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THE
MONTREAL MEDICAL JOURNAL.

VOL. XXIX.

JUNE, 1900.

No. 6.

Original Communications.

VALEDICTORY ADDRESS DELIVERED TO THE GRADUATES
IN MEDICINE AT THE ANNUAL CONVOCATION
OF THE MEDICAL FACULTY OF MCGILL
UNIVERSITY, JUNE 15, 1900.

BY

T. J. W. BURGESS, M.B., F.R.S.C.,

Professor of Mental Diseases, McGill University ; Superintendent of the Hospital
for the Insane, Verdun.

With all my heart I would that to one more capable had been entrusted the duty of bidding you farewell,—of wishing you that success and happiness which, as the voice of the Faculty, I do most heartily wish you.

During your collegiate course your Alma Mater has done what she could for you; now in your own strength you must stand or fall; she has laid the foundation of your future life, and I trust laid it well; it is for you to raise a superstructure perfect in its parts and honourable both to her and the builder.

It may seem to you as though your days of toil and study were over, and that, with a diploma certifying to your fitness and proficiency in learning, you will be armed and equipped with everything necessary to secure your success. I trust that none of you will reason thus. Remember that your work, your studies, and your readings have not ended,—they have indeed but just begun.

To-day you are entering upon a new world, a world of labour, and pain, and sorrow, a world in which there is at last but one event to all the sons of men, be they rich or poor, high or low. You must be prepared to deal with anxiety, fear, grief, and despair, as well as fever and physical pain; you are to be not only physician, but friend, confessor, guide, and judge; you cannot avoid these responsibilities if you would, nor should you if you could.

Do not, however, even for a moment imagine that I would have you look upon the world before you as one of utter darkness. The very

shadows that I have mentioned prove that there must be plenty of sunshine as well, the sunshine of good deeds wrought by brave men and fair women, whose best and noblest characteristics are brought out most vividly amid such scenes as those in which you will be called to act.

In so large a class there cannot but be many natures,—men of the most diverse capacities, aims and destinations. Each of you, too, has his aspirations, a little vague no doubt, but nevertheless real. Keep them, I conjure you, as long as possible, strive to realise them. In the words of Nathaniel Willis :—

“ Press on! for it is Godlike to unloose
 The spirit, and forget yourself in thought;
 Bending a pinion for the deeper sky,
 And, in the very fetters of your flesh,
 Mating with the pure essences of heaven !
 Press on ! ‘ for in the grave there is no work
 And no device.’ Press on ! while yet you may.”

In the ever-increasing competition in the medical profession, you will probably find the struggle for existence an arduous one,—will meet with many worries, many cares, many disappointments,—will find many of youth's golden visions fading away into gray, cold mists. But I would counsel you to be of good courage, remembering always the old adage that “every cloud has its silver lining.”

Doubtless, among other things, you will all desire to make money; not for the money's sake, but for what you can do with it. It is not a desire to be ashamed of. “He that does not provide for his own household is worse than a heathen,” were the words of one who has also declared that “the greatest of these is charity.” The words of St. Paul are nowhere more applicable than to the profession of medicine. He who is ever on the alert with the gift of his services, or, what is more common, is careless in demanding proper recognition of his work, sins trebly,—against himself and his family, against his brother practitioners, and against those whom he thinks he is serving. But mark this. The best works in the world are not done for money, or from selfish motives of any kind. While all the giving of this world is not committed to the doctor, he has a special heritage in the poor, and if you are to achieve true success,—the success that brings happiness and is the only kind worth seeking,—you must do a vast amount of work, not for money, but in part because you like it, and in part because it will do good and help others. The privilege of relieving suffering humanity, of being a messenger of peace to those in pain, of endeavouring to imitate the example of Him who went about doing good, is indeed a reward above all monetary considerations. No more Christlike emblem can be found than the physician braving the dangers of pestilence in the wretched hovels of the poor, or the surgeon upon the battlefield,

ministering alike to friend and foe, without hope of earthly reward, but feeling amply recompensed in the conscientious discharge of his merciful calling. One day of such an opportunity to render service to God and man is worth a whole life spent in the acquisition of a science which confers such power upon its possessor.

In his poem, "The Physician," read at Washington last month, Dr. S. Weir Mitchell thus beautifully sets forth the lesson which our profession inculcates :—

"To give what none can measure, none can weigh,
Simply to go where duty points the way;
To face unquestioning the fever's breath,
The hundred shadows of the vale of death;
To bear Christ's message through the battle's rage,
The yellow plague, the leper's island cage,
And with our noblest 'well to understand
The poor man's call as only God's command.'
One bugle note our battle call,
One single watchword, Duty,—That is all."

As medical men you are expected to play a twofold part. It is your professional matters, but you should also lose no opportunity of acquiring not only to acquire as complete a knowledge as you can of purely ing a knowledge of the world. Your success in life will depend as much upon the latter as upon your professional attainments. Remember always that you are men amongst men; and that no matter how great your medical skill may be, if you have not acquired an ease and grace of manner, you have not the key to unlock the door of public confidence. Often you will find it true that people will first call you in because they like you as a man; and then retain you because they like you as a physician. To attain this happy result, it is above all things necessary that the medical practitioner should be a gentleman in the widest sense of the term. I do not mean in appearance only, in outward demeanor, in the cleanliness of his linen, or the cut of his clothes, but in very heart. Thackeray, at the close of his "Four Georges," asks :—"What is it to be a gentleman? Is it to have lofty aims, to lead a pure life, to keep your honour virgin; to have the esteem of your fellow citizens, and the love of your fireside; to bear good fortune meekly, to suffer evil with constancy; and through evil or good to maintain truth always? Show me the happy man whose life exhibits these qualities, and him we will salute as gentleman, whatever his rank may be." Nowhere will you find a better definition of what constitutes a true gentleman,—follow it and you cannot fail to be such.

A word now as to your leisure time, because when first entered in the field of practice it is not likely that a host of sick people will be waiting to avail themselves of your kind attentions or superior skill. On the contrary, you must expect much wearisome waiting, many hours of

enforced idleness. How may you occupy these hours to the best advantage? Good literature is, I think, beyond doubt the most valuable resource at the command of the young practitioner. Not medical textbooks, for the jaded brain, after a five years' course of cramming, calls loudly for a change of diet. Instead, avail yourselves of the great masters of dramatic and poetic literature, or take excursions with some of the standard essayists, historians, or novelists. Believe me, every moment spent in the society of such men as Shakespearc, Tennyson, Montaigne, Macaulay, or Fielding will repay you a thousandfold.

Nor is it only on your entry into practice that the resources of general literature will be found of incalculable benefit. There is no human occupation which taxes the vital energies more than the practice of medicine. In the severe strain imperatively entailed by close attention to a large visiting list, and the constant devotion of the mind to one line of thought, we have just the conditions most favorable for a premature breakdown in the delicate mechanism of the human mind and body. The remedy against such a catastrophe is thus cogently put by Sir William Mitchell Banks, in an oration, "Physic and Letters," delivered before the Medical Society of London a few years ago:—"The essay, the review, the poem, the incident of travel, the glamour of history, the romanace; these are the things that for a short, sweet, evening hour or two will carry him into a land where there are no querulous complainings of sick men, no tearful faces of anxious relatives, no thankless words of ungrateful patients."

Or, if you would hear a more ancient authority on the same subject, let us thus quote you from Langford's essay, "The Praise of Books": "As friends and companions, as teachers and consolers, as recreators and amusers, books are always with us, and always ready to respond to our wants. We can take them with us in our wanderings, or gather them around us at our firesides. In the lonely wilderness, and the crowded city, their spirit will be with us, giving a meaning to the seemingly confused movements of humanity, and peopling the desert with their own bright creations."

It may seem superfluous to tell you that in order to reap these advantages you must be readers not collectors of books. I have known some good men develop into the latter only. Better! a thousand times better! a dozen good books well thumbed than a whole library of uncut volumes, though of the choicest. Oliver Wendell Holmes, in his "Autocrat of the Breakfast Table," says:—"Certain things are good for nothing until they have been kept a long while; and some are good for nothing until they have been long kept and *used*. Of the first, wine is the illustrious and immortal example. Of those which must be kept and used I will name three,—meerchaum pipes, violins, and poems." The latter part of the saying is equally applicable to books as a whole.

As your instructor in mental diseases, it would hardly be right that I should allow you to escape all mention of the place occupied by my own specialty in your future career. "The proper study of mankind is man" said the poet Pope, and in a very special sense is this true of the medical profession. You, whose duty it will be to consider all that relates to the health of your fellow-men, have to regard man not only as an organized being having certain relations to the external world, but also as endowed with a mental constitution, through which his material organization is constantly influenced. You know how closely the mind and body are related to each other in health and disease, it therefore behoves you to watch well and carefully analyze the mental peculiarities of your patients. Believe me, there is no department of study to which you can give attention that will yield more therapeutic aid in dealing with the sick than a thorough cultivation of the power of quickly estimating their mental states. The psychological conditions of a patient exercise an important influence on the progress of disease, on the character of secretions and excretions, and on the effects of various remedies. It is, therefore, just as necessary that you should give some study to the intellectual powers of your charge, that you should know how to handle his will, imagination, and emotions, as it is that you should know how and when to give certain drugs, and the effects you expect them to yield. When you come to the bedside of the sick try to enter into the feelings and moods of the patient, remember that pain and disease are stern realities, changing the mental tones so that you cannot judge the sick by the well. At the bedside, too, be brave-hearted and joyous. Physical health is, unfortunately, not contagious, but mental and moral health is. There is much sound sense in the old quatrain:—

"Speak sober truth with smiling lips; the bitter wrap in sweetness,

Sound sense in seeming nonsense, as the grain is hid in chaff.

And fear not that the lesson e'er may seem to lack completeness,

A man may say a wise thing, though he say it with a laugh."

And now, as you bid adieu to all the pleasant memories of student-life to enter on the battle which all must wage, with our united right hands we give you a reluctant good-by, a hearty God-speed. In many a graver season, I doubt not, you will look back on the busy, happy hours, full of brightest hope, passed in the college halls, and will long cherish the friendships formed therein. Let me add, in conclusion, that in receiving your degrees to-day, you have pledged yourselves to your Alma Mater. Her vows are on you. You go forth as true knights sworn to honour and fidelity. See that no act of yours brings discredit on her.

Always, throughout your life, let your motto be loyalty,—loyalty to yourselves, loyalty to your fellow-men, loyalty to your Alma Mater, Old McGill.

THE DUTIES AND LIMITATIONS OF THE MUNICIPAL BOARD OF HEALTH.

BY

ALDERMAN H. B. AMES, B.A.,

Chairman of the Hygiene Committee.

Gentlemen,—It is not my intention to-night to attempt to read before you a paper on hygienic science. The most recent medical graduate is better qualified than I am for such a task. But through force of circumstances, I may say political rather than medical, there has been assigned to me the chairmanship of that civic committee under whose control fall many matters concerning the local health.

Now no one is more anxious to see the department placed upon a satisfactory basis than I, therefore at the outset of this arduous undertaking I desire to secure the sympathy and the co-operation of that class of men in the community who are naturally most interested in and best informed concerning the public health. I should like to have the medical men of Montreal realize that any suggestions that they may be willing to make for the improvement of our department will be welcomed, I should also like to have them possessed of a realization of the difficulties, in order that they may be patient if the accomplishment of their ideals appears delayed in arrival.

Prior to the advent of the present council the local Board of Health had charge of two distinct departments. First, the work of the collection and disposal of the scavenging, night soil, and dead animals; secondly, that of dealing with questions concerning the public health. Owing to the fact that the scavenging department gives employment to upwards of 200 men and that the appointment to a seat upon the supervising committee conveyed with it the power of giving employment to many labourers, positions were sought on this committee, as formerly constituted, mainly by aldermen more interested in the distribution of patronage than in the protection of the public health. For the past two years I have sat upon this Board, charged with the performance of this double function, and I have felt, over and over again, that should an epidemic attack our city, the municipal committee, that would be called upon to act, would be wholly inadequate for the occasion.

Almost the first reform which the new council undertook was to separate these two wholly diverse departments and to place each different work under a committee of its own.

The committee on Incineration, as it is now called, is charged with the

oversight of the scavenging department and kindred functions, while the Committee on Hygiene and Statistics, which is also the Board of Health, is now able to devote its entire time and attention to matters hygienic. This is a great advance: what was hopeless before is possible now.

Many and varied are the duties which fall upon the local Board of Health. Under the name of the Committee on Hygiene and Statistics, it is one of the standing committees of the Council, appointed at the first regular meeting in February of each year.

The committee is composed of seven aldermen, 5 of whom are French-speaking, and only 2 (including the chairman) English-speaking. Under by-law, the Council may, if it sees fit to do so, alter the constitution of this Board by adding thereto certain citizens who are outsiders. The Council, however, is very jealous of its right in this particular and generally does not seem desirous of going outside of its own membership. Personally, I would welcome the addition of several medical men or specialists to our Board. Perhaps, if the medical men of the city were to agitate and petition in this direction the Council might grant such representation. Let this be labelled "Reform No. 2." Kindly make a note of it.

It is my purpose to-night to describe to you the work of the local Board of Health as I find it; to review the duties laid upon it; to expose the means at its disposal; to point out, so far as an amateur may do so, the obvious defects; and to invite your criticism on certain suggested improvements which appear to some of us to afford reasonable hope of better things.

Among the duties laid upon the local Board of Health by the City Charter, by the provincial regulations and by the municipal by-laws are the following:—

1st. To enforce all sanitary measures regarding the cleanliness of the city; 2nd. to take precautionary steps to prevent the spreading of contagious and infectious diseases; 3rd. to collect and compile mortuary and birth statistics; 4th. to seize and confiscate deleterious articles of food; 5th. to supervise the drainage, plumbing, and ventilation of new buildings; 6th. to examine schools, factories, workshops and the like with reference to their sanitary condition and to cause to be vacated such buildings as are unfit for human habitation; 7th. to appoint such officers as may be necessary from time to time to put the provisions into effect.

The amount voted by the Council to be expended under the supervision of our Committee, for the services above described, is somewhat under \$40,000 per annum. Usually about 50 persons make up the executive staff. At the head of the department is the Medical Health

Officer, Dr. Ls. Laberge, who has been in charge for the past 15 years and who now receives a salary of \$3,000 a year, plus an allowance of \$250 for horse keep. Immediately responsible to the Medical Health Officer are the secretary, accountant and messenger of the department. All orders of the Committee are transmitted by the secretary to the Medical Health Officer, and are by him issued to his various subordinates. So much for the staff at our disposal. Let us return now to further consideration of the work of the department under the headings herein before mentioned.

THE ENFORCEMENT OF MEASURES RELATING TO THE CLEANLINESS OF THE CITY.

It is the duty of the Board of Health to see to it that all sanitary measures relating to the cleanliness of the city are put in force. A considerable code of such regulations exists in the form of by-laws passed from time to time by the Council. As previously explained, the Board of Health no longer undertakes to clean the streets and the lanes, but is, (or should be at least) the watchful inspector to overlook such work, now in the hands of another department, and to see that it be properly done. To this end there is a municipal force known as the Sanitary Police. It consists of a captain, one lieutenant and 19 inspectors. The officers and men wear a blue serge uniform with a forage cap and a metal badge, so as to be readily distinguished by the citizens. Each badge worn by an inspector has thereon a distinctive letter of the alphabet, so that, should any citizen desire to make complaint regarding a given sanitary official, identification presents no difficulty. For the purpose of visitation the city is divided into 12 districts. To each district is assigned one sanitary inspector. It is his duty to make a careful house-to-house inspection and to cover his entire district twice a year. As, however, these inspectors are frequently taken from their regular work for special duties such as, at present time, the inspection of lanes, yards, and privy pits, I must admit that the city is not covered as required.

Each inspector reports at the City Hall before starting out on his day's work and again immediately after lunch and finally at 5 p.m. In a book, devoted exclusively to his work, a detailed report of what he has done or seen during the day is entered.

The majority of recorded complaints are upon such items as the following:—Repairs needed on given premises to put the plumbing or drainage into proper order; unhealthy house, dilapidated, overcrowded, damp or dirty; privy full, in need of cleaning, or in bad repair; manure box unemptied; filth or water in the cellar; dirty yard, lane or vacant lot in need of cleaning, etc. The following morning the office staff examines the several books, collects and classifies the various complaints and the work of taking the necessary steps to abate each separate nuis-

ance is assigned to officials regularly employed for this purpose. In every case the proprietor is notified that the nuisance must be abated forthwith and is given reasonable time to comply with the demand. At the expiry of the delay specified the premises are revisited. If the nuisance has not been abated, action is taken in the Recorder's Court against the delinquent. In the past I find that aldermanic influence has frequently come between the department and the proprietor for the protection of the latter. I have known of cases where notorious nuisances have been permitted to continue, because the owner of the premises had the powerful protection of an aldermanic friend. It is astonishing how many citizens, even electors of mine, consider that their alderman, as their representative at the City Hall, is there mainly to protect them from being forced to comply with the existing by-laws. Another difficulty lies in the fact that the sanitary officials have been chosen, in many instances, without any reference to any special aptitude for the work, their selection having been purely the result of aldermanic cabal. Hitherto it was considered that almost any broken down individual might find a life position as sanitary inspector. One of the first reforms introduced by our new committee was to appoint a board of examination and establish a precedent that all candidates should be examined by this board and only the names of those qualified should be considered by the committee when making a selection. In course of time, if this precedent be followed, the personnel of the department can be much improved. The men who to-day compose the sanitary police force are, I believe, endeavouring to do their duty, but they are, in not a few instances, insufficiently endowed by nature to succeed in any vocation and certainly not in one requiring those special aptitudes rightly demanded in a protector of the public health. Since, however, to dismiss these men and to replace them by others is a very difficult task we are now undertaking to remedy their defective education by sending them as it were to college. An arrangement has been made with the McGill authorities to enable the sanitary staff to attend 20 lectures comprising a fair survey of the field of municipal hygiene, and the Council has voted a small sum of money for the purchase of text books to form the nucleus of a working library at headquarters. At the end of this course of lectures, probably next November, the inspectors will be submitted to a written examination. Such as pass with credit to themselves will receive, in addition to a certificate, a cash bonus sufficient to reimburse them for their overtime. As to what will be done with those who fail to pass in the examination, I cannot speak with certitude, but I can assure you that, if my wish prevails, they will be given an opportunity to seek employment elsewhere. We need the backing of a powerful public sentiment, however, in every civic department to enable us to get rid of officials whose whole fault lies merely in the fact

that they are incompetent, who have not stolen, nor been drunk on duty, nor been uncivil to the public, but who simply draw salary to do work which they cannot do and so block the way for the appointment of others more capable. If you can help us in bringing the aldermen to realize that, for the benefit of the public service, individual sacrifices must be made, you will have done much towards making the work of remodelling the department a possibility.

MEASURES FOR THE PREVENTION OF THE SPREAD OF COMMUNICABLE DISEASES.

The regulations of the City Council and those of the Provincial Board of Health are fairly complete and grant our department considerable power in the above matters. From time to time the Board of Health suggests to Council additional regulations, always, however, within the limits of the powers conveyed by the charter. At present smallpox, typhoid fever, diphtheria, croup, measles, chickenpox and scarlatina are the only prevalent diseases regarded as communicable. As it is the duty of every physician to report to the Medical Health Officer, within a delay of 24 hours after discovery, the name and address of any patient whom he may discover suffering from any of the above diseases, the department is duly made cognizant of cases existing throughout the city. I have recently given orders to have an employé in the office during the evening until 10 o'clock, since many doctors make their rounds in the evening and would prefer to report by telephone at once. The school boards are also required by law to report all children absent on account of contagious sickness. This I find is done by the Protestant schools, but is not very carefully followed by the Roman Catholic institutions. Cases are sometimes reported by persons other than doctors; anonymous letters occasionally are received calling attention to suspicious premises; the sanitary inspectors on their rounds find suspicious cases; in all such instances one of the doctors connected with the department visits the premises and verifies after diagnosis. If the premises in which the disease has broken out, are ample, and complete isolation is possible without removing the patient, this is forthwith ordered and the house is duly placarded, but as in many cases these maladies occur in the dwellings of the working classes, where isolation is impossible, the patients are frequently removed, if suffering from smallpox, diphtheria, or scarlatina, to the Civic Hospital in an ambulance at the public expense. This is not done, however, with typhoid fever, consumption, chickenpox or measles. In fact I am told that nine-tenths of the cases of communicable diseases reported, are nursed at home. When the patient has been removed, or after he has been pronounced cured, the house is disinfected upon the order of the attendant physician. I fear that frequently, when the premises are

undergoing disinfection, the families scatter among the neighbors, thus taking with them the germs of the disease, and I would welcome any suggestions intended to lessen this evil. In passing let me note two minor improvements recently effected:—First, a new ambulance has been ordered; secondly, new quarters have been prepared and opened at 700 Mount Royal Avenue, to receive families whose premises are undergoing disinfection in place of the forlorn room in the old court house opposite the Nelson Monument.

Sulphur has hitherto been the disinfectant employed by the Board of Health. It is furnished free of charge by the city. The usual plan is to burn on the stove 2 lbs. of sulphur to 1000 cubic feet of house space and to keep the premises closed for six hours. Where the occupants have been willing to pay the additional cost of the material, formaline has been lately used. This is more expensive than sulphur, but the department has so often received complaints regarding the sulphur that at present it is using formaline exclusively and will continue to do so in future. As soon as the disinfection is over the premises are further examined by a sanitary inspector to discover, if possible, the cause for the outbreak of the disease. You will notice in the annual report that there are not a few instances where four, five, or even six cases of the same malady have occurred in a given house. Where the breaking out of the disease can be in any way attributable to physical conditions such as defective plumbing, dirty back yards, etc., the house must be put in good order before it can again be occupied. The entire time of three of our sanitary inspectors is required upon the work of placarding, disinfecting and subsequent examination, their duties extending throughout the whole city.

In connection with this service the Civic Hospital for infectious and contagious diseases comes in for mention. It is located on the extreme northeast border of the city at the head of Moreau street in Hochelaga Ward. The present structure was erected during 1886 and 1887 at a cost of nearly \$25,000. Judging from its condition, the work contract has been most carelessly executed. The building, as you are probably aware, consists of a central administrative portion with a north and south wing. In 1894 and 1895, when half of the building was under the supervision of the General Hospital and the other half under that of the Sisters of the Hotel Dieu, about \$12,000 were annually appropriated for this dual service, but to-day we are compelled to receive and care for all denominations, on a civic appropriation of from \$6000 to \$6,500. When you consider that we have often a population of between 50 and 60 souls to warm, house and feed upon this amount, that we have to pay out of this all the wages, from the Medical Superintendent to the guardian, for all provisions, food, light and general con-

tingencies, you will realize that it is all we can do to furnish the patients with absolute necessities, to say nothing of those luxuries which the sick and those who care for them are always considered as having a right to receive. It appears to me to be false economy to be thus niggardly to this most important service. Although the building contains four wards, our appropriation can only permit us ordinarily to open two. We, therefore, care for scarlatina and diphtheria patients only. At the present time the extreme north end is devoted to our three smallpox patients, with a complete separate staff, but this would not be possible were it in winter time. During 1899, the sum of \$9000 was spent in repairing the old building, but the result is by no means satisfactory. At best the hospital, thus patched up, can only serve for a couple of years longer. One of the first claims upon the civic treasury, in the near future, must be the sum required for the construction of a new civic hospital. I would submit for your discussion some of the propositions that have been laid before us in this regard. First, the construction of a new hospital on the pavilion plan, without separation of patients as to religious belief, at a cost of say \$50,000, containing from 6 to 8 wards. Secondly, to induce our Protestant population to give the money necessary to erect a contagious and infectious hospital for their own, the land to be supplied by the city and the present building to be assigned to Roman Catholic patients only. Third, the resumption of the old practice of placing half of the present hospital under the control of a Catholic and half under the control of a Protestant committee. I believe that the present Council is prepared to deal fairly with this question, when those best qualified to judge are unanimous as to what is for the interests of all.

The hospital as it exists to-day is, I believe, as well managed as the limitations of the case will permit. Dr. J. E. Laberge, the physician in charge, is energetic and apparently most anxious to give satisfaction. He is assisted by Miss Annie Montgomery, matron and head nurse, recently arrived from Toronto, where she had charge of the contagious and infectious diseases hospital of that city. The nursing staff usually consists of a trained nurse and four or five probationers in the last half of their term and two or three in the first half. The wages paid are not such as to attract many applicants, but the staff in the main is faithful and much unappreciated good work is carried on by the nurses at the Civic Hospital. I wish your Society would name a sub-committee, consisting of two or three of its members, to act as visiting governors, to examine with members of our committee, say once a month, the Civic Hospital, with a view of making such improvements as our limited revenue will permit.

VACCINATION.

The City of Montreal grants free vaccination to all who may desire it. For this purpose there have been since 1887 three public vaccinators, one assigned to the eastern, one to the central and one to the western division of the city. These practitioners serve the public at their office in the City Hall every day between 9 and 10, at their residences three nights a week between 6 and 8, and at the houses of citizens in response to special calls. The sanitary officers, in making their rounds, ask if the children have been vaccinated and where they discover this has not been the case, such children are reported to one of the public vaccinators who calls and makes the operation. In 1897, the schools were all visited and the students examined and several thousands were vaccinated. It is our intention to have this repeated next October. The lack of registration of births is a drawback to this work, since it is difficult to obtain a proper list of new born children. The right of the city to enforce vaccination has also been questioned. Though, I believe, the Provincial Board of Health may compel vaccination, it is by no means established that the local board has such powers, consequently if parents refuse the public vaccinator we do not press the case.

LABORATORY WORK.

In addition to other duties, Dr. J. E. Laberge, the physician in charge at the Civic Hospital, acts as civic bacteriologist. He has a small laboratory on the third floor of the City Hall, where he spends some time daily. He examines samples of milk brought in by the milk inspectors and also makes cultures from time to time to discover the presence of contagious disease germs. As his laboratory is very inadequately furnished with appliances and as he is able to be there but a very limited period, no effort is made towards the public analysis of food stuffs. I understand that in Paris there is an immense department devoted to such work. It certainly seems necessary for us to have a chemical and bacteriological laboratory, well furnished, with at least, one competent man giving his whole time to its work. But it is extremely difficult to bring the Council to sanction such an expense. Can you not help us?

STATISTICAL INFORMATION.

The civic committee on hygiene is also in charge of the statistical work at the City Hall. It is empowered to tabulate the mortuary returns, and has recently received from the Legislature certain powers, not yet put into effect by by-laws, to facilitate the collection of data regarding births as well.

It is the desire of our committee to secure from Council at a later date an appropriation that will permit of the taking of a complete civil

census, in order to obtain data regarding the social, economical and sanitary condition of the people. Until this is done we have no reliable basis from which to work and no means of ascertaining whether the efforts put forth by the Health Department are having any appreciable effect in improving the public health. Hitherto, the state of the civic finances has rendered this, like many other reforms, among the impossibilities.

SEIZURES AND CONFISCATION OF DELETERIOUS ARTICLES OF FOOD.

The department has nominally the power to seize and to confiscate articles of food which are deleteriously adulterated or which have become unwholesome and to prosecute the vendors thereof. This power, however, it is extremely difficult to apply. The department has no special inspector charged with the duty of collecting evidence on such infractions of the law. Furthermore, unless it can be proven that the adulteration is absolutely injurious to health, our municipal law has no effect. The sale of adulterated articles may be a fraud upon the public and, as such, punishable under the Dominion Statute, but of this the local board can take no cognizance. Add to this the fact already cited that we have no laboratory for analyses and you will understand why it is that this portion of our duty is almost wholly neglected.

INSPECTION OF MILK.

In the matter of safe-guarding the public against unwholesome milk the municipal machinery is not so badly constituted. There are two competent milk inspectors, young men of recent appointment, both veterinary surgeons with diplomas, both men of energy and devotion to their work. Dr. J. J. McCarrey looks after the western half of the city and Dr. L. J. Demers the eastern portion. Sometimes they change divisions for a month at a time whenever the milkmen get to know them too well. These inspectors visit all milk depots and all premises where milk is kept or sold. They stop and inspect the milkmen's wagons upon their rounds and they take samples and make tests of milk found therein. These investigations, however, are confined to ascertaining the density and richness of the milk. Bacteriological examinations are not made by them. When dissatisfied with the quality of the milk they take action under the law. Since the appointment of the present inspectors the quality of the milk has greatly improved. It has not been necessary this year to take more than one-fourth as many actions against dealers for offering poor milk as during the corresponding period of last year. All parties desiring to sell milk are required to take out a license before doing so. They must agree to permit of the inspection of their premises whether within or beyond the city limits. Our inspectors drive out into the country as far as a horse can take them

and also make occasional trips by rail, but they have no appropriation for this latter purpose. What is lacking is the additional appropriation that would enable them to visit all the stables in the country, whence milk is collected, at least once a year, in order to refuse permits to all such as do not keep their premises in proper condition.

SUPERVISION OF THE DRAINAGE, PLUMBING AND VENTILATION OF NEW BUILDINGS.

A further duty devolving upon the Health Department is the examination of drains, plumbing and ventilation in buildings erected from time to time throughout the city. Theoretically each person intending to erect or repair a building is bound to submit his plans for the approval of the Board of Health where they are supposed to be examined by the Sanitary Engineer and report made accordingly. We have now before Council a new draft of by-law intended to make still more severe the regulations concerning sanitary plumbing. Until within two months, with the exception of the Sanitary Engineer, Mr. Doré, not an employe of the Health Department had any knowledge, prior to his appointment, of plumbing. The two recent appointees, however, on this staff have been journeymen plumbers of experience. Two of the sanitary police visit and examine all new houses and report regarding the same and no new work is permitted to be covered over unless approved. When the work has been finished it is tested by means of smoke, oil of peppermint, water, etc., if not satisfactory the defects must be remedied within a reasonable delay. Here again aldermanic interference is a great drawback. A proprietor fails to conform to the regulations and is reported and threatened with suit. An alderman appears at the City Hall and demands that the case be not pushed and threatens to have the scalp of the Health Officer if he insists upon doing his duty. Many are the cases in the past which have thus been abandoned and we are to-day reaping the results in outbreaks of disease in buildings constructed in defiance of sanitary regulations.

INSPECTION OF SCHOOLS, FACTORIES, WORKSHOPS, ETC.

The sanitary inspectors are charged with the duty of visiting and examining as to sanitary condition, drainage and ventilation, etc., the various schools, factories, workshops, etc., throughout the city. If they are not in proper condition, the proprietor may be compelled to put same into good repair. As a matter of fact, however, these duties have of late years been left to the inspectors appointed by the Provincial Government. It is largely out of the hands of the municipal authorities.

Sometimes a sanitary inspector reports a building to be unfit for human habitation for reason of the fact that it is reeking with infection, is dilapidated or in filthy condition. On order of the Medical

Health Officer the occupants are then required to vacate within 8 days and the reoccupation of the premises forbidden until restored to proper condition. This power is not used as often as it should be. It is very difficult to make out a case in court against the proprietor, and aldermanic interference, is often worked to the utmost. We recently condemned a block on Busby Lane and as it is in my own ward we have been able to press the matter to a conclusion. The block is now being demolished.

PRIVY PITS.

One of the main reforms for which I have been fighting for the past two years and for which I expect to struggle for the remainder of my term, is the abolition of the pit-in-the-ground privy. Even in this year of our Lord, 1900, there are still over 5000 privy pits in the city of Montreal. The by-law regarding this matter requires that the pit be practically water tight; as a matter of fact not five per cent. of the privies of the city are in conformity with the existing by-law. In the study which I made three years ago of the western part of the city I was able to show that the death rate and the prevalence of contagious diseases followed proportionately the number of privies in various localities. Twice I have introduced by-laws into Council for the total abolition of this abomination and twice have I been defeated. At the present moment I have before Council a compromise measure calculated to tolerate, after May 1st, 1901, none but exceptional cases. The conditions of continuance are these:—No privy pit shall exist except by permission granted by the Medical Health Officer. Said permit shall only be given when, 1st. when it has been conclusively proven that the house cannot contain a water closet or that the insertion of the same would be a menace to the health of the occupants, and, secondly, that the alternative privy conforms strictly with the regulations and is as innocuous as possible. Even this half way measure, with difficulty, we succeeded in passing through the Board of Health, where you would have expected it would have received unanimous support. Should it pass the Council we shall hope in time to so worry the proprietors who tolerate privies, that a large portion of those presently existing will ultimately be abolished.

PUBLIC BATHS.

The maintenance and control of the public baths, such as they are, fall within the powers of this department. At the present time there are three summer baths in operation, one on St. Helen's Island, one in Hochelaga, and one out near Verdun. These baths, two of which are open on the river, are free to the public. Plans are now completed for the construction of a new public bath near the Wellington Bridge, which will be of a more permanent character than its predecessors. This

building will have a concrete plunge bath about 100 feet long by 25 feet wide with shower baths and other modern improvements. Owing to lack of funds, however, no heating apparatus can be installed and consequently, for the present at least, the bath will be available only during the summer months. This building, however, let us hope, is the first step towards the ultimate accomplishment of wide designs for furnishing the working people of Montreal with what in most progressive English cities is regarded not as a luxury but as a necessity.

But these details regarding the duties, organization and defects of the Health Department must have grown wearisome to you, as I have presented very little which was not previously known to you all. If it were possible for you to name a sub-committee of your Society who could spare the time and go carefully over the various activities of the local board, to examine the different services carried on and to suggest ways of improvement, I would gladly lay before my committee at the City Hall, the result of your labours. I cannot, however, bring this paper to a close without frankly presenting before you some of the disheartening features of the situation, not with a view of causing you to conclude that nothing can be done and that therefore, the subject is not worthy of further consideration, but for the purpose of calling up the reinforcements, in order that, the full strength of the opposition being apparent, we may organize in sufficient strength to carry through, in spite of it all, desired reforms to a successful finish.

In the first place let me point out to you that, as the result of ten long years of reckless extravagance the city to-day is compelled to exercise the strictest economy in all departments. We are in the position of a householder who has mortgaged his property so that it demands half of the revenue to meet the annual interest charges. This is most plainly shown by the following figures. In 1889, the total revenue of the city was \$2,222,000, and the net debt was about \$15,000,000. It required \$811,000 for interest and school tax, leaving about \$1,410,000 or 63½ per cent. of our entire revenue available for administrative purposes. By 1898, the total revenue had increased to \$3,078,000, but the net debt was over \$26,000,000. The amount needed to pay the interest and school tax was \$1,400,000, the amount available for administrative purposes was \$1,576,000 or just about 50 per cent. of the amount collected. Thus although the city in 10 years increased 30 per cent. in population and 15 per cent. in territory, the amount available for the care thereof increased but 11 per cent. during the same time. Think of it! In 1898 we had but \$165,000 more to expend on the current administration than we had in 1889, though the citizens contributed \$800,000 more in the former than the latter year. As a result the appropriations voted each civic department for annual needs are re-

duced to the lowest minimum of absolute necessity. To maintain the present existing services in a fair degree of effectiveness, let alone make any new improvement, requires all our available funds. It will be four or five years probably, and then only should we have an honest Council during the intervening period, before we may hope to arrive at the point where we shall again have sufficient revenue to provide for ordinary needs.

Again the low estimate of civic duty entertained by many aldermen and by those who elect them, and the apparent unwillingness to engage in serious purification of the staff of civic employes presents many difficulties. A civic employé may be incompetent; you cannot remove him, however, without the approval of the committee. The moment you criticize him, you incur the personal enmity and bitter opposition of some alderman. To touch the employé is regarded as a personal insult to his protector, in return for which the reformer must be prepared to suffer the consequences.

A third difficulty arises whenever we attempt to economize. Where additional appropriation is impossible, we sometimes endeavour to obtain the means for new work by reducing the cost of existing services and here we are met at every turn with obstacles. On my advent to the chairmanship of this Committee, I desired to purchase goods for the department from wholesale firms in order to secure the lowest rates. This was opposed by certain members of my Committee, who claimed to be entitled to name the furnisher, from among their electors, who should supply the goods at his own price. Doubtless the city loses thousands of dollars annually in consequence of such claims for "patronage."

The final drawback which I would cite has already been covered when referring to the execution of existing regulations. I believe that the code of hygienic by-laws on our books is fairly comprehensive; the difficulty lies in putting them into force. Aldermen are supposed to pass by-laws for the protection of the public, as a matter of fact they spend a good share of their time in coming between the law and favoured individuals.

When, therefore, you criticize the Board of Health, as I certainly trust you will never cease to do, kindly remember the limitations under which reformers serve and be as charitable with us as you can. Widespread reformation is not accomplished in a day, but much can be done by keeping constantly at it; and I am confident that if the medical men, in season and out of season, spur on the public to demand that improved measures affecting the public health be passed; that the existing laws be unflinchingly enforced and that the requisite financial support be given to the Health Department there is an era of great advance before us.

ON A CASE OF RETROPERITONEAL LIPOMA (LIPOMA MYXOMATODES) WITH ACCOMPANYING RETROPERITONEAL FIBROMA (CHONDRO-MYXOFIBROMA).

BY

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AND

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Three years ago one of us in these pages discussed at some length the condition of Retroperitoneal Lipoma,* bringing together some 40 cases already on record and describing two cases that had come under his notice. Since that date some half dozen or so more have been placed on record, resembling in all important details those previously described. Briefly, it may be said that these are slowly growing tumours which may attain an enormous size, the largest so far recorded (Waldeyer's case) weighing as much as 63 lbs.; they are situated most often more to one side than the other, are accompanied by little disturbance of general health, save progressive emaciation and eventual dyspnoea, are crossed in general by a length of the large intestine and give signs of fluctuation, so that time and again the first diagnosis is that of ovarian or other cystic growth, until the insertion of the trocar failing to bring away any fluid, this diagnosis has to be modified.

These tumours being so rare it is right to place on record each case that occurs. The following is the history of what is the first case of this nature that has come to operation at the Royal Victoria Hospital, the only case met with so far in our (W. G.'s) practice.

The patient, Mrs. F., æt. 35, first menstruated at the age of 14, and had never been other than regular in her periods, menstruation being unaccompanied by pain. Her first labour was a breech presentation at full term, the second a miscarriage at the third month three years ago, her third and last pregnancy ended 14 months ago.

About a year preceding the last pregnancy the menstrual flow became somewhat profuse and some slight pelvic pain was noted during menstruation.

On admission to the hospital in January, she had but just weaned her baby and had not menstruated for about two years. During this period she has had occasional bearing down pains which since the birth

of the last child had been more severe, while there was distinct "falling of the womb" and occasional frequency of micturition. The protrusion from the vulva was first noticed about three weeks after the birth of the last child and since then had been noticed whenever the patient had been on her feet for any time, and also after straining at stool; there was, however, no difficulty in replacement of the parts.

The respiratory, circulatory and nervous systems were found normal, the urine normal, except for a few epithelial and pus cells. (There was a moderate degree of leucorrhœa.) There was some pigmentation of the navel and also of the mid-line from three inches above the navel to the pubes, while the superficial veins over the chest and abdomen were quite visible.

The abdomen was large, somewhat distended and *fluctuating*. On percussion a clear note was elicited in the right lumbar and epigastric region, in the left lumbar region the percussion note was dull, both when the patient was lying on her back and when she was on her right side. The perineum was partially torn and extensively relaxed, and there was descent of both vaginal walls. The pudenda were in parts dusky in colour. Upon bimanual examination the cervix was found soft, but the vaginal roof was depressed by a firm rounded smooth lobular tumour which was movable. This tumour depressed the uterus to the floor of the pelvis where it was quite movable independently of the tumour. The cervix and os appeared quite healthy. A guarded diagnosis was made of fibromatous growth in the pelvis with some accumulation of fluid of uncertain origin in the abdomen.

Upon January 17th, abdominal section was performed, an incision being made from the pubes to three or four inches above the navel. Upon opening the abdomen there was complete absence of parietal adhesions and it at once became apparent that there were two tumours, the larger one—abdominal in position—giving a sensation as of fluctuation the smaller—pelvic in position—much firmer. Both were obviously subperitoneal as shown by the membrane which covered them, with its network of vessels, and by the fact that the descending colon passed over both in a perpendicular direction. This relationship was especially well marked over the larger abdominal tumour and by the growth the colon was pushed over so as to lie to the right of the mid-line.

These tumours were removed by incision through the peritoneum to the outer and left side. After this incision enucleation proceeded with relatively little difficulty and very little hæmorrhage, the larger tumour being the first to be removed. This lay well over to the left side having completely displaced the intestines to the right and having separated the layers of the descending meso-colon. Upon inspecting

the bed of this tumour it was seen that it had lain close to the lower end of the left kidney, but had not deformed it in any way. At no point was it firmly adherent, being removable everywhere without great difficulty. The sigmoid flexure was depressed into the pelvic cul-de-sac.

The smaller tumour mass lay well within the pelvis more to the right side, it also was not firmly adherent anywhere.

The opening into the peritoneum was closed by a running catgut suture and normal saline solution was left in the peritoneal cavity; the abdominal incision was closed by a triple suture of catgut, linen and silk worm gut. Recovery was uneventful.

To the naked eye the larger tumour resembled a mass of light brownish jelly and was of a jelly-like consistence. A considerable amount of rather glairy fluid oozed slowly from it; it weighed $3\frac{1}{2}$ kilogrammes. The smaller tumour was of a wholly different character, firm and fibroid in appearance, yellowish in colour and weighed 475 grammes, and in parts there were definite hard calcareous areas.

The weight of the larger tumour, if we may so express it, was disappointing; the size was such that no glass vessel in the laboratory could contain it, and when placed in an enamel tin bucket it more than half filled it, and even here, although it was placed in abundant formalin it became distorted by pressure against the sides so that it is now impossible to give the original dimensions. After placing it thus in formalin it hardened with difficulty. Upon attempted dissection, the tissue came away in successive irregular layers, coat by coat, here and there, however, could be seen paler, more opaque, more fatty-looking foci.

Upon microscopical examination the tissue was in the main myxomatous, but everywhere throughout the section could be seen small or larger clusters of fat wells tending to be separated from each other by the great mucoid infiltration. Briefly, the appearance given was that of a tumour primarily lipomatous which had undergone development or reversion into mucoid tissue.

It might be well argued that the main mass of the tissue being mucoid, this tumour should be described as a myxoma; I am led to classify it with the lipomata because of arrangement of the fat cells, that arrangement giving us the impression that these are the older elements in the growth. We seem to be dealing with a lipoma which in the course of development has reverted to a more embryonic type of tissue; and the term "Lipoma myxomatodes" adequately expresses this condition.

The smaller tumour consisted of two lobules of about equal volume, the one firm and globular the other more gelatinous and lenticular, lying over it and above. Of these the latter was an almost pure my-

xoma ; large fat cells were present in scanty numbers in its peripheral portion ; only immediately beneath the thin capsule were they clustered together. The firmer rounded mass was in the main fibrous with some mucoid change—a soft fibroma or myxo-fibroma. The centre had undergone degeneration and necrosis, resulting in the production of an irregular cavity filled with clear fluid. Upon microscopic examination, abundant islets of hyaline cartilage were found scattered throughout the tissue with rarer areas in which the cartilaginous matrix had become impregnated with calcareous salts and osteoid (as distinguished from osseous). No fat cells were recognizable. We were thus dealing with an osteoid chondro-myxo-fibroma.

From a histological point of view this case is peculiarly interesting as an example of the metaplasia of connective tissue. Previous cases have shown that in these large tumours we may have practically every form of tissue, from fibrous connective through pure lipoma, to lipoma complicated by mucinous, cartilaginous and even bony development on the one hand, and on the other to embryonic tissue—to sarcomatous development.

Here the larger tumour would seem to have originated as a fatty tumour, which has assumed a myxomatous or mucinous change, while the other tumour, developed apparently from the same tissue, has remained more fibroid.

It may be added that while the majority of these cases on record show one large mass, a few in which the growths have been multiple and distinct, are on record:—Dreschfeld quotes a case of lobules on the two sides *mata* containing osseous nodules in which the lobules on the two sides were of independent origin. Spencer Wells' case would also seem to have been made up of large, more or less, separate nodules. In Broca's case there was both a lipoma, weighing about 15 kilos, and in connection with this a fibro-lipomatous nodule, and in Roux's first case, while the note is very brief and imperfect, the lipomatous was stated to be growing in the right iliac fossa in association with a fibroma. Belkowsky's case in its characters most nearly approximates to the one here recorded. In it there was one growth in the right iliac fossa which was of fibromatous nature, while a large lipoma had developed apparently in the meso-colon of the sigmoid flexure and was extending upwards along the line of the left ureter.

Where tumours become so large it is difficult to say with precision the point of origin. The probability here is that both tumours originated within the meso-colon of the lower end of the descending colon. In the paper by one of us, already referred to, attention was called to the fact that these growths might develop in association with the kidney fat. The whole history and appearance of the tumours in this case is against

that origin. It is true that the left kidney was closely pressed upon by the lipoma, but it was not distorted nor firmly adherent, and the fact that the lower and smaller of the two tumour masses was so distinctly associated with the meso-colon lends a distinct support to the view that both had this origin.

It has to be kept in mind that tumours of this order may originate at practically any point beneath the peritoneum. While writing the notes upon this case there were received at the pathological laboratory, portions of a large tumour developing in the anterior abdominal wall. For these we were indebted to W. Jameson, of Rochester, N.Y. The tumour was so firmly adherent to the parietes that it became necessary to remove no small portion of the musculature along with the mass. But upon examination of sections made through the muscle and the tumour, the former is seen to be merely adherent and not infiltrated, and the tumour itself is a well defined myxo-fibroma, curiously like the myxo-fibromatous nodule above described, though without cartilaginous areas. From W. Jameson's description of the relationships found at operation, as again from a study of sections from different portions, the growth clearly originated in the subperitoneal tissue of the abdominal parietes.

Lastly, as to the duration of the growth in these cases. In general these tumours are peculiarly slow-growing; they have been noted frequently for periods extending over from two to seven years or even longer. The absence of systemic disturbance and the soft yielding nature of the tumours renders it possible for them to be present for long without being noticed. In a case such as this where the development has occurred during or after pregnancy, the enlargement of the abdomen might easily be attributed to other causes. Indeed, in this case the patient came to the hospital, not because of the tumour, but because of the falling of the womb. That falling might, it is true, be due to the rupture of the perineum, but on the whole we may attribute it and the bearing-down pains to the presence of the growths. It is quite probable, therefore, taking everything into consideration, that the growths in this case were of more than a year's development and possibly, that the increased menstrual flow with bearing-down pains noted a year previous to the last confinement, were associated with the early stages of the growth. Thus it is quite possible that the duration of growth exceeds two years.

REPORT ON THE CASES OF TYPHOID FEVER ADMITTED INTO THE ROYAL VICTORIA HOSPITAL DURING THE YEAR 1899.

BY

B. D. GILLIES, M.D., Senior Resident Physician.

During the year 1899, there were treated in the wards of this Hospital ninety-eight cases of typhoid fever, sixty-five males and thirty-three females. Of these cases eighty-six were treated to a conclusion; of the remaining twelve cases several were cured, the others are convalescent. They are not included in the present report.

The mortality was higher this year than any other since the Hospital opened, there being seven deaths, or 8.16%. Death resulted in three cases from hæmorrhage, one case from hæmorrhage and perforation, one case from perforation, and in two cases from profound intoxication. On an average, the patients were admitted on the seventh day of the disease.

The following data are the points of interest:—

Age—

The average age of all the patients was twenty-three years, the youngest three and a half years, the oldest fifty-eight.

Arranged in decades, they are as follows:—

Under 10 years	4 cases.
Between 10 and 20	21 “
“ 20 and 30	40 “
“ 30 and 40	16 “
“ 40 and 50	4 “
Over 50	1 case.

Season—

The largest number of cases were admitted during the month of August, the smallest during December.

52.3 per cent. of the cases developed duly July, August and September.

18.4 per cent. during October, November and December.

18.6 per cent. during April, May and June.

11.7 per cent. during January, February and March.

Duration of Cases—

The average number of days in the Hospital was 39.5.

The average duration of fever was 24.6 days.

The longest period of fever was 58 days.

The shortest period of fever was 8 days.

Infection—

In one case a definite proof of infection from milk was obtained. Five cases were admitted from one family. Defective sewage was known to be present in the house.

In four other cases two or more members of the family were also ill with typhoid fever.

Symptoms—

ONSET AND COURSE :

In 95.4 per cent. of the cases the onset was gradual, the most frequent symptoms being: General malaise headache frontal or occipital, anorexia, pain in back and lower extremities, and chilliness. General malaise and frontal headache, with anorexia, were by far the most frequent.

In two cases pain in the abdomen was severe, localised and of sudden onset, simulating appendicitis.

Chills occurred at time of onset or during first week of the disease in 17.4 per cent. of the cases.

Diarrhœa was present at the onset in 20.9 per cent., and persisted throughout the course in 8 per cent. Enemata were given in all cases of constipation.

Epistaxis occurred at onset in 18.6 per cent.

Vomiting was present at onset in 3.4 per cent. of the cases. In one case it was persistent during the course of the disease, resisting treatment for some days.

Delirium was present at time of entry into hospital or during course of disease in 18.6 per cent. of the cases. In nearly every case it was of a low, muttering character.

ERUPTION :

An eruption was present in 72 per cent. of the cases. In one case it was petechial in character, while in the remaining cases it was of the nature of "rose spots."

The earliest appearance of the rash was on the 4th day of the disease.

The latest appearance of the rash was on the 10th day of the disease.

In one case the rash appeared only during the relapse.

The shortest duration of the rash was three days.

The longest duration of the rash was twenty-seven days.

The average duration of the rash was eleven days.

SPLEEN :

The spleen was palpable in 67.4 per cent. of the cases.

In one case it was palpable on the first day of the disease.

In another case it was palpable till the fourth day of the relapse, on the twenty-fifth day of the disease.

On the average the spleen remained palpable for twelve days.

The spleen was palpable for only three days in one case, while in another it could be palpated for thirty-two days.

RELAPSE :

A definite relapse occurred in eleven cases, *i.e.*, 12.7 per cent.

The longest duration of the relapse was twenty-nine days.

The shortest duration of the relapse was eight days.

The average duration of the relapse was eighteen days.

In three cases the relapse was more severe than the original attack.

In one case temperature had been normal for seventeen days when relapse set in, while in another temperature was normal for only twenty-four hours. One case was readmitted to the hospital for typhoid fever after having recovered from an attack four weeks previously.

FEVER :

The highest temperature recorded in any of the cases was $106 \frac{2}{5}^{\circ}$.

In one case the maximum temperature was $100 \frac{2}{5}^{\circ}$.

The average maximum temperature in all the cases was $103 \frac{2}{5}^{\circ}$.

The temperature reached 104° or over in 48.8 per cent. of the cases.

Complications—

DIGESTIVE SYSTEM :

Double parotitis developed in one case on the seventeenth day of the disease.

Cholecystitis developed in three cases.

Suppurative cholecystitis, with gangrenous ulceration of the gall-bladder and cholelithiasis, was present in one case.

Meteorism was marked in 25 per cent. of the cases.

Perforation of the bowel occurred in two cases, in one on the tenth day and in the other on the thirteenth day of the disease.

Intestinal hæmorrhage occurred in nine cases. In three cases it was the cause of death; in one case it preceded perforation; in the remaining cases recovery ensued.

CIRCULATORY SYSTEM :

Systolic murmurs developed during course of disease in five cases.

Femoral phlebitis occurred in two cases and brachial phlebitis in one case.

RESPIRATORY SYSTEM :

Acute bronchitis was present at onset in 14.9 per cent. of the cases.

Broncho-pneumonia developed in one case.

Pulmonary œdema was present in one case.

In two cases pleurisy with effusion developed.
Tuberculosis was present in one case.

OTHER SYSTEMS :

Periostitis developed during the attack in one case, and in the early stage of convalescence in a second case.

Abscesses developed during convalescence in one case.

Myositis of triceps and deltoid muscles developed on seventy-second day of the disease.

Suppurative otitis media was present in three cases.

Staphylococci were present in pus in one case.

Acute nephritis occurred in four cases. In all cases it developed during the active stage of the disease.

WIDAL TEST :

This test has been employed in all the cases, and in only four cases was the reaction negative throughout the course of the disease. Of these, three cases were regarded as abortive typhoid. The temperature remained elevated in the most prolonged case for ten days. No rose spots were present. The reaction appeared in one case as early as the fourth day of the disease. In one case it was not positive till the eighteenth day. It was present on the average on the eighth day. The reaction has been tried in six cases at date of discharge from the hospital, and in every case has been positive. This is receiving further investigation.

Synopsis of the Fatal Cases.

CASE I.—H. T. (Case No. 3645.) Male, *Æt.* 32, commercial traveller, Admitted Jan. 10th, 1899, on the eighth day of the disease, complaining of headache, general malaise, anorexia and insomnia, which gradually and progressively increased in severity. No delirium. On admission, he was a well-nourished man; mental state good; pulse 96; good volume and fair tension; abdomen somewhat distended; rose spots present: Widal reaction positive.

SUBSEQUENT EVENTS—On the ninth day the patient's condition was satisfactory except that the distension of the abdomen persisted. The following morning patient suddenly had a hæmorrhage from the bowel, not large in amount; condition fair. Through the day the hæmorrhage recurred, and towards evening patient became weaker; temperature became subnormal; pulse 100 to 120. Abdominal distension increased. On the eleventh day of the disease there was no recurrence of the hæmorrhage, but patient complained of severe pain in the epigastrium; distension persisted to the same degree as on previous day; pulse weaker, 88 to 112; temperature remained below 100° throughout the day. The patient's condition was much worse the following day; distension ex-

treine; pulse rapid and weak, 120 to 150; face dusky; occasional sharp pain in the abdomen. The mental condition was good. Towards night patient had a slight intestinal hæmorrhage; patient became restless; extremities were cold; pulse imperceptible. Death ensued on the twelfth day of the disease.

Cause of death—Perforation with hæmorrhage.

CASE II.—J. R. (Case No. 3647.) Female, *Æt.* 18, servant. Admitted Jan. 10th, 1899, on the eighth day of the disease, complaining of headache, anorexia, insomnia and diarrhœa. The patient had been delirious since the fourth day of the disease. On admission the patient was delirious, but did not attempt to get out of bed. Pulse rapid and of low tension, 100 to 120; abdomen distended; rose spots present, Widal reaction positive; diarrhœa was present.

SUBSEQUENT EVENTS—The patient's condition improved till the morning of the eleventh day of the disease, when she had an intestinal hæmorrhage. Temperature fell rapidly and became subnormal; pulse 88 to 120. The condition of patient improved slightly during the day. Vomiting of bile-stained mucus and curdled milk occurred several times in the next twelve hours. The hæmorrhage recurred on the morning of the twelfth day, but the general condition had improved. Another hæmorrhage occurred a few hours later, followed almost immediately by a chill, after which temperature rose to 104°; pulse 122. No jaundice. No pain in abdomen. The hæmorrhage again set in towards morning, and blood oozed from the rectum throughout the night. Pulse rate 160. On the thirteenth day the patient vomited bile-stained fluid on several occasions. The oozing from the rectum ceased this morning, but a few hours later the patient had a profuse hæmorrhage. Pulse imperceptible. Extremities and lips cyanosed. Patient died on the thirteenth day of the disease.

Cause of death—Intestinal hæmorrhage.

Autopsy showed presence of two ulcers in ileum, numerous ulcers in caecum, and a few in colon. The large intestine was filled with blood.

CASE III.—E. M. (Case No. 3833.) Male, *Æt.* 34, farmer. Admitted March 20th, 1899, on the sixth day of the disease, complaining of frontal headache, malaise, anorexia, and diarrhœa. On admission he was a well-nourished man; rather dull and apathetic; tongue dry and brown; slight abdominal distension; no rose spots; Widal reaction negative. Temperature 104°. Pulse 100.

SUBSEQUENT EVENTS—The following day rose spots appeared over the abdomen, but the Widal reaction was not positive till the eighth day. Diarrhœa slight, abdominal distension was not marked. On the tenth day of the disease patient had a slight intestinal hæmorrhage. Pulse and temperature were not affected. Condition was satisfactory till the

thirteenth day of the disease at 5 p.m., when the patient began to complain of severe abdominal pain, situated chiefly in the right side of the abdomen. Half an hour later patient had a large, liquid stool, slightly blood-tinged. The abdominal pain was relieved and the distension to a large degree disappeared. Pulse at 6 p.m., 130; temperature had dropped from $102\frac{4}{5}^{\circ}$ to $100\frac{4}{5}^{\circ}$. Three hours later, pulse 136; temperature $103\frac{2}{5}^{\circ}$. At 1 a.m. on the fourteenth day patient vomited. No tenderness of the abdomen present, no distension, and no rigidity. The vomiting persisted till morning. Patient began to hiccough about 3 a.m. Pulse 120 to 124; temperature 100° at 6 a.m. At 8 a.m. there was slight pain in the abdomen, which was somewhat distended. Resistance was felt on the left side of the abdomen, and slight rigidity over the lower part of the abdomen on the right side. Liver dullness $1\frac{1}{2}$ " to 2". No collapse. Mental state fair. At 8 a.m. temperature 99; pulse 104. Slight lividity of lips. Operation was decided upon and performed at 10 a.m. Free turbid fluid was present in peritoneum, not localised. The visceral and parietal peritoneum were injected. Three inches from the cæcum a pin-hole perforation was found. No adhesions about the opening. The perforation was closed by three through and through sutures, and these with bowel were inverted and closed in with three rows of Lembert sutures. The abdomen was irrigated with saline solution and drainage provided for. Vomiting persisted after operation. Pulse became weak and rapid, 136 to 146. The patient died ten hours after operation. Cultures from peritoneal fluid showed the presence of bacillus coli and staphylococcus pyogenes aureus.

Cause of death—Perforation.

CASE IV.—J. D. (Case No. 4064.) Male, $\text{Æt. } 24$, laborer. Admitted July 17th, 1899, on the first day of the disease, complaining of headache, loss of appetite, pains in back and legs. On admission a fairly nourished man; lips cyanosed; mental state dull and listless; abdomen somewhat distended; no tenderness; no rose spots; pulse irregular and somewhat accelerated, 88. A rough presystolic thrill palpable at apex, and on auscultation a very harsh presystolic murmur followed by a blowing systolic murmur were audible at apex.

SUBSEQUENT EVENTS—The course of the disease was uneventful during the first two weeks. Widal reaction was positive on the ninth day and rose spots appeared on the tenth. No delirium. No distension of the abdomen. On the night of the fifteenth day of the disease the patient had a small intestinal hæmorrhage. Temperature fell rapidly and became subnormal; pulse remained of fair volume and tension and did not increase in frequency, 84. On the sixteenth day the patient's condition was fair. There was no recurrence of the hæmorrhage. Towards evening the patient became restless, and perspired freely. Tem-

perature 102; pulse 100. At 3 a.m. on the seventeenth day patient had a profuse hæmorrhage. Pulse became weak and rapid, 132. Four hours later another severe hæmorrhage occurred. Patient became collapsed. Hæmorrhage recurred at intervals throughout the night, and on the eighteenth day patient's pulse was very weak, 100 to 126; respirations sighing; extremities cold; temperature subnormal. No hæmorrhage occurred throughout the day. On the nineteenth day hæmorrhage recurred on two occasions. The pulse became imperceptible, and patient died.

Cause of death—Intestinal hæmorrhage.

Autopsy showed extensive ulceration in the ileum and cæcum. Ileum and colon contained large amount of blood. Spleen and gall-bladder gave a pure culture of the typhoid bacillus.

CASE V.—J. B. S. (Case No. 4196.) Female, *Æt.* 31. Admitted Aug. 7th, 1899, on the twelfth day of the disease, complaining of fever, diarrhœa, pain in the abdomen, and chills. Patient had left Liverpool on the first day of the disease, and arrived in Montreal on the twelfth day. On admission, patient fairly nourished; dull and listless; no delirium; marked cyanosis of lips and tips of fingers; pulse 130; tongue dry and brown; rose spots absent; abdomen was distended and tender throughout; no rigidity; Widal reaction was positive.

SUBSEQUENT EVENTS—During the four succeeding days after entry pulse was rapid and weak, 120 to 148. Temperature seldom reached 101°. Diarrhœa persisted and meteorism obstinate; mental condition poor. On the seventeenth and eighteenth days of the disease the temperature remained between 102° and 103°, resisting sponging; pulse 130 to 160. The patient had a severe chill on the evening of the eighteenth day; temperature 105 2/5°; pulse very weak; stools passed involuntarily; patient became semi-stuporose. Temperature reached 106 2/5° on the morning of the nineteenth day, but gradually declined throughout the day; pulse rapid and slightly irregular, 120 to 140. On the twentieth and twenty-first days of the disease the temperature ranged between 99° and 102°; pulse 120 to 140. Diarrhœa persisted and distension was marked; no jaundice; liver was not palpable. On the morning of the twenty-second day the patient had another severe rigor; temperature rose to 104 3/5°; pulse 144; four hours later temperature 105 2/5°; pulse 160. The patient became semi-stuporose, the temperature steadily declined and in twelve hours became normal and remained so till time of death, which took place on the twenty-third day of the disease. The respirations had increased in frequency on the twenty-third day, and on examination a small area of dulness was found over base of right lung posteriorly. Blowing breathing was present over dull area.

Cause of death—Toxæmia.

CASE VI.—M. O'G. (Case No. 4488.) Female, *Æt.* 21, housemaid. Admitted Nov. 27th, 1899, on the seventh day of the disease, complaining of headache, general malaise, pain in back, and feverishness. On admission delirium was present; pulse 112; tongue moist, coated with a brownish fur; abdomen distended; rose spots present; Widal reaction not positive.

SUBSEQUENT EVENTS—Delirium became more pronounced, and temperature ranged between 100° and 105° during eighth, ninth and tenth days; pulse somewhat irregular, rate 96 to 126; Widal positive on tenth day; abdominal distension present. On eleventh and twelfth days the temperature was more elevated; pulse more rapid, 110 to 136, and delirium almost constant. The following day the condition was more severe; the temperature reached 105 2/5°; the pulse was rapid and irregular, 120 to 140. Pulmonary œdema complicated the condition and patient died.

Cause of death—Toxæmia.

Autopsy showed swelling of Peyer's patches from three feet above ileocæcal valve. Ulceration in no case had advanced to a marked degree. Spleen greatly swollen, soft and diffuent. Cultures from spleen and mesenteric glands showed typhoid bacillus.

CASE VII.—W. D. (Case No. 4550.) Male, *Æt.* 42, blacksmith. Admitted Dec. 22nd, 1899. The day of the disease could not be definitely determined as patient was in a stuporose condition from the time of entry into the hospital. On admission, mental condition poor; no delirium; tongue dry and brown; abdomen distended; rose spots present; Widal reaction was doubtful.

SUBSEQUENT EVENTS—Patient remained in a dull stuporose condition till towards the evening of the day of admission, when he became somewhat restless and slept poorly during the night. Twenty-seven hours after entry patient had a profuse intestinal hæmorrhage. Temperature dropped rapidly and became subnormal; pulse rate increased to 140. The hæmorrhage recurred frequently during the day. The extremities became cold; pulse towards evening became very thready. Throughout the night and the following day hæmorrhage persisted, and the patient died on the evening of the third day after admission, within thirty hours of the time of appearance of the hæmorrhage.

Cause of death—Intestinal hæmorrhage.

Autopsy showed extensive and advanced ulceration of Peyer's patches in the lower part of the ileum, also of the solitary follicles in the cæcum and ascending colon. The seat of the hæmorrhage was not recognized. A large amount of blood was present in the last four feet of the ileum. The spleen and mesenteric glands were swollen and pulpy.

Cholelithiasis with Cholecystitis Complicating Typhoid Fever.—Cholecystotomy.—Recovery.

C. H., *Æt.* 28, student. Admitted October 11th, 1899, on the second day of the disease, complaining of general malaise, pain in back, and feverishness.

FAMILY HISTORY.—Negative.

PAST HISTORY.—Patient had measles and whooping cough when a child; pneumonia when fifteen years of age. From two years of age till twelve he suffered from "weakness of back," preventing him from stooping to pick up objects. Past history otherwise negative.

PRESENT ILLNESS.—One week ago patient began to feel ill. He suffered from pains all over his body, especially in the back of the head and neck. Three days later he began to feel feverish, and appetite became poor. There was no vomiting, but constipation obstinate. No chills nor chilliness. No delirium.

On admission, temperature was 99.6°, pulse 84. The patient was a poorly nourished man; expression dull, and mental condition apathetic. Chest long and narrow, expansion equal. No adventitious sounds audible in the chest. The abdomen somewhat retracted; no rose spots; slight tenderness in umbilical region. Liver and spleen not palpable.

On the eighth, ninth and tenth days of the disease patient's condition remained much the same as above noted. The temperature varied from 99.8° to 102.2°; pulse 64 to 96. There was some retention of urine during this time. Rose spots appeared on the tenth day. Constipation was relieved by enemata. On the twelfth day the Widal reaction became positive, and the following day the spleen was palpable. Temperature 99.2° to 102.2°; pulse 66 to 84. During the next three days the patient felt fairly comfortable. Temperature remained the same, and pulse not accelerated. No abdominal distension was present, no pain nor tenderness. On the seventeenth day of the disease, about 5.30 p.m., the patient began to complain of abdominal pain. This was at first situated in the middle line about two inches below the ensiform cartilage. Very soon, however, the pain was referred to the right hypochondrium in the nipple line, and had increased in severity. It persisted only for a short time, and two hours later the patient felt comfortable. The pulse and temperature remained unchanged. Locally there was slight tenderness, no mass and no rigidity. At 9 p.m. the patient was nauseated and vomited. The vomitus, about \bar{v} iv. consisted of curdled milk streaked with blood. At 9.40 p.m. a severe rigor set in lasting fifteen minutes; temperature rose from 100.4° to 104°; pulse 100. At 10.15 p.m., temperature 105°; pulse 100; respiration 24. The chill was followed by profuse perspiration. Locally the tenderness had increased, and slight rigidity could be detected in the upper part of the abdomen on the right side in the

nipple line, beginning just below costal margin and extending downwards a distance of 3" by 2" in width. At 11.30 p.m., temperature 100 4½°; pulse 90. No mass was palpable; rigidity well marked and percussion note slightly higher pitched over a small area extending 1½" downwards from costal margin in mammary line. Half an hour later the patient had a second rigor; temperature rose to 104.4°; pulse 102. From this time till morning the pain diminished; pulse and temperature declined. On the eighteenth day patient's condition was somewhat improved; tenderness less marked, and rigidity only slight; no tumor palpable; no dulness over point of greatest tenderness. Urine contains a trace of bile. The following day the conjunctiva and skin icteroid; pain absent; tenderness slight; urine deeply bile-stained. On the twentieth day the general condition improved; pulse 76 to 84; temperature 99.4° to 101.4°. Jaundice had deepened; no pain or tenderness. Two days later the jaundice was much the same. Slight tenderness was present about 1" to the right of the umbilicus; no pain. On the next day, the twenty-third day of the disease, the tenderness was still present in the same region on deep palpation; jaundice persisted; bile was present in the urine; stools clay colored. The following day condition much the same; temperature 102.2°; pulse 88; tenderness less marked; jaundice less intense. On the twenty-sixth day the jaundice was much less marked, and tenderness had entirely disappeared from the abdomen. The temperature was somewhat more elevated this day than at any time since the seventeenth day—103.8°. On the night of the twenty-seventh day the patient had a profuse perspiration. On the twenty-ninth day the pain recurred in right hypochondrium; patient complained of chilly sensations, but did not experience a definite rigor; urine contained bile; jaundice was slightly less marked. The following day pain and tenderness were still present; temperature intermittent, 97.4° to 101.4°; pulse 72 to 90. Two days later the pain became very acute, and tenderness had increased; jaundice present; temperature 103.4°; pulse 104. The following day the patient vomited; tenderness was very pronounced. Examination of blood shewed presence of slight leucocytosis, 10,000 white corpuscles per c.mm. Operation was decided upon, and was performed on the thirty-fifth day.

OPERATION.—A longitudinal incision was made parallel to the right rectus beginning at level of ninth costal cartilage and extending downwards 4". The liver was visible at the costal margin covered with inflammatory lymph. The gall-bladder was somewhat enlarged and firmly adherent to under-surface of liver. The adhesions were separated and the gall-bladder drawn into the wound. At the neck of the gall-bladder a stone was felt. On incision into the gall-bladder the inner surface of its base was found dark and gangrenous for about 1½" in circumference,

and on the roof and floor internally were seen two small areas about one cm. in diameter, where the walls had nearly ulcerated through. Pus exuded from these gangrenous edges. The gall-bladder was now sutured circularly to the parietal peritoneum with silk sutures. One stone the size of an almond was removed and also two irregular smaller pieces found at the junction of the cystic duct with the gall-bladder. One additional silk suture was put into the lower edge of the gall-bladder, as a support. Three pieces of iodoform gauze were packed around the gall-bladder, and a rubber drain was inserted into the bladder itself. One and a half inches of the gall-bladder remained above the edge of the peritoneum. Silkworm gut sutures were introduced into the lower $3\frac{1}{2}$ " of the wound. The patient left the operating room in good condition. The next day the patient felt comfortable, and also the day following. The wound discharged pure bile, the stools were of slightly brownish color, and no bile in the urine. On the fifth day after operation the wound was dressed; the three pieces of iodoform gauze were removed. The gall-bladder looked healthy. No pus was present. The rubber drain was still left in, and dressing was the same as at time of operation. Two days later the wound was again dressed. Discharge of bile less free. Gall-bladder was healthy looking, and one piece of iodoform gauze was left in below it. One week later the sutures were removed and iodoform gauze left out. The patient's condition was improving steadily, there having been no elevation of temperature since the day preceding first dressing. Stools were of normal color, and bile absent from urine. The patient improved steadily; the amount of bile discharged from the incision diminished. One month and two days from the time of operation the fistula was closed, and patient made an uninterrupted recovery.

TABLE OF CASES OF TYPHOID FEVER

ADMITTED INTO THE ROYAL VICTORIA HOSPITAL DURING THE SIX YEARS ENDING
DECEMBER 31st, 1899.

YEAR.	NUMBER OF CASES.	NUMBER OF DEATHS.	PERCENTAGE OF MORTALITY.
1894.....	84	3	3.5
1895.....	84	4	4.7
1896.....	72	0	0.0
1897.....	75	7	9.3
1898.....	93	4	4.3
1899.....	86	7	8.3
Totals.....	494	25	5.00

CAUSES OF DEATH IN 25 CASES.

	1894.	1895.	1896.	1897.	1898.	1899.	Percentage Mortality.
Perforation		3		2	1	2	1.6
Intoxication	1			2	2	2	1.4
Hæmorrhage	1			1	1	3	1.2
Septico-Pyæmia		1					.2
Suppurative Cholecystitis				1			.2
Broncho-Pneumonia.....	1						.2
Abdominal Distension.....				1			.2

RETROSPECT OF CURRENT LITERATURE.

Medicine.

UNDER THE CHARGE OF JAMES STEWART.

Simple or Round Ulcer of the Duodenum.

FRANCIS P. KINNICUTT, M.D.—“Simple or Round Ulcer of the Duodenum.”—*Jacobi Festschrift*.

Kinnicut reports five cases of this somewhat rare disease, and gives an interesting resumé of existing knowledge of the subject. The frequency of the disease is difficult to estimate during life owing to uncertainty of diagnosis, but from large numbers of post-mortem records, it would seem that .4% of persons dying from all causes present cicatrization or open ulceration of the duodenum. The pathogeny and pathology of duodenal ulcer correspond in the main with those of gastric ulcer. The digestive action of the gastric juice is universally accepted as the essential feature in its production. Almost without exception it lies between the duodenal orifice and the papilla of the bile duct, *i.e.*, before the acid juice becomes neutralised by the alkaline secretion of the liver. A hyperacid gastric juice has not been shown to be present sufficiently constantly to enable any statement to be made in regard to its influence, and in a few instances a subacidity has been demonstrated. Compared with gastric ulcer, the duodenal ulcer is found frequently in the new born, and in males rather than females in the proportion of 3.9 to 1, a ratio the reverse of that in gastric ulcer, in which the cases in females preponderate in the ratio of three to one.

The occurrence of severe hæmorrhage, *melæna neonatorum*, is a frequent symptom in the new born. Landau believes the condition to be due to thrombosis of the umbilical vein, with embolism and necrosis of the mucous membrane. Boas ascribes the frequency of the disease in men to the abuse of alcohol and tobacco, basing his belief on the experiments of von Mering and Moritz on dogs. These observers have shown that water is rapidly expelled from the stomach to the duodenum, and although alcohol is directly absorbed from the stomach, yet much of it passes directly on, whilst the absence of chyme allows of a direct irritat-

ing action of this agent. Kinnicutt believes alcohol to be a distinct predisposing cause of duodenal ulcer, and severe symptoms may be precipitated by its abuse.

The presence of duodenal ulcer in burns is probably to be ascribed to sepsis with small extravasations of blood in the duodenal mucous membrane, such as are frequently seen in general sepsis. The subsequent digestive action of the juice completes the process. In this connection it is interesting to note that Shaw and Perry found duodenal ulcer almost as frequently with general sepsis as with burns, and again, duodenal ulcer of late years has become much rarer, corresponding to the improved treatment of wounds and the diminution of sepsis.

Among other diseases with which duodenal ulcer has been found associated, and variously regarded as predisposing causes, are nephritis, tuberculosis, cardiac disease, erysipelas, trichonosis, pemphigus and frost-bite. In renal disease it seems probable that associated vascular change is the most rational explanation of the combination.

The complications of duodenal ulcer are involvement of the bile ducts in the cicatricial tissue of healed or healing ulcers, a result noted by Collin in three of two hundred and sixty cases. Dilatation of the stomach may ensue from contraction of the pylorus. The gravest complication is perforation, and this accident occurs probably twice as often as in gastric ulcer. In 69 of Collin's cases the perforation was on the anterior wall, and only in thirty on the posterior.

The differentiation of duodenal from gastric ulcer is believed to be impossible in the majority of instances. The principal symptoms are pain, vomiting and hæmorrhage. Although the first prominent symptoms are often those of perforation, yet a careful study often shows the preceding presence of well-marked symptoms. Some writers state that the pain which is present two or three hours after food ceases with the further ingestion of food, the explanation offered being that the pylorus closes from the irritation of food in the stomach. In Kinnicutt's cases pain was a more or less constant feature, and was uninfluenced by the further ingestion of food; in this latter respect there is a marked contrast with gastric ulcer. A tender point to the right of the umbilicus between the umbilicus and the costal arch is a sign of some value when present.

Examination of the gastric contents is of but little positive value, both hypochlorhydria and hyperchlorhydria having been found. Vomiting is not infrequent, and when not attributable to the reflex influence of pain, may be explained by an accompanying gastritis or by dilatation consecutive to gastric circitrisation. A study of the vomited matter may occasionally throw some light on the condition. Ewald in one

instance found the vomit to consist first of food, then bile, and lastly blood. Such a sequence must, however, be very unusual.

The form of hæmorrhage is of but slight differentiating value—it may appear as melæna, or hæmetemesis, or both.

By most writers the prognosis is regarded as unfavorable, the condition tending to deep ulceration or to contraction. Boas, however, claims that the prognosis is more favorable than in gastric ulcer if the danger of hæmorrhage be excepted.

The Oliver-Cardarelli Sign (Tracheal Tugging) in Two Cases of Mediastinal Tumor.

MAX AUERBACH.—“The Oliver-Cardarelli Sign (Tracheal Tugging) in Two Cases of Mediastinal Tumor.”—*Deut. Med. Woch.*, Feb. 22, 1900.

Auerbach reports from Fraenkel's clinic two interesting cases of well-marked tracheal tugging in mediastinal tumor. This sign, now well recognized as of great value in the diagnosis of aneurism, has hitherto not been definitely established as occurring in tumor. Fraenkel, however, pointed out (*Deut. Med. Woch.*, 1899) that the sign might occur in mediastinal tumor, and referred to a case in which it was present, although the conclusive evidence of a post-mortem examination was lacking. Fraenkel points out that a tumor to produce tracheal tugging must have a special site, either pressing the arch against the bronchus, or lying between the under part of the arch and the trachea, or, lastly, in such a position as to unite the convexity of the arch with the trachea.

Auerbach's first case was one of a primary carcinomatous growth in the stomach, with metastases in the lymph glands of the thorax and supraclavicular regions. During life there was a well-marked area of dullness over the sternum with dyspnoea and cyanosis on exertion, and cachexia was well marked. On drawing up the cricoid cartilage, a well-marked downward impulse was felt with each cardiac beat (Oliver's sign). On drawing the thyroid to the left of the median line, a distinct impulse from left to right was perceptible, but on pushing the cartilage to the right no impulse could be felt (Cardarelli's sign). The autopsy confirmed the diagnosis. The mediastinum was infiltrated by a nodular growth, and a small portion of it, three or four cm. thick, lay between the left bronchus and the aorta.

It is obvious that the small growth served to transmit the pulsation of the aorta to the trachea, and so produced the distinct tracheal tugging noted during life.

In the second case the diagnosis was not at all clear, and lay between a solid tumor and aneurism.

The patient, a male of 48, while in his usual health was suddenly

seized while in bed with cough and expectorated a small quantity of blood. Later attacks of painful dyspnoea lasting half an hour at a time came on, but there was no marked emaciation. Beneath the left clavicle there was a slight prominence with marked dulness extending from the mid-sternal line to the lateral wall of the chest, and reaching from the clavicle to the heart. Over the dull area the breathing was much enfeebled, and on deep inspiration a distinct tracheal stridor was heard. The sputum was mucous with single purulent and dark-red portions. There was distinct downward pulsation of the trachea.

In favour of a tumor of the lung extending to the mediastinum was the sudden onset with pain and hæmoptysis, but on the other hand there was no marked degree of cachexia. Against aneurism were the absence of any etiological factors such as syphilis, strain or alcoholism, and in addition there was no pulsation over the tumor.

The autopsy revealed a bronchial carcinoma of the lung with metastases in the bronchial lymph-glands. Between the bronchus and aorta was a packet of glands the size of a walnut, uniting the aorta with the bronchus, and so transmitting the pulsations of the one to the other.

In both instances the second of Fraenkel's suppositions was realised, viz., a growth between the bronchus and aorta, and in both instances the growth in this site was of small size, hardly greater than a walnut.

The significance of Oliver's sign is not materially weakened by these observations, as only in a trifling number of cases of solid tumor can the connection between the aorta and bronchus be so intimate as in the cases just quoted. The sign, however, cannot be looked upon as pathognomonic of aneurism, although the probabilities of a growth being aneurismal are much increased when this sign is present.

A New Method of Determining Clinically the Limits of the Lung.

M. E. WEISZ.—“A New Method of Determining Clinically the Limits of the Lung.”—*Deut. Med. Woch.*, March 1, 1900.

During examinations made to test the sensibility of the chest wall by Weber's compass, Weisz noticed that certain portions of the chest wall bulged distinctly on phonation, especially on using words containing the consonants *t* or *d*. The elevations thus formed in the intercostal spaces are particularly noticeable in front, in the second, third and fourth spaces, near the nipple and parasternal lines; posteriorly between the axillary and scapular lines; and lastly along the upper borders of the liver and spleen. The phenomenon ends precisely at the points where the upper limits of dulness of these organs begin.

These intercostal elevations or arches, which are obviously due to pulmonary expansion, only appear under the influence of energetic phonation. They are, in consequence, less marked in ascites, in compression of

the lung, in paralysis of the glottis or in intense dyspnoea. On the other hand, the writer has satisfied himself that the phenomenon can be seen over a pleuritic effusion; consequently, the line at which undulatory movements cease marks the level of contact of the liver and pleural effusion.

The phenomenon described may be observed in any position of the body, but the most favorable method of making it out is during dorsal decubitus. If the side or back is to be observed, the patient lies on his side or abdomen. Weisz believes that an application of his method may prove of service in determining accurately the line of demarcation of the lung and liver.

F. G. Finley.

Surgery.

UNDER THE CHARGE OF GEORGE E. ARMSTRONG.

The Modern Treatment of Angular Curvature.

HOFFA. "Die Moderne Behandlung der Spondylitis."—München, Seitz, und Schauer, 1900, 28s, 10 abbildungen. *Centralblatt f. Chirurgie*, April 28, 1900.

After giving the important symptoms of spondylitis, it is recommended that in the progressive stages of the disease, that in the majority of cases, the patient be kept in the horizontal or a reclining position. When the disease involves the cervical or upper dorsal vertebræ, a Phelps's bed or extension with a jury-mast should be applied, and the horizontal position maintained. As soon as there are clear indications that consolidation has begun, the upright position may be allowed, and the vertebræ supported by a removable plaster jacket or a corset made of cellulose, celluloid, wood, or other material. This should be worn for at least a year.

Great stress is laid upon the importance of an early diagnosis. Each symptom should be carefully studied and a differential diagnosis made between scoliosis, rheumatic spondylitis, and rickets. A faradic current is helpful in making an early diagnosis, pain being felt more acutely over the diseased spot.

Abscesses are treated by puncture and iodoform injection and only opened when very long persistent, when spontaneous rupture is imminent or when they threaten to destroy life as in the case of a large retropharyngeal abscess or when they cause high fever.

Paralysis should be treated by extension or forcible straightening. Calot's method may be considered.

Operative treatment should be reserved for those cases that have resisted all other methods, and the continuance of paralysis after a prolonged trial of extension and forcible straightening. In 70 cases of operation by different surgeons 50 per cent. died.

Anæsthesia from Cocaine introduced into the Sacrachmoid Space.

TAFFIER. "Anæsthésie Médullaire Chirurgicale par Injection Sous-Arachnoïdienne lombaire de Cocaïne; Technique et Résultats." *La Semaine Medicale*, 16 Mai, 1900.

We gave our readers a brief summary of this method of using cocaine in the issue for December, 1899; since then a number of surgeons have

given the method a trial. So far as published reports go, the subarachnoid injection of cocaine has given a satisfactory anaesthesia of the lower half of the body, and we have not seen any published reports of failures or untoward results following its use in this manner.

Taffier says that he has now operated 63 times on the lower extremities, perineum, abdomen, rectum, and genito-urinary organs, male and female. He claims to have obtained absolute analgesia with satisfactory recovery in each instance.

His technique is as follows:—He uses a Pravaz syringe, sterilized, and a platinum needle 9 centimetres long, with an external diameter of $\frac{11}{10}$ of a millimetre, and an internal diameter of $\frac{8}{10}$ of a millimetre. He finds this sufficiently strong not to bend or twist if it hits against one of the lamina before entering the spinal cord. The cocaine solution is sterilized by raising it to a temperature of 80° C. for three hours. This operation, repeated five or six times, insures sterilization of the solution without lessening its therapeutic power.

The patient may be seated with the arms thrown forwards. The back is thoroughly washed with warm water, soap, and a brush, and then with alcohol. A line drawn across the back from the highest point of the crest of the ilium, on the one side, to a similar point on the opposite side, will pass just across the upper border of the spine of the fifth lumbar vertebra. When this point is determined by the finger, the patient is instructed to bend forward and the needle is thrust directly into the lumbar canal between the fourth and fifth vertebræ. The nerves lie laterally and if the needle is kept directly in the middle line they will not be injured. A drop or two of cerebrospinal fluid should be allowed to escape. This demonstrates that the needle is in the subarachnoid space, and the fluid occupies the lumen of the needle doing away with the danger of air being forced into the spinal canal. The needle should be quickly withdrawn and the opening closed with sterilized collodion. Taffier uses a 2 per cent. solution, but injects very little cocaine only 0 gr. .015 milligr.—so little that one is inclined to wonder if the cocaine used has much to do with the result, or whether sterilized water or normal saline solution would not bring about the same effect. In from eight to ten minutes after the injection the patient complains of tingling and numbness, at first in the feet and then in the legs. The operation may now be begun. Sensibility to pain and heat is gradually lost while the sense of contact or touch persists. In about ten minutes after the injection is made, analgesia is complete; a leg may be amputated without the patient being conscious of any pain. The analgesia persists for an hour or an hour and a half.

Taffier does not advise this method of using cocaine in children, nor in hysterical adults. The use of cocaine in this way does not interfere

with the administration of ether if the subarachnoid injection for any reason fails to produce the desired effect.

Peritonitis from Perforating Duodenal Ulcer.

VINCI (Bruxelles). "Péritonite par perforation. Ulcère du duodénum." *Annales de la Société Belge de Chirurgie, Avril, 1900.*

The patient, aged 32, journalist, was admitted to the hospital on the 17th March, 1900. She complained of painful points over the left side of the abdomen which had been present four or five days. She was habitually constipated. Two days before admission to the hospital she had vomited twice, the vomit being composed of milk. The slightest motion increased the pain. The abdomen was distended, the liver pushed up, and respiration was superficial, forty-eight to the minute. Pulse 120. Temperature $101\frac{2}{3}^{\circ}$ F. A diagnosis of intestinal obstruction was made and a large enema ordered. This was followed by three liquid stools.

During the following two days the condition remained much the same; there was no vomiting. On the fourth day after admission her pulse was 112, temperature $99\frac{2}{3}^{\circ}$ F., and the abdomen distended. Patient passed three small stools. After consultation it was decided that the case was one of intestinal obstruction and it was transferred to the operating room. It was then decided to perform a right lumbar colotomy and to open the ascending colon.

When the peritoneum was opened a quantity of gas escaped and the lower abdomen became softer. It was then recognized that there was present an acute peritonitis and a median abdominal incision decided upon, the lumbar opening being reserved for the insertion of a drainage tube. When the abdomen was opened a large quantity of serous fluid escaped, and the intestines were observed covered with lymph, but no trace of faecal matter. The abdominal cavity was washed with normal saline solution and a second drainage tube inserted in the left lumbar region; a third inserted into Douglas' *cul-de-sac* through the vagina; a fourth drain was passed from within outwards to the right of the coccyx; a fifth drain inserted into the superior abdominal region through the abdominal wound. The patient died the same evening.

At the autopsy a large collection of serum and faecal matter was found occupying a space bounded above by the diaphragm and left lobe of the liver, and below and in front by the left half of the transverse colon and the anterior abdominal wall, and behind by the anterior wall of the stomach. Only a small quantity had escaped into the lower abdomen. On further examination a round perforated ulcer was found in the anterior wall of the duodenum, $1\frac{1}{2}$ centimetres from the pylorus.

The edges were clean and not injected. The mucosa in the neighborhood did not present any well defined alteration.

A very remarkable history! A very remarkable diagnosis! A very remarkable operation! Most thorough drainage!

Pathology and Treatment of Anal Fissure.

ROSENBACH. "Zur Pathogenese und Therapie der Sogenannten Fissura Ani." *Berliner Klinische Wochenschrift*, 12 Marz, 1900.

The author claims that clinical experience teaches that anal fissure occurs especially in people in whom there is some obstructive influence acting on the abdominal circulation, and in nervous people, or in those suffering from some chronic irritability of the sexual organs. There develops an abnormal excitability of the bladder and anal sphincters. This condition is aggravated by the carelessness in diet, obstinate constipation and particularly, by the passing of large, hard stools or foreign bodies. Thus there occurs what he calls a vicious circle. The irritation and motor innervation of the sphincters interfering with the normal functions of the rectum and bladder.

Patients suffering from anal fissure complain of difficult and painful stools, and at the same time, as a rule, constipation and dysuria. A careful examination of the parts will find an hypertrophied and strongly contracted sphincter obstructing the passage of fæces and interfering with the venous circulation. The examination of these cases always causes pain. The author thinks that the pathological condition present in these cases is similar to that of nervous cough, nervous belching and vomiting, and nervous dysphonia.

Rosenbach advises a somewhat novel treatment, viz., the introduction into the rectum, first of the surgeon's and later of the patient's finger. This is at first very painful and marked improvement is said to follow in a few days. The finger should be introduced five or six times daily and allowed to remain a few minutes each time, the finger being rotated and the sphincter massaged. Later, a rectal tube, gradually increasing in size, may be substituted for the finger.

Urethral coarctation should receive attention and regular action of the bowels secured by appropriate remedies.

There may be cases where this treatment could and should be attempted, but it seems highly probable, that in these days of safe anaesthesia and asepticism, most Anglo-Saxons will prefer the so-called operative treatment, to one so repulsive and painful.

G. E. A.

Pediatrics.

UNDER THE CHARGE OF A. D. BLACKADER.

Milk Protection.

ERNST WENDE, M.D.—“Report on the Cause and Prevention of Infant Mortality.”—*Pediatrics*, Vol. IX., Nos. 3, 4 and 5.

The above report, read before the American Public Health Association in November, 1899, deals with the supervision and protection that should be exercised by municipal and state authorities over the dairy interests and milk business. That the conclusions arrived at are sound is well shown by referring to the vital statistics of the city of Buffalo, where, under Dr. Wendé's supervision and by the enforcing of the regulations recommended in the report, a decided decrease occurred in the mortality ratio of those diseases which are frequently milk-borne. Thus in 1890 in a population of 260,000 there occurred 585 deaths from cholera infantum, scarlet fever, diphtheria and typhoid fever; while in 1898, though the population had increased to 370,000, only 450 deaths from these diseases are recorded. As chairman of the committee, Dr. Wendé sent a circular letter to the one hundred largest cities of the United States, asking “what supervision and protection are exercised by municipal and state authorities over the dairy interests and milk business in your city?” and received forty-nine replies. Following the headings of the report, the details are here given more or less in full as their importance seems to warrant. In some instances only the conclusions arrived at are presented.

Infantile Mortality.—Milk, both in the nursery and later years, constitutes a large proportion of the food of infants and children, and it is especially liable to become unclean, infected and dangerous. The mortality of children under five and especially of infants under a year gradually decreases as the quality of the milk improves.

Educating Mothers.—Wherever registration of births is enforced, it is possible to impart information to mothers when it is most needed. Thus, in Buffalo, it is the practice to mail a circular of instruction on the care of infants to every mother at the beginning of the summer months. As a result, while in 1890 out of a total of 5024 deaths in Buffalo, 2305 were under five years of age; in 1898, notwithstanding the great increase in population noted above, there were only 1570 deaths in children under five years of age out of a total of 4533. The decrease dated from the time the circulars were first distributed, cholera infantum alone showing a decrease of 100 per cent. The report

attributes part of the improvement to an ordinance prohibiting the sale of long-tubed nursing bottles, which has been in force since 1890.

Diseases Conveyed by Milk.—Among the milk-borne diseases are classed, tuberculosis, diphtheria, scarlet and typhoid fevers; and among those which milk is frequently the direct agent in producing, by the generation of toxic bacterial products, are acute diarrhoea, cholera infantum, tyrotoxicon poisoning; while inanition, malnutrition and marasmus result from unwholesome milk supply. The report adds to the list of those already described by various writers and which are referred to, an account of three outbreaks of typhoid fever and two of scarlet fever directly traced to the milk supply. In one of these, 57 children in 26 separate families, supplied by one milkman, developed scarlet fever in quick succession, and investigation proved the presence of two cases of the disease in the milkman's own household. The infection in this instance was further traced back to a dairy farm where a young man of 19, in the desquamation stage of the disease, did the milking, washed the cans, and transported the commodity for shipment to the unsuspecting milkman in the city.

The Tell-Tale Milk Register.—“This invention, which had its birth in the Department of Health of Buffalo, immediately furnishes a ready means for the detection of infection on milk dealer's routes. Appreciating its merits, it is posted daily, and thus the healthfulness of families supplied by each individual dealer is constantly watched. As soon as it appears that on the route of any milk dealer any infectious disease exists, an immediate investigation is made into every detail of his business, source of supply, and the conditions existing there, when, if justification asserts itself, or even a doubt, his route is suspended, until it can be made absolute that his is not the source of danger.” The institution of this register followed the occurrence of the outbreak of scarlet fever above referred to, and since then four other epidemics have been at once detected and promptly controlled.

Milk Legislation, and Jurisdiction of Local Authorities.—The necessity of laws giving the health authorities plenary powers in matters of municipal sanitation is strongly urged, and the inadequacy of existing laws in many states pointed out. And even where the local health boards have sufficient powers within their own municipalities, there is the difficulty of exercising supervision over the dairies from which the milk is received and which lie outside the city limits. The plan recommended is as follows:—“No person should be permitted to ship milk into any city without a milk importer's permit, which should only be issued after a careful inspection of the premises and cattle. . . . A written application should be filed with the Board of Health of the city giving a

detailed statement of the location and condition of the premises, barns, stables, etc., etc., and a sworn statement from a legally qualified veterinarian as to the condition of the herds. . . . If the question of authority is raised, it can speedily and effectively be disposed of by interdicting the milk at the city line or at the depot, thus preventing its sale within the confines of the city."

Dairies, Farms, and Cow-Sheds.—Systematic inspection of all dairies and cow-sheds by qualified inspectors is a compulsory part of the proper regulation of the milk supply. For this purpose it is usual to consider all places where milk is sold, either from shops or in distributing vehicles, as dairies, and all places where milk is produced are looked upon as dairy farms. A license is granted only to those whose premises and arrangements for storing milk are found to be in a proper sanitary condition, and it can be revoked at any time if the holder is found to be violating any of the rules drawn up for his guidance.

Tuberculin Test.—The committee, while recognizing that it is as yet unsettled whether milk from tuberculous cows is dangerous when the udders are not affected with the disease, believe it is wiser to refuse to allow the sale of milk from cows the subject of tuberculosis, whether the udders are affected or not. In Buffalo, all producers are obliged to furnish certificates from a properly qualified veterinary surgeon that their herds are free from tuberculosis, as evidenced by a physical examination and the tuberculin test.

City Delivery.—In large cities it is impossible for some dealers to deliver milk to the consumer before it is from 24 to 36 hours old. This adds greatly in the summer time to the danger of contamination, or of changes taking place which render it unfit for use. It is suggested by the Committee that in order to control in some measure the sale of over-aged milk, that, during the summer months, "it should be made mandatory that milk cans should be properly labelled at point of shipment, with date, verified by railroad station agents, and none permitted to be sold over 28 hours old, and then only when protected by refrigeration both in transit and storage."

Glass Jars and Bottles.—The question of delivery from cans or by bottles is an important one. While the system of delivery in glass bottles possesses many advantages, it is pointed out that as the bottles are usually taken into the sick room in cases where milk is the diet prescribed for invalids, the danger of contamination with the germs of disease is very considerable. Then, too, the bottles are so made that the process of sterilization by steam involves considerable loss by breakage; and it is thought unlikely that in view of this fact they are often raised to a sufficient temperature in the cleansing to destroy disease germs. It is also

a common thing to refill bottles on the wagons. In Buffalo, an ordinance prohibits the delivery of milk in bottles to placarded houses.

Skimmed and Separated Milk.—It is held that the sale of skimmed and separated milk should be permitted, as they possess some food value at low cost. Skimmed milk contains a certain percentage of cream, while separated milk is totally deprived of its fats. "Protection from substitution is obtained by only permitting its sale from a different and specially coloured or shaped can, in order that the purchaser may at a glance know the character of the contents."

The question of milk standards and methods of adulteration need not be noticed here, although they are fully considered in the report.

Permits and Licenses.—"The 'License System,' which includes inspection, scrutiny, detection and punishment, is the best yet devised for the purpose. It further simplifies scrutiny and localization from source to consumer, deters from fraud, and detects infection. The attitude towards the milk industry should be both State and Municipal control, operating in harmony under similar principles with an identical object in view, forming a system of protection from dairy to consumer. The State should exercise its control until the milk passes within municipal limits and authority, and should include every feature and detail in its aspects of protective sanitation."

G. G. C.

Reviews and Notices of Books.

SAUNDERS' MEDICAL HAND ATLASES. Atlas and Epitome of Operative Surgery, by DR. OTTO ZUCKERKANDL, Private-Dozent in the University of Vienna, Authorize Translation from the German. Edited by J. Chalmers DaCosta, M.D. W. B. Saunders, Philadelphia, 1899. Canadian Agents, J. A. Carveth and Co., Toronto.

There is a small book of less than 400 pages, but it will fill a long felt want. Inquiries are constantly being received from general practitioners and advanced students in medicine for a one volume work of moderate price on operative surgery. This book should admirably fill the demand. It contains 24 coloured plates and 217 illustrations in the text. The illustrations are good and helpful. The text is concise, yet the meaning is clear. There is a lot of information in a small space.

The author devotes a chapter to a description of the different forms of knives and saws required. Another section describes and illustrates the different methods of bringing about reunion of the tissues, including the various forms of suture of wounds, muscles, tendons, nerves, and bones, as well as the suture of the bladder and the intestine.

A very useful chapter is devoted to the ligature of vessels in continuity. The sections dealing with amputations are well illustrated and the descriptive text makes plain all the ordinary amputations, the relation of the important vessels and nerves to the line of incision, as well as the points to be attained and avoided.

The section devoted to the plastic surgery of the face and neck, including harelip operations, is very satisfactory. Abdominal work, including hernia, receives full attention; but strange to say no reference is made to the operation for the removal of the vermiform appendix.

In its general arrangement the work is regional. The artistic part is well done and the book, we predict, will fill a useful place in surgical literature.

G. E. A.

Society Proceedings.

ONTARIO MEDICAL ASSOCIATION.

The twentieth annual meeting of this Association was held in the Normal School Buildings, Toronto, on Wednesday and Thursday, the 6th and 7th of June, 1900.

The meeting was called to order on the morning of the first day at 10.30 a.m. by Dr. Adam H. Wright, of this city, the first vice-president, who stated that owing to the death of their president since the last meeting, it would be necessary for the Association to elect his successor.

Dr. Wright then vacated the chair, which was voted to Dr. R. A. Pyne, who called for nominations for the position of President.

Dr. Adam H. Wright was unanimously elected President, amidst much enthusiasm, and after expressing his sincere thanks for the honour, called upon the Secretary to read the minutes of the last meeting.

These were unanimously adopted.

The report of the Committee on Papers and Business followed. It was presented by the chairman of that committee, Dr. A. A. Macdonald.—Adopted.

Dr. Allan Baines, the chairman of the Committee of Arrangements, presented a verbal report setting forth the entertainment provided for the members of the Association during the progress of the meeting.

Reading of papers and discussions thereon.

The Use of Morphia in Eclampsia.

DR. DAVID HOIG, Oshawa, read a paper on this subject, stating that his experience with eclampsia dated almost from his first obstetrical case in practice, and in this he was forced to use morphia from the severity of the convulsions, and with very gratifying results. He recited the history of eight cases, in three of which there was no history of any renal insufficiency. The case of a young woman in the eighth month of pregnancy was cited, in which the bromide and chloral treatment was first tried, but failed. He then used $\frac{1}{4}$ of a grain of morphia, but this also failed. The temperature was 104 and the pulse 150. Delivery was effected. Severe hæmorrhage followed, succeeded by two very severe convulsions, both of which were fully controlled by $\frac{1}{2}$ grain injections of morphia. Dr. Hoig has always made it a practice to examine the urine from time to time, and he has frequently noticed albumen present, and no convulsions. He instanced another case where twins were born,

no doctor being present. Ten minutes thereafter the woman was dead, without convulsions to account for it.

DR. JOHN FERGUSON began the discussion of the paper, and congratulated Dr. Hoig on its practicability. It was now generally recognized that you may have puerperal convulsions even of severe type without the presence of albumen in the urine; and that you may have the occurrence of albumen for the first time known in the history of the patient, in fact, abundance of albumen, without the occurrence of convulsions. You may also have a successful pregnancy in an old albuminuric, in chronic disease of the kidney without convulsions.

DR. J. L. BRAY, Chatham, speaking of the treatment, did not think that morphia alone was sufficient, as his experience with morphia has not been successful. Free elimination and chloroform has done more for him than morphia. He did not think that anyone really knew the cause of these convulsions. Another thing that Dr. Bray had noticed in his experience was that when he had a case of convulsions appearing before labour commenced, the prognosis was generally unfavourable; but when the convulsions came on after delivery, his prognosis has been favourable. He would lay great stress upon free elimination. Give elaterium or croton oil. He further stated that in venesection he had found that often it was not possible to get the blood to flow at all freely. He mentioned one patient who had thirty-three convulsions after delivery and she got well.

DR. E. CLOUSE, Toronto, stated that he had recently attended a case of confinement with advanced kidney disease. Saw her first about a month after pregnancy, with swollen limbs and characteristic pasty complexion, and passing large quantities of albumen, about 25 per cent. of the urine. On consultation with two other physicians, she was permitted to proceed to her confinement, and she got along very well, indeed, without any convulsions, and gave birth to a well-developed female child. A point of interest in this case was that about four or five days after the child's birth, there was a discharge from it corresponding with the menstrual discharge.

DR. K. C. McILWRAITH, Toronto, stated he had seen five of these cases during the past year, one case in particular being mentioned where the urine was almost solid with albumen, accompanied by great ascites and anasarca; the labour was good and no convulsions whatever. In another case, the urine had been examined one day and no albumen found, but the next day she had a convulsion, and albumen was found afterwards. Speaking of the treatment, he has found that small doses of morphia had usually no effect, but $\frac{1}{2}$ grain, in his experience, generally had controlled them.

DR. BARRICK took issue with Dr. Bray in regard to unfavourable prognosis where the convulsions came on before delivery. In half-a-

dozen case which he could then call to mind, only one of them died, where the convulsions appeared before delivery. He further stated that those who recovered, had no trouble in succeeding pregnancies. Referring to bleeding, he mentioned a case, where chloroform would not control the convulsions, bleeding was resorted, a half-pint was drawn from the arm, the fits ceased immediately, and did not again occur.

Dr. HARRISON, Selkirk, stated he had seen a great many cases of eclampsia, in an experience of fifty years, and his experience is exactly opposite to Dr. Bray's. When convulsions take place before delivery, you can deliver; and the chances were not so good when the convulsions came on after delivery. He has lost patients after and before delivery; but he has always regarded those coming on after delivery as the more dangerous. In properly selected cases, he would bleed.

Dr. HOIG, in reply—He quite agreed with Dr. Mellwraith that there was no use in giving small doses of morphia. He had had no experience in bleeding, but could readily believe that in properly selected cases, it might be of value. He referred to the debilitated state the patient was left in after these attacks, and thought that the long loss of albumen was responsible for many of the sudden deaths that had occurred.

Discussion in Surgery—Appendicitis, its Recognition and Operative interference.

Dr. LUKE TESKEY opened this discussion. One of the most important conditions in the study of this disease is the recognition of many varieties, or, perhaps better, degrees of inflammation which attack the appendix, and also various conditions which may be left by a severe attack. One may be prepared to find any degree, from the slightest chronic catarrhal appendicular colic, to the most acute and rapid gangrene. He divided this affection into three classes: 1, chronic catarrhal appendicitis; 2, acute circumscribed appendicitis; and 3, the fulminating, or gangrenous appendicitis.

Speaking of the first variety, it is not difficult to recognize, when there are frequent repeated slight attacks of pain in the appendiceal region, coming on after slight exposure to cold, or after slight exertion, or sometimes without any well-defined cause, lasting a few hours or an hour or two, with possibly slight rise of temperature, or no rise of temperature, and the patient able to go on with his work the next day. In many instances, the pain is not referred to the appendix, but frequently to the epigastric region. Other symptoms, symptomatic or general, such, for example, as symptoms of chronic indigestion, in effect, a loss of power in the digestive function throughout the alimentary tract, associated with marked loss of body weight, were very important. These sometimes caused this form of appendicular disease to be mistaken for a chronic tubercular affection of the abdominal viscera, and sometimes for

chronic indigestion. In relating one or two cases before him of recent date, Dr. Teskey stated that in these cases which were often looked upon as chronic indigestion, when an operation was performed for appendicitis, this simple catarrhal condition was found, without any foreign body in the organ, but with enlarged lymphatic glands in the vicinity of the appendix. These attacks never caused the patient to lay up in bed, at most only colicky pain existing only for a few hours. Invariably, the patient had lost, in these cases, in body weight. The symptoms had resembled tuberculosis. In these cases, little or no invasion in the abdominal cavity. After operation in these catarrhal conditions, the recovery of the patient was most complete and perfect, so much so, that within two or three months they gain back their body weight and usual power of digestion and usual health and strength; and that is the essence of the complete proof of the beneficial effects in that particular class of cases. The most reliable means of diagnosis in such cases, is careful palpation of the abdominal wall in the iliac region. In some you may be able to palpate the appendix, but you cannot always feel it, and even when you do feel it or think you feel it, you do not know whether it is the appendix or not.

In reference to the second class,—acute circumscribed appendicitis,—that is, the form of affection in which nature has succeeded in organizing adhesions, sufficient to incarcerate the disease to a limited area. This is perhaps the most frequent form. The attack begins with acute pain, perhaps most frequently epigastric pain; a rise of temperature; furred tongue; indigestion; the abdomen becomes more or less resistant over the right iliac region; and tumescence on palpation, is found on the right side. The symptoms continue, with some tympanites, when on the second or third day, there is distinct tumescence to be felt in the appendicular region, and circumscribed suppuration has taken place. The recognition of this form of the disease depends largely upon the tendency of the symptoms to localize in the right iliac region. This form of appendicitis is not difficult to recognize after it has gone on for a short time. When the disease is low down in the pelvis, however, you may not succeed in discovering it by palpation, and you must then depend largely upon general symptoms. If you cannot find tumescence, you will be able to get a degree of resistance, whether low in the pelvis, or up towards the liver. This degree of resistance together with general symptoms, will lead you to a diagnosis.

The third class of cases,—the acute fulminating or gangrenous appendicitis. Here reference is made to the greatest degree of intensity of inflammation, produced by the greatest degree of infection, which has created the inflammatory act, so that gangrene is invariably formed in some form or another. At times it may not be localized in the appendix but in the adjacent structures. To this class, Dr. Teskey gives the

name,—acute fulminating, or gangrenous appendicitis. Severe symptoms may be expected from the commencement onwards. Here the attack is so intense from the infection, or so virulent, that nature has or makes but an imperfect attempt to circumscribe the abscess. You will have great pain and acute rise of temperature; early tympanites; brown furred tongue; some resistance and rigidity of the abdomen; in fact, symptoms of septicæmia. The characters of this variety of appendicitis, because of the acuteness and the intensity of the symptoms, renders it not so very difficult of diagnosis. Sometimes, the amount of tympanites that exists, causes the physician or the surgeon to overlook the localized condition. The patient almost invariably commences by vomiting, severe vomiting. Because of this, acute gastritis has been diagnosed. Palpation is interfered with from the intense tympanites which come on. Very often the inscription on the death certificate is written,—acute peritonitis. These acute forms can also only be recognized by the general symptoms, possibly by the previous history in connection with some difficulty in that region, and careful palpation before tympanites has come upon the patient. After that has come upon the patient, you are more or less in the dark. Conditions which follow an acute attack: In a large number of instances, the result of an acute attack uninterfered with, is that various sinuses have been formed, imperfectly draining abscesses in the abdominal cavity, to various surfaces, perhaps most frequently to the intestinal surfaces. Discharge of pus through the intestinal tract may go on and recovery result, or a chronic discharge into some of the hollow organs of the body or to the surface of the body may result. When that chronic suppurative condition is imperfectly drained into some of the internal organs, it may become very difficult to diagnose the case in after years. Dr. Teskey here mentioned a case suffering for two years.

Operative treatment.—Taking the first class of cases,—simple appendicular colic,—shall we operate or not? When we have made a diagnosis, Dr. Teskey has no hesitation in pronouncing in favour of operation in all such cases. His reason is this, that the death rate should be nothing. The recoveries should be 100 per cent. A limited incision is all that is essential,—an inch to an inch and a-half at the very outside. There should be no death rate from that operation; and you have relieved the patient from a constantly occurring painful condition. This simple form of appendicitis in many instances leads onwards to the more severe forms.

As to the second class of cases, shall we operate, and when shall we operate? This is the one in which discussion has been rampant. Calomel and opium have been used a multitude of times; and there is no doubt of the possibility of the patient getting well. The physician says, we will not submit the patient to the operation, but we will trust to the

process of nature, assisted by the specific remedies. That is the wrong practice. The physician who has taken that ground has taken a mistaken ground. In all instances he has jeopardized the life of his patient. If he can diagnose the condition within twenty-four hours, carefully feeling for the resistance, which one always finds in localized inflammatory conditions,—it may not be easy to find it at first, but practice will soon get one to recognize the resistance which is not usual, and which indicates appendicitis,—and as soon as he gets this located, and appendicitis exists, that is the moment for operation, and in all instances you should operate. If you do not operate and wait until abscess has formed, you can open the abscess, and the patient recovers. Very true. But what follows? The patient has absorbed a large amount of septic material into his system. Already there may be an abscess in the liver. Abscesses may be set going almost in any part of the body, and then there is a localized abscess, and the intestines and omentum are entangled, and serious chronic trouble apt to follow, for many years in most instances. But if you operate immediately before all that, you have saved the patient and you have run no greater risk so far as the preservation of the patient's life is concerned.

And third, in the acute fulminating or gangrenous appendicitis, the only hope for life is an early operation.

DR. GEORGE BINGHAM—Dr. Teskey's views in reference to the treatment and diagnosis of this subject correspond so closely with his, that he has scarcely anything to add thereto. In reference to classification of this disease into forms, there was a difficulty, for the simple reason that unfortunately any given case, may be in class one to-day and in class two to-morrow. He was pleased to hear from Dr. Teskey that he does not claim to palpate the normal appendix. He referred to the vomiting, which he thought occurred almost invariably. Examination per rectum had also been of use to him in the diagnosis. He dwelt on the importance of the interval operation considering it to be the ideal operation, and thought that the fatality here should be *nil*. In the case of the circumscribed variety, he was exceedingly glad to hear that Dr. Teskey approved of an early operation.

DR. H. A. BRUCE—He agreed in the main with the observations of Dr. Bingham and with those of Dr. Teskey. He took a little exception to the classification. In the second class he would put the simple acute, and then under the heading of acute appendicitis, the particular variety which may be present in the case you may be dealing with, the name of perforative. He did not think we could say positively, before opening the abdomen, whether the appendix is in a gangrenous condition or not. Dr. Bruce made further reference to the diagnosis, particularly dwelling on that between appendicitis and tubercular disease of the same region.

DR. GEORGE PETERS—The creed set forth seems to be, appendicitis,—operation. He could not quite agree to that. He thought most of the members present had seen cases of appendicitis get well and the patient remain healthy; perhaps only have a single attack. He thought all had even seen cases of more than one attack with recovery. Nor could he go so far as to say that every case of operation for appendicitis in the catarrhal stage would be followed by recovery, because one cannot always tell what condition the patient is in constitutionally as regards diabetes, Bright's, etc. Reference was made to the length of the incision advised by Dr. Teskey, and Dr. Peters thought there were many cases in which you cannot remove the appendix through an incision an inch and a-half long, as, for instance, in a patient with much adipose tissue in this abdominal wall. In regard to the diagnosis, he thought in the great majority of cases it was an easy matter, but whilst a good many cases escaped diagnosis, there were also a good many cases diagnosed as appendicitis that were not appendicitis at all. He did not believe you could feel the normal appendix, except in a very few cases, and then how can you tell that you are not feeling a fold of the intestine. If, however, it is diseased and thickened, you can feel it in a thin abdominal wall.

DR. WM. OLDRIGHT—With regard to operation or no operation, he was very strongly of the opinion that if a person has had a second attack of appendicitis, we should operate. With regard to the cases operated on between the attacks, the statistics are 98 per cent. of recoveries; and although we cannot say positively that the patient will recover, the mortality may be put down at *nil*. Dr. Bruce had referred to finding grape-seed bodies in the appendix. This reference he considered unfortunate. He had never seen grape seeds in the appendix, and thought their occurrence there were very rare.

DR. N. A. POWELL, spoke in regard to symptoms. In regard to the location of the pain, he thought not occasionally, but uniformly, the pain is referred to the epigastric region; then it becomes umbilical, and then reaches the appendiceal region. He was glad that the point had been brought out, a medical point of great importance—that intestinal indigestion is antecedent to the attacks of appendicitis; not gastric, but intestinal. Then one should not pin his faith too much upon a single symptom. He considered that nausea always and vomiting usually were present. Another symptom he would lay stress upon, was that of rigidity of the right rectus. Dr. Powell thinks it useful to divide the attacks into periods of the first twenty-four hours, etc. If you get over three complete days, and if the case is not getting along well, you are likely to have to deal with pus. One and $\frac{1}{2}$ inch incision is too short in fat people. He further stated that Dr. Osler says there is no medical treatment of appendicitis.

DR. WATSON, Agincourt, spoke of the diagnosis and recited his experience with appendicitis. He thought it important to watch the breathing and the pulse. Examination per rectum, he had always found of benefit. Referring to the question of grape seeds, in one of these cases an enema had brought away a large faecal mass in which was embedded between forty and fifty of these bodies, but of course he could not say that any of them had been lodged in the appendix.

DR. PARFITT, Toronto, referred to the differential diagnosis of what might be called typhoid appendicitis, appendicitis and gall-stone colic, and the importance of examining the blood in appendicitis, to ascertain the number of leucocytes.

DR. A. A. MACDONALD thought that by and by we would come to have the courage to operate at once on every case of appendicitis; he looked forward to the time when the physician would say to his patient, you must be operated on now within twelve hours.

DR. JOHN FERGUSON—If the case is a very mild one, and doubtful if it is appendicitis, but some distress in that vicinity, and the patient well and about his business in two or three days, he would not counsel operation in that case. He would advise the patient to keep himself under his physician's watch and care, and should there be a return of symptoms, he would then advise operation at once.

DR. TESKEY, in reply—With regard to waiting for the interval, if you are called so late to a case that it is already resolving, and the symptoms are abating, of course wait for the interval. Dr. Bruce thought perforation should be included in one class as a variety. Perforation is always associated in the second class when it goes on to extensive abscess. He never removes a gangrenous appendix. He considers it a dangerous process to interfere with imperfect adhesions which nature seeks to form as a limitation to the process. Palpation in the rectum he has found of very little value. It may be of value where you find a chronic abscess low down in the pelvis. Early operation was considered justifiable because it would lessen the death rate,—and that was everything; lessen the death rate.

Adjournment.

AFTERNOON SESSION.

President's Address.

At the opening of the general session on the afternoon of the first day, Dr. Wright delivered a very interesting and able address upon "The General Public and the Medical Profession," which was very cordially received by the members of the Association present. He referred to the progress of the profession and the stand it held in the community at the present day. The opinions of Mr. Gladstone and the Marquis of Salisbury were given, both of whom were on record as having said very flattering

things of the profession of medicine. Jealousies in the profession came in for his condemnation, and he thought it would be particularly happy for all if this was kept out of the profession as much as possible. The importance of attending the annual meetings of the Association was dwelt upon and emphasized, and a feeling reference was made to the death of the founder and recent president of the Association, Dr. J. E. Graham.

Dr. Wright was accorded a hearty and unanimous vote of thanks for his unusually interesting address, to which he replied appropriately.

Discussion in Medicine—The Future of Therapy.

DR. LEWELLYS F. BARKER contributed an erudite paper on this subject, which was easily seen to be written in choice and elegant diction. He was thankful to have the opportunity and pleasure to return to Toronto after an absence of eleven years, and to be accorded the honour of reading the Address in Medicine before the Ontario Medical Association. Although the title of his paper would lead one to expect considerable information about what the future held in store for therapy, it proved more to be a masterly review of historical character down the long line of the centuries. The history of therapy was intimately linked with that of medicine, and the past was rapidly reviewed until scientific study in the use of the microscope in histology, pathology and bacteriology was reached. The essayist dwelt upon organo-therapy, serum-therapy, climato-therapy, and all and everything that one could bring to bear upon the treatment of disease. The stupendous advances being made in scientific medicine, and the vast amount of experimental and research work going on throughout the world now rendered it essentially necessary to emphasize the importance of a division of labour in the profession of medicine as well as in other walks of life. Dr. Barker was accorded a very flattering vote of thanks on the conclusion of his exceedingly able review.

DR. MCPHEDRAN congratulated Dr. Barker upon his unusually able paper. It was, he said, exceptionally brilliant. It was very gratifying to have one of our own students come home and contribute such a paper. He thought that the therapist of the future would be the man skilled in science, in all its bearings. He contrasted the position of internal therapists with the surgeons, and thought that the former were far behind the latter, although the surgeons must not forget that it was by the influence of therapy that made it possible for them to reach such a state of preferment.

DR. J. L. DAVISON considered the paper of Dr. Barker a mass of erudition, but would have liked had he referred to the action of drugs. Whilst we had been brought up on drugs and fed on drugs, it was difficult to understand how the belief in drugs was going to pass away. He further

referred to the action which one disease has in curing another, and thought this feature together with how drugs acted was still a very interesting side of the question. Referring to the question, what is disease, he stated disease to be a condition of unstable equilibrium, while health was a condition of stable equilibrium. Electro., hydro., and other therapies were also alluded to.

Interprovincial Medical Registration.

DR. J. A. WILLIAMS, Ingersoll, introduced this subject in a clever address. He detailed the history of the agitation for the reform of our laws so as to permit of legislation for this purpose, and then proceeded to deal with the details of the proposed bill now before the profession throughout the Dominion of Canada, and which Dr. Roddick, M.P., purposes introducing at the next meeting of the House of Commons.

DR. THORBURN, in a brief speech, said that the proposal had his heartiest endorsement.

DR. BRITTON thought the proposed bill as a whole a good one. He took exception to the appointment of one member of the Dominion Council by the Governor-General-in-Council. He thought that feature objectionable, as it might tend to make the body partly at least political.

DR. HEROD, Kingston, spoke at some length, in the main concurring in the proposals as set forth in the Draft Bill.

DR. RODDICK, M.P., went into the subject exhaustively, and asked for the unanimous support of the Ontario Medical Association, as he believed that with the influence of such an important body behind him that it would go far towards bringing the matter to a successful issue. His burden was to get the legislation passed through Parliament now; any minor details could be arranged afterwards. The provisions of the bill are now so well known that any synopsis would be superfluous, although Dr. Roddick explained it very clearly to the meeting.

DR. WILLIAMS made a brief reply.

Adjournment.

EVENING SESSION.

The evening session was held at McConkey's, where one of the most enjoyable—if not the most enjoyable—banquet in the profession here was held. Dr. Allan Baines, chairman of the Committee of Arrangements, was indefatigable in his efforts to make this function a pronounced success, and he must have slept happy and contented that night, because his efforts were crowned with supreme success. Dr. Wright presided. The usual toasts were drunk, and the following gentlemen made speeches: Drs. Sheard, Williams, Bray, Burt, Barrick, O'Reilly, Harrison, Bruce Smith. Songs and music and an exceptionally fine and dainty menu were thoroughly enjoyed.

SECOND DAY—MORNING SESSION.

Acute Suppuration of Mastoid Cells—Chronic Suppuration of Maxillary Antrum and Anterior Ethmoidal Cells of 30 Years' Duration.

DR. P. G. GOLDSMITH, Belleville, read notes of these cases, and presented the patient in the latter case. The first three cases which came under his notice during the past year were noted. The first was a man fifty years, who during a bad cold felt something snap on blowing his nose. Immediate pain in the ear followed. On examination, perforation was found in the membrane, but in spite of proper treatment, the mastoid became involved, and he was referred to Dr. James MacCallum, Toronto, who concurred in the diagnosis and agreed that operative procedures were advisable. This was done, and the discharge stopped at once, and the patient made a good recovery. In the second case the patient died, but on post-mortem examination, the brain was not found involved.

In the third case, recovery was noted.

This case of chronic suppuration of the antrum of Highmore occurred in a man aged 38 years. It began at the age of eight, after a severe attack of neuralgia of the face by a yellowish discharge from the right nostril which has persisted ever since. The anterior ethmoidal cells were scraped with a great deal of relief to the patient. Then the antrum was drained in the usual way. Complete relief was noted for a few weeks, but the discharge returned, and Dr. Goldsmith now purposes to eurette the cavity.

DRS. L. L. PALMER and PRICE BROWN discussed these cases.

The Committee on Credentials here brought in their report which was adopted. The following were elected members of the Association:—C. J. Copp, Toronto; R. K. Anderson, Milton; W. D. Scott, Rocklyn; G. W. Clendennan, W. T. Junction; Murray McFarlane, Toronto; W. Thompson, Toronto; John D. McNaughton, Glenallen; L. G. McKibben, Toronto; W. C. Herriman, Hamilton; C. Lang, Owen Sound; C. S. McKee, Toronto; A. H. Perfect, Toronto Junction; C. D. Parfitt, Toronto; P. McG. Brown, Camlachie; J. D. Berry, Hastings; A. Carmichael, Sundridge, and F. W. Young, Michipicoten Harbour.

Exploratory Incision in Obscure Brain Lesions—Some Points in the Treatment of Meningocele.

DR. L. W. COCKBURN, Hamilton, reported two cases of obscure brain symptoms without any definite diagnosis, both occurring in young men. In the first, no treatment being of any avail, an exploratory incision was advised and accepted. The dura and brain were both found healthy; the patient recovered completely from his symptoms thereafter. He

considered this case as well as the second recorded to be one of cerebral neurasthenia. In the second case there was the history of a head injury in early life. Incision was also advised here but up to present time has not been accepted.

His remarks on menigocele referred to an operation on a child with resultant death thirteen days after the operation. He thought operation the proper method of treatment in these cases, and condemned the injection of any fluid such as Morton's.

Dr. J. T. Duncan, Toronto; Dr. McKinnon, Guelph; Dr. Peters, Dr. Ferguson and Dr. Lett, spoke to this paper.

Removal of Tubercular Testicles, Vas Deferens and Vesiculæ Seminales, at One Sitting.

DR. GEORGE A. PETERS reported this case, exhibited the pathological specimen, described the difficulties of the operation and the final results.

Total Removal of Vas Deferens and Vesiculæ for Tuberculosis.

DR. J. ALEXANDER HUTCHISON, Montreal, by invitation presented this paper. It reported the excision of the right organ for secondary tubercular affection. It may be primary or secondary, but usually the latter. The first operation of this sort was done in 1890; and the first excision on this continent was performed by Weir, of New York, in 1895. The essayist described three chief methods. The method which he had adopted and which he would recommend was that of Roux of Rosanne, the perineal route. The subject upon whom he had operated was a young man of 28 years, with a sinus in the right scrotum. It transpired that he had been operated on for left testicular trouble with recovery. Recovery was noted and the patient had returned to England in good health to resume his work.

DR. COCKBURN, Hamilton, and DR. E. E. KING, discussed these two papers and their respective cases.

DR. HUTCHISON closed the discussion.

A cordial vote of thanks was voted to Dr. Hutchison for his contribution to the meeting. This he acknowledged suitably.

Transplantation of Ureters into Rectum by Extra-Peritoneal Method—Further Report of Case with Exhibition of Patient.

DR. PETERS refers to reports of Canadian Medical Association, 1899, for notes of this case. The boy is now six years of age, and is in a good healthy condition, able to play and run about with his playmates. He is able to go for eight hours through the night without soiling the bed, if he does not drink very much before he goes to bed. He retains it for two or three hours during the day. So far there has been no ascending

infective trouble in the kidneys. The operation was performed extra-peritoneally, and for this Dr. Peters claims priority and originality.

DR. W. BRITTON and MR. CAMERON discussed the case and congratulated Dr. Peters upon the results he had achieved.

Army Medical Arrangement for the War in South Africa.

DR. J. T. FOTHERINGHAM, by means of interesting charts was able to deliver an admirably instructing address upon this now very lively topic. The Medical Service was exhaustively gone into and carefully and lucidly explained from the time the soldier was wounded in battle until he rested quietly and peacefully on board a hospital ship, the hospital at the base, or was invalided home.

DR. NATTRESS followed confining his remarks to first aids on the field of battle.

DR. F. LEM. GRASSETT gave a highly interesting account of the bullet wounds and what knowledge had been obtained in regard to this matter from South African experiences. He deplored the fact that Canadian surgeons had not been given a fair chance to participate as consulting surgeons, although this Dominion had supplied a very acceptable quota to the "sinews of war."

DR. PETERS also participated in the discussion.

Cancer of the Rectum—Illustrated by Lantern Slides.

DR. E. E. KING gave an admirable exhibition on this subject. He presented two patients for examination by the members of the Association, described his cases fully and concluded with statistics on the subject. Reports of these cases have already been published in the Toronto journals.

Observations upon Blood Pressure.

DR. R. D. RUDOLF, Toronto, contributed one of the features of the meeting. By means of the lantern, slides were exhibited, showing blood pressure in dogs under different conditions, together with the effects of drugs as chloroform, atropine, etc., upon the circulation and respiration. An interesting canvas picture was that referring to the new drug chloretone. The animal received a dose of .275 per kilo. of the body weight and ten minutes after the administration of the drug, the animal was in the condition of anæsthesia, with regular pulse and regular respiration. Another chart showed the animal some hours later. That animal never recovered; and in the act of dying the respirations became lowered; the pulse has gone on very small; and the point was indicated on the chart showing where the animal died. The temperature fall was marked; the lowest was 83.4 F.

The Adaptation of Patient to Climate in Cases of Phthisis.

DR. N. A. POWELL addressed the meeting on this subject. He considered mistakes are being constantly made although we are all honestly seeking aid for guiding principles in this matter. In trying to adapt the patient who is stricken with pulmonary tuberculosis or who shows a tendency towards that disease, we have to consider first the patient, then the form of the infection, and then the climates available. We have also and very seriously to consider the financial condition of the patient. We are satisfied that the very best results accrue from climatic treatment. Take these patients away from dust-laden and moisture-laden localities; put them upon dry soil, and keep them in the open air, and we will get for them prolonged and useful lives. The early cases promptly removed and systematically treated, give a very large proportion—extending up to 90 per cent. of recoveries. It is best to do this in the pre-tubercular stage, where we are not able to say by the physical examination that the lung is involved at all. There are certain clinical varieties which we meet with. First: The acute inflammatory type with high temperature and invasion of the lung tissue; they do badly anywhere. Then there are the class as characterized by early hæmorrhages. Of these, cases were instanced from his own practice. The cases of early hæmorrhage sent to moderate elevations, are ones which give us excellent results. Reports with regard to them from Colorado are not as encouraging as those which come from more moderate elevations. 1,500 to 3,000 feet seems to be much better in the hæmorrhagic class. Then we have the class of cases where the pleura is the point first involved; these do excellently in Muskoka. Speaking of the laryngeal cases, Dr. Powell did not think it advisable to send patients affected with this form of tuberculosis away from skilled laryngologists. We should never be content in sending a patient to a good locality, but we should send him to a good man in a good locality. If there is a sanatorium there, he considers it advisable to make use of it. As to cases of fibroid phthisis, in our Rocky Mountain region and in our Muskoka region, we have places that will benefit them materially. He instanced cases now under his care, that have made the best gain during the winter months. They will gain more in January, February and March, than in any other three months of the year.

As to climate, we have practically only four varieties: the cool-moist and the cool-dry; the warm-moist and the warm-dry. Long ago we sent patients to Florida. They enjoyed it while there, but they came home and they died very speedily. There is a universal repugnance in the profession to-day towards sending patients to a moist-warm climate. As regards the cool-moist climate, on the Atlantic sea-board, in the Lake

Ontario and the Lake Huron areas, we find that as we pass inland from these, that the cases of tuberculosis diminish. If we can take our patients to places of moderate elevations between 700 and 3,000 feet, take them into localities where we can have nearly or quite 300 days of bright sunshine in the year, and where the rainfall is limited, and where the climatic changes are comparatively limited, we shall find ideal localities. In the mountain slopes of our North West and in our northern regions, we have an ideal climate. Dr. Powell concluded his address by emphasizing the necessity of placing these patients when they are sent away from home, under the supervision of competent, skilful and reliable physicians.

The Relation of the Profession to Sanatoria for Consumptives.

Dr. P. H. BRYCE in presenting this paper, dealt with the recent legislation passed by the local legislature in regard to sanatoria for consumptives, the work which is now being done throughout Ontario in regard to the prevention and treatment of this malady; and proposed to move a resolution at another stage of the proceedings in regard to the formation of a provincial association for the prevention and treatment of tuberculosis.

Dr. John Ferguson, Dr. Wm. Oldright, Dr. Playter, Dr. Carveth and Dr. N. A. Powell spoke to this paper.

The meeting were divided into sections.

SURGICAL SECTION.

Extensive Necrosis of the Skull.

Dr. WILLIAM OLDRIGHT presented the patient and photographs of the condition at different stages. A man aged 58 years, formerly syphilized, in whom the first appearance of the trouble was brought on about a year ago, after a slight injury, was exhibited to the members. The extent of the necrosis was a patch of four inches square, more or less. The dura could be seen in the opening.

Two Forms of Puerperal Infection.

Dr. K. C. McILLWRAITH, Toronto, described two cases of puerperal infection in both of which a large piece of placenta had been left behind in the uterus. The lochia was collected by means of Doderlein's tubes, and cultures made therefrom. The importance of this procedure, was that the physician would know whether he was dealing with infection of a mild or more serious character.

Dr. Amyot, Kitchen (St. George), McNaughton (Glenallen), Machell and MacKinnon discussed the subject after which Dr. McIlwraith replied.

The Removal of Septal Spurs—A Note Upon the Use of Carmalt-Jones' Spokeshave.

DR. D. J. GIBB-WISLART spoke of the advantages of this instrument in the removal of spurs of the septum, pure and simple, exhibited the instrument and described its use.

DR. PRICE BROWN hardly endorsed its use.

Intussusception in Children.

DR. PRIMROSE thought this was the most general cause of intestinal obstruction in children. He also referred to tumours as a cause of the condition. The symptoms were carefully gone over; and cases reported in which he had operated for the condition. He thought the trouble was much commoner in infants than was generally diagnosed.

DR. MCKEOWN spoke in regard to the medical treatment.

DRS. BRUCE, MACDONALD AND HOWITT discussed the paper and the cases, the latter gentleman referring to eight cases already reported in the literature, which he had had in practice, the children being all under one year, recovery noted in seven, and the chief symptoms dwelt upon. He was of the opinion that this occurred far oftener than was supposed.

"The Treatment of Squint from the Standpoint of the Family Physician and Nasal and Post-Nasal Synechia," by Drs. J. T. Duncan and Price Brown respectively, were taken as read.

Dr. Henry Howitt presided over this section.

MEDICAL SECTION.

Dr. Lett, Guelph, was elected to the chair.

The Aetiology of Acute Rheumatism.

DR. H. B. ANDERSON contributed a paper on this subject. He said that chemical and nervous theories that had been advanced to explain this disease had not received confirmation from subsequent research, and offered no sufficient nor satisfactory solution of its causation. Among those most competent to speak on the subject, practically all were agreed that it was of microbic origin. The curves formed by the statistics and the mortality of the disease, its occasional epidemic occurrence, the transmission of the disease from mother to child in utero, the clinical course of the disease, and its affiliation to the joint inflammation, at times complicating gonorrhœa, septicæmia, pyæmia, pneumonia, etc., as pointed out by different observers, were all confirmatory of this view. The pyogenic organisms had frequently been found associated with the lesions of rheumatism post mortem, but these were probably merely secondary. Of all the organisms which have been described as the cause of the disease, he thought the bacillus described by Acholme in 1891, was the only one which had stood the test of subsequent research and he

thought that Acholme's work was deserving of more consideration than it had received in England and America. This is a large organism, strictly anaerobic, resembling the bacillus of anthrax, growing in ordinary media and easily stained by the aniline dyes. It was often associated with the pyogenic staphylococci and streptococci, though frequently found in pure culture in cases of acute rheumatism.

Dr. Anderson reported a case of acute rheumatism in which death occurred during the first week. At the autopsy, four hours post mortem, an acute endocarditis, pericarditis and double pleurisy was found. Both aerobic and anaerobic cultures were made from the various organs. In the aerobic cultures from the pleurae pericardium, endocardium, liver, spleen and kidneys, the staphylococcus pyogenes aureus and albus were found. In the anaerobic cultures, from the pleura, pericardium and endocardium, a large bacillus, corresponding in every way to Achalme's bacillus was found, associated with the pyogenic organisms. A culture from the throat three days before death showed the staphylococcus aureus. Dr. Anderson showed microscopic specimens of this organism. The reason why the organism was not more frequently found was probably that death seldom occurred early in acute rheumatism. The organism was a strict anaerobic and so did not grow in cultures as ordinarily made, and it was frequently associated with the pus organisms, so that it was very difficult to separate it out in pure culture.

It had been suggested that Achalme's bacillus was the same as the *B. aerogenes capsulatus* described by Welch, but it gave rise to no gas formation either in culture media or on inoculation and was otherwise quite distinct. He thought the subject was one worthy of very careful consideration.

In discussing, Dr. Anderson's paper, Dr. Bryce asked if the presence or excess of uric acid has had any effect in the growth.

DR. CASSIDY asked if the bacterium is hard to obtain. Dr. Anderson's statements were of great value. In reading, he had seen the statement that acute rheumatism may proceed from several causes: first heredity; second, chemical lactic acid; third, uric acid; fourth, all three previous. How does lactic acid play a part? By supplying an acid medium for the microorganisms.

DR. H. H. OLDRIGHT reported two cases, dwelling in the eyeball, one a case of adhesions, and asked if this location would bear out the germ theory.

DR. LETT asked if you can recover the organisms before or earlier in the case.

DR. ANDERSON, in reply, stated that the growth was better in the urine of arthritics. Anaerobic cultures were not made as a rule; hence probably the bacillus would not have been found. This case died so

soon after coming in that it was a good subject for examination. It has been found in the blood by Acholme.

Differential Diagnosis Between Pneumonia and Pleurisy with Effusion.

DR. H. H. OLDRIGHT presented a paper on this subject.

DR. H. C. PARSONS asked for physical signs and characters of expectoration in one case reported.

DR. RUDOLF—Reuse of the needle; there was no risk in an adult with carefully-sterilized needle.

DR. LINDSAY, Guelph, reported a case with a mishap. The needle failed for a number of times to reach the abscess, but finally found deeply in the lung. Removed portions of two ribs and evacuated. Absorption was increased and the man went down rapidly.

Reply—Foul smelling; chest was completely dull. Needle: pus organisms might be carried into the lung tissue.

An Unusual Case of Crossed Paralysis.

DR. D. CAMPBELL MEYERS read a paper on this case. It occurred in a man aged 66 years, who has one child, a daughter, who enjoys good health. Last September the case came under his care with left facial paralysis and a history of a recent paralysis of the right arm. The family history of the patient was good. Previous history unimportant. The eyes are good and there is no paralysis of the tongue. Mr. Meyers considered that there were two lesions present in the case, one cortical, and the other peripheral. Under treatment, the patient was fully recovered in five weeks.

DR. FERGUSON asked as to lesions.

DR. MEYERS—There were none except some feelings of numbness.

DR. CASSIDY spoke of a case of facial paralysis in a young man, with recovery in ten days.

DR. FERGUSON spoke of the double lesion in Dr. Meyers' case. He thought the facial lesion was peripheral; the arm lesion was evidently cortical. He thought there may be vaso-motor changes sudden in onset, and the production of paralysis may be only temporary.

DR. MEYERS replied. He thought Dr. Ferguson's vaso-motor theories quite possible, but difficult to prove. Thought Dr. Cassidy's case a simple slight neuritis.

Erythema Bullosum.

DR. GRAHAM CHAMBERS contributed this paper. He defined this condition to be that form of erythema multiforme which exhibits in the highest degree the pathological change which is present in the latter disease. He looks upon the hyperæmic spot, papule, tubercle, œdematous nodule, vesicle and bulla, as lesions representing different degrees

of the same pathological process. The forms of lesions are all inflammatory in origin, but there is always present, in addition, more or less angio-neurotic oedema. Four cases were reported in all.

Dr. W. J. WILSON spoke of diagnosis between erythæma bullosum and pemphigus. The latter sometimes follows vaccination, as it did in two of the cases reported by Dr. Chambers.

Dr. BRYCE spoke regarding the confusing preliminary marks of small-pox, so important to recognize at present.

Dr. CHAMBERS, in reply—The classification of bullous eruptions is unsatisfactory. It is sometimes very difficult to differentiate them. Pemphigus is usually chronic; erythema bullosum, usually acute. Symmetry of lesions, multiformity of lesions. Thinks Dr. Wilson's point well taken.

Beds, their Proper Construction and Care from the Doctor's Standpoint.

Dr. CARVETH read a paper with this title.

The paper was discussed by Drs. Machell, Anderson, W. J. Wilson, Chambers and Bryce.

The Artificial Feeding of Infants.

Dr. C. SEARS MCKEE, Toronto, read a paper on this subject. He thought this subject was not given enough attention by the medical man as a rule. Cow's milk, and that alone, modified, should be the only food in artificial feeding up to nine months. The various foods on the market were dealt with, and the modification of cow's milk given.

Dr. MACHELL agreed with Dr. McKee regarding milk for children,—not patent foods. He gave a scheme for working out the proportions.

EVENING SESSION—GENERAL BUSINESS.

Dr. A. A. Macdonald in the chair.

Report of Nominating Committee.—This was read by Dr. Macdonald, which was adopted :—

President—Dr. A. McKinnon, Guelph.

First Vice-President—Dr. R. A. Pyne, Toronto.

Second Vice-President—Dr. W. H. Jeffs, Havelock.

Third Vice-President—Dr. A. S. Fraser, Sarnia.

Fourth Vice-President—Dr. H. H. Sinclair, Walkerton.

General Secretary—Harold C. Parsons, Toronto.

Assistant Secretary—George Elliott, Toronto.

Treasurer—George H. Carveth, Toronto.

Next place of meeting—Toronto.

Report of Committee on Public Health.—This was read by Dr. Gilbert Gordon, and adopted.

Under the heading of receiving the report of the Publication Com-

mittee, a discussion took place upon the desirability of having the proceedings printed in full. The matter was referred to the Publication Committee and the Committee on Papers and Business to report at the first day's meeting next year.

The Special Committee on Inter-Provincial Registration not reporting, under this heading, a unanimous resolution was passed approving of the proposed bill of Dr. Roddick.

The Ontario Medical Library was voted \$75.

DR. W. J. WILSON read the report of the Committee on Hospital Abuse, which was adopted.

The General Secretary's report and the Treasurer's reports were here presented, received and adopted.

The Treasurer's report showed cash on hand of \$48.30.

DR. BRYCE read a resolution favoring the formation of a Provincial Association for the Prevention and Treatment of Tuberculosis, which was assented to by the Association.

Necrology Report was read by Dr. Cassidy in the absence of the Chairman, Dr. J. L. Bray. It included Drs. J. E. Graham, James B. Campbell (London), Samuel Hagel (Toronto), Joseph Allen (Osgoode Station), and Dr. Corbett (Orillia).

A vote of thanks was unanimously passed to the Hon. the Minister of Education for the use of the Auditorium.

Another vote of thanks was unanimously passed to Dr. Adam Wright for the efficient manner in which he had conducted the meeting; to this Dr. Wright made a suitable and appropriate reply.

The usual *honoraria* were ordered to be paid the secretaries.

Dr. Wright then installed President-elect Dr. McKinnon in office. Dr. McKinnon accorded gracious thanks for the honour which had come to him unexpected and unsought.

THE

Montreal Medical Journal.

A Monthly Record of the Progress of Medical and Surgical Science.

EDITED BY

THOS. G. RODDICK,
A. D. BLACKADER,
GEO. E. ARMSTRONG,
WILLIAM GARDNER,
F. G. FINLEY,

JAMES STEWART,
J. GEORGE ADAMI,
G. GORDON CAMPBELL,
FRANK BULLER,
H. A. LAFLEUR,

WITH THE COLLABORATION OF

WYATT JOHNSTON.
C. F. MARTIN,
J. M. ELDER,
D. J. EVANS,
A. E. GARROW,

T. J. W. BURGESS,
J. W. STIRLING,
F. A. L. LOCKHART,
W. F. HAMILTON,
E. J. SEMPLE

H. S. BIRKETT,
J. C. WEBSTER,
KENNETH CAMERON,
C. W. WILSON.
A. G. NICHOLLS.

VOL. XXIX

JUNE, 1900.

No. 6.

THE MONTREAL BOARD OF HEALTH AND ITS DUTIES.

We would call the attention not only of Montrealers but of those of other cities to the admirable address by Alderman Ames, which we print in this number. The duties and scope of Boards of Health are practically the same in all cities, and with regret we have to add the hindrances to the proper carrying out of those duties are of the same order in every large city upon the continent. It is only that we, in Montreal, are in a worse plight than the majority. Taking every circumstance into consideration, it is not surprising that the number of medical men, either upon city councils or members of civic boards of health, is very small. And yet of all classes of the community, physicians have the keenest, the most practical and most constant interest in all that relates to the health of the people. Hence this able address of the recently appointed Chairman of our Montreal Board of Health should interest all our readers, both on account of the clear and comprehensive review it affords of the subjects dealt with by such health boards, and as indicating the difficulties confronting those aldermen and citizens who would seek to have civic hygiene and the by-laws relating to public health rightly administered. Alderman Ames deals with matters which should be familiarly known to all citizens who realize the responsibility of citizen-

ship, which should especially be grasped by medical men, for it is the members of our profession who have guided and must continue to guide the committees to which we belong in the development of a higher standard of public health.

If we, in Montreal, are very far behind in these matters we must not despair, it may be a labour of Hercules to cleanse the Augean stable, it may be years before we can recover from the effects of the civic maladministration of these latter years, but recover we can and must, and it behoves us of the medical profession to whom laymen look for advice not to be passive, but in season and out of season, in public and in private to support and strengthen those who with Alderman Ames are striving to obtain a better administration in this and other cities. It is not that laws and charters are wanting, that the civic regulations are imperfect. That is not the case. It is that the administration of the same is defective. If, as Sir William Hingston pointed out in the discussion which followed this address, the community as a whole is to blame for this state of affairs, if public opinion is weak and the citizens are themselves to blame for electing as aldermen men who continue to abuse the trust confided to them, then we practitioners are even more blameworthy for not having used our influence in the community to arrest the abuse of our by-laws bearing upon public health.

Despite the prevailing laxity—to use the mildest expression—of municipal bodies upon this continent, from north to south, from east to west, we have to admit that most other cities of importance have awakened to the necessity of having a strong and active Health Department, and that during the last decade some at least have made marvelous strides forward. Alderman Ames indicates with no uncertain hand what is the main cause of our backwardness. It is during this last decade that civic mismanagement, the misuse of public funds and of aldermanic powers has been so extreme in our city, that with curiously little to show for the expenditure our debt has increased from thirteen to twenty-six million, and though now citizens contribute eight hundred thousand more than they did ten years ago, there is with an increase of 30 per cent. in population, but one hundred and sixty-five thousand dollars more which can be utilized for current administrative expenses.

With aldermen of the baser sort the Health Department—and the extension of the duties of the same—has never been popular. Properly conducted, the various sections demand skilled, if not expert staffs—demand a class of officials not obtainable under the patronage system—even under the most favorable conditions, when aldermanic nominees fill all available posts, there are few important contracts capable of manipulation; in short, if scavenging and incineration be left out of account, there is little in the Health Department to make it popular with the

aldermen above indicated, and as a consequence it has led a half-starved existence.

Now, when the new Board would inaugurate a new era, it finds its hands tied; so little money is available for all purposes of city government, that no improvement involving additional expenditure can be undertaken or thought of for five or six years to come. Urgent as is the need of improvement in many directions, progress must, of necessity, be very slow. The new Board is, however, starting well, and herein we see the sound common sense of the new Board. The improvements now outlined, while genuine advances upon the old order of affairs, and while tending to add materially to the health of the city entail a minimum extra cost. The expense of doing away with the abundant privy pits should fall largely upon the owners of property which is second class in everything save the return it makes to its owners; capable inspectors and sanitary officials can replace incapable without extra cost, and it is even suggested that if the Protestant section of our community desire a separate infectious hospital with separate administration—and remembering the different modes of life of our English and French-speaking citizens, differences descending down to the smallest particulars, we cannot but think this separation necessary—the corporation will be willing to grant the site provided the English-speaking section builds and administers it itself. Let it not be thought that this last sentence is written ironically: The present civic hospital is allowed so little for administration, and is so tumble down that for months the plan of building a separate English hospital for infectious diseases has been freely mooted.

It is to be hoped that the Committee of the Medico-Chirurgical Society, suggested by Alderman Ames will make a full study and report upon the various points brought forward in this address, and thereby aid in improving the conditions now existing. Whether through this Committee or by other means, it would be well to have the medical profession in this city directly influencing the Health Department.

HIGHER EDUCATION IN MEDICINE.

A departure from routine has been made this year by McGill University in the granting of diplomas in Public Health to graduates who have taken certain special courses in sanitation and laboratory work on hygiene and passed a special examination.

The standard course of six months laboratory work and six months practical training in sanitation which was adopted, is that which has been for many years the basis of the English diploma in public health. As far as we know McGill is the first medical school on this continent

to carry out a diploma course of this nature. In order to make work of this kind fully successful, boards of health in the public interest should insist that applicants for official positions on their staffs possess qualifications of this nature. The well-known standard of Great Britain might with advantage serve as a model in regard to the length of the course and nature of the training demanded. Those who already hold the diploma are given an opportunity of taking special technical courses for which special certificates are granted. Thus the diploma would not represent a finality, but academic recognition could be given to more extended studies.

It seems to us that what holds good in public medicine, might also with advantage be applied to other lines of medical study. While we know that the medical degree received on graduation does not mark the end of its possessor's career as a student, but is really only the beginning of an endless course of study, the University has provided no way of recognizing academically further progress. We have often wondered why our regular medical schools have taken so small a share in guiding and encouraging post-graduate study. Why should not advanced courses leading to certificates or diplomas of efficiency, only to be obtained by those who really possess special qualifications in the particular subjects established? In the English titles of F.R.C.S. and M.R.C.P. we have examples of higher qualifications eagerly sought after by graduates, which have the special value in that one or the other is required of all candidates for positions on the attending staffs of the London hospitals. Similar regulations by our own hospitals would at once secure men of the highest qualifications for the staffs and make the degrees more sought after. The necessity of providing higher qualifications for medical graduates in Germany has recently been strongly advocated by Professor von Bergmann.

The tendency of medical education for undergraduates has been in the direction of a rapid raising of the standard, and in many schools this has been accompanied by a considerable latitude in the amount of time devoted to the various subjects. McGill has always held tenaciously and perhaps wisely to the idea that every medical student should be educated, if we may so express it, on strictly procrustean lines, and has not favored the introduction of optional or honour courses as substitutes for an equivalent amount of compulsory work in the same or in other subjects, so that the student on graduation has no special development in any particular line. By the introduction of post-graduate courses the higher education would be provided for without sacrificing the all round attainments on which stress is now laid.

With reference to undergraduate study in its relation to higher medical

education, we would point out again that the granting of a medical degree does not now mark the close of its holder's education so much as the fact that he has acquired sufficient knowledge and skill to enable him to become self-supporting without too great danger to the public. The fact of being able to support himself places him in a position to pursue further study. In considering the question of lengthening the regular medical curriculum, this point of view should not be lost sight of, and the modern tendency to inflation of the undergraduate course can undoubtedly be carried too far. The duty of medical schools is three-fold: first to see that those who enter the study of medicine have sufficient mental equipment to enable them to master that science, next to see that they are qualified to practice it when they get their degree, and lastly, to see that they are encouraged to continue their studies afterwards and perfect themselves as far as may be.

The very general desire for practical study on the part of medical graduates is an indication that efforts on the part of the teaching bodies towards higher medical education will probably meet with the approval of the profession at large.

ANNUAL CONVOCATION OF MCGILL MEDICAL FACULTY.

The Annual Convocation of McGill Medical Faculty was held at the Windsor Hall, on June 15th, when the following announcement of the results of examinations was made by the Dean, Dr. Craik :

The following gentlemen, 75 in number have fulfilled all the requirements to entitle them to the degree of M.D., C.M., from the University. In addition to the primary subjects they have passed a satisfactory examination, both written and oral, in the following subjects : Principles and Practice of Surgery, Theory and Practice of Medicine, Obstetrics and Diseases of Women and Children, Pharmacology and Therapeutics, Medical Jurisprudence, Practical and General Pathology and Hygiene, and also clinical examinations in Medicine, Surgery, Obstetrics, Gynecology and Ophthalmology, conducted at the bedside in the hospital :

Akerley, A. W. K.	Fredericton, N.B.
Armstrong, J. W., B.A.	Bristol, Que.
Baird, J. A.	Brucefield, Ont.
Ballantyne, C. T.	Ottawa, Ont.
Beadie, W. D.	Lachine Locks, Que.
Bishop, T. E.	Harvey Bank, N.B.
Bradley, J. H.	Charlottetown, P.E.I.
Brown, E. L.	Chesterville, Ont.
Buffett, C., B.A.	Grand Bank, Nfld.
Burnett, P.	Montreal, Que.
Carnwath, J. E. M.	Riverside, N.B.
Charlton, A. J.	Montreal, Que.
Chisholm, G. A.	New Glasgow, N.S.
Clemesha, W. F.	Port Hope, Ont.

Coffin, J. D.	Charlottetown, P.E.I.
Conroy, R. J.	Peterboro, Ont.
Cook, C. R.	Montreal, Que.
Costello, A. E.	Montreal, Que.
Cowperthwaite, W. M.	Carboneer, Nfld.
Cox, J. R.	Hull, Que.
Cuzner, G.	Ottawa, Ont.
Donnelly, A. J., B.A.	Sturgeon, P.E.I.
Doull, A. E.	Halifax, N.S.
Duffy, P. F.	Charlottetown, P.E.I.
Eagar, W. H.	Dartmouth, N.S.
Freeman, C. H., B.A.	Milton, N.S.
Fourney, F. W.	Montreal, Que.
Gilday, A. L. C., B.A.	Montreal, Que.
Gray, H. R. D., B.A.	Montreal, Que.
Hall, A. R.	Washington, Ont.
Haszard, C. F. L.	Charlottetown, P.E.I.
Henry, C. K. P.	Ottawa, Ont.
Hiebert, G.	Gretna, Man.
Hill, W. H. P.	Montreal, Que.
Jardine, J.	Freetown, P.E.I.
Jones, H. A., B.A.	Moncton, N.B.
Kannary, E. LeR., B.A.	Northfield, Minn.
Keating, B. H.	Moore, Ont.
Keating, H. L. T.	Moore, Ont.
Lockhart, F. A. L.	Montreal, Que.
McAuley, A. G.	Ventor, Ont.
McConnell, R. E., B.A.	Montreal, Que.
McDiarmid, W. B.	Maxville, Ont.
McDonald, W. F.	Westville, N.S.
McDougall, A.	Kippen, Ont.
McKee, S. H., B.A.	Fredericton, N.B.
McSorley, H. S.	Enderby, B.C.
Martin, L. W.	Warden, Que.
Morrison, A. S.	Montreal, Que.
Morrison, G. D.	Vankleek Hill, Ont.
Morrow, J. J.	Fergus, Ont.
Murray, L. M.	Truro, N.S.
Mussen, A. T.	Lachine, Que.
Paintin, A. C.	Mansonville, Que.
Paterson, W. F., B.A.	Montreal, Que.
Pattee, F. J.	Vankleek Hill, Ont.
Patton, J. W. T.	Ponds, N.S.
Payne, R. H.	Kingston, Jamaica.
Peake, E. P., B.A.	Oshkosh, Wis.
Pope, E. L., B.A.	Belleville, Ont.
Porter, A. S.	Powassan, Ont.
Richard, A. F., B.A.	Richibucto, N.B.
Ross, H., B.A.	Montreal, Que.
Rowley, W. E., B.A.	Marysville, N.B.
Rutherford, A. E.	London, Eng.
Sayre, T. D.	Amherst, N.S.
Secord, E. R.	Brantford, Ont.
Shaughnessy, C. R.	St. Stephen, N.B.
Stevenson, H. R.	Danville, Que.
Todd, J. L.	Victoria, B.C.
Turnbull, J. A.	Bear River, N.S.

Turner, W. G.....	Quebec, Que.
Townsend, C.....	Parrsboro, N.S.
Wilson, W. A.....	Carleton Place, Ont.
Wood, D. F.....	Faribault, Minn.

PRIZES AND HONORS.

THIRD YEAR PRIZEMAN—R. H. Kerr, B.A., Montreal.

SUTHERLAND MEDALLIST—J. McN. Collison, of Dixon's Corners, N.B.

SECOND YEAR PRIZEMAN—R. McL. Van Wart, B.A., of Fredericton, N.B.

SENIOR ANATOMY PRIZE—R. McL. Van Wart, B.A., of Fredericton, N.B.

McGILL MEDICAL SOCIETY JUNIOR PRIZES—First prize, C. Shearer; Second prize, M. Mackay.

FIRST YEAR PRIZEMAN—W. E. Nelson, of Montreal, Que.

JUNIOR ANATOMY PRIZE—N. D. Parris, of Barbadoes, W.I.

DIPLOMA OF PUBLIC HEALTH.

The following graduates in Medicine having fulfilled all the requirements of the course in Public Health are qualified to receive the Diploma of the Faculty :

W. W. Ford, B. A., M.D.
J. E. Lørbørg

H. S. Shaw, M.D.
J. E. Williams, M.D.

The valedictory address from the graduating class was delivered by Dr. E. R. Secord, and was replied to on behalf of the Faculty by Dr. Burgess.

The Dean, Dr. Craik, then delivered the following sessional address:—

“The Convocation of to-day brings to a close the sixty-eighth working session of the Medical Faculty of McGill University. The calendar calls it the sixty-seventh, from some miscount of a former editor, and the error has not as yet been eliminated. The Faculty came to life in 1829, when its first session began with thirty students, and with the exception of the three years of the Canadian Rebellion, from 1836 to 1839, during which period no sessions were held, its yearly sessions have been continued without interruption, the session of 1839-40 opening with twenty-eight students. Of these sixty-eight sessions, it has been my good fortune to be more or less actively connected with no fewer than fifty. Fifty years ago the total number of students of all kinds in the Faculty was fifty-three, this year the total number was 478, or rather more than nine times as many, and thirty-one more than last year, when the number was 447. Of the 478 names on the register this year, 457 were those of undergraduates proceeding to the degree; the other twenty-one being graduates and partial students pursuing some special course of study.

“The 457 undergraduates have come to us from all parts of North America in about the same proportions as of late years, except that the proportion from Ontario is slightly increased, and that from the United States considerably so. The number from the United States this year was fifty-two, or 11½ per cent. of the whole, while last year the number was only thirty-eight, a percentage of 8½. From the two provinces of

Ontario and Quebec, the numbers are exactly equal—134 from each, a percentage of 29 $\frac{1}{2}$. The number from the Maritime Provinces and Newfoundland was almost exactly the same as last year, a little over twenty-six per cent. The number from the Northwest Provinces and Territories was also greater this year, and there were two students from Ireland. The increased number from the United States is particularly gratifying, as showing the estimation in which our Canadian school is held.

“As regards the students in their different years, there were 135 in their first year, 126 in their second, 101 in their third, and 95 in their fourth year. It was feared by some that there would have been a falling off in the numbers in their first year, owing to the increase of 25 per cent. in the fees, rendered necessary by the exigencies of the Faculty, owing to the reversion of the graduation fees from the Faculty, as formerly, to the general funds of the University; and it is a matter for congratulation that the increase of fees, instead of reducing the number of those to whom it applies, has actually been accompanied by an appreciable increase, showing that the community sets a proper value on the advantages offered by our school to those seeking a sound and comprehensive medical education. The number of students in their third and fourth years has also increased considerably, while the number in their second year is exactly the same as in the previous year.

“The Faculty has made a new departure this year by the establishment of a new post-graduate qualification, entitled a ‘Diploma in Public Health,’ fashioned, with modifications, after the similar qualification given by some of the institutions in Great Britain, and very highly valued. We have four candidates to-day who have qualified for this diploma, and are entitled to receive it. They have undergone six months’ laboratory training in hygiene, and have done six months’ outside sanitary work; for the facilities in which latter work we are indebted to Dr. Louis Laberge, our courteous and able municipal medical health officer, and to Ald. Ames, Chairman of the Civic Health Committee. Mr. Chas. M. Holt, advocate, also kindly assisted us by giving a few lectures on sanitary law; so that the course can scarcely fail to be useful to those who intend to devote themselves wholly or in part to public sanitary or health matters. This is the first course of the kind that has been established on this continent; and as a proof of its usefulness, we already have an application for the services of one of the diplomats. The faculty work has been done under the able supervision of Professor Wyatt Johnson.

“The Faculty is now busily engaged in making extensive additions to its present buildings, for the purpose of giving adequate accommodation to its ever-increasing classes. These additions and enlargements

are on a very considerable scale, in accordance with the expressed views of our generous benefactor and chancellor, Lord Strathcona, who so opportunely announced a little more than a year ago, in the names of Lady Strathcona and the Hon. Mrs. Howard, the munificent donation of one hundred thousand dollars, to provide additional accommodation for the Faculty. The work is now proceeding as rapidly as possible, but owing to our long sessions of nine months, leaving only three months in the year for building operations, the work will require two years for its completion, but when complete, we shall have a set of laboratories in anatomy, chemistry, pharmacology, histology, physiology, pathology and hygiene which will bear comparison, collectively, with those of any medical school now in existence.

“I had occasion last year to call attention to the urgent need on behalf of the citizens of Montreal, even more than on behalf of the University and our Faculty, of much more ample and suitable accommodation for maternity work, and also the almost imperative necessity for the establishment of a hospital for infectious disease among our English-speaking population. The hardships produced by our lack of such an institution are almost unspeakable, and no community should be asked to bear them, for apart from the distress and suffering involved, it makes it impossible to keep these diseases within reasonable bounds, to the great danger and injury of the community, and a notable increase in its mortality. I am happy to say that, thanks to the untiring and tactful energy of Mrs. Miller, a large proportion of the funds necessary for the establishment of a new and commodious maternity on modern lines, has been already collected, and is now in bank, so that the attainment of this portion of our urgent needs may be said to be fairly in sight.

“Even in the other matter of the infectious diseases hospital for English-speaking people, I may say that light has begun to dawn upon us; for Ald. Ames, the able chairman of the Civic Health Committee, has been good enough to say that if the funds for the erection and management of the necessary buildings can be secured, he is assured that a suitable site will be provided by the city. This is an important point, for in all our previous attempts to establish such an institution, the question of a suitable site was always one of the most difficult with which we had to deal. The other part of the problem is not so difficult nor so expensive as might be supposed. Two or three, or, at most, four, plain brick buildings, plainly furnished, would be sufficient, and of these, seldom more than one or two would require to be in use at the same time, the others being disinfected and closed until again needed. The cost of management, moreover, need not be great, as a large proportion of those using them would be able and willing to pay, and the work could be supervised by the authorities of any of our large general hospitals.

"My dear friends, may I not earnestly ask everyone of you to help with all your might in satisfying this crying need of the English-speaking people of this city, before another winter is upon them, that they may no longer be compelled, as hitherto they have been, to cart their sick servants and children all over the city in search of shelter, and finding none, only to bring them back again to their own homes, where adequate isolation is quite impossible, and to spread disease and often death to their families and to the whole community?"

"It only remains for me to say, that the work of the Faculty has been carried on throughout the session with zeal and efficiency. Scarcely a ripple has occurred to disturb the perfect smoothness of its working. The students, from juniors to seniors, in their conduct and progress, have given us no cause for anxiety. The graduating class is here to speak for itself. We have put our seal upon every member of it, as fit and worthy to be entrusted with the care of human life and health, and to do credit to his alma mater.

"The great wave of loyal patriotism that passed over the country had no reason to pass us by; it took from us some of our best men, and we parted with them in anxiety, but with every endeavor to minimize to the utmost the sacrifices which the interruption to their studies would necessarily entail. Most of them are now at the front, maintaining the honor of our Canadian soldiery. One of them, Mr. E. P. O'Reilly, of Hamilton, Ontario, now fills an honored soldier's grave in South Africa. He was a brave and honorable man, a good student, a general favorite, and gave promise of a successful career. We mourn his loss, but we are consoled by the thought that we have contributed such brave and useful men to do battle for our beloved Queen and Empire, of whose subjects there are none more loyal and devoted than those of Canada, of McGill University, and of our Medical Faculty."

After a few remarks from the Principal, Dr. Peterson, the proceedings were closed by singing the National Anthem.

ERRATA.

We regret that the following mistakes were made in setting up Dr. Bogg's paper, "Some Remarks Relative to Posterior Positions of the Occiput in Labour," which was published in the May number.

On page 347, 10th line from the bottom, "palm downwards" should read "palm upwards"; and in the next line above "face in vertex" should read "face into vertex." On page 348, 8th line from the top, "pelvic arch" should read "pubic arch."

At the Royal Victoria Hospital, only four new members have been added to the resident staff, Drs. C. T. Ballantyne, L. W. Martin, McKee, and Hiebert.

The different positions are filled as follows :—Medicine, Drs. Gillies, Tooke and Balianlyne; Surgery, Drs. Hiebert, O'Brien and Sutherland; Gynæcology, Dr. Turnbull; Ophthalmology, Dr. McKee; Anæsthetist, Dr. L. W. Martin; Loca Tenentes, Drs. Baird and Jardine.

The annual report of the Royal Victoria Hospital for 1899 has just come to hand. In addition to the usual statistical reports, special reports on Typhoid, Pneumonia and Acute Rheumatism are added, also the anatomical diagnoses of cases in which post-mortem examinations were made. We print the report on Typhoid by Dr. Gillies in our present issue. The mortality of 8.16%, although the highest in the history of the hospital, is remarkably low. An interesting case of cholecystitis complicating typhoid and successfully operated on is recorded.

A very pleasing function took place recently at St. James Club, Montreal, when the members of the teaching staff of the McGill Medical Faculty entertained the Dean, Dr. Craik, at an informal supper on the occasion of the presentation of his portrait.

Dr. Roddick took the chair, and in proposing the health of the Dean, referred to his many endearing qualities, to his unselfish efforts in the service of the Faculty, and to the great advances made by the Faculty under his leadership. Dr. Girdwood read a beautifully illuminated address, to which was appended the signatures of the donors of the portrait.

The Dean responded in his usual happy fashion, thanking his colleagues for the compliment paid him and referring to the harmony and good feeling which had always existed among the members of the Faculty.

The portrait, by Jongers, is a very fine one, and is hung in the Faculty Room of the Medical Department.

At a meeting of the Committee of Management of the Montreal General Hospital, the following gentlemen were appointed resident medical officers for the year : E. R. Sicord, M.D., C. K. P. Henry, M.D., W. G. Turner, M.D., J. W. T. Patton, M.D., W. H. P. Hill, M.D., L. M. Murray, M.D., W. E. Rowley, B.A., M.D., A. R. Hall, M.D., H. R. D. Gray, M.D.

These appointments are now made on the recommendation of the Medical Board of the Hospital, and every effort is made to select the most suitable applicants. Of the above gentlemen, Dr. Sicord has had a brilliant college career, and in his final year took the gold medal and was elected valedictorian. Dr. Patton, who also has an unusually good college record, was final prizeman, while Dr. Henry carried off the Clemesha prize for Practical Therapeutics.

Dr. Wilkins, who has been acting as pathological *Interne* during the past year, has also been appointed a resident medical officer.