as a typewriter. Radical operation was done and two fistulae were found in the external semicircular canal. They were left alone. Green pus was found in the cells of the mastoid and antrum. The dura was exposed by following a necrotic line upward and backwards from the antrum. The operation was done five weeks ago. The ear is nearly dry and patient feels much better.

Case of tubercular laryngitis was also shown by Dr. Goldsmith. Man, age thirty-five, has hoarseness of one year's duration. There is a small shallow ulceration along the full edge of posterior part of left vocal cord, but no marked inflamed area of infiltration. Right apex is also affected. Examination of sputum revealed tubercle bacilli, but few in numbers. While from examination of the larynx alone, one might consider the case one of simple chronic laryngitis. Taken with other symptoms mentioned, he believed the laryngeal conditions to be tubercular.

The last case shown by Dr. Goldsmith was one in which submucous secretion of the septum had been done. The patient, aged twenty-six,

had suffered from nasal obstruction since childhood, caused by a fall. The left nostril was completely obstructed by a crumpled deviated septum, which pressed against the ear. Several years ago some unsuccessful cutting had been done. Three days ago the doctor did a submucous resection. The operation was a tedious and difficult one, but the result, he thought very good. The anterior end of right inferior turbinal had to be removed to permit the partition to come into the center line. There is, of course, more room now in the former deviated side than in the right side, due to the pressure atrophy of the inferior turbinal. This will probably rectify itself in time. The absence of necessity for after-treatment was dwelt upon, closing with the expression that no other method of treatment could produce so satisfactory a result.

Referring to the last of these cases, Dr. Boyd said that Dr. Goldsmith had done the submucous resection in a very satisfactory manner with the prospect of excellent results.

Dr. Price-Brown said that the same objection could be made in this case, that Dr. Goldsmith had made, in the one after the H. operation which he, Price-Brown exhibited at the last meeting, namely, that the resected septum was not quite in the center. Another point, the submucous resection had made the nasal cavities too wide. He considered the H. operation, in a case like this as the better one, as it strengthened the cartilage and left a strong, firm, permanent septum near the central line. He was fighting for nature when he advocated the preservation of the cartilage.

Dr. Newbold Jones said that a new cartilage frequently develops after a submucous resection.

Other papers read :

1. Notes on the newer organic salts of arsenic in syphilis, by Dr. Perry Goldsmith.
2. Notes on treatment of ozena by massage and Argyrol, by Dr. Gilbert Royce.

The proceedings of this section of the Academy then closed by the election of officers for the ensuing year, 1909-1910: For president, Dr. R. A. Reeve; secretary, Dr. Colin Campbell; editor, Dr. J. Price-Brown, the two latter being re-elected.

CANADIAN MEDICAL ASSOCIATION.

THE 42ND MEETING OF THE CANADIAN MEDICAL ASSOCIATION.

The meeting in Winnipeg was a decided success. In numbers it far exceeded the most sanguine hopes of the officers. The quality of the work done was also a great credit to Canada, and furnished a complete answer to those who have more than once said that there is no medical progress of merit among us. This we have always held to be very far wide of the mark.

Among the many topics taken up, The Milk Supply of Cities was discussed fully.

This is a very important subject and cannot receive too much attention until the supply is as near perfect as possible. Dr. H. I. Machell, of Toronto, took up what had been done by the Milk Commission of the Academy of Medicine of Toronto. His subject was "What is Certified Milk?"

After outlining the work of the commission and speaking on the difficulty of securing pure milk, Mr. Machell said: "How may it be obtained? I do not know that I can answer this question better than by giving a short history of the method followed by the milk commission of the Academy of Medicine, Toronto. This commission was appointed by the academy in October last. After organizing, we adopted the following requirements: The herd is to be tuberculin tested on admission, and twice yearly afterwards by a veterinary surgeon appointed by the commission; he is also to make a monthly report. Inspection of the herd as to illness, such as mastitis, etc." Other instructions of a technical nature were laid down, then:

"After deciding among ourselves what our requirements should be to safeguard the milk, and therefore our patients, we sent out a circular letter to about 200 dairymen who have to do with Toronto's milk supply. As a result of our circular, we were consulted by a number of them, who thought they would like to produce certified milk. Some thought we were too particular, some that it was too much trouble, and others that there was not enough money in it for the extra trouble, etc. Finally, three firms seemed much in earnest and decided they would put their plants in shape and make the attempt to meet our requirements.

"Two large dairies are now producing certified milk well within the requirements adopted by our commission, and a third dairy expects to qualify within a few weeks.

"Their records are such as to make them feel justly proud. Physicians of Toronto are now able to obtain for their patients milk of a

high grade and quality, and in the near future our mortality, to say nothing of our morbidity, ought to be materially lessened."

Figures were then given regarding the uncleanness of milk that Toronto hospitals formerly used.

Dr. Hastings, of Toronto, presented the report of the milk commission and a general discussion took place on the report. The report of the commission went very fully into the subject of pure milk, and sketched property sanitary methods to be observed by all concerned in the handling and sale of this article.

Another topic of much interest was that of Dominion Registration. Discussing this matter, Dr. Edward Ryan, of Kingston, Ont., a professor of Queen's university, and a delegate appointed by the Ontario council to the present conference on this specific topic, stated to a *Tribune* reporter to-day :

"Medical education should not be cramped by the boundaries of provinces any more than any other branch of education deserves to be bound by such limitations. When a man has received a certificate, especially from one of the large colleges, and has passed the council of his province that should be sufficient to entitle him to practice in any other province without going through the formality of another examination. We are aiming to do away with this provincial boundary line, and in so doing I believe we will incidentally create a spirit of national unity. It seems ridiculous that a profession like that of medicine, which has to do with the alleviation of human suffering, should be cramped by provincial boundaries."

On motion of Dr. R. W. Powell, it was agreed that Dr. Roddick be asked to try for such change in his bill as will permit of five provinces having a common standard.

Similar expressions of opinion were made on this subject by Dr. W. Spankie, of Kingston, inspector of public schools in Frontenac county, and also a delegate to the convention on this subject. "Our status should be national, not provincial," he said, and as an instance pointed out that if any person suddenly became ill at the time of speaking, though there were two hundred and forty physicians buzzing about the university building in which he was speaking, nearly two hundred of these, being from other provinces, dare not give the afflicted one any medical aid without violating the law.

Among the many questions of much public interest there are few that could claim more attention than the prevention of typhoid fever. This subject was discussed in a very able manner by Dr. J. G. Adaeni, of Montreal.

One of the most striking points touched on was the fact that individuals who are hosts of the typhoid bacillus are allowed perfect liberty

to go among unaffected persons, while sufferers from smallpox, which is not nearly so deadly a disease, are quarantined. He gave the much quoted instance of a cook in New York who being a host of the bacillus, went from house to house in the city, spreading the infection in the families of each. This was a very common occurrence and was permitted to continue without legal restraint. In contradistinction he mentioned the rigidity of the examination of patients before they were discharged from German hospitals. Prevention by proper sanitary precautions was one of the first considerations.

In the above connection he congratulated the municipal authorities of Winnipeg on the progress they have made in eliminating the trouble here. He pointed to the epidemic four years ago, a period when pit closets in thousands were scattered about the city, and when there was over 700 cases treated at the general hospital in one year, to say nothing of the other cases treated at other hospitals and homes. The pit closet had been almost eliminated and last year the number of cases originating in the city had been reduced to a remarkable extent, only 50 having been treated at the general. He went on to show how the pit closet and lack of sanitation in the handling of refuse and garbage acted as a hot-bed for the breeding and distribution of the typhoid germ, by means of its most active agent the common house fly. Every home on the continent had the house fly, but the recognition of its attending evils was going a long way toward reducing the numbers, even though it seems impossible to eliminate them entirely. Proper precautions would reduce typhoid to the status of a negligible factor in the ill-health of a community.

Another public question was that of the hospitals of the country and their relationship to the people. Dr. Bruce Smith gave a very full paper on this, which appears in this issue. On the discussion of this paper Dr. J. R. Jones, of Winnipeg, said:—

“In discussing the paper of Dr. Smith, the one thing to be avoided in Canadian hospitals was the pauperization of patients. Nothing should be tolerated which in any way had such an effect. Indiscriminate charity was a most harmful influence in a community and should not be tolerated. The paupers of England and Europe were a sufficient example of what pauperization would lead to in the deadening of a man's self respect, and there were only too many of foreign birth in Winnipeg who were ready and willing to be pauperized. The hospitals should have competent inspectors to look into the claims of every charity patient who presented himself. It had cost Winnipeg \$125,000 to look after charity patients in one year, while in Detroit, where there was an inspector, the cost for one year had been but \$47,000.

The subject of tuberculosis and its prevention and treatment received a good deal of attention. Among those who took a prominent part in

the discussion were Sir James Grant, of Ottawa, and Dr. J. H. Elliott, of Toronto. Sir James Grant said:—

“Eight thousand Canadians die yearly of tuberculosis. The treatment is plenty of fresh air, plenty of plain pure food, correct habits of life, and an absence of liquors. The adoption of the methods recommended by the physicians of Canada would reduce the losses from this cause one-tenth of their present numbers.”

Dr. J. H. Elliott, of Toronto, dwelt on the home treatment of pulmonary tuberculosis, showing the great importance of imparting knowledge to the general public regarding this disease. He also emphasized the need for more sanatoriums.

Mayor W. Sanford Evans, who, in a felicitous address, extended the heartiest welcome of Winnipeg to the members of the association. He had been asked if there was anything in the shape of a key to symbolize by presentation the opening of the city to the visitors he wished to assure them that the city was wide open already. The mayor referred to the fact that Winnipeg was in central Canada, and not in northwest Canada as generally represented. He felt that the citizens would have him convey even a more hearty welcome to the physicians gathered in the city, than to other conventions because of the public respect and admiration for their profession.

Among the social events mention should be made of the “At Home” to visiting ladies, given by Mrs. Dr. H. H. Chown. The *Conversazione* at the Royal Alexandra Hotel was a marked success.

Dr. Adam Wright, Toronto, was elected president; Dr. George Elliott, Toronto, secretary; Dr. H. B. Small, Ottawa, treasurer. The next place of meeting is Toronto.

PERSONAL AND NEWS ITEMS.

ONTARIO.

There is some talk of having an entire regiment of volunteers from the students of the University of Toronto.

Dr. J. J. Cassidy's office is now located in suite 44 of the Trader's Bank, No. 2 Bloor St. E., Toronto.

The Medical Buildings of the University of Toronto will be enlarged so as to furnish additional room for the Department of Anatomy.

The Toronto Western Hospital is making good headway with its new wing and the building for the heating plant for the entire hospital system.

Dr. F. A. Cleland desires to announce to the Medical Profession that he has opened an office in Toronto, and that he will devote his attention to gynæcology. 134 Bloor St. West, Toronto.

At the University of Toronto, Prof. A. B. Macallum takes physiological chemistry; Prof. T. G. Brodie takes physiology; Prof. J. B. Leathes is in charge of pathological chemistry; Prof. J. J. Mackenzie retains pathology.

The new General Hospital account stands somewhat thus: The old site \$300,000; subscriptions, \$1,300,000; University debentures, \$300,000. Against this the new building and site is estimated to cost \$2,200,000. There will be a shortage of \$300,000.

In December, 1907, there were in Ontario Asylums 6,090 insane, idiots, or feeble-minded persons. This was an increase of 118 over the previous year. In 1908 there were of these classes 6,268, making an increase of 178.

Dr. W. A. Young, of Toronto, has been elected President of the American Editors' Association. This Association contains in its ranks the editors of the leading medical journals of the United States. This is quite an honor for Dr. Young.

Dr. C. A. Langmaid, '06, graduate of Toronto, has returned from the old country after spending three years abroad, attending the hospitals in London, Edinburgh, Glasgow, Dublin, and Paris. He has settled at 23 Brunswick Ave., and will practice general medicine.

The Isolation Hospital in Hamilton has proven inadequate to furnish accommodation for the scarlet fever cases in that city. There has been some difficulty getting the hospital board and the board of health to agree upon a plan of action. The hospital board are willing to look after those cases provided the city will rent some suitable premises. The hospital board is unwilling to expend money on a temporary house.

The Canadians attending the International Congress of Medicine and Surgery at Budapest, Hungary, report that the Congress is a great success from a scientific point. Doctors G. Sterling Ryerson, Alexander McPhedran, and W. H. B. Aikins, Toronto, were presented at a Court, held by the order of the Kaiser, as official delegates from Canada. The other Canadians present at the reception were Doctors Bruce and Primrose of Toronto, Doctor Casgrain of Windsor, Doctors Meek and Drake of London, Doctor Hapenny of Winnipeg, and Doctor King of Cranbrook, B.C.

Dr. C. A. Hodgetts, secretary of the Provincial Board of Health, was in Cobalt recently in order to aid the local health authorities in their effort to establish sanitary conditions in the town. Dr. R. W. Bell, one of the inspectors of the provincial staff, was also in Cobalt supervising the steps taken to put an end to the epidemic of typhoid which has prevailed

there. A code of by-laws are said to be in course of preparation with a view to compelling the people of Cobalt to take the ordinary precautions and to prevent a relapse to the disgraceful condition of affairs which now exists.

There was recently much trouble in Toronto to secure the admission of a child ill with measles into any of the hospitals. The following story is interesting. Lady superintendent of the Toronto Western Hospital said: "The poor woman came here with two little boys, one sick with measles. At the personal request of Dr. Sheard we took them in, using a tent well removed from the building. This was three weeks ago. We kept all the three. The child recovered, and some kind people became interested in the family, and, I believe, are looking after them. I think a hospital should be fitted up immediately for the care of measles and erysipelas. We have to refuse cases of both, although the circumstances are often sad and of an urgent nature."

MARITIME PROVINCES.

In Nova Scotia the time for which a medical certificate is good, entitling a patient to relief has been reduced from 30 to 14 days.

At the Brunswick Medical Society, Dr. Pearson asked the position of this Society as to the fee for life insurance, whether it was \$4 or \$5 last year? This matter of a fee was decided on at \$5, but many members have accepted \$4. This matter was finally deferred to the meeting next year.

The New Brunswick Medical Society elected the following officers: President, Dr. A. J. Murray, Fredericton Junction; 1st Vice-President, Dr. C. T. Purdy, Moncton; 2nd Vice-President, Dr. G. G. Melvin, St. John; Treasurer, Dr. D. E. Berryman, St. John; Corresponding Secretary, Dr. J. S. Bentley, St. John; Recording Secretary, Dr. G. G. Corbett, St. John; Trustees, Drs. T. H. Lunney, P. E. Butler, Johnston.

At the Maritime Medical Association, Dr. Chisholm, for Committee on Interprovincial Registration, submitted the following report:

Your committee beg to report (1) In favor of reciprocity between all the provinces of the Dominion in medical registration. (2) Failing in obtaining the reciprocity between all the provinces, we would urge such an arrangement between such provinces as might be willing to entertain it. In pursuance of this object, your committee would beg to recommend the following resolution:

Resolved, That this Maritime Medical Association puts itself on record as being in favor of an interprovincial registration of all the provinces as outlined by Dr. Roddick in the House of Commons;

Also Resolved, That a copy of this resolution be sent to the Canadian Medical Association and to all the provincial societies.

At the Maritime Medical Association the following was adopted: Dr. Curry, for Committee on Public Health Bureau, reported as follows:

Your committee beg to report the following resolution:

The Maritime Medical Association, embracing the provinces of Nova Scotia, New Brunswick and Prince Edward Island, desire to place themselves on record as being in accord with the formation of a federal Bureau of Health. And viewing, with gratification, the spread amongst the profession and laity at large of the opinion of the necessity for the prevention of preventable disease;

Therefore Resolved, That we respectfully ask the Federal Government to establish such a Bureau under one of the ministers of the existing departments;

Further Resolved, That a copy of this resolution be forwarded to the Prime Minister of Canada.

WESTERN PROVINCES.

At the Annual Meeting of the Manitoba Medical Association the following officers were elected: President, Dr. W. Harvey Smith, Winnipeg; First Vice-President, Dr. H. E. Hicks, Griswold; Second Vice-President, Dr. J. S. Matheson, Brandon; Honorary Secretary, Dr. J. Halpenny, Winnipeg; Honorary Treasurer, Dr. Robt. F. Rorke, Winnipeg; Executive Committee, Dr. H. A. Wright, Oak Lake; Dr. F. S. Keele, Portage la Prairie; Dr. D. G. Ross, Selkirk; Dr. H. M. Speechly, Pilot Mound; Dr. W. J. Harrington, Dauphin; Auditors, Dr. R. J. Blanchard, Winnipeg; Dr. A. W. Moody, Winnipeg.

FROM ABROAD.

At a special meeting of the Dublin City Council a motion to make notification of tuberculosis compulsory was carried by 20 to 10.

Dr. Alexander Fraser, Professor of Anatomy in the Royal College of Surgeons, of Ireland, died 25th July. He was a distinguished anatomist and scientist.

Dr. William Arthur Foxwell, Professor of Therapeutics in the University of Birmingham, died on 4th August. He was well known as an author on diseases of the heart and lungs.

Dr. Andrew James Duncan, Consulting Physician to the Dundee Royal Infirmary, died recently. He was one of the best known physicians in Scotland.

Dr. Henry Radcliffe Croker, the eminent London dermatologist, died on 22nd August, while on a holiday in Switzerland. He was 64 years of age. He had held many important positions.

Sir Stephen Mackenzie died on 3rd September. He was born in 1844. He was connected with London Hospital, and was a distinguished author on many subjects.

A cremation society has recently been established in Sydney, with the Hon. Dr. Creed, a member of the Legislative Council, as President. He has addressed a letter to the Hon. C. G. Wade, the State Premier, setting forth the various arguments in favor of the adoption of this practice.

Professor Simpson's report on sanitary matters in various West Africa colonies and the recent outbreak of plague on the Gold Coast, shows how far sanitation is behind the times in many of these places. There were in all 344 cases of plague on the Gold Coast, with 300 deaths. In the first outbreak there were 302 cases, 258 proving fatal; 127 deaths occurred in Accra and 131 in other parts of the colony.

At the recent Health Congress at Leeds, Dr. Arthur Newsholme, medical officer to the Local Government Board, delivered an address on social efficiency in relation to public health administration. With wider and more exact knowledge of hygiene, it was, he said, becoming increasingly realized that the whole range of the mental, physical, and to a large extent the moral, life of mankind might be brought within the range of preventive medicine; and that as medical knowledge grew the number of diseases that could be regarded as preventable would increase, and public administration extend beyond its present limits.

A measure likely to promote the fertility of marriage has recently been suggested by Professor Charles Richet, the distinguished physiologist, of Paris. He suggests, in fact, that a premium should be placed on fecundity, the State giving £20 for a second child, and £40 for each further addition to the family. He estimates that the result of this measure would be an increase of births to a million to twelve hundred thousand instead of seven hundred and fifty thousand, which is the present rate. The cost is estimated at £12,000,000 for the first year, and the amount would rise with the number of births. In four years Professor Richet looks for an increase of a million in the population which he thinks would be cheaply purchased at the price of a *milliard*.

Dr. Veress, of Budapest, said that, although the use of this drug in the treatment of this condition is very extensive, yet but little is known of its mode of action. He presented the results of a series of observations in young men, otherwise healthy, to whom potassium iodide was administered in daily doses of from 0.3 to 0.5 gr., for periods of ten to fourteen days. It has been claimed that this drug has no vaso-dilating action. Examination of the blood from the experimental subjects showed that there was a marked loss of viscosity, sometimes as much as 10 per cent. This apparently explains most of the therapeutic effects of the

drug, as its action in increasing the fluid character of the blood is equivalent to dilatation of the vessels, for the reason that the stream flows more rapidly.

The trustees appointed by the late Mr. Harry Barnato have resolved to devote the sum of a quarter of a million sterling, left by him for the purpose of founding some charity in the nature of a hospital or kindred institution in commemoration of his brother and nephew, to the building and endowment of an institution for the reception of patients suffering from cancer. The institution will be administered, except as regards its finances, in connection with the Middlesex Hospital, and a suitable site has been acquired in Nassau Street adjoining the hospital's special cancer wards. It is stated that the new building will probably provide for about fifty patients and that clinical laboratories will be established. The scheme would appear to be an extension of the work already carried on at the Middlesex Hospital both in the special cancer ward and in the laboratories.

A report by Professor Karl Pearson, showing the progress of the Francis Galton Laboratory for National Eugenics during the past sixteen months was presented to London University. It stated that much labor had been bestowed on the study of pedigrees and the collection and collation of information on various aspects of heredity and environment; numerous lectures had been delivered and papers published, not only by members of the laboratory staff, but by other contributors to its work. The Senate voted their cordial thanks to Sir Francis Galton for a further donation of £500 for the maintenance of the laboratory, and recorded their high appreciation of the services rendered by Professor Pearson, under whose supervision the work is carried on. Mr. David Heron and Miss E. M. Elderton were reappointed respectively Galton Research Fellow and Galton Research Scholar for a year from February next.

A scheme of continued hospital treatment, which appears to have much to commend it, is being tried as an experiment at Coventry. The hospital authorities are sending their convalescent patients to farmhouses to recuperate, and so far the results have been eminently satisfactory. In most small towns no recognized system exists for dealing with patients after they are able to dispense with the regular attention of a medical man; and Birmingham itself was not much better off until the establishment and development of the work of the Hospital Saturday Fund. The obvious advantage of the Coventry plan is that the individual effort of the poor is assisted, and that the convalescent patient is kept under medical supervision, and adequately and properly provided for in the way of food. It is not within the power of many towns to possess, as their own property, homes of rest at the seaside, so that the country

farm-house hiring system would appear to be the next best thing, as it achieves beneficent results without incurring a big financial responsibility.

The Medical Officer of Health for Edinburgh, in his annual report on the health of that city, states that the most striking and most important fact which first arrests attention is in regard to the general death-rate, which has during the year fallen to the lowest figure yet recorded—13.37 per 1,000 of the population. The special efforts which have been initiated in order to effect a reduction in the infantile mortality rate have been attended with a considerable amount of success. The first step towards the attainment of this object was reached when the Notification of Births Act came into force. The next step was the important one of appointing a lady health visitor, and this was followed by the inauguration of the specially satisfactory efforts which are now being carried out by the large body of lady health visitors, who are carrying on so splendid a work in the visitation of all newly-born infants in the poorer districts of the city. The infantile mortality ten years ago was 147 per 1,000 compared with 121 last year.

At the annual meeting of the governors of the West Wales Sanatorium, held at Carmarthen a few days since, the Medical Superintendent (Dr. Adams) submitted his report for the past six months, in the course of which he said with regard to the thirty patients who had been discharged during the period, the results were more than satisfactory. They were infinitely better than he, in his most sanguine mood, ever anticipated. Half of them were back at the work they were doing before they broke down in health; eight, acting on his advice, had changed their occupation, whilst three, who were quite fit for work, but were not obliged to do so. One died of a complication after leaving the Sanatorium, and the other three were discharged as unsuitable cases, and were now practising the treatment they learnt at the institution at home. The letters he had received from the discharged patients were most gratifying. He was glad to report that not nearly so many hopeless cases were being recommended for treatment. It seemed as if medical men were realizing the importance of only sending early cases.

OBITUARY.

EDWARD PLAYTER, M.D.

Dr. Edward Playter, a well-known resident of Chester, died very suddenly at his home on the Winchester road two weeks ago. The deceased who was in his 74th year, had just returned from a visit to the

postoffice, when he was seized with an attack of heart failure, dying a few minutes later.

The late Dr. Playter came from Ottawa about six years ago and started a consumption hospital in North Toronto. The institution was closed, however, owing to objections to its location by the municipal authorities. Some time ago he moved to Chester and had but recently finished building his house on the Winchester road. He is survived by a widow and several children. Mr. Edgar M. Playter, manager of the Queen street branch of the Bank of Commerce, is a brother.

JAMES FULTON, M.D.

Dr. James Fulton, one of the most prominent physicians in St. Thomas, died 15th September, in Victoria Hospital, London, following an operation. Dr. Fulton attended the medical convention in Winnipeg and on his return from the West went into the London hospital for treatment and never rallied from the operation.

Deceased was born in Southwold 58 years ago and was the son of James Fulton, a pioneer of Elgin County. He received his early education in St. Thomas and graduated from Trinity Medical College, Toronto, and received diplomas from the College of Surgeons, of London, England, King's and Queen's College, Dublin, and the College of Physicians, Elinburgh. The doctor also took an active part in the affairs of the city and was chairman of the Board of Health, president of the Amasa Wood Hospital, and was surgeon of the Michigan Central R.R. at the time of his death. A widow survives.

R. P. ROBINSON, M.D.

Dr. Robinson, of Port Moody, B.C., died there in the early part of September. He had been suffering from heart trouble for some time. The day before his death he had buried his daughter and the shock seemed to have been too severe for him. He died very suddenly. He was a graduate of Queen's Medical College.

GREGG HENDERSON, M.D.

Dr. Gregg Henderson, a medical practitioner of Strathroy for the past forty years, passed away at an early hour on 25th August. The deceased was born in Carleton County, 72 years ago. He was a gradu-

ate of Victoria University, and of New York Medical College. He was a charter member of the Medical Council, organized 34 years, and in 1897 was president of that body. For 34 years he was Medical Health Officer of Strathroy. Besides a widow, he is survived by one son and one daughter.

BOOK REVIEWS.

EVANS' OBSTETRICS.

A Manual for Students and Practitioners. By David J. Evans, M.D., Lecturer on Obstetrics in McGill University, Montreal; Fellow of the Obstetrical Society of London. New (2d) edition enlarged and thoroughly revised. 12mo, 440 pages, with 166 illustrations. Cloth, \$2.25, net. Lea & Febiger, Philadelphia and New York, 1909.

The literature of obstetrics is full almost to overflowing, and any work which lives and thrives in the competition thereby proves its worth. Two printings of its first edition were absorbed, and now a new edition is required. From the standpoint of demand, this is equivalent to coming to its third edition in a period brief enough to be highly complimentary. The author has faithfully revised it to include the latest developments, and to exclude whatever has been discarded by progress, so that the student or physician using it may confidently count on finding the whole subject compactly presented in its present status. The illustrations have likewise been revised, improved engravings being substituted wherever a point could be shown more clearly, and many new ones being added. We have perused this volume with much pleasure. This pleasure was a two-fold one, namely, the merit of the book on the one hand, and the intimate acquaintanceship which we have had for many years with the author. The latter fact induced us to be specially careful in our review. As the result of our reading we can advise our readers to secure a copy.

'CALKINS' PROTOZOÖLOGY.

A Text-Book of Protozoölogy. By Gary N. Calkins, Ph. D., Professor of Protozoölogy in Columbia University, New York. Octavo, 340 pages, with 125 engravings and 4 colored plates. Cloth \$3.25, net. Lea & Febiger, Philadelphia and New York, 1909.

Protozoölogy, the sister science of bacteriology and scarcely less important in medicine, has hitherto been relatively neglected, owing to the difficulty of cultivating the protozoa in artificial media. Recent methods having largely overcome this obstacle, it is to be expected that the

amazing and fruitful growth exhibited in the study of the bacteria during the past two decades will be paralleled in the case of the protozoa, but in much less time. The role of certain of these animal germs as causes of disease is well established, and with it their importance in pathology, but they have also a useful purpose to serve in teaching biology and physiology, as they exhibit in the simplest form the manifold processes of the living organism, digestion, assimilation, respiration, excretion, irritability and fatigue, reproduction, fertilization and inheritance. In this compact work an authority of the first rank has prepared a text-book on the protozoa from a very broad point of view, so that it will serve students of biology and medicine, and answer the requirements of physicians as well. The very great importance of the subject of protozoa is borne out by the fact that a number of the severest scourges of the human are of protozoal origin, such as syphilis, materia, the sleeping disease, variola, relapsing fever, yellow fever, etc. We regard this book as a most interesting one.

ABBOTT'S BACTERIOLOGY.

The Principles of Bacteriology. A Practical Manual for Students and Physicians. By A. C. Abbott, M.D., Professor of Hygiene, University of Pennsylvania. New (8th) edition, thoroughly revised. 12mo, 631 pages, with 100 illustrations, 26 in colors. Cloth, \$2.75, net. Lea & Febiger, Philadelphia and New York, 1909.

When this book first appeared eighteen years ago bacteriology was virtually new and unbroken territory in medical education. It is difficult now to realize the growth that has meantime taken place in the science and in its recognition as almost dominating in medicine and surgery. Professor Abbott's book has been an effective instrument in this increase and diffusion of knowledge. It was carefully planned to furnish students and physicians with a sufficiency of information as well as to avoid a superfluity, the subject being a vast one and only a portion of it bearing on medicine. The work is based on the assumption that the reader is unfamiliar with the subject, and it therefore presents the essentials clearly and directly, accentuating the principles, giving full instruction in the best methods, and applying them to the identification of the more important species with their descriptions. The usefulness of such a skilful presentation as a text-book and laboratory guide, both for students and practitioners, is shown in the number of its editions. In again revising it the author has included all that is new and within its scope, and he has accomplishing this with an actual reduction in pages by eliminating much that progress in bacteriology has either displaced or made it possible to replace with simpler and briefer statements. Bacteriology is a very in-

portant subject and one on which every practitioner should keep himself well posted. This can be done by a careful study of Abbott's Bacteriology.

DISEASES OF THE EYE.

Diseases of the Eye. A Manual of the Diseases of the Eye for Students and General Practitioners. By Charles H. May, M.D., Chief of Clinic and Instructor in Ophthalmology, College of Physicians and Surgeons, Medical Department, Columbia University, New York; Attending Ophthalmic Surgeon to Mt. Sinai Hospital, New York; Consulting Ophthalmologist to the French Hospital, to the Government Hospital, to the Red Cross Hospital and to the Italian Hospital, New York. Six Revised Editions, with 362 original Illustrations, including 22 plates, with 62 colored figures. New York: William Wood and Company, 1909. Price, \$2.00, *net*.

Dr. May's book needs no introduction, nor does it need any praise, though this could well be accorded it. The first edition appeared in 1900, and during the nine years that have elapsed we have now the sixth edition. This speaks for the book in very eloquent terms, and shows that it fills a want in the medical profession. The book is kept up to date in every detail. The author very happily selects the useful and eliminates the less desirable methods in diagnosis and treatment. This sort of manual is just what the general practitioner requires. It gives all that it best and in convenient size. We wish to congratulate both the author and the publishers on the results of their united efforts. The book may be said to be brief, complete and reliable in every respect.

SIMON'S MANUAL OF CHEMISTRY.

A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A Text-Book specially adapted for Students of Medicine, Pharmacy and Dentistry. By W. Simon, Ph.D., M.D., Professor of Chemistry in the College of Physicians and Surgeons, Baltimore, and in the Baltimore College of Dental Surgery; Emeritus Professor in the Maryland College of Pharmacy; and Daniel Base, Ph. D., Professor of Chemistry in the Maryland College of Pharmacy. New (9th) edition, enlarged and thoroughly revised. Octavo, 716 pages, with 78 engravings and 9 colored plates, illustrating 64 of the most important chemical tests. Cloth \$3.00, *net*. Lea & Febiger, Philadelphia and New York, 1909.

In the multiplicity of books on all branches of chemistry one which attains and maintains great popularity must possess corresponding merit. Professor Simon's manual exemplifies the survival of the fittest, and in the fulness of its vigor. Many editions have been required, each in many printings. The secret of such success is an open one. The book is written for students of medicine, pharmacy and dentistry, and suffices all their needs. It starts the beginner with the underlying physics of chemistry,

and carries him through the principles to inorganic, analytical and organic chemistry, finishing his course with physiological chemistry, and even the examination of normal and abnormal urine. The physician mastering this book will command the subject commensurately with his needs. To accomplish so much within seven hundred and sixteen pages is a remarkable example of skill in determining what is really important, and in presenting it succinctly. Each edition has been revised to its date, but none more thoroughly than this new one, which has been practically rewritten by the author and his colleague, Prof. Base. A notable feature is found in the plates of reactions showing the actual colors and color changes of sixty-four important reactions, including urinary tests. The student has therein a permanent set of standards which save him and his instructor much time and trouble. The physician likewise will find them valuable. We can with much confidence recommend this volume to our readers, and a thoroughly reliable and suitable one on the ever-interesting topic of chemistry.

BERI-BERI.

Beri-Beri. Studies from the Institute for Medical Research, Federated Malay States, No. 10. An Inquiry concerning the Etiology of Beri-Beri. By Henry Fraser, B.A., Director, Institute for Medical Research and A. T. Stanton, M.D., Bacteriologist, Institute for Medical Research. Printed by authority of the Resident General, F.M.S. Singapore: Kelly and Walsh, Shanghai, Hong Kong and Yokohama. Price 3s. 6d., 1909.

We have in this brochure a careful study of Beri-beri. The result is that it appears the etiology of the disease is intimately associated with the use of white rice, especially if this has become bad in any way. The findings are very important and appear in another part of this issue.

PARENTHOOD AND RACE CULTURE.

Parenthood and Race Culture. An Outline of Eugenics. By Caleb Williams Saleeby, M.D., Ch.B., F.Z.R. Edin., Fellow of the Obstetric Society of Edinburgh, Member of the Council of the Eugenics Education Society, The Sociological Society, The National League for Physical Education and Improvement, Member of the Royal Institution, The Society for the Study of Inebriety, etc. Price \$2.50, net. Moffat, Yard and Company, 31 East 17th St., New York.

Race culture is, above all things that can engage the attention of the medical profession, the most important of all topics. Antiseptic surgery is of great value to those who must come under the surgeon's care. Preventive medicine takes high place, especially to those who may have to sojourn in unsanitary areas. When we come to Eugenics we

touch upon a subject that concerns all. The first part of the book deals with the Theory of Eugenics, and the second part with the Practice of Eugenics. The work covers such important topics as the growth and development of the individual, both mentally and physically. It also discusses the important subject of marriage and some of the restrictions that should be imposed. National decadence is taken up with much earnestness and ability. The influence of alcohol and narcotics is given careful consideration. We have had much pleasure in reviewing this work and wish for it a very wide sale.

DISEASES OF THE THROAT.

Diseases of the Throat. A Clinical Manual for the Study of Diseases of the Throat. By James Walter Downie, M.B., F.F.P.S.G., Lecturer on Diseases of the Throat and Nose, University of Glasgow; Surgeon for Diseases of the Throat and Nose, Western Infirmary; Hon. Aurist, Royal Hospital for Sick Children; Member of the Council and Examiner in Otology and Laryngology for the Fellowship, of the Faculty of Physicians and Surgeons, Glasgow. Second edition, revised and in large measure re-written, with 104 illustrations. Glasgow: James Maclehose and Sons, Publishers to the University, 1909. Price 10s.

This is a decidedly good book. Acute and chronic inflammations, affections of the uvula, diseases of the tonsils, post-nasal adenoids, inflammations of the larynx, tumours of the larynx, foreign bodies, syphilis, tuberculosis, diphtheria, neuroses, and formulæ make up the contents of the book. The descriptions are brief but explicit, and form an excellent guide to any one who wishes to be in possession of the best methods of treating affections of the throat. The illustrations are very well executed. The paper, binding and press work go to make up a very attractive book. Such a book as this will prove invaluable to the general practitioner.

PROGRESSIVE MEDICINE.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Science. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia, etc., H.R.M. Landis, M.D., Visiting Physician to the Tuberculosis Department of the Philadelphia Hospital, to the White Haven Sanitarium, and to the Phipps Institute, etc. Vol. III, September, 1909. Diseases of the Thorax and its Viscera, Dermatology and Syphilis, Obstetrics, and Diseases of the Nervous System. Lea & Febiger, Philadelphia and New York, 1909. Price, in paper, \$6.00 per annum.

The contributors to this volume are William Ewart, William S. Gottheil, Edward P. Davis, and William G. Spiller. These names are well

known as able exponents of what is best on diseases of the chest, dermatology and syphilis, obstetrics, and neurology. These various departments of the work of the every-day practitioner are well reviewed. We can again express the opinion that if practitioners would keep themselves well posted on what comes out from quarter to quarter in *Progressive Medicine*, they would be able to meet and cope with almost every condition that could arise in general practice. The entire series makes a very complete medical library.

SAVILL'S CLINICAL MEDICINE.

A system of Clinical Medicine, dealing with the diagnosis, prognosis, and treatment of disease for students and practitioners, by Thomas Dixon Savill, M.D., Lond., Physician to the West End Hospital for Nervous Diseases; Physician to St. John's Hospital for Diseases of the Skin, London; formerly Medical Superintendent of the Infirmary, Paddington; Medical Officer of the Paddington Workhouse and Post-Graduate Lecturer to the London Post-Graduate Association; Assistant Physician and Pathologist to the West London Hospital; Examiner in Medicine and Clinical Medicine in the University of Glasgow; and Medical Officer to the Royal Commission on Vaccination. Second edition, revised by the author, assisted by Frederick S. Langmead, M.D., London, Casualty Physician to St. Mary's Hospital; Assistant Physician to the German's Hospital, and Physician to the Out-Patients at the Paddington Green Children's Hospital; and Agnes F. Savill, M.A., St. And., M.D., Glasgow, Assistant Physician to St. John's Hospital for Diseases of the Skin. London: Edward Arnold, 1909. Price, 25s. All rights reserved.

We have here a work on clinical medicine written on a thoroughly sound plan—the inductive. The first thing that strikes the student or practitioner in his study of any case are the symptoms. From these the disease must be named, its pathology determined, and the treatment laid down. With a skill that can only come from long years of experience and much thought, the author has built up his method of the study of disease. With that method we are well pleased.

Taking disease of the heart as a group, we have Part A.—symptomatology. Under this comes a study of breathlessness, dropsy, cyanosis, palpitation, pain, syncope, cough, sudden death. When these have been all disposed of the next portion of the study is taken up, namely, Part B.—Physical examination. Under this there is a thorough review of what is best known in auscultation, percussion, inspection, the pulse, etc. Then comes Part C.—the disease of the heart and pericardium. This leads up to a classification of the diseases. From this analysis of one chapter the general plan of the book may be judged.

In each chapter there is a careful review of the diseases to be discussed. Thus, in the chapter on general debility, there is first a resumé of our knowledge of the condition, which lays a sound foundation for the

study of diseases that are grouped together as causing general debility, such as chlorosis, pernicious anaemia, syphilis, plumbism, Hodgkins' disease, spenic anaemia, malignant disease, etc.

The treatment is brief but reliable and contains the experience of one who has seen much, observed closely, and read widely. We have been greatly pleased with this book. It contains nearly 1,000 pages. The make-up of the book is superior in every way, and the matter the very cream of the medical teaching of to-day.

OPHTHALMIC AND AURAL TECHNIQUE.

Minor Ophthalmic and Aural Technique, a short treatise dealing with minor procedures about the eye and ear. Adapted to the use of those requiring a comprehensive knowledge of this subject. By Alfred Nichols Murray, M.D., Chicago, Assistant in the Department of Otology and Laryngology, Rush Medical College; formerly Clinical Assistant in Ophthalmology, Rush Medical College. One time voluntary assistant in the Universitaets Augenklinik, Breslau. Member of the American Medical Association. Mitglied der Ophthalmologischen Gesellschaft, Heidelberg, etc. With 98 illustrations in the text, reproduced from photographs and original drawings. 1909, Cleveland Press, Chicago.

In the preface we are told that this book is on the minor procedures about the eye and ear. It is not intended as a complete treatise on the diseases of these organs. The aim appears to be to familiarize the general practitioner with the principles of ophthalmology and otology, such as are most frequently encountered in the management of the simpler affections. This is a working manual and not a book of useless descriptions, weighted down with lot of obstruse reading matter. The author deals directly and at once with the matter in hand and places the best methods before the readers in a clear and concise way. The illustrations are good and the paper, press work and binding would suit the most exacting. To those who wish a satisfactory guide to the commoner ailments of the eye and ear, it would be difficult to mention a more suitable text book than this one.

INTERNATIONAL CLINICS.

International Clinics. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, etc., etc. Edited by W. T. Longcope. M.D., Philadelphia. Vol. III, 19th Series, 1909. Philadelphia and London: J. B. Lippincott Company.

This volume contains three articles on treatment, five on medicine, four on surgery, two on gynaecology and obstetrics, one on orthopedics,

two on pædiatrics, one on radiography, one on otology, two on neurology, one on ophthalmology, and one on pathology. These articles are all good, and well illustrated with both cuts and plates, three of which are in colors. We regard this volume as of much merit and the series makes a fine library.

EDWARDS' PRACTICE OF MEDICINE.

A Treatise on the Principles and Practice of Medicine. By Arthur R. Edwards, M.D., Professor of the Principles and Practice of Medicine and Clinical Medicine in the Northwestern University Medical School, Chicago. New (second) edition, thoroughly revised. Octavo, 1246 pages, with 100 engravings and 21 full-page plates in colors and monochrome. Cloth, \$5.50, *net*; leather, \$6.50, *net*. Lea & Febiger, Philadelphia and New York, 1909.

The merit of Professor Edwards' work has won the practical recognition of a very early call for a new edition. It is the product of an experienced physician, a notable teacher, and an unsparing worker. No less efficient combination in the person of one man could adequately exhibit present day medicine in a single volume withal of convenient size. This he has done, and in excellent perspective, making a well proportioned book, properly directed, as he says in the Preface, that is, with everything necessary, and everything leading up to the final object of medicine, namely, treatment. Thorough systematization is employed for brevity and ease of consultation, and moreover, for the even more important advantage thereby secured that facts arranged in their natural order lead into each other and impress the underlying reasons on the reader's mind. Critical study of his own work, and careful consideration of the reviews, have led the author to adhere to the plan and features that have proved so popular, but he has spared no labor in improving it to the utmost. The work has been practically rewritten to secure increased clearness and conciseness, and the result is seen in the extraordinary fact that although the new edition contains a vastly greater mass of information it is some seventy pages smaller. All the real advances throughout this immense domain have been incorporated. Perhaps the most interesting new feature will be found in the fact that particular attention has been given to the therapeutic details in accordance with the recent awakening of the profession to the importance of logical treatment. Numerous new preparations and modified dosages, particularly for children, are explicitly specified. In a word, all classes of readers, students and practitioners alike, will find this very broad and skilful work admirably suited to their requirements. We had the pleasure of reviewing the first edition of this work and note the thorough manner in which it has been kept up to date.

WHARTON'S MINOR AND OPERATIVE SURGERY, INCLUDING BANDAGING.

By Henry R. Wharton, M.D., Professor of Clinical Surgery in the Woman's Medical College, Philadelphia. New (seventh) edition, enlarged and thoroughly revised. 12mo, 674 pages, with 555 illustrations. Cloth, \$3.00, *net*. Lea & Febiger, Philadelphia and New York, 1909.

When a work reaches its seventh edition it has been tried and approved, and may fairly be considered established as a standard. Dr. Wharton's very compact and comprehensive manual covers a large and important field often inadequately treated in the voluminous works on general surgery. He describes and illustrates with abundant photographs all the bandages used to-day, showing clearly their successive turns, and then similarly treats all minor and major operations save those of a capital or gynecological nature. A useful chapter for the student and teacher as well as the practitioner deals with the operations that can be taught and practiced on the body. This new edition has been revised thoroughly to the latest date both in its text and its profuse and telling illustrations. Every student should have a copy of this work in his possession. The instructions on bandaging and the routine work of minor surgery are very fine.

DIAGNOSTIC METHODS.

Diagnostic methods, chemical, bacteriological and microscopical, a text book for students and practitioners, by Ralph W. Webster, M.D., Ph.D., Assistant Professor of Pharmacological Therapeutics and Instruction in Medicine in Rush Medical College, University of Chicago; Pathological Chemist at Cook County Hospital, Chicago. With 37 colored plates and 164 other illustrations. Philadelphia: P. Blakistons Sons and Company, 1012 Walnut Street, 1909. Price, cloth, \$6 *net*.

The sputum; oral, nasal, aural and conjunctival secretions; gastric contents, the fæces; parasites; the urine; secretions of the genital organs, the blood; transudates and exudates; secretions of the mammary glands, are the headings of the various chapters. These fluids, secretions and excretions are discussed from the physical, chemical, microscopical and bacteriological standpoint. The author has displayed much judgment in apportioning his work and the attention he has given to the various parts of the subject matter of the book. That side of clinical medicine which is discussed in this volume is a very important one. It is very convenient for the student and practitioner to have the chemistry and microscopy of the secretions and excretions of the human body collected into one volume of moderate size. The various tests are clearly stated, and the best and most reliable ones are given. Much attention is also given to the best methods of staining. The methods of securing

the specimens are fully discussed. This is an important part of the proper study of specimens. Often a specimen of blood is rendered useless through the methods of securing it, and the same is true of other specimens. The publishers have given every attention to the mechanical details going to make up a good book. The binding is well done, the paper is the very best, and typography and press work leave nothing to be desired. To those who wish a work on the chemistry and microscopy of the secretions and excretions of the body we do not hesitate to say "Get Webster's Diagnostic Methods."

MISCELLANEOUS.

MANY CHILDREN DRINK IN BRITAIN.

In a recent number of *The Lancet*, Mr. F. G. Mackereth tells that in one London school of some 300 children all under eight years of age, he discovered that 11.8 per cent. drank alcohol daily, 34.1 per cent. drank occasionally, and 54 per cent. were "Band of Hope" children. Commenting on this statement, Mr. Charles Wakely, Secretary of the United Kingdom Band of Hope Union, has stated his belief that if a census were taken throughout the country, the proportion of the children in the schools who drank liquor would approximate to the 11 per cent. which Mr. Mackereth mentions. He is somewhat sceptical, however, regarding the 34 per cent. who are represented as drinking occasionally, and is inclined to think that this means that the children merely got a sip of beer at holiday time or a glass of wine at Christmas. Under the new Act it is a punishable offence to give alcoholic liquor to a child under five years of age, but the law is frequently broken. It is when children are babies in arms that they are given liquor most frequently. Liquor is the soothing syrup of the poor, and a fractious infant is often quieted with a dose of gin or whiskey. It is comparatively rare that spirits are given the youngsters of school age, for the reason that drink is a luxury, which is not sufficiently abundant to be shared. The eleven per cent. however, is a sufficiently appalling figure, for experience teaches that habits formed at such an early age will continue through life.

The Daily Chronicle has learned that the figures quoted by Mr. Mackereth were obtained from the teacher of the school. In a letter accompanying the census, the teacher remarks that some of the babies speak affectionately of public houses by name. Many of all ages know

the difference between ale and porter, and can distinguish whiskey from gin. The regular drinkers have their own glasses, or when these are not forthcoming will have an egg-cup. The occasional drinkers generally have beer as a treat on Saturday and Sunday.

In another school—with 318 pupils—careful inquiries elicited the fact that only five infants could be set down as regular drinkers, but of the others, 127, or 40 per cent., were occasionally given liquor by their parents, generally on Sunday. "I don't drink it, but my baby does," was the reply of one infant who looked after the baby in her spare time, and was familiar with the process of administering gin on a "comforter."

The Medica Register, in a recent review of the work of Dr. Leopold Lang, of Vienna, upon the effect of alcohol on the mind of the child, remarked:—

"A surprising fact is the considerable proportion of school children in Holland, Austria, and Germany, who drink beer, wine, and even spirits. To take only one example: Inquiries in Vienna disclosed the fact that in that city more than 53,000, or over 32 per cent. of the whole number of school children, regularly drank beer, nearly 20,000, or over 11 per cent., wine, and nearly 6,000, or 3.5 per cent., spirits."

NEW YORK LAW FOR JUVENILE OFFENDERS.

The juvenile delinquency law has gone into effect. Under the law a child of more than seven or less than 16 who commits a crime, except crimes punishable by death or life imprisonment, shall not be known as a criminal, but as a juvenile delinquent. The punishment will be the same as now. Judge Robert J. Wilkins, of the Children's Court, Brooklyn, who drafted the law, said:—

"For a long time, in fact before the establishment of children's courts in this State, the subject of the prosecution of children for crime had been discussed. The idea of classing a boy or a girl of immature age in the same category as an adult offender has been commented on and it has always been my idea, if possible, that this condition should be cured. No matter what we say to the effect of a conviction following a child before any court, the fact in his future years that he was convicted is of record. That this was under a charge of burglary, arson, petty larceny, or any other criminal offence, appears with all its blackness on the record."

The new law will prevent this stigma of being known as a criminal from following a convicted juvenile offender.

LESS WHISKEY AND TOBACCO USED.

The annual report of the Inland Revenue Department for the last fiscal year shows a considerable falling off in the production of spirits and in the consumption of tobacco, due, doubtless, to the financial stringency and the consequent economizing of liquor and tobacco users. The quantity of spirits produced during the twelve months was 5,176,048 gallons, a decrease of 1,673,715 gallons, or about twenty-five per cent., as compared with the previous fiscal year. The foreign demand for Canadian distillery products also fell off, the quantity exported being 311,314 gallons, a decrease of 101,545 gallons. The excise revenue was \$15,048,589, a decrease of \$929,073. The number of cigars taken for consumption during the years was 192,105,371, as compared with 200,133,255 in 1907. The number of cigarettes manufactured last year was 356,189,380, a decrease from the previous year of 28,304,674.

MISS BRENT, PRESIDENT.

The Lady Superintendents of Hospitals, who met in London recently, elected officers as follows:—President, Miss Louise C. Brent, Hospital for Sick Children, Toronto; First Vice-President, Miss Margaret E. Stanley, Victoria Hospital, London; Second Vice-President, Miss Wilson, General Hospital, Winnipeg; Secretary, Mrs. House, Superintendent Hamilton Hospital; Treasurer, Miss Chesley, St. Luke's Hospital, Ottawa; Councillors, Miss Meiklephon, Miss Morton, Miss Woodland, Miss Rogers, Mrs. Jackson; Auditor, Miss Matheson. Toronto was decided upon as the next place of meeting.

OPEN LETTER.

DEAR DOCTOR:—

A meeting of physicians and surgeons interested in Scientific Clinical Research is called for Wednesday, October 27, 1909, at John Ware Hall, Boston Medical Library, No. 8 Fenway, Boston, Massachusetts. The meeting will come to order at 10 a.m., and carry its sessions through Wednesday, and, if necessary, through Thursday and Friday.

The object of the meeting is,

First, to establish an American Association of Clinical Research;

Secondly, to establish clinical research on an incontrovertible scientific basis in hospitals; and

Thirdly, to institute an American Journal of Clinical Research, in which the work of members of the American Association and of others doing clinical research work in a scientific manner shall be published.

You and your friends are herewith cordially invited to participate in this meeting and in the proposed movement of scientific clinical research.

This invitation is extended to all physicians and surgeons whose interest goes beyond the immediate case work of ordinary clinical societies; and it is hoped that the invitation will be accepted by all medical practitioners, irrespective of their present medical affiliations, who can appreciate the necessity for establishing on an incontrovertible scientific basis the certainties and limitations of the present practice of medicine and surgery before attempting to add to the already large and cumbersome field of medicine.

The American Association of Clinical Research is not intended to disturb the present medical affiliations of its members nor to interfere in the very least with the duties they owe and the privileges they enjoy by virtue of their affiliation with any existing medical body.

The American Association of Clinical Research is to take cognizance of the fact that the clinic requires cold facts and conclusive methods, and upon these fundamental requirements, the structure and the work of the American Association of Clinical Research are to be built.

It is of the utmost scientific importance to establish conclusively all that is at present true in medicine and surgery, and only upon such proved knowledge, to base any further advancement. The clinic deals with clinical entities and not, like the laboratories, with parts as entities. Therefore, clinical research differs, and must differ, from experimental laboratory researches. Clinical research must consider clinical entities, and when considering parts, it must consider them only as parts and not as wholes. All that subserves the object of obtaining and investigating clinical facts and principles belongs to clinical research and the laboratory is a part of the means of clinical research, but only a part.

The crux of the matter appears to be that experimental laboratory proof is not sufficient clinical proof. In order to advance in an irresistible line, clinical research must be based on a conclusive form or method of clinical proof. In experimental proof, we dislocate a part from a whole and attempt to prove the whole from the part, as though a dislocated part could always prove the whole. Or, we attempt to prove facts in one species by facts in another species, as though the two species were identical. For instance, the experiments made on animals to elucidate certain elements of fever bring out a fact of almost insurmountable difference between man and the lower animals, the fact that man has associated

with the nakedness of his body a highly perfected power for regulating his temperature, a highly developed vasomotor system and a vast array of sweat glands, a characteristic complex of things which apparently no other species of animal life presents. Experiments made on animals to prove febrile or other clinical phenomena in man, may be suggestive, but for obvious reasons cannot be conclusive. To prove observations in man, the observations must be made on man and not on animals. But observations on man even are not necessarily conclusive. Individual observations on man cannot be conclusive, because the same experience cannot be repeated, and when we prove by numbers, we compare similar but not identical experiences. Analogy is not conclusive proof. Identity alone is conclusive proof; but since, in medicine, identical experiences cannot be repeated, we must provide simultaneous identical experiences in order to have proof by identity. Clinical proof is conclusively established when all observations and experiments are made conjointly by at least two competent men, preferably of opposite ideas, at the same time. Conjoined critical observation and experiment, at the bedside and in the laboratory, as may be required, furnish simultaneous identical experiences, the proof proceeding on the principle that a whole can be proved only by the whole and not by dislocated parts.

These and other weighty questions await your assistance for a necessary solution. The benefit that will accrue, both to medicine in particular and to the medical profession and humanity at large in general, from a satisfactory establishment of scientific clinical research, can be easily surmised. Come prepared, yourself and your friends, to give to this matter your mature convictions and your personal assistance. Only from a critical interchange of critically acquired opinions, can we hope for clearness and for the clarification of the medical atmosphere now charged with confusion and indifference.

Your communication, indicating your interest and your expectation of being present at the meeting in Boston on October 27, next, is eagerly awaited, and on receipt of the expression of your interest, further developments will be communicated to you personally in due time.

Please address your communications at the earliest possible date directly to JAMES KRAUSS, M.D., 419 Boylston Street, Boston, Massachusetts.

Yours fraternally,

(Signed) JAMES KRAUSS, M.D.,

Chairman Committee American Association Clinical Research.

419 Boylston Street, Boston.
August 18, 1909.