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# Ontario Medical Journal.

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## Original Communications.

### CANADIAN MEDICAL ASSOCIATION.

#### PRESIDENT'S ADDRESS.

Delivered at the Meeting of the Canadian Medical Association, held in Ottawa, September, 1892.

BY JOHN L. BRAY, M.D., F.R.C.S.K., CHATHAM.

GENTLEMEN,—Allow me in the first place to offer you my most heartfelt thanks for the great honour you have conferred on me in electing me President of the Canadian Medical Association; and while I appreciate your kindness and feel proud of the distinction, the high honour only makes me more conscious of my inability to fill the position with credit to the profession and satisfaction to myself. Following as I do my immediate predecessor, Dr. Roddick, only makes this more obvious. But I trust you will extend to me a helping hand, and at the same time shut your eyes to my deficiencies.

Now, I am not going to deliver a scientific address on medicine or surgery, as that duty has been delegated to those much better able to perform the task than I am; but will take instead a review of Medical Education and the advances made in that direction since the birth of this Association twenty-five years ago; secondly, say something about Medical Reciprocity between the Provinces and the barriers that now exist to prevent this, and how they may be removed; and thirdly, the influence that this Association ought to exert, not only over the medical profession, but

also over the public from one end of this great Dominion to the other. And what time could be more fitting or what place more appropriate for such a retrospect? We meet to-day to celebrate our silver anniversary, in Ottawa, the capital of our country, on this the twenty-fifth anniversary of its birth. What memories are recalled by a few—and, oh! how few they are—that were present when this Association was formed a quarter of a century ago. What changes have taken place since then! The magnificent building we now occupy was not then erected. The city of Ottawa was only a city in name; and of the noble men in our profession who were instrumental in forming this society, how many have gone to their long home, and are forever at rest from the cares and anxieties of this world! The reaper Death has year by year since that time been cutting down first one and then another of our members, without regard to age, ability or position. Since our last meeting we have to mourn the death of Dr. James Ross, who so ably presided over our deliberations two years ago, in Toronto, whose kindly smile and friendly greeting we miss to-day, from whose large experience we have all more or less profited, and whose wise counsels we would all do well to follow. But we have with us to-day Sir James Grant, Dr. Hingston, Dr. Fenwick and perhaps a few more who were present at the birth of this Association.

When we see how our country has grown and developed since that time, it is sad to think that this society has not kept pace with the Dominion, and I trust the remarks made by Dr. Roddick in

Montreal last year on this subject will bear fruit, and that in the next twenty-five years this Association will rival in numbers as it does now in ability its great neighbour, the American Medical Association, and I hope before we close our labours some steps will be taken, by the formation of a committee or in some other way, to promote this object.

It will be in the recollection of some present to-day the condition of things as they existed prior to the formation of this society in 1867, and the passage of the Upper Canada Medical Act about the same time. You will remember that there were three licensing bodies in old Canada at that time, independent of the medical schools and universities. The latter were degree-conferring institutions, but they virtually possessed the licensing power, inasmuch as the holder of a degree from any of these bodies was entitled to practise medicine on proving identity, paying a small fee and having a license signed by the Governor-General. All he had to do was to send his degree with an affidavit to the Provincial Secretary, when His Excellency, taking for granted that he was fully qualified, having secured a degree from some college or university in Canada or Great Britain, would attach his signature to a Provincial license, which enabled him to practise in that or, in fact, any other province, so that in reality we at that time had in Upper and Lower Canada, to say nothing of the other provinces now constituting the Dominion, seven or eight licensing bodies responsible to no central authority, each vying with the other who could turn out the greatest number of doctors independent of quality. The licensing boards in Canada consisted of the Upper Canada, the Homœopathic, and the Eclectic Medical Boards, all constituted by royal charter, and electing or appointing their members in different ways. The Upper Canada Board was appointed by the Governor-General for life, or good behaviour. How the others were appointed I cannot say, but probably in the same way, on the advice of one or two of the more prominent members of these schools. You can imagine it was not so very difficult to become a full-fledged doctor in those days. The schools and universities fixed their own curricula both for matriculation and professional examinations, and the licensing boards, some of them at least, I believe, required no standard of matricula-

tion at all, and almost none of a professional character, consequently the education required to become a doctor at that time was not of a very high order. So low had the requirements sunk that not only the profession but the schools as well began to think it was time to make some change, and demand a higher standard. I am speaking now more particularly of Ontario. The first step taken to remedy the then existing state of things was by the Act of 1866, known as the Parker Act, whereby a council was formed who had the power to fix the standard of matriculation as well as that of the medical curriculum. But while they had the right to make a standard, they were powerless to enforce it, no authority being given them to appoint examiners or conduct the examinations, which was left to the colleges as heretofore; and although the Province's Board was done away with by this Act, the Homœopathic and Eclectic Boards were not interfered with, which, instead of remedying, rather increased the evil, as the number of licenses from these boards for the next year or two amply testified: and while this Act was an improvement in some respects (being a starting point) it was found to be still very defective. It was felt that the plan of allowing each school to examine its own students, even although the Council fixed a standard, did not prevent a great many unqualified men from getting into the profession: for if the curriculum was difficult, the examinations were in many cases made easy, and in the event of a student being rejected by his college (which was a rare occurrence) there was nothing to prevent him from going before one or other of the remaining medical boards, and I fail to recollect a single instance where a student taking this course was not granted a license to practise medicine, surgery and midwifery.

This state of affairs induced the Council to consider what steps they should take to remedy this evil, and the conclusion they arrived at was a wise one. They thought if it were possible to unite all branches of the profession and bring them all under one law, they could then control and direct medical education. In order to do this it was necessary to give and take, and a compromise was effected with the Homœopathics and Eclectics, as well as the different medical schools and universities, whereby the whole profession was united

and brought together, and became subject to one central authority, viz., the Medical Council of Ontario, made up of representatives elected and appointed from the general profession, the medical schools and universities, and also from the Homeopathic and Eclectic bodies. This Act came in force in the year 1868, and gave the Council power not only to make the standard of all the examinations, but to appoint examiners to conduct them; and I am happy to say that from that time till the present the standard of medical education has been rising year by year, not only in Ontario, but over the whole Dominion, until to-day in Ontario we have a curriculum standard equal to that existing in any country in the world, and a Medical Act to enforce it, which is the envy of the United States, and which England has tried in vain for years to adopt. I am sorry indeed to find that a hostile feeling has arisen against the Council through some clauses added to the Act in 1891, which feeling I would be glad to see removed. But while I am aware that a few faults are to be found, I am also aware that a great many virtues exist in the Act as it now stands, and it behooves the whole profession to see that no action is taken to impair its usefulness, detract from the dignity or lessen the influence of the Medical Council, which is the safeguard of medical education in Ontario, and which exerts an influence over the whole Dominion, for every province would suffer should the Council be done away with and a return to free trade in medicine follow, as it would most assuredly do, and if the Ontario Medical Council was abolished we would go back to the same position as we occupied prior to 1868. I cannot believe there is one who has the welfare of the medical profession at heart in this country who would wish to see us return to this condition, and for this reason I would ask those who are opposed to some clauses in our Act to pause and consider well before they do anything to embarrass the Council or vitiate the Act, and by so doing play into the hands of the charlatans both in and out of the profession. As it is we stand alone, looked upon by the general public as a close corporation and fitting prey for malpractice suits for large damages, who do nothing but increase the fees and legislate for our own pockets; and these views are encouraged by a certain class of men

who have not the ability to obtain our license, or having obtained it branch off in some disreputable way in order to make more money, and victimize the very public whom they profess to champion as against the regular practitioner. Fortunately for the profession and public, we have a clause in the Act to enable the Council to purge the profession of such unworthy members, and to punish others who trade on the incredulity of the public by fraudulent practices without being registered. Why it should be so I cannot tell, unless it is that people like to be humbugged. But it is a fact nevertheless that the sympathies of the majority of the laity are against the regular profession and in favour of quackery. Therefore I reiterate the statement that we must be careful how we interfere with the present law, by amending some minor clauses which may be objectionable, that we do not get the whole Act wiped out: and I would suggest here, as I have already done in another place, that the members of the profession in Ontario, who are aggrieved at some of the workings of the Act, meet the Medical Council, discuss the whole question, frame such amendments as may be in the interests of the profession and public, and then go to the Legislature as a united profession, asking for such alterations in the present Act as they have agreed upon, and I am sure the Legislature will grant them. I hope the Association will pardon me for this digression, but I speak feelingly, having the interests of the profession at heart and knowing something of the differences existing between some members of the profession and the Medical Council of Ontario.

Prior to 1867 the matriculation examinations in all our colleges was more a matter of form than anything else, and could be passed at any time before going up for the degree. At the present time it is quite different. Now it is equal to a second class teacher's certificate, with Latin, physics and chemistry compulsory, or junior matriculation in arts in any university, with the science course; and the day is not far distant when it will become still higher and eventually reach a degree in arts; and can anyone say that this should not be so? A physician, above all men, should be thoroughly educated, for education is a great refiner; and in what calling or profession is this quality more essential than in ours?

What scenes we witness, what confidences we receive! In and out of the family circle at all hours and under all circumstances, and always battling with pain, disease and death! And here it is that the refined physician shows the result of his early training, by soothing pain, curing or relieving disease, and sympathizing with the bereaved; and, mark my words, it is only the man who thoroughly knows his profession that in the long run reaches the top of the ladder and who deserves and receives the gratitude of his patients and esteem and respect of his confreres.

I am indebted to Dr. Pepper, of Philadelphia, and desire to return him my most sincere thanks for a copy of his address containing a vast amount of information on the subject of Medical Education, delivered by him a few years ago. In speaking of the system of medical education in the United States (and his remarks would have applied to Canada a few years ago, although not quite to the same extent), he says if we would learn the truth and know the estimation in which our medical education has of late been held by other countries, it needs only to examine the changes which have taken place in their system of medical teaching, proportionate to the vast advances in medical knowledge, and then turn to the picture of our own position as drawn by those most competent to depict it. He proceeds to say in every country but ours, without, so far as I know, a single exception where a system of medical education can be said to exist, certain general principles will be found embodied in that system. These are, first, a matriculation examination; second, a sufficient length of time devoted to medical studies; third, a careful personal training of each student in all practical and clinical branches; fourth, careful grading of the course, and fifth, impartial examinations by disinterested individuals. On the whole, these are about the requirements necessary in the Dominion at the present time for a student before receiving the right to practise. Dr. Pepper goes on to say that there are some in this country who would cry out at once that a so prolonged and elaborate course of study as I have mentioned is not necessary in America to produce good practical doctors, but that it can only tend to develop a class of over-educated, supercilious, impractical medical men,

too good and fine for the average work of a physician. No frame of mind is more enjoyable than the self-complacent contentment of the optimist who holds the candle of his own excellencies so close to his eye that it dazzles him, and makes him blind to the broad sunlight of truth and progress flooding the world. Such objections as the above might be expected if the elevated system of teaching which I have sketched were adopted only in one or two very old and wealthy countries, for it might then seem to be due to a highly artificial state of society. But when we see that not only the older and more highly civilized and more densely populated countries, such as England, France and Germany, but in those whose state of civilization and the condition of whose people we should be slow to regard as favourable compared to our own, as Russia and Spain, in those such as Brazil and Australia, whose forms of government and social system are younger even than our own, and finally, even in countries which, like Mexico and the Republics of South America, we are supposed to regard as only semi-civilized, and where the instability of government and the frequent convulsions of social order would seem to render any fixed and comprehensive educational policy impossible, when we see that in each and all of these, a thorough plan of medical education is held essential for the welfare of the community, for the development of medical science, and for the interests of the medical profession itself, it is surely time to consider carefully if we are not sadly at fault in this; and if, while elsewhere the requirements of medical education have been made to keep pace with the growth of medical knowledge, with us they have not been controlled by other and far less proper influences. Now if we consider the present state of medical science and note the vast advances that have been made during the past twenty-five or thirty years in all its departments: if we reflect upon the enormous extent of accurate information, of minute technical knowledge and of special practical training which is now required to fit a man to practise medicine scientifically, and to render to those sufferers who seek his help the full measure of the benefits which the healing art is now capable of bestowing, shall we be surprised at the careful and prolonged course of study that we find is imposed

in all countries but our own upon the applicant for the degree of medicine?

Surely no one can fail to appreciate the enormous importance of having thoroughly trained and skillful physicians.

When overtaken by serious accident or illness, all other means of relief fail, and the most wealthy, the most powerful, the most illustrious must, like the poor and unknown, cast their dependence upon the skill which, under God's guidance, the physician shall display in battling with disease and death. No other study presents difficulties and complexities so great as those which beset the study of medicine. In no other occupation in life are such varied culture of the mind and training of the senses demanded. Yet I learn on inquiry that the average time of apprenticeship to the following trades or callings is, for barbers, three years; for carpenters, printers, turners, plumbers, pattern-makers, at least, four years; for machinists, five years; and for pilots, seven years. Can it be that the apprentice must practise five years before he is regarded as a skilled workman, fitted to mend or make machines of iron or brass, and that in this land of intelligence, progress and common sense one who has studied medicine less than one-third that time may have his license to meddle with and make or mar that most wonderful machine—*man's body*—infinitely complex, gifted with boundless capacities, and freighted with the awful responsibility of an immortal soul? Can it be that seven long years of pupilage must pass ere the young pilot may be trusted in charge of a vessel to guide it through the crooked, narrow channel, where only the hidden dangers of sunken rocks or treacherous shoals beset him, while in less than one-fourth of that time we profess that one may qualify himself to pilot the most precious craft—a human life—through the long, dark, intricate windings of disease, where at every turn death lies concealed, so close at hand and so difficult to avoid that nothing but the most intimate knowledge of his profession and consummate skill can insure safety. A strange seeming contrast, and yet the following careful examination of the state of medical education as it exists in all the medical schools on this continent, with a few honourable exceptions, fully supports the paradox. He then goes on to give the curricula, course of study

required, and methods of examination of most of the medical schools in the United States, and compares them with the colleges of other countries. But I need not follow him further in this direction, and have only introduced his remarks to show the state of medical education as it exists where there is no central governing power, having supervision over the different teaching and degree-conferring bodies, as was the case in Canada up to the year 1868. But I am pleased to say to-day Canada as a whole has one of the highest standards of medical matriculation, as well as medical teaching, to be found in any country but Germany, and what we want particularly at the present time is to assimilate the systems existing in the different provinces, thereby making one uniform standard for the whole Dominion. And this brings me to the second part of my subject, viz., the question of Medical Reciprocity between the Provinces. In reading over the Medical Acts of the different provinces, I find that Ontario is the only one that has a Central Examining Board appointed by the Council, before whom every student desirous of practising in that province, no matter from what country he may come or from what university he may have a degree, has to pass. I further find in the Ontario Medical Act this clause: "When and as soon as it appears that there has been established a central examining board similar to that constituted by this Act, or an institution duly recognized by the Legislature of any of the provinces forming the Dominion of Canada, other than Ontario, as the sole examining body for the purpose of granting certificates of qualification, and wherein the curriculum is equal to that established in Ontario, the holder of any such certificate shall, upon due proof, be entitled to registration by the Council of Ontario if the same privilege is accorded by such examining board or institution to those holding certificates in Ontario."

I find in the Manitoba Medical Act that the University of Manitoba is the sole examining body for the Province, and in that respect comes nearer to the requirements of Ontario than any other, and I see no reason why as long as this remains so reciprocity should not exist between them. Now it appears to me there are just two ways whereby reciprocity between the provinces can be brought about, and these are, first, the repeal of that

portion of the British North America Act which gives each province sole control over all educational matters, by taking from them this right and vesting it in the Federal Government, and the appointment of a Dominion Medical Board; or, secondly, the establishing of Medical Councils for each province, who shall appoint a Central Examining Board similar to that of Ontario, and when this is done let representatives from each Provincial Council meet, say in Ottawa, and fix one uniform standard of medical studies to be adopted by all the provinces. Now, as to the first, I think it is entirely out of the question, and can be put aside as utterly impracticable, as I feel sure the Local Legislature would never consent to have the control of the educational system taken out of their hands. As to the second proposition, I see no good reason why it should not be adopted. In all the Provincial Medical Acts, so far as I am aware, full power is given the Councils to fix the period of study, make their own curricula, and to conduct their own examinations in the way which to them may seem best. Now, all the colleges and universities in the Dominion, so far as I can learn, require four full years of study from a student before going up for his degree, but those of British Columbia, whose Council is satisfied with three. The teaching in all these institutions is very similar, so that it would not be a difficult task to make them uniform in this respect. Then all that remains to be done is to appoint a Central Medical Examining Board for each province, to examine and recommend for license all graduates, leaving the universities the power of granting degrees only. I shall make no more suggestions on this point, as committees from each province were asked to meet in this city to discuss this matter fully, and I trust their deliberations will result in bringing about the object we all so much desire.

There is one thing that must always be borne in mind, however, and that is, no matter how or by what means reciprocity is brought about, the standard of medical education must always be advancing. This is something we owe both to ourselves and the public, although the latter are slow to appreciate the sacrifices we are constantly making in their behalf. When will they understand that it is more to their interests than ours that medical men should be thoroughly trained

and well educated? These same people would never think of retaining an uneducated and incompetent lawyer to conduct a case when only their money or property was at stake, nor would they employ a poor mechanic to build their houses, or hire a worthless labourer who was incapable of doing the work intrusted to him. Yet they do not hesitate to put themselves under the care of and intrust their health and lives to those travelling charlatans who are without the slightest pretence to a thorough medical training (or as Dr. Campbell, one of the homœopathic members and vice-president of the Ontario Medical Council, puts it, "Those uneducated, incompetent and dishonest persons who prey on the misfortunes of the sick and distressed: parasites on the profession and plunderers of the people"), and pay enormous fees and those in advance: such fees that if any reputable physician should dare to charge the one-half, his bill would be disputed. He would be called an extortioner, and his neighbours warned not to employ him. This is no exaggerated picture, therefore it behooves us as members of the Canadian Medical Association, having the welfare of the public at heart, to work together not only to elevate the standing of our profession, but to enlighten the public as to who are worthy of their confidence, and to warn them against the incompetent, uneducated and unlicensed men, as well as the registered quack who sells his license to some foreign institution and robs the deluded people who employ him of both money and health.

In speaking of reciprocity it has always appeared to me the height of absurdity that in this young country made up of the different provinces and territories, confederated together under one general government, that in each of these provinces an educated medical man (already registered in one) should be required to pass an examination before being allowed to practise his profession on entering another province, or else be humiliated by being dragged before a magistrate and fined, or sent to prison. What a spectacle it would be and how injurious it would prove were the chief medical officer of one of our trans-continental or inter-provincial railways, like the C.P.R. or G.T.R., be made to pay a fine for setting a fracture or amputating a limb for some poor unfortunate injured in an accident on one of these roads, out-

side the province in which the medical officer was registered; or in case of a suit for damages being brought against one of these companies in any province beyond the limits for which the chief medical officer's registration extended, what would be thought by the public if the Court refused to hear his evidence because he was not a registered practitioner in that particular part of the country? Yet, as the law now stands, in some of the provinces he, in the first instance, could be fined, and in the second his evidence would be of no legal value. Under these circumstances I think it the duty of the Medical Council of each province to consider this matter fully, and not only consider it, but adopt some means to remedy the evil, injustice and absurdity of the present state of things.

Let us then as members of this National Medical Association throw aside all minor differences of opinion as to provincial rights, and use our influence individually and collectively to attain this object, and like the two great political parties unite, as they did twenty-five years ago, for the noble purpose of bringing together under one government the scattered provinces under the British crown in North America, into one great Dominion, in whose capital we now meet. So let us assimilate, unite and bring together the different systems of medical education as now existing in these provinces, and form one great universal system with a standard so high that it will carry with it not only the respect and admiration of the people of this country, but secure the recognition it would deserve from the universities and medical councils of Great Britain and the continent: and just as Canada is destined to take her place among the most progressive and enlightened countries of the earth, so her sons, who are graduates of her universities and registered by her medical councils, shall take their stand among their confreres from the older countries in the world's medical congress, and feel proud to be called Canadians.

The address of Hooper & Co. was incorrectly given in their advertisement in the "Annual Announcement" of the College. It should have been 43 and 45 King Street west.

## THE TREATMENT OF TUBERCULOSIS.\*

BY J. E. GRAHAM, M.D.,

Professor of Medicine, Toronto University.

Notwithstanding the great discoveries that have been made in the etiology and pathology of pulmonary tuberculosis, we have not yet found a specific remedy, nor are we able to cope more successfully with the disease in its advanced stages.

Under these circumstances it is of the greatest importance that we should enquire into the best means of preventing the spread of the affection as well as of checking its progress in the individual at the very earliest period.

Fortunately, in both of these departments great advancement has been made.

I shall therefore devote a great part of this paper to a consideration of the prophylactic and hygienic management of pulmonary tuberculosis.

In looking over the literature of the disease, one is again reminded that advance in any science is often made rather by fits and starts than by a continuous rate of progress. After a discovery there is often a standstill or a little retrogression, then a second advance much greater than the first.

It is somewhat surprising to read that the contagiousness of tuberculosis was well known in the time of Galen, and that Valsalva and Morgagn exercised great care in the dissection of tubercular subjects for fear of becoming infected.

During the latter part of the last century a rigid law existed in the north of Italy, whereby the clothing and bedding of a patient who had died of tuberculosis were destroyed by fire. Even in Portugal a similar law existed at that time.

In 1782 the King of Naples made an edict compelling all patients suffering from tuberculosis to be sent to hospitals used for that disease alone.

In Florence, and other Italian cities, the public was warned not to visit tubercular patients.

In Germany, in 1780, Wickman declared that consumption was contagious.

It is singular that all this should have been forgotten, and that only after the most convincing proof of contagion, the result of bacteriological observation, are we now seriously attempting to prevent the spread of the disease from one indivi-

\* Read at Meeting of Canadian Medical Association, Ottawa, Sept. 21st, 1892.



dual to another. When in the more recent literature there are so many instances of the great benefit of sanitation, it is surprising that we should still hesitate to adopt vigorous measures.

When we know that tuberculosis carries off a seventh part of the human race, that its ravages are certainly greater than those of any known disease, we should put forth every effort to stamp it out so far as that can be done.

In Russia, during the present year, where the cholera victims have been numbered by the thousands, tuberculosis will cut off also its thousands, and continue to do so year after year.

The general prophylaxis I shall take up under two heads: (1) The destruction of the bacilli outside of the body, (2) Placing the individual in such a condition that he can successfully withstand the onset of the disease.

While we still continue to believe in the possibility of the direct transmission of the affection from parent to child, a belief which has been confirmed by the recent investigations of (1) Schmolz and Birsch Herschfeld, yet statistics prove that in the great majority of cases the virus is conveyed either through the air, by food, or by direct inoculation, and that its transmission through the air in the form of dried particles of sputum is by far the most frequent way.

The bacilli do not grow outside of animal products. The disease is rarely if ever communicated by inhaling the breath. It is therefore only necessary to properly dispose of the sputa.

Aronson (2) stated that in the orphanage at Nürnberg there are a large number of children here-litarily predisposed to tuberculosis, but that by attention to cleanliness, ventilation, and outdoor exercise, not a single case of that disease has occurred during the last eight years.

In the Johns Hopkins Reports, an instance is given of a child four months old in whom tuberculosis developed after the family had lived in a room in which a tubercular patient died three weeks before.

One of the most remarkable instances of house infection is given by Engelmann (3) who relates the history of a dwelling which for eight years after its erection remained free of tuberculosis. Then two of the inmates died of that disease after some months' illness. From that time onward for the period of twelve years the dwelling was inhabited

by a number of different families in succession, and was scarcely at any time free from consumptive patients. Thirteen fatal cases occurred in the twelve years.

Marfour (4) gives the history of an epidemic in an office in Paris. Thirteen of the clerks died in four years. He attributed the succession of cases to the practice of spitting on the floor.

A startling account of an epidemic of tuberculosis was given at the Paris Congress of 1890. Of thirty-five workmen in a certain factory, twenty-seven suffered from tuberculosis. Four had the disease previous to admission, and twenty-three became affected in the factory. The average period of incubation was two months.

An illustration of the great benefit of attention to general sanitation is given in the history of the Laiback Prison as related by Dr. Keesbacker (5). The rooms were damp, badly ventilated, and overcrowded. The building itself was old and a favourable place for the development of tuberculosis. The prisoners were required to work hard and had insufficient food. Previous to 1884 a large number of the prisoners died of consumption.

During 1884 the whole prison was cleansed and disinfected, and means for proper ventilation were introduced. The prisoners were compelled to use spittoons which were plentifully provided and partly filled with a disinfectant solution. At the same time the work was somewhat lessened, and some improvement was made in the character of the food. The percentages of deaths during the following years afford a positive proof of the great benefits arising from the changes made: In 1884, 8.12 per cent.; 1885, 5.12; 1886, 2.98; 1887, 3.58; 1889, 2.18.

It is true that instances have been reported of prisons where improved sanitary conditions were not followed by a lessening of the mortality from tuberculosis. In these, however, some other circumstances may have influenced the result.

A consideration of these examples at once leads us to the question, Should not our sanitary boards take more decided steps in the prevention of this disease? Why should not all cases of tuberculosis be reported in the same way as scarlatina or typhoid fever? Why should not our health authorities inspect those houses in which consumptive patients live, to find out the cause of the disease,

and to so instruct the family as to prevent the infection of other members.

An objection has been raised that if such measures were carried out the patient's life would be rendered intolerable, as he would be shunned by his own relatives. In my opinion the very reverse would be the case. There exists at present among the laity a very exaggerated idea of the contagiousness of consumption, as well as a good deal of unnecessary fear. If the public were made aware that with precautions easily taken there is little or no danger, such fears would be allayed.

Spittoons partly filled with a disinfectant solution should be provided in our public buildings, in street and railway carriages, and especially in the staterooms of ocean steamers.

The existence of dried expectoration upon the street does not seem to be a source of danger, as Cornet (6) has shown that the disease is not prevalent among those who work constantly on the streets.

Pocket spittoons, such as that invented by Dr. Dettweiler, should be carried by phthisical patients.

The inspection of milk and other articles of food should be insisted upon.

The further discussion of these sanitary measures I shall leave to the department of public health and proceed with the prophylaxis as it comes under the immediate attention of the general practitioner.

We shall now consider the prevention of tuberculosis in those who inherit a predisposition to the disease.

As before stated, well authenticated cases go to prove that tuberculosis may be directly transmitted from parent to child. There are many instances of the presence of the disease in the brain, in joints, etc., when no avenue of infection from without can be discovered.

The frequent presence of tuberculosis in sucklings, as found by Frebelins, 416 out of 16,581, and the fact that Birsch Herschfeld was able to inoculate animals, and successfully produce tuberculosis, with a portion of the viscera of a fetus in which no bacilli were found, are very significant.

The statistics of Vignal, however, point in the opposite direction.

At the Paris Clinique d'Accouchment, for eight years, post mortems have been made in all cases of death of fetus, or fully developed children. Tuberculosis has never been found, and no successful inoculation has ever been made. The same results were obtained experimentally. The baby guinea pigs of tubercular mothers were never found to be affected.

I quote the following statistics as given by Dr. Osler in his recent work. Although in the Berlin abattoirs for some years past, thirteen per cent. of the animals slaughtered were tubercular, out of 15,400 calves killed only four were found similarly diseased.

Taking it, however, for granted that in all of those cases of hereditary taint, the disease is directly transmitted, a conclusion which is not at all warranted by the facts, we have still nearly half of the cases to be accounted for. Hereditary taint is found in a little more than half of all cases. To the former the disease must have been conveyed from without. The facts, however, prove that in the great majority of cases the tendency to the disease is transmitted and not the affection itself.

Although I am quite of opinion that there is urgent necessity for the adoption of such rules as will result in the destruction of the bacilli outside of the body, or prevent them from being taken into the lungs, yet from the very nature of the case, we cannot hope in that direction to be more than partially successful. It is therefore necessary to so strengthen and fortify the system that it can successfully withstand the attacks of the bacilli.

It is one of the most important duties of the family physician to thus shield predisposed persons as much as possible.

An individual is not able to choose his own parents, but he can very often so choose his occupation and place of residence as to remain free from the successful attacks of his great enemy. During childhood such persons should live in the open air as much as possible, should sleep in well ventilated rooms, and should eat good wholesome food which can be easily digested. In infancy they should not be nursed by their mothers.

The dwellings should be bright, well ventilated, and free from emanations from the soil.

During convalescence after measles, whooping cough, as well as all debilitating diseases, great care ought to be taken to avoid lung complications, and if these occur to see that they quite disappear.

A regular system of lung gymnastics might be

with benefit recommended. The apparatus made for that purpose in Boston, and which I saw in use in Davos is the best. It is probable that the pulmonary apices are first affected owing to the lessened expansibility of the chest in that neighbourhood.

Lung gymnastics are of no use, and perhaps do harm when the disease is advanced. In latent cases, and certainly, as a prophylactic measure, they have been found of great service.

Many of these directions, particularly as to outdoor life, can be best carried out in a mild, equable climate, and persons predisposed to consumption ought, if possible, to make their home in such localities. Perhaps the most important question is the nature of the trade or occupation to be followed.

Dr. Herrman Weber, at the International Congress in Berlin, gave the history of a family which presents many facts of great interest touching upon this point. Many of you have no doubt already read this account.

A teacher of languages and his wife both died of tuberculosis while under Dr. Weber's care. Of the seven children, one had already died of tubercular meningitis. The other six were healthy with the exception of the youngest, who had rickets. Of eleven cousins of these children, nine died of phthisis before the twenty-eighth year. It will thus be seen that the prospect of these children could not well have been more gloomy. They were sent into the country and there brought up with great care under the doctor's instructions. Now, what was the result? The eldest son, up to his twenty-third year, so long as he lived largely in the open air, was healthy and strong. He then became a hard student, working night and day, having his meals in his rooms, and taking very little exercise. In eighteen months afterwards he died of rapid consumption. The second son was a farmer, and remained healthy until his twenty-ninth year. He then became tired of the monotony of country life and went into a mercantile house, where he was engaged for many hours each day in an office. He worked hard at his books in his own room during the evenings. After two years he had repeated hæmorrhages, and in two years more he died of tuberculosis. The third son entered the cavalry service and is strong and

healthy. The youngest son is now living and healthy, a farmer in Manitoba. The fourth, a girl, became the wife of a country clergyman, and is still quite healthy. The sixth, also a girl, lives with her brother in Manitoba. She is strong and healthy.

Could any statement of facts give stronger evidence of the importance of choosing a profession or trade? In these cases it does not matter which view is taken; whether the disease or simply the tendency is transmitted the results are the same. The callings which are especially to be avoided are such as compel individuals to remain in close, ill-ventilated rooms, to work in a dusty atmosphere, or to live in a large, densely populated city. To be chosen are those callings in which a great part of the time is spent in the open air, and which do not require too great mental or physical strain.

It naturally often occurs that those predisposed to tuberculosis are placed in special danger on account of one member of the family having the disease. Under such circumstances it may be feasible to send some of the more delicate ones away from home.

I had once a family under observation in which all the children except two died of consumption. These two left home after the first death, went on a farm in the northern part of Ontario, and still remain healthy.

The greatest care should be taken that proper spittoons should be used, and that the sputa should be destroyed. It is said that six million bacilli exist in one expectoration, and according to Koch, eight hundred are necessary for a successful inoculation. During the past two years I had under observation a young girl suffering from tuberculosis. Her mother, contrary to instruction, washed the pocket handkerchief used by the patient for the expectoration. She thus contracted sores upon her hands which never entirely healed, no doubt due to local infection, and at the same time the lungs became diseased.

There is no doubt, too, that the patient can re-inoculate himself by carelessness in the disposal of the sputa, and this selfish consideration will often make him more careful when it is fully explained to him. The urine and feces are seldom, if ever, the source of infection, but for general sanitary reasons, ought to be properly disposed of.

Bacilli have been found in considerable numbers in the perspiration. These adhere accidentally to the skin, as they are not found when the surface has been washed by a disinfecting solution. The frequent bathing of a consumptive patient is therefore of great benefit, not only to the patient himself, but also to those around him.

He should occupy a bedroom by himself which should be thoroughly aired and periodically disinfected.

Kissing patients upon the mouth ought to be avoided.

With thorough cleanliness, destruction of the sputa and attending to the general measures spoken of, there is in my opinion little danger of the disease spreading from one to another member of the same family.

That nurses become under ordinary circumstances affected is strikingly shown by Cornet's (6) statistics. Of a hundred whose histories could be obtained, sixty-three had died of tuberculosis.

Further, Cornet's experiments of inoculating animals with the dust of hospital wards in which a large number of consumptive cases were treated, are also suggestive.

He found that when spittoons were properly used, and the sputa destroyed, he was not able to make a successful inoculation, although he made over seventy trials, and that when no precautions were taken he was very frequently able to make successful inoculations.

This leads up to the question, Should tubercular patients be treated in the wards of a general hospital? Yes, if proper precautions are taken. They are, however, a source of danger to other patients when all sanitary regulations are neglected. Many fatal cases of tuberculosis have, no doubt, originated in the wards of the hospital.

Before proceeding to speak of the treatment of tuberculosis in the incipient stage, I shall refer to our definition of that disease. Are all cases of phthisis pulmonum cases of pulmonary tuberculosis? Can we have a disease accompanied by cough, fever, night sweats, and breaking down of the lungs, in which the bacilli are not found, and in which the pathological process must be due to some other agent.

It is my opinion that such cases do occur, but they are so few compared with the whole number

that their existence is not practically of great importance, certainly not so numerous as to lessen our belief that the bacilli are generally the cause of phthisis.

In recent lectures on fibroid phthisis, Sir Andrew Clark has fairly proved the existence of such cases.

I was assured by the physicians at Davos and other establishments for the cure of consumption, that they occasionally met with such cases and that the absence of bacilli is an important point in the prognosis.

Dr Gabrylowicz, (7) a Russian physician of extensive experience, in an article on the cause and therapeutics of consumption, was able to give only nine fatal cases in whom no bacilli were found, either during life or on post mortem examination. He also gave five cases of apparently healed phthisis in which no bacilli were found in the sputa.

It is possible that in some of these cases the bacilli exist in very small numbers, as in lupus, and they are thus not easily detected. A case of some interest in this connection occurred in my own practice. An elderly body consulted me with regard to her lungs. I found positive signs of extensive induration in the lower and back part of one side. On informing the patient of what I had found, she assured me that Dr. Howard, of Montreal, had discovered a similar condition eight years before. A sad, but somewhat interesting fact is, that three years ago her daughter, a girl of twenty, was attacked by tuberculosis and rapidly sank under it. It is possible that in this case we have an example of very chronic tuberculosis, and while the mother still lives, she has already communicated the disease to her daughter, or is it, on the other hand, a case of non-tubercular phthisis.

It is possible that some of these cases may be really of syphilitic character. Last winter a patient entered under my care in the Toronto General Hospital, in whom a diagnosis of tuberculosis was made, although no bacilli could be found in the sputa. After some weeks she was put under anti-syphilitic treatment, and immediately began to gain weight and steadily improved.

While at Davos this summer the history of a case was related to me of a young man who came there with every evidence of tuberculosis. Bacilli were

found in great numbers in the sputa. The upper part of one lung as far down as the fourth rib was involved, and yet in four months the bacilli had disappeared; the lung seemed healed, the young man went away apparently cured. This case may, perhaps, be partly explained on the supposition that a catarrhal pneumonia surrounded the tubercular deposit.

Then again we must remember that pulmonary tuberculosis is a mixed disease and not the single process which is seen by experimentally inoculating animals. As Corbet (8) has recently shown, in his paper read at Leipzig, several different forms of pathogenic bacteria are present in the contents of cavities and in the surrounding tissues. We have therefore to deal with a chronic septic condition in addition to the tubercular process.

Then again blood poisoning from the absorption of toxic agents and from imperfect aeration must also be taken into account.

When we have discovered pulmonary tuberculosis in its incipient stage, the general regime should be our first consideration.

If circumstances render it at all possible the patient should at once be placed under the open air treatment. There are several methods whereby this may be accomplished, and we shall discuss them in the following order:

1. High altitude resorts for winter and summer.
2. Special hospitals for the treatment of consumption either on the higher elevations or on lower planes.
3. Southern climates which have a fairly even temperature.
4. The open air treatment as it can be conducted at home.
5. Sea voyage.

The main features of a mountain resort are (low atmospheric pressure). (1) The rarity and purity of the atmosphere. (2) Freedom from winds. (3) Dryness of the air. (4) The great amount of sunshine. On account of the rarity of the atmosphere, greater exertion in breathing is required as well as greater expansion of the lungs. If the patient does not take too much exercise at first, this extra draw upon the lungs seems to have a beneficial effect even in cases of active disease, and is only of disadvantage when there is not sufficient healthy lung remaining to perform the respiratory act with-

out risk of rupturing the air cells and thus producing emphysema. From my observation, I think that patients are not always sufficiently guarded on this point, and take too much exercise at first. The rarity of the air facilitates radiation and permits the transmission of the sun's rays without intercepting them. In the winter snow does not melt so rapidly and the air is consequently drier. At the same time the heat of the sun is so great that patients can comfortably sit or lie for hours in the open air in mid-winter, so long as there is no wind. The radiating thermometer at Davos will show 100° to 110° in the sun when it is ten degrees below freezing in the shade.

1. The purity of the air on the mountains is well known. Scarcely a single microbe could be found in a cubic metre of air at the summit of Mount Blanc. This is a matter of great importance to consumptive patients. Foreign particles, whether germs or of inorganic character, increase the irritation in the bronchi. I was told by a gentleman at one of the health resorts of Europe, who had a very extensive experience in the examination of sputa, that he has examined the expectoration of a patient taken early in the morning, and found no carbon particles, and that after the patient had taken a two hours' walk the doctor found particles of carbon imbedded in the mucus. All such foreign bodies, although they may not pass further than the bronchi, lessen the resisting power of the cells. Again the septic processes already spoken of must be set up by germs introduced from without.

2. The stillness of the air which is observed in sheltered mountain resorts is of great advantage, as on account of it patients can remain out of doors at a temperature which they could not endure if there was wind. It is noticed at Davos, as well as other places, that the occasional presence of wind completely changes the surrounding conditions.

3. The dryness of the air seems to exert a favourable influence. This, however, is not essential, for, as Dr. Osler asks, why should such good results be obtained at those resorts on the south coast of England? It is, however, generally admitted that, other things being equal, a dry air is more favourable than that containing moisture. The apparent discrepancy of views on this subject of the effect of dry and moist air, has not yet been explained, at least to my satisfaction. The great

amount of sunshine in mountain resorts, is without doubt a very important feature. It has been shown that tuberculous rabbits will live much longer in the sunshine than in dark rooms. In this respect resorts on this continent ought to have a great advantage over those in Europe. Leysin sur Aigle, in Switzerland, enjoys perhaps the greatest average amount of sunshine of any similar place on the Continent—over five hours each day in the winter time, and seventy-four clear days between December 1st and March 31st, 1887.

The composition and structure of the earth's surface has an influence upon the condition of the patient. It is generally conceded that those situations are the best where the rocks, granite, for instance, come near the surface, and where there is little vegetable mould.

It is safe to say that, as a rule, a consumptive patient in the early stage, when under strict medical supervision, has a better chance at a high altitude than under any other conditions. This is not on account of the bacilli ceasing to grow merely because of the high altitude, but that the surrounding conditions are the best for restoring the general health of the patient, and placing him in a position to overcome the disease. It has certainly been shown that the bacilli not only grow but are conveyed to previously healthy people at Davos, and tuberculosis has been found at much higher altitudes, as in Mexico and in the Himalaya mountains.

Now, the class of patients suitable for such treatment are those (1) in the earlier stages of the disease, when sufficient sound lung remains to perform the respiratory function with ease under the changed circumstances; (2) when the other organs have not been deranged by the toxic agents found in the blood of consumptives; (3) when there is sufficient vitality to withstand the greater strain. It is difficult in many cases to draw the line, and often nothing but a stay for a few weeks will demonstrate their suitability for such treatment.

Then, again, the care with which patients are treated when in health resorts, is a very important consideration. On this account I am strongly impressed with the value of the sanatorium, where the patient is under the immediate observation of the physician.

The cases which should not be sent are (1) those

in the advanced stage, when the amount of healthy lung is insufficient for the respiratory function; (2) when the blood is, to a great extent, poisoned from septic absorption or want of aeration; (3) when other organs have become affected, either from the toxic agents in the blood, or from further invasion of the bacilli; (4) excessively nervous patients; (5) those having complications, as Bright's disease, diabetes, or cardiac disease.

Now what is the process of cure at high altitudes?

1. Digestion and assimilation are at once stimulated and the general nutrition much improved. It is remarkable how soon the appetite increases and the patient gains in weight after a few weeks' residence at Davos. This is no doubt largely due to the great number of hours each day the patient is able to remain out of doors, as well as to increased oxygenation of the blood.

2. The rarity of the atmosphere causes greater expansion of the lungs, which, as a prophylactic measure, is excellent and is beneficial even when the disease is somewhat advanced.

3. The dryness of the air has an excellent local effect which has frequently been observed by physicians at such health resorts.

4. Owing to the thinness and clearness of the air the sun's rays are easily transmitted without losing heat. The rays, therefore, exert a greater effect on the body.

I will now take into consideration the utility of special hospitals for the treatment of tuberculosis, whether these are situated at high altitudes or near the sea level.

Dr. Turban's sanatorium, at Davos, and Dr. Dettweiler's, at Falkenstein, are examples of each of these. The former is over 5,000 feet and the latter about 1,000 feet above the sea level. They are built and conducted in much the same way.

These institutions are so situated that the front is towards the south, and they are protected on the north side by mountains and forests. A deep balcony or veranda runs along the whole front of the building, which is well supplied with curtains to be used in unfavourable weather.

The patients are placed under a strict regime. The main features in the treatment are life in the open air, rest, and careful attention to diet. Each patient takes the full amount of food which he can

digest and assimilate, and such articles are selected as will supply in full quantity each of the essential constituents.

A regular course of douching and massage is also prescribed in suitable cases. The patients are expected to take exercise, at Davos, from half an hour to three hours each day. In the great majority of cases this is confined to walking on the level, and afterwards along slightly ascending parts. At G6rbersdorf, exercise is a much more important feature, while at Falkenstein very little is permitted.

The patients spend the greater part of the day, from eight to ten hours, on the balcony resting, either partly sitting up or in a recumbent posture. The bedroom windows remain open all night throughout the winter.

It will thus be seen that, except during meals and the hours of treatment, the patient really lives in the open air.

The amount of rest enjoined at these institutions is often very trying, and I think might be modified to suit the various habits of the patients.

The sanatorium at Falkenstein was founded in 1877, and in 1886 Dr. Dettweiler published statistics of 1,022 patients. Of these 132 had been sent out as cured, and 110 as apparently cured. Of the former cases 72 who answered the enquiries were all in good health from three to nine years after they left the hospital.

This plan of treatment is much more easily carried out at high elevation than near the sea level, but the success which has been obtained at Falkenstein demonstrates the utility of such an institution in an ordinary flat country.

Then again the sanatorium at Halila, Finland, proves that they can be conducted successfully in cold countries.

The success of the cottage hospital at Saranac Lake, as shown by Dr. Trudeau's reports, ought to encourage us in greater efforts in this direction.

My observations have confirmed me in the belief that in our own country, in a majority of cases, patients would be much more successfully treated in hospitals especially adapted for the purpose than at their own homes.

I also think that if favourable situations were selected and careful meteorological observations made, some locality in the Western territories, for

instance, possessing the necessary climatic conditions could be found.

I have noticed for years that during the summer months patients do exceedingly well in Muskoka where they live most of the time out of doors. In fact, I have seen much greater improvement there than in many of the southern health resorts.

A question of great importance arises here. Can such hospitals be so conducted as to prevent the spread of the disease to the attendants, as well as the reinfection of the convalescent? From observation as well as from statistics, I am of opinion that such can be done. With the open air treatment, destruction of the sputa, bathing and periodical disinfection of the rooms and furniture, there is little if any danger of spread of the disease.

For charity patients a special hospital is a necessity, if we ever expect to be able to check the progress of consumption. The advantages of hospitals are: 1. That the patient is always under medical supervision, both with regard to food and exercise. 2. Any medicinal treatment can be carried out with greater regularity. 3. The patient is thus placed in the most favourable condition for recovery, and is at the same time no longer a source of danger to his relatives. If, however, such hospitals existed, fitted up for the wealthy as well as for the poor, one would naturally expect that a very large number would prefer to remain at home. Consumptive patients are, as a rule, very fond of home and often fret when removed from it. It has occurred to me that a somewhat modified outdoor treatment might be conducted, especially in farm houses which are, as a rule, in this province, large and comfortable. The patient could have a bedroom with a southern aspect, and sleep with the window open, so long as the temperature within was carefully regulated. A deep balcony might be erected on the south side, but not overshadowing the bedroom windows, where he could remain for hours together during the winter, as well as throughout the whole summer. At the same time a system of douching and massage could be adopted and the diet carefully regulated.

Perhaps while listening to these remarks, those of you who have been educated in the Toronto School of Medicine, will be reminded of the

advice so emphatically given by Dr. Aikins upon the subject of fresh air. This system of treatment of tuberculosis which is now becoming more and more in vogue, both in Europe and America, is nothing more than the carrying out of methods for so many years advocated by Dr. Aikins.

Dr. Flint, in one of the older editions, speaks of patients sleeping in the woods in the open air in California, and the same plan has been pursued with benefit in Germany.

The open air treatment in warm climates, at or near the sea level, such as that of Florida, Southern California, Algiers, and the south of France ought to be reserved for those patients with advanced disease, or of poor constitution, who cannot endure the strain of high altitudes or cold air as well as for those in the incipient stage, who for other reasons cannot live on the mountain. There is a relaxation produced by the heat which is in strong contrast to the bracing effect of cold. In many cases, however, life is very much prolonged by residence in such climates.

Frequently too little care is exercised in sending patients away for their health. I have made it a rule not to send a patient away unless he can afford to procure the same comforts as at home, he should not be sent alone unless he goes to a sanatorium.

It is of advantage to send incipient cases to a country such as Colorado, where they may continue to live after the disease has been checked.

The diet of patients ought to be carefully regulated so that the amount of fats and carbohydrates should be somewhat increased in proportion to the albumens. It is often of benefit to consult diet tables, showing the composition of the various kinds of foods so as to choose that which is most nourishing. Milk and cream are always at hand, and in them the various principles are nearer the proper proportions than in any other.

It is of course absolutely necessary that food should be properly cooked, and here physicians experience great difficulty in the treatment of phthisis as of other diseases. It is sad to be compelled to confess that in our own country, both in rural districts and in cities, the preparation and cooking of food among the masses is very much inferior to what it ought to be. Prof. Goldwin Smith has truly said that pork and pie are two

great hindrances to popular progress in Canada. I have no doubt that in many instances fatal diseases become seated on account of weakness of the constitution, the result of living on improperly cooked food.

No specific has yet been discovered for tuberculosis, and it is doubtful if at any future time a remedy will be found which will more than mitigate the effects of the disease when it is in an advanced stage.

The treatment by Koch's tuberculin has now been almost discontinued.

Dr. Leo Berthenson, (9) of the St. Nicholas Hospital, St. Petersburg, has given in a recent number of the *Deutsche med. Wochenschrift*, the results of his experience in the management of thirty-five selected favourable cases. The treatment was continued five months. I shall quote some of the conclusions, as they are among the most recent given.

1. The diagnosis of tuberculosis by tuberculin is not always certainly made.

2. The possibility of curing tuberculosis by tuberculin has not yet been established, but there is often an increase in weight and an improvement in the chest symptoms.

3. There is no certainty with regard to the duration of the improvement.

4. It is a very dangerous remedy in cases of well developed tuberculosis. It may increase the local conditions in the lungs, or produce inflammation and destruction of tissue, which may be dangerous to life.

5. On account of the danger attending the use of tuberculin in advanced cases, it should be limited to those in the incipient stages.

6. Even in the latter its use demands the greatest care, as it may produce local congestions in the internal organs.

7. It ought to be given at first in very small doses, and increased with great care.

8. He would not advocate its use by the general practitioner until its indications and contra indications were better understood.

9. By choosing the patient and by careful administration, there is but little danger in the use of tuberculin.

My own experience with tuberculin is confined to about half a dozen cases, which I had under my



immediate care, and about a dozen under the care of my colleagues in the hospital. Of my own cases the results were not satisfactory. In two there was a temporary improvement.

Dr. S. Botkin, (9) of St. Petersburg, has recently reported the result of his observations on the blood of patients who were being treated by tuberculin. He noticed (1) acute leucocytosis; (2) rapidly diminishing number of white corpuscles after the fever has subsided; changes analogous to those found in pneumonia and some septic conditions.

Tuberculin is no doubt a virulent poison which ought not to be used under the present circumstances. That it possesses curative properties is well shown in some cases of lupus and incipient pulmonary tuberculosis.

It is probable that after further investigations, tuberculin may be so modified as to be given with safety in incipient cases.

Dr. Carl Spengler, (10) of Davos, reports cases treated with a mixture of Koch's and Kleb's modified lymph. Good results were obtained without the production of the reactionary fever. Some favourable reports of cases treated by Hunter's modification have also been published.

Whatever may be the future of tuberculin, it is safe to say that it will never have a curative effect on advanced cases of disease.

The bacilli being the chief cause of irritation, and existing so deep in the tissues, no remedy can be introduced to destroy them which will not be dangerous to life.

In this respect tuberculosis differs from such diseases as tetanus in which the symptoms are produced by a toxic agent, the result of the local growth of bacteria.

A mere enumeration of the internal remedies is the strongest evidence of the obstinate and fatal character of pulmonary tuberculosis.

The following agents have been recommended for use by inhalation: Sulphurous acid, sulphuric acid, carbolic acid, hydrofluoric acid, oxygen, ozone, calomel in fairly divided powder, creasote, iodine, etc. The administration of sulphuretted hydrogen by the rectum, Weigert's system of the inhalation of dry heated air, Krull's treatment by heated vapour, have all had their day. Hypodermic injections of cantharidate of potass, iodide of gold, serum of dog's blood, goat's blood, with Brown-Sequard's fluid of

the testicles, also cabinets, with rarefied air and with condensed air, have been tried and found wanting. The internal administration of cod liver oil, creasote, guaiacol carbolic acid, carbonic acid iodoform anem, hypophosphites; the surgical treatment, disinfection of cavities, local injection of iodine, have all to a large extent failed.

In glancing over the literature of the therapeutics of tuberculosis, one is struck with the fact that, under every new plan of treatment, no matter how unreasonable cases are reported at first in which good results have been procured, such as increase in weight and melioration of chest symptom. This is no doubt largely due to the effect made on the mind of the patient. Some years ago I treated several cases in the hospital by Bergeon's method, rectal injection of sulphuretted hydrogen. All the patients expressed themselves as feeling better.

The treatment by Weigert's method of having the patient respire heated dry air was instituted on the ground that bacilli cannot exist above a certain temperature, and he hoped to destroy them by heating the tissue in which they were imbedded. Koch has shown that bacilli grow best at 37.5 C., are weakened at 38.5, cease to grow at 42° and cannot exist above that temperature. It has, however, been found impossible to raise the temperature of the lung tissue in this way to any appreciable extent, and that during exercise or forced breathing the temperature can be varied to a greater degree than by such form of inhalation.

More can be accomplished by Krull's method of inhaling steam heated to a certain degree. It is extremely doubtful if the temperature of the lung tissue can be sufficiently raised, or maintained long enough to have any effect upon the life of the bacilli.

Cod liver oil has no doubt been too often prescribed without reference to the condition of the stomach, and has then in many cases done more harm than good. I cannot, however, agree with those who say that it is of no use except as a food, and that other fatty foods much more pleasant to the taste may be substituted for it. When it can be readily taken and digested, it exerts a beneficial influence in phthisis much greater than can be accounted for on the ground that it is simply a food, and notwithstanding all the measures which have of late years been recommended, it still in my

opinion occupies a prominent place in the treatment of the disease.

The remedy which at present promises the best results is creasote. This drug was discovered in 1832 by Reichenback, and in 1877 it was recommended by Bouchard and Gimbert for phthisis.

Dr. Summerbrodt, (11) of Breslau, has recently confirmed his former views, and after thirteen years' experience is quite convinced that creasote exercises a curative effect upon pulmonary phthisis. He emphasizes the importance of large doses and a long continued use of the remedy. He prescribes capsules of  $\frac{2}{3}$ m., creasote with balsam of tolu, or cod liver oil. Of these he at first gives three a day and increases the number to twenty. Very often when it does not agree at first, by perseverance the stomach becomes more tolerant. My own experience with creasote has been favourable. It is difficult, however, to maintain its continued use. I have not used guaiacol, nor have I tried the recent Shurley Gibb's method of administering calcium hypophosphite.

My time does not allow me to consider palliative measures. Two circumstances ought to encourage us in the treatment of this obstinate disease.

1. The great number of cases of healed tuberculosis as demonstrated by the post mortem room. Osler found evidence of such present in 7.5 per cent. of those persons who died of diseases other than phthisis. Bouchard makes the statement that in 75 per cent. of the sections at the Paris morgue, some signs of previous disease had been found. In many cases, too, there had been a complete cure, as no cultivation nor successful inoculation could be made from the nodules. It is also a curious fact that in some instances

where bacilli have been found, they will neither grow nor produce the disease in animals.

2. Many physicians of long experience can point to cases of complete cure.

These facts ought to impress us with the importance of making an early diagnosis, so as to place the patient under the most favourable conditions possible, and at the same time ought to stimulate us in the discovery of new and better methods, so as to still further reduce the number of unsuccessful cases.

By intelligent and persistent efforts to destroy the bacilli, or to prevent their entrance into the body; by general sanitation; by the careful management of individuals who have a hereditary predisposition: and by the open air treatment, if possible, in special hospitals, for incipient as well as advanced cases, the ravages of the disease would, in my opinion, be diminished by one-half, and perhaps to a much greater extent.

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#### CASES ILLUSTRATIVE OF THE INFLUENCE OF DISEASES OF THE FEMALE GENERATIVE ORGANS, MORE ESPECIALLY AMENORRHOEA, UPON THE VISUAL APPARATUS.\*

BY G. STERLING RYERSON, M.D., C.M., L.R.C.S. EDIN.,  
Professor of Ophthalmology in Trinity Medical College,  
Toronto.

It would seem at first glance that organs so remote from the eye as the uterus and ovaries, could not possibly have any influence upon the well-being of the visual function. Yet cases are commonly met with which demonstrate in the most striking manner this most important fact. The reasonableness of it is the more apparent when one recalls to mind the phenomena accompanying normal menstruation; the increased vascular tension, the vasomotor, cerebral and spinal disturbances, which so generally attend normal and disordered menstruation, such as dimness of vision, fainting or flushing of the face, headache, nervous irritability, pains in the back and limbs, hyperes-

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- (1) Ziegler's Beiträge, ix., 3.
  - (2) Deutsche med. Wochenschrift, 1889, p. 326.
  - (3) Berlin klin. Wochenschrift.
  - (4) Semaine medicale, Oct. 23rd, 1889.
  - (5) Archive für Hygiene x, 2, page 174, 1890.
  - (6) Ueber Tuberculose, Dr. Georg Comet.
  - (8) Wiener med. Wochenschrift, May 7, 1892.
  - (9) Deutsche med. Wochenschrift, April 14, 1892.
  - (10) Deutsche med. Wochenschrift, April 7, 1892.
  - (11) Berlin med. Wochenschrift.

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\* Prepared for the Canadian Medical Association, Ottawa Meeting, September, 1892.

thesia and so on. When one further realizes that the eye is one of the most vascular of organs, and that in proportion to its size it is the most freely supplied with nerves, that the optic nerve is in direct intimate connection with the brain, one ceases to wonder that disorders of its nervous and vascular constituents are frequent.

I have already remarked that one of the occasional accompanying symptoms of normal menstruation is dimness of vision. This dimness takes the form of definite contraction of the field of vision. This has been carefully worked out by Finkelstein.\* He states that there is a notable contraction of the field of vision, that it begins two or three days before the flow, and reaches its greatest intensity on the fourth day, and gradually disappears on the eighth or ninth day, and that the amount of shrinkage varies in individuals. Not only is the field constricted for white, but also for green, red, yellow and blue. In twenty per cent. of his observations the appreciation of green was seriously impaired. The central vision was only slightly affected. I have had under observation a lady who on three occasions had attacks of hemi-anopsia during menstruation. As might be expected, she was greatly alarmed, but for more than a year she has had no attack, so it is to be hoped it will not recur. Women who are hyperopic, and who suffer from asthenopia, are always worse during their periods. Amenorrhœa of that variety which is characterized by entire absence of or very scanty menstruation, is often associated with eye trouble. I was consulted March 31st, 1890, by a young lady aged twenty-two, who had for three years complained of failing sight. She had had pains in and about the eye, and headache after use of the eyes. Her vision was  $R = \frac{1}{2}$ ,  $L = \frac{1}{4}$ , slightly improved by +1. Examination of the fundus revealed a partial atrophy of the optic nerve. She stated that she had never menstruated. She appeared to be well developed. A few days after her sister was brought to me complaining of somewhat similar symptoms. The vision equalled  $\frac{1}{2}$ , not improved by glasses. I did not succeed in materially improving her condition, and she passed from my observation. Mooren †

relates a case of interstitial keratitis in a twenty-eight year old peasant girl who had suffered from corneal inflammation since her fifteenth year. The exacerbations came on regularly every month. She had never menstruated. Strong emmenogogues brought on a slight discharge, but it would fail to reappear the following month. Treatment to the eyes was of no avail. A most curious case is related by Heusinger.\* He describes a case of vicarious menstruation in which blood oozed on one occasion from the eyelids, generally from the cheeks, often from the nipples, seldom from the hands, once from the ear, many times from the mouth and nose, and occasionally from the vagina. In consequence of ovarian dropsy and inflammatory attacks the uterus, vagina, rectum and bladder communicated, so that feces escaped from either or all the passages. A condition which is analogous in its effects upon the visual apparatus is the menopause. The disturbance of the nervous system at that period is attended by the rapid development of presbyopia. Asthenopia, irido-choroiditis, glaucoma, neuritis and optic atrophy are the not infrequent attendants on this critical period in woman's life. The condition which is fraught with the greatest danger to vision is sudden suppression of the menses from such causes as fright, mental excitement, anxiety, over-fatigue, grief, shock, etc. The sudden arrest of the flow causes a distension of the vessels, especially of the head, with disastrous effect. Sudden, complete and permanent blindness may result from suppression of the menses. Mooren † cites a case (of Samelsohn's) of amaurosis occurring in a young girl twenty-one years of age who, while menstruating, walked into a cold running brook with bare feet. The flow was immediately arrested. The same evening she complained of pain and weight about the eyes. The next day a slight defect in vision was complained of. The sight gradually failed, so that in five days one had lost perception of light. The ophthalmoscope showed slight haziness of the retina and enlargement of the retinal veins. Under antiphlogistic treatment, in three days quantitative perception of light returned. In eleven days she could read with the right eye No. 1, and with the

\*Dissertation, St. Petersburg, 1887. *Ophthalmic Review*, VI., No. 73.

†Gesichtsstorungen und uterinleiden. A.F.O. 1881.

\*Schmidt's Jahrbuch. Vol. IX., page 91, quoted by Cohn.

†Loc. cit.

left No. 3. Seven weeks later the menses reappeared, and the sight gradually became normal. Many cases similar in general outline to this one have been recorded. In almost all vision returned with the reestablishment of the menstrual flow, but in a percentage of the cases the blindness became permanent. A more common and serious class of cases is that which is characterized by intraocular hæmorrhages. These are sometimes accompanied by epistaxis, hæmoptysis or hæmatemesis. These hæmorrhages may take place into the optic nerve, or its sheath, into the retina, or more commonly into the vitreous. A flush of red and then darkness is their story. The fundus is found to give no reflex or a dark one only. The treatment of these cases should be cupping or leeching the temples and the hypodermic administration of pilocarpine as described by me in the *American Journal of Ophthalmology*.<sup>\*</sup> Optic neuritis and retrobulbar neuritis are occasionally met with. Leber† has written very fully of these. I would refer you to his writings for a detailed account.

A very striking case of retrobulbar neuritis is recorded by Franz Stocker.‡ A lady aged twenty-eight menstruated regularly every four weeks. In the previous year she began to suffer from anæmia. On the 8th of April, 1889, her menses should have appeared but did not do so. On the following morning on awaking she observed a marked limitation of the lower half of the field. During the day the sight grew gradually dimmer, and by night she was quite blind. An examination showed a dilated and sluggish pupil, but the ophthalmoscopic result was negative. Three days later the papilla began to swell. Its margins were hazy, the veins enlarged and tortuous. After the next menstruation the fundus-picture did not alter, but after the second period, seven weeks from the attack, the sight began to return, and she could with some difficulty count fingers. By the 1st September, vision was almost restored, energetic treatment tending to the restoration of the menstrual function having been used in the interval.

In conclusion, I think I may fairly claim to have

established, with the aid of the authorities quoted, the close relationship which exists between eye and menstrual disorders, especially amenorrhœa. I hope on some future occasion to consider the relationship which exists between other diseases of the female generative organs and the ocular apparatus.

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### APPENDICITIS.\*

BY DR. H. P. WRIGHT, OTTAWA.

Case I.—J. M., taken ill on a certain Sunday suddenly with acute abdominal pains, which, notwithstanding warm applications and opium, increased, and that night was diagnosed as *acute appendicitis without tumour*, by the attending physician, Dr. Garrow. As far as I can recollect, a few hours after the first onset of the pain, it became localized in the iliac region, and remained there with the usual subjective symptoms of rapid small pulse,—slightly elevated temperature,—anxious facial expression, and constipation till Tuesday morning, when the pain and tenderness became more general, associated with tympanites, and a pinched condition of the features. On Tuesday night I saw him with Doctors Garrow and Henderson, and found marked tympanites, pain and tenderness over both flanks, with deep dullness on percussion, particularly in the right iliac region. Pulse small and wiry, facial expression bad. The diagnosis was acute perforating appendicitis with general peritonitis, and it was decided to operate early on the following morning. Willard Parker's operation was adopted; a curved incision was made over the site of greatest dullness, about an inch above the middle of Porpart's ligament. The division of the deep tissues was followed by a gush of stinking pus. The appendix inflamed, thickened and adherent was tied and removed. Peritoneum was adherent at different points to intestines which, on separation, was found to pocket pus, an accumulation being found even on the opposite side. The abdominal cavity was well washed out with boiled water, a double drainage tube inserted, and the wound packed and brought together. Death occurred in about twelve hours.

Probably in this case perforation occurred on

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\*Vol. IX., No. 1. January, 1892.

†Handbuch des gesantem Augmheil kunde Graefen, Sæmisch.

‡Cohn, loc. cit., page 113.

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\*Read at Meeting of Canadian Medical Association, Ottawa, September 21st, 1892.

Tuesday, because till Tuesday towards the afternoon, there was no tympanites, and the tenderness was even then found to be limited to the right iliac region; in the evening it was marked in the left, and then there were symptoms of collapse.

Guerster says that the "absence of tumour with very acute local and general symptoms represents an extremely grave combination of things, its meaning being a general perforating peritonitis. It would be extremely difficult to save the patient even by the most resolute means." But before perforation occurred, the case doubtless belonged to the first class, that is, simple appendicitis without tumour, about which we are told that "whenever acute and persistent pain occurs in the iliac region, accompanied by vomiting and retching, the pain being markedly increased by palpation, trouble of the appendix could be confidently diagnosed." and further on he says, and this is a most important point, "that in view of the impossibility of foretelling whether in a given case, spontaneous evacuation of the contents of the appendix or perforation is to take place: and in the latter case, whether superficial or deep-seated abscess will develop: and considering the fact that laparotomy followed by excision of the appendix yields good results if done before perforation occurs, it is safe to follow McBurney's advice, which recommends removal of the appendix, if the symptoms persist and increase for forty-eight hours.

Case II. - Railway conductor, aged 32. Was first seen by Dr. Edwards on the third day after onset of acute symptoms, and by me in consultation on the following morning. We found pain and tenderness over the whole iliac region, very little tympanites, slight elevation of temperature, slight dullness on percussion on very deep pressure. We made up our minds to wait for further developments in the absence of other alarming symptoms. In three days, the dullness being well defined, and extending towards the lumbar region, we agreed to operate, and an opening was made directly over the site of the appendix. The adhesions were so firm, that it was thought well not even to search for the appendix, and after evacuating a large quantity of stinking pus, it was washed out and drained with a double drainage tube. The case progressed favorably. On the

tenth day the drainage tube was removed and at the end of four weeks the patient was walking about, and shortly after resumed his occupation. This is a good illustration of the type of ileo-inguinal acute perityphlitic abscess, by far the most common variety, and when recognized, in the absence of acute symptoms it is often good surgery to wait until the fourth or even the sixth day before operating, so that firm adhesions may take place between the peritoneum, constituting the anterior wall of the abscess, and the adjacent tissues. Entering the abscess is then found a simple matter and absolutely unattended by danger.

Case III. The next case is one of Dr. Garrow's, on a blacksmith, aged 18. Commenced to complain on Friday, 18th July, 1890, of headache, constipation and malaise, and on the Sunday following vomited. Immediately after had severe abdominal pain, and in a few hours the pain and tenderness were limited to the iliac region. Next day the tenderness was very marked, associated with dullness extending outward towards the lumbar region, and upward, so that it became lost in the liver dullness. I saw him on that day with Drs. Garrow and Henderson, and we agreed to operate in the afternoon. A large quantity of stinking pus was found corresponding with the area of dullness. Owing to adhesions the appendix could not be found. The abscess cavity was washed out and a double drainage tube inserted. Notwithstanding the greatest care, there followed tympanites, and every indication of general peritonitis and impending death till the following Thursday, when he passed a large quantity of flatus, and the following day and several succeeding ones foetid matter and pus. He then progressed satisfactorily till the end of August, and in the early part of September walked as far as Dr. Garrow's office. After that he developed a septic pneumonia, and some time later we opened a large post hepatic abscess which was probably septicemic, and possibly due to direct extension from the appendix. He died in a few days after the second operation from exhaustion.

Case IV.—Dr. Edward's case of a girl of about 15 with ileo-inguinal abscess, operation about the fifth day. There was firm adhesion between the peritoneum and the adjacent tissues. The abscess cavity was entered for that reason with

safety, a double drainage tube was used, and the patient, I understand, recovered without a bad symptom.

Case V. —Dr. Henderson's case—ileo-inguinal. A young man about twenty-four years of age, clerk in a dry goods store. Shortly after first onset of symptoms, pain was eased by opium and bowels kept open with salines. I saw him on the fourth day with Drs. Henderson and Garrow, and found unmistakable evidence of tumour, pain on pressure, dullness from the site of the appendix towards the lumbar region about four inches and two-and-a-half inches in width. Pulse rapid and abrupt, temperature  $102^{\circ}$  and ascending. The temperature being the same on the following day, and the other symptoms unchanged, operation was decided upon. The peritoneum was found healthy. Appendix behind the cœcum, black and distended, with a point of suppuration near the bowel. It was tied with a double silk ligature and removed. Recovery progressed without any undue event.

Case VI.—A spare, healthy boy of 15 under Dr. Lynch, of Almonte. Was taken ill with abdominal pain on Saturday, 10th October, 1891. Symptoms increased, with indications of localization, and on Tuesday morning, when I first saw him, his facial expression was bad, pulse small and rapid, skin clammy, great tenderness over the iliac region, and dullness on percussion. Gave him a full dose of opium, which produced rest, and in six hours we found the general condition much improved, with local symptoms unchanged. Owing to the seriousness of the constitutional symptoms, immediate operation was decided upon. An incision was made over the site of greatest dullness, one and a-half inches to the umbilical side of the anterior superior spinous process. Peritoneum found healthy, and presenting surface of cœcum in the same condition. On passing finger behind the cœcum a lot of stinking pus escaped, and a further examination found the appendix collapsed, highly congested, and firmly adherent to the posterior wall of the cœcum. Washed out the abscess cavity and inserted a double drainage tube. I felt some little anxiety as the peritoneal cavity was exposed, owing to the peculiar position of the abscess, and on that account drew the edges of the wound well together, and ordered perfect quiet,

feeling that in a few hours sufficient lymph would be thrown out to protect the peritoneum. The case progressed satisfactorily. At the end of two weeks, the discharge being serous and inoffensive, the tube was withdrawn. Since then, I understand, his progress has been uninterruptedly good. I look upon this last case as one of deep-seated ileo-inguinal abscess, owing to the position of the appendix on the posterior aspect of the cœcum. I have always been opposed to the use of exploratory needles, and this is a case in which such an experiment would have wounded the bowel.

Shortly after the last operation, I was asked to see a case with Dr. Lynch, of Almonte, and unfortunately I have lost the notes of his case; for purposes of illustration, it will, however, suffice to give an outline of it:—J. R., a boy of about 14, with good family history, and a previously good record, was seized with acute pain and vomiting on a given day: soon associated with increasing temperature and pulse. Symptoms steadily grew worse, and on the third day I saw him. Condition was then grave, pulse small and rapid, temperature  $102^{\circ}$ , belly flat, great pain and tenderness over whole of right iliac region, with badly defined dullness on deep pressure. Pain and tenderness extended over towards the left side. It was considered necessary to operate at once, an incision was made well above the middle of Porpart's ligament, and though the abdominal cavity was entered, no pus exuded. After some time, by careful digital exploration through the wound, the abscess cavity was entered between the pelvis and the bladder on the right side; offensive pus freely escaped, and with it came into the wound a large mass of suppurating omentum. This, after ligaturing with catgut, I amputated, then washed out the whole cavity with boracic acid and hot water, put in a double rubber drain and closed the opening. He only lived twenty-four hours, and died of general peritonitis. Were I called upon to deal with such another case as this, I should make a second opening in the median line to secure thorough drainage and to facilitate free irrigation as recommended by Mr. T. R. Jones, of Manchester. Since November I have had, in my own private practice, four cases of acute appendicitis recovering without operative interference. Though important and interesting, the details of such cases are too

familiar to you to permit me to relate them. I will only say that I treated them all with small and repeated doses of calomel, and large doses of sulphate of soda to keep the bowels patient, and occasionally with an opiate to relieve the pain, the dose of the latter being in direct ratio to the amount of suffering. Though in two of these cases a temperature from  $100^{\circ}$  to  $102\frac{1}{2}^{\circ}$  continued for nearly a week, and dullness on percussion and tenderness for the same time, so that every day I was prepared to operate, I never felt that the right time had quite arrived. Slowly the symptoms improved till convalescence was established.

In one, a boy of 9, was taken ill the 26th of November, with great pain in right iliac region. On the 27th the pain increased, and was "markedly tender" over McBurney's point so that "he could not bear the slightest pressure." Vomiting set in on the 28th, and on the 29th, in response to the treatment already mentioned, he passed, together with an ordinary motion, a *whole* apple core. This was followed by immediate relief and rapid recovery. I will allude to this case later on.

In dealing with this subject, I have put to myself several questions, and have answered them to the best of my ability. I have dealt with my subject in this way for two reasons. First, because I think it enables me to select the most interesting points: and next, because it will, I hope, elicit concise and instructive discussion by the many able and experienced surgeons here to-day. I must begin with that all important, oft repeated, and yet unanswered question: When shall we operate in appendicitis? All authorities, McBurney, Sands, Guerster, Pepper, Bridge, Fitz, Jones, Treves and others, agree, that when, at the end of twenty-four hours, there is an evident disposition to extension of local symptoms and an increase of constitutional disturbance, with or without tumor, *operate*.

When there is tumor, the surgeon must be guided by surgical knowledge and surgical sense. If there are no constitutional symptoms it may be wise to wait for five or six days, when the operation is as safe as opening an ordinary abscess. Still, he must always bear in mind the possibility of a rupture into the peritoneum at any moment, with a rapidly succeeding septic general peritonitis.

With a distended, tender appendix, the seat of

pus, and associated with all the usual symptoms of septic abruption, I know of no means to diagnosticate it from abscess. If it could be, an early operation would be called for to avoid peritonitis by the removal of the appendix. It seems to me the definition must ever remain more or less comprehensive.

How is the abscess formed? It is generally explained by the more or less gradual oozing of pus from the perforated appendix. As the pus comes into contact with the surrounding serous membrane, adhesive inflammation is at once set up, and the abscess wall is thus formed. If this covers the case, it seems to me the greater number of abscesses would be meso-cœlic in obedience to the law of gravitation, as most patients remain all the time in the dorsal position, yet this we know to be the rarest variety. My impression is that adhesions are formed when the appendix is inflamed, between it and the adjoining tissues, and that when perforation occurs, pus finds its way into the parts offering the least resistance. A free appendix is most likely to empty itself into the cœcum by virtue of its anatomical construction, yet, if the resistance offered be too great, its perforation is most likely to be followed by a general and a fatal peritonitis. This explanation will, I think, to some extent, explain those serious cases we now and again meet, with grave local and constitutional symptoms, when the problem of operation is constantly before us, and yet spontaneous relief is obtained, or rapid collapse occurring, we are led to believe we should have operated earlier.

Can inflammation of the appendix be diagnosed from inflammation of the caput cœci or of the pericœcal structures? I know of no means by which this can be done. Any of these conditions may exhibit the greatest tenderness over McBurney's point, as in the case already related, where relief was obtained on the fourth day by the passage of a complete apple core. As a rule, of course, there are distinguishing features, but occasionally a satisfactory diagnosis is impossible.

Should the incisions marked out by McBurney and Willard Parker always be adopted? I am inclined now to agree with Mr. Jones of Manchester, and to enter the abscess over the site of greatest dullness, particularly if associated with œdema. The greatest argument against this is the difficulty

of distinguishing between the dullness of the abscess and that produced by the tonic contraction of the fleshy abdominal and lumbar muscles, when the abscess is, and it often is, directed backwards. I find that even in healthy men, with well developed muscles, the percussion note is *dull* over the extreme right of the iliac region. This point should be borne in mind, as I am certain it has caused serious mistakes in treatment.

Having made the incision and opened the abscess, should we search for the appendix? Even my own limited experience has taught me not to do this. If the appendix is not adherent, and can be easily found, and is distended, inflamed, or perforated, it should be removed. I think all authorities now agree with this opinion and practice. Sloughs often come away after some days.

*Should we close the wound?* I think this a most important question, and has much to do with the ultimate result. In all the operations I have witnessed or taken part in, the rule has been to allow of room only for the drainage tube. Bryant and Jones recommend the lower half of the incision to remain open, and the whole to be stuffed with iodoform gauze, the latter to be removed on the third day usually, and again packed, and so on till granulation tissue fills it up. I should like very much to hear the opinions of those present relative to this. In the same connection we might include the material used for drainage. I have been in the habit of using a double perforated rubber tube, with one arm shorter than the other. This has the possible disadvantage of being rendered useless as a drain by compression in the event of much tympanic distension. For that reason many recommend a glass tube, but that may cause ulceration by pressure of the abscess wall, with consequent mischief. Others recommend strips of gauze, and this may be the best means, though I am unable to speak of it from experience.

HEMICRANIA: Pastilles:

R Phenacetin . . . . . 3 grams.  
Caffeine and Sod., Salicyl. . . . . 0.15 gram.  
Quinine Hydrochlorate . . . . . 2 grams.  
Morphine Hydrochlorate . . . . . 0.05 gram.  
Saccharine . . . . . 0.01 "

Divide into 30 pastilles.—One per dose.

—*Schlutius*.

CANADIAN MEDICAL ASSOCIATION.

TWENTY-FIFTH ANNUAL MEETING.

PARLIAMENT BUILDINGS,

OTTAWA, *Wednesday, Sept. 21st, 1892.*

The meeting was called to order at 10.30 a.m., by Dr. Roddick, the retiring president, who, after a few remarks requested Dr. Bray, of Chatham, the president-elect to take the chair.

The following nominating committee was then elected:—Drs. J. A. Mullin, J. E. Graham, J. W. Campbell, A. Rosseau, F. W. Strange, R. W. Powell, H. H. Chown, T. G. Roddick, A. Taylor, L. C. Prevost, V. E. Edwards, C. O'Reilly, I. H. Cameron, J. Christie, G. L. Milne, the President, and the Secretary.

The following notice of motion was then considered: "That no proposal for Honorary Membership shall be presented to the Association unless it shall have been previously submitted to a committee consisting of the president, secretary, and vice-presidents, who shall report to a meeting before the name is submitted for election." This was moved by Dr. J. A. Mullin, of Hamilton, and seconded by Dr. J. E. White, of Toronto.—Carried. The president invited the past presidents to seats on the platform, and then welcomed the delegates from the Ontario and Rideau Associations.

It was then moved by Dr. Strange, seconded by Dr. Powell, that only delegates and visitors from places outside the Dominion should have the privilege of registration without a fee.—Carried.

The motion to engage a stenographer to report the proceedings of the Association in order to have an official record, was referred to a committee consisting of Drs. R. W. Powell, E. E. King, A. Rosseau, J. W. Campbell, W. H. B. Aikins and H. S. Birkett.

Dr. Mullin spoke feelingly of the sad illness of Dr. Geo. Ross, of Montreal, an ex-President of the Association, and moved, seconded by Dr. J. E. Graham, the following: "That this Association has heard with deep regret of the illness of Dr. Geo. Ross, and beg to tender our sincere sympathy in his affliction."

It was suggested by Dr. Graham, that the subject of cholera be discussed at the afternoon session;



and that an invitation be sent to Hon. J. Carling and other Ministers of the Crown to be present.

AFTERNOON SESSION.

Dr. D. MacLean, of Detroit, Dr. Bulkley, of New York, delegate from the N. Y. State Medical Society, and Dr. Kent, delegate from the American Medical Association, were made welcome and introduced to the meeting.

The President, Dr. Bray, then read his address. (See page 89).

Dr. McPhedran, of Toronto, then read a paper, which was briefly discussed by Drs. Graham and F. W. Campbell.

Dr. H. P. Wright, of Ottawa, followed with a most excellent paper on APPENDICITIS. (See page 107). This was followed by an interesting discussion.

Dr. BULKLEY—I suppose no one knows less about this subject than I do, but personally I hope there is nobody knows more about it. My first case occurred some thirty years ago in my own person. I merely speak of it, as no mention was made of the mode of perforation that took place in my case, and as far as I have been able to ascertain by reading, it is not mentioned by any of the authorities. When a boy twelve years old, I had the ordinary symptoms known as appendicitis, and was treated by Alonzo Clark. It was one of the earliest cases of opium treatment. The amount of laudanum I took in two weeks was about two pints. I had no movement of the bowels at all—poultices were applied to my side and my life was despaired of. At the end of five weeks or thereabout, the abscess discharged into the bladder, spontaneously of course. For a couple of days there was a free discharge of pus and the fever abated. This is the first time that I have mentioned the case.

Sir JAMES GRANT—I have been very much interested indeed, in the excellent paper by Dr. Wright on "Appendicitis," inasmuch as it is one that has attracted the attention of physicians and surgeons during the last few years, Dr. McBurney, of New York, who has written some admirable articles on the subject, has brought to light many important points in connection with it. I merely wish to bring before you to-day, as I have

not had an opportunity of writing up my notes on the subject, a case that I have now under observation. A gentleman who is in his seventy-eighth year, was attacked with very acute pains in the neighbourhood of the appendix. Opiates were administered. I came to the conclusion that it might be, from the symptoms connected with it, a case somewhat unique in its character. I was under the impression that it was a case of acute inflammation in connection with the appendix, or the tissues around it. I had attended him many years before for attacks of rheumatic gout, which generally ended in laying him up for weeks at a time. Had it been otherwise, I should have been inclined to follow the system of those who advocate early operation. I prescribed energetic dry cupping over the appendix. I informed my patient that I believed it was not at all unlikely that he would develop an attack of gout in his extremities, as had been the case years before. On the eighth day after the abdominal trouble had almost disappeared, he had a moderately acute attack of gout. I mention this case to show how little we know about the appendix. Some years ago I had occasion to write an article on the appendix, which was taken up later on by Dr. Howard, of Montreal. Since that time the treatment of appendicitis is largely by operation, and now the abdominal cavity is regarded as a kind of gymnasium, and men think nothing of opening it to see what is the matter.

Dr. HILL (Ottawa)—Is there any gentleman here who can give us any information as to the physiological use of the appendix? Also, I would like to ask Sir James Grant whether in ninety-nine cases out of a hundred he would be enabled to apply the dry cupping over the attacked region? My private opinion is that it could not be used in one case out of a hundred.

Dr. D. MACLEAN (Detroit)—I listened with very great pleasure and interest to the practical and suggestive paper of Dr. Wright, and if it were in my power to add anything in the way of definiteness or certainty to the problems which he has so ingeniously suggested, I should be very happy indeed, but I do not think that I am in a position to do so. I do not think that any person is as yet. After all, the operations in cases of appendicitis are of very recent origin, and I think

it will be some time before we are able to lay down a complete set of rules for our guidance in those cases, they vary so much from each other. I think there is one point with regard to the management of appendicitis: we must take into consideration each individual case and judge of it on its own merits. We cannot lay down a general law that will apply to every case. Patients vary as to their age, as to their habits, as to their general condition, and in so many ways that while in one case it would be very easy to decide what course to pursue, in other cases it is a matter of the most extreme difficulty and the greatest responsibility. I may illustrate by one or two cases which have occurred to me quite recently. One was a case of a very well-known young gentleman in the city of Detroit, a man occupying a prominent position there, a gentleman whom I have known for twenty years at least, and who has always been very delicate—a kind of constitution that a surgeon would be very unlikely to select if he could arrange the matter beforehand as a subject of operation. This gentleman was in the woods when he was taken ill, one hundred and fifty miles away from home—taken ill with all the characteristics of appendicitis. He got a special train and was brought home as soon as possible, and I saw him perhaps forty-eight hours after the commencement of the symptoms.

He was then suffering very much pain and had a good deal of fever—about 101—a rapid pulse, very furred tongue, very sallow complexion, and altogether it looked as if it would take very little indeed to turn the scale against him. The indications for operation were clear, except in so far as there was no fluctuation. That would have settled the matter of course. There was tenderness and swelling and all the characteristics. No doubt if it had been an ordinary case brought to a public clinic or hospital, there would have been very little hesitation about performing an operation. But in this case, in view of the responsibility connected with it in many ways, and in view especially of the patient's condition, I did hesitate and I made up my mind that I would wait anyway for twenty-four hours longer, getting everything ready in the house to operate, providing the temperature went up or other indications seemed to require it. I watched him very carefully indeed. In twenty-four hours his temperature had begun to go down. The

swelling at the appendix had begun to disappear to some extent. His general condition was better, his pulse moved freely, the expression of his countenance improved and I felt still further encouraged to wait. I did so, watching him very carefully until the symptoms gradually disappeared and he got well without an operation. Now, there is one of those cases that illustrate the difficulty in deciding as to the operation. I have no doubt at all that if ten operating surgeons had seen that patient, eight at the very least would have determined upon an operation, and yet the patient made a good recovery without it. A very few days afterwards I was called into the country to see a young man, aged 22, who had violent symptoms of appendicitis, and had been suffering for several days. I was called for the purpose of operating as the surgeon in attendance was confident that nothing but an operation would have saved the patient's life. Sure enough I found him with a high temperature with well-marked swelling, and I believed I could detect fluctuation. At all events, the general symptoms were so urgent that the case did not seem to me to admit of any doubt whatever as to an operation, and I with very great facility found the perforated appendix imbedded in a large cavity of exceedingly fetid pus. I removed the appendix, washed out the cavity very thoroughly indeed, and left the cavity open with absorbent gauze so arranged as to make a good drain, and the patient recovered without any bad symptom. These are two characteristic cases illustrating the position that a surgeon very often finds himself in with regard to appendicitis. The question as to operation of the one case had gone so far, the last one I have described, that any doubt about it had really vanished. A few days before it might have been much more difficult to determine, although no doubt the patient would have had a better chance.

There is one point that I notice in Dr. Wright's paper—the question of the kind of drain to use. I have tried all kinds and have settled down at last to gauze. I believe iodoform gauze makes the surest drain so long as the cavity is not too full to obstruct discharge. Just a few days ago I operated for a case of appendicitis which also elicited another point brought out in Dr. Wright's paper. All the symptoms of a rapid case of appendicitis

were there, and I was called in for the purpose of operating. I operated on the patient within five minutes from the time I first saw him. The case had gone so far that the patient had been delirious, although the temperature was normal. One cannot always trust the thermometer. There was a patient in an advanced stage of appendicitis and yet his temperature was normal. Still his pulse was bad and he had a low form of delirium. There was a discharge of a large quantity of pus. I washed out the cavity and made a good drainage, and the patient made a very rapid recovery. The point I wish to make is especially this, that I never saw the appendix. I passed my finger in and I found the abscess which was caused by the appendicitis was fenced off from the peritoneal cavity, and so I operated without touching the cavity, and I thought I should repress my desire for an additional specimen for my collection, and resist any tendency to look further for the appendix. He made a good recovery, as good as I have ever seen, and I do not suppose I shall ever have any further trouble with him. I do not think it is always necessary to find the appendix or remove it. There is one other point with regard to those cases—it is one of the most unfavourable and unpleasant to contemplate. I can illustrate it by a characteristic case which occurred in my own practice about a year ago. A young lady had recurrent attacks of pain caused by appendicitis. I had been called in once before but the attack had passed off and she was well, though she had a delicate constitution. Another attack took place and I was called in. The symptoms continued and became aggravated, although there was no very definite swelling. There was a high temperature, rapid pulse, pain and general constitutional disturbance. In that case it was thought necessary to operate and I do so. In that case we got down to the appendix and with the utmost facility found the appendix swollen, inflamed and adhering. I separated it very gently of course. I do not think the whole operation lasted over five minutes. I closed it up and congratulated myself on having struck a very satisfactory and easy case. She was a young lady about seventeen years of age. Unfortunately she never did any good after the operation. She woke up in agony and all the symptoms of collapse came on with tremendous rapid-

ity, and in twelve hours she was dead. Unfortunately, I could not have a post mortem. Strange to say, on the same day, in New York, Dr. Bull, of that city, performed an exactly similar operation on a young lady of exactly the same age and with exactly the same result. He could get no post-mortem either. Now, perhaps on the other side of the abdominal cavities there was a secondary accumulation of pus which was not detected, and if I find myself with a similar case hereafter, I think I should make a careful exploration. If I did not find the pus which we had reason to believe existed somewhere, I would not have been satisfied with merely removing the appendix, which was done in this case with very great facility, but I should have had a suspicion that there was something more and try to find it. I think it is quite possible that in that case we might have found in the pelvis or somewhere a collection of pus which, if had it been removed, might have had the effect of saving the girl's life. Another point and I will have done; it is a very nice subject, and once you get a surgeon started on it, it is hard to stop him. It is a subject on which the surgeon is mostly always wound up. One other point I want to make here, and that is the danger of the exploring needle or aspirator. I think we might almost say now that the aspirator has outlived its usefulness. I know very few cases in abdominal surgery where the aspirator is required. I have seen very sad cases indeed where great injury has been done by it. First by the injury it involves, second by sepsis, and thirdly by the incomplete diagnosis. There may be cases where you may empty an abscess by the aspirator successfully, but they are exceedingly rare. They generally leave enough behind to insure further trouble. At all events, as far as appendicitis is concerned, it is a paltering palliative and ineffectual mode of dealing with it. Either do one of two things—trust to nature and general treatment, or explore the abdomen and make a thorough, complete and scientific operation.

Dr. HILL.—This interesting discussion has opened my memory, and I recollect a case that I was attending at Brighton, England, years ago, of a young lady who was suffering from appendicitis. There was constipation, and when that was overcome, she voided no less than eight plum stones. She had eaten plum jam eight weeks previously.

## DISCUSSION ON CHOLERA.

THE PRESIDENT, DR. BRAY—We have the Minister of Agriculture here, and I would ask now that Dr. Bryce come forward and open the discussion on cholera. The Honourable Mr. Carling does not wish to make any remarks now, but will do so afterwards.

Dr. BRYCE said, Gentlemen,—I have only to remind you that it is not six weeks yet since we had an official notice of cholera being present in Hamburg, that we have seen cholera brought from that point to England and to a United States port, endangering our own various localities to an extent which has created an extreme interest, which epidemics of cholera invariably have done since their first appearance here in 1832. In the limited time at my disposal, I shall only refer to two particular portions of the question of "What has this continent to do to protect itself against cholera?" In view of the fact that we have with us the Honourable Mr. Carling, the Minister of Health, as you may call him, who has to deal especially with these two particular parts of the work to which I will specially address myself, we might speak very naturally in this Association of the medical treatment of cholera. I shall say nothing on that point. We might, as some of us are health officers, speak with regard to our duty as local health officers, but there are other questions that have come before me in connection with my work as secretary of the International Health Commission, which I shall specially take up in the few minutes I have at my disposal. You will remember that the International Conference is simply a meeting of executive officers, and that after the deliberation the president selected a commission of some seven gentlemen, four of whom made the eastern trip to inquire exactly into the border defences against the introduction of the disease to this continent. We started about the first of this month, and visited the Grosse Isle quarantine, and from thence, the day after the disease appeared in New York, we hurried as rapidly as possible to New York harbour, and there saw what all of you have read about, the detention of thousands of passengers in the middle of the harbour on infected ships. We went from that point to Boston, to Portland, St. John, and Halifax, and back again to Philadelphia and Washington

I may state the general conclusions arrived at by the Commission, and I would say here that if after discussion this Association thinks them reasonably practical and well founded that they should in some way or other pass a resolution which will give the Minister some support in his endeavours (which I know are honest) to protect this country as far as he is concerned from the introduction of the disease which we all apprehend will come next year. I may say in brief that we have found this—that, assuming the disease to be brought to this continent in ships, there is a great lack at all points generally of provision for the removal of the healthy from infected ships. That is the very thing we found in New York harbour, and it seemed to us absolutely inhuman to see the large ocean ships, with hundreds of valuable lives upon them, lying there for nearly two weeks exposed every day, in most cases, to the sick, through the crew, stewards, etc., passing through the ship continually. The first thing we said was, "Get these people off the ships." It was finally done, but after great difficulty. At Boston the station had good places to take passengers to, but this brings up the next point, viz., the insufficiency of means to remove passengers from the infected ships.

At our own stations, Grosse Isle and Halifax, etc., this was noticed just as at New York, where there were thousands on the ships lying in the harbour. We likewise concluded that at all points where immigrants are received, there must be means for immediate removal to islands, if islands are used for quarantine stations. The next danger is that at New York—it is not so now at Philadelphia, and I think we can say Philadelphia is safe—but at New York and Boston at the time of our visit, and at our own ports, there was a very great lack indeed of any modern facilities for rapidly and thoroughly disinfecting the baggage, which might have been infected before it was packed up and brought on board at Hamburg. That, then, is the next absolute necessity—that we must have modern disinfecting appliances wherewith rapidly and with certainty to destroy any germs in the baggage or effects of immigrants, and next there shall be at these points such facilities as shall rapidly and completely disinfect the ship which may have been infected. Now, at no place on our whole tour from Grosse Isle to Washington did we

find any sufficient apparatus for that particular part of the work. So you can see that there is in that direction, a very grave question facing us—how much can our Government afford to spend, how much can the Federal Government and the State Governments of the United States afford to spend for this purpose? What shall be its character, and next, where shall they make their main point of defence? If we have not money to do this at more than two or three points, then it is possible to require all ships with passengers to come to those points. What is demanded is that here and in the United States, at those points, there shall be absolute defence against ingress. The other point I shall simply refer to because it belongs to the honourable gentleman's department—and it is a question which has arisen with the members of his own Cabinet, and with Provincial Governments and the various transit companies—what action shall our Government and the United States Government take with regard to bringing in immigrants next year? We know that next year we are to have a great world's fair on this continent, and we know there is a large influx certain of a very doubtful class of immigrants from European countries. The immigration to the States last year was over seven hundred thousand. The Grand Trunk Railway brought in nearly forty thousand, mostly from the port of New York, during the last eight months, and our other great railway has brought in some sixteen thousand by way of the St. Lawrence. This indicates that the danger to us is greater via New York than it is via the St. Lawrence, and it further indicates that the United States are not in any way exposed as much to us as we are to them. The question then arises, what can we as medical men, viewing the situation broadly, recommend to all the health authorities with regard to next year? Our opinion is that of many gentlemen in the United States, that excepting, probably, immigration from Norway and Sweden and the British Islands, we shall urge that for a year at any rate—that is, next year—there shall be a complete embargo put upon that kind of immigration which comes to this country, especially through the port of Hamburg. You all know what it is, I need not describe it. If any of you have any doubt about it, let him look at the arrivals by the various ports of entry. If cholera

once gets into New York and begins to spread, the people would disperse by twenty or thirty lines of railway, and coming into Buffalo by as many more, you can readily understand what we would be exposed to. The only fight we can make of a really effective character is the external fight. If after that we have to fight it in our individual towns and cities, I trust that with the work done in the present winter by local health organizations, cleaning up everywhere and making the most positive health regulations necessary, we will be comparatively free from danger if it gets through our frontier. I trust gentlemen will continue the discussion as I have indicated, and if possible formulate some broad conclusions that will be useful to ourselves as health officers, and I have no doubt of equal use to the Honourable Minister of Agriculture.

Dr. ROGERS—What would Dr. Bryce consider as the most rapid and thorough way of disinfecting the baggage and the passengers on ships?

Dr. BRYCE—Of course it is a question with a great many details in it, but I may say briefly this, it can be illustrated by one single reference on this continent. At New Orleans, as we all know, every year they suffered greatly from yellow fever and especially from 1876 to 1878. The district during those years was semi-decimated. They introduced a very simple process of putting the infected material into a long cylinder which could be supplied with live steam under pressure rapidly driven in through pipes and kept there until everything in the inside was disinfected. It has been improved upon and we have now, in the one at Grosse Isle, one of the most effective that I have seen on the continent. It is about nine feet long and four feet in diameter. It would only take a few square yards at a time, and that would take too long. That is for the baggage itself. The other point is, that after the persons have been removed they are handled in this way at Philadelphia by appliances completed last week. They fitted up a steamer complete in its details so that they could run out close to the infected ships: then take off 50 or 60 passengers an hour and put them in large bath-rooms where they can be washed within an hour, and while washing have their clothing put in a superheated room where it can be disinfected. The next hour they take off as

many more and in that way disinfect the whole of the passengers. That is the steamer of "observation." Then they take the baggage by a *lighter* to the shore and disinfect it in a superheated chamber there. The difficulty is they cannot, at Philadelphia or at New York, and we cannot at Grosse Isle yet, bring the ship alongside of a wharf where it could be cleaned. In order to clean the ship at Grosse Isle, Philadelphia, etc., they have adopted a plan of placing on a barge, or some sufficient vessel, large chambers in which sulphur di-oxide can be rapidly distributed by means of fans. A large quantity of sulphur di-oxide is sent through the ship. If that is done thoroughly and the ship stands under sulphur fumes for twenty-four hours, they have found in New Orleans, at all events, that it does disinfect the ship not only in cases of small-pox but also of yellow fever. That is, I think, an answer to the question.

DR. PLAYTER --I think we should consider hereafter, as medical practitioners, another aspect of the question. We know that there are yet other factors in the causation of all diseases of an infectious nature, and Sir Andrew Clarke has recently brought the question to a fine point in regard to tuberculosis. He said there were necessarily two factors in the causation of tubercles, one the bacillus, and the other the soil on which it grows. It is most desirable that everything should be done through quarantine to prevent the infection reaching this continent, but I think attention should be directed to the other essential more than it has been. Not that we should neglect the first, but the infection will escape the best quarantine and the best disinfection. There will be less danger in the future, but we should prepare for a certain amount of outbreaks at the best on this continent next summer. Our present facilities for instructing the people, I think, are insufficient, and a good deal might be done in the way of enlightening the people in the way of the soil. We all admit that if the digestive canal is in a good condition there will be no infection, and the general functions of the body should be kept in a vigorous condition. It seems to me very clear that unless there is a want of acidity or rather alkaline conditions of the intestinal canal, the cholera bacillus will not develop there. I think there should always be a thoroughly clean condition of the digestive organs.

If there is fermentation going on there, from recent experience with regard to the typhoid bacillus, we know that the intestinal canal assumes a more malignant condition than it would otherwise. I would just say briefly that I think practitioners might do a good deal in the way of suggesting means to prevent the development of the disease from infection, and if the infection should reach Canada, as it probably will next year, that by keeping the digestive organs in an acid condition and the system in a clean state, there will be no epidemic of cholera even if we do have a number of outbreaks if there is no soil for the disease to spread. I would like to draw the attention of the Association to this point, as I think it has been too much neglected.

DR. F. W. CAMPBELL--I do not think that, with all the good-will that the Honourable Mr. Carling has, he will undertake to keep the digestive organs of the people of Canada in good order. That is a matter which comes under the cognizance of the Provincial authorities. I should like to ask, for information, from those who are health officers if it is not a fact that the statistics give the following---that 70 per cent. of epidemics escape quarantine and 30 per cent. only are successful, even under the best system of quarantine?

DR. I. H. CAMERON (Toronto)--I have listened with great pleasure to the remarks of Dr. Bryce. I might say that quarantine of the old-fashioned kind is an exploded idea---the old-fashioned idea of putting people away for twenty or thirty days until the disease dies out will not meet the idea of life in the nineteenth century. The quarantine such as Dr. Bryce has outlined will be all-sufficient. Proof of that exists in the circumstance that, although the British ports had been exposed for some time to cholera, very few cases have occurred in the United Kingdom. By the prompt destruction of the germ in the way Dr. Bryce has suggested, the spread of cholera will be greatly prevented.

DR. A. J. AHERN (Quebec)--The reason why quarantine has not hitherto been effective is that it has not been thorough. Disinfecting the baggage of the immigrants and the ship does not constitute the whole of quarantine, because there is a means by which the disease may come from an infected ship past quarantine, and that means is this---the

people that are kept in quarantine, are obliged to be fed. They must get their food from the neighbouring town and the parties who bring in that food there are not surgeons, because if they were they would be antiseptic surgeons and pay attention to all the little details and be careful. Very frequently from quarantine a pass-book is taken, and orders are put in the pass-book, and these pass-books are in contact with the diseased person. They are sent to the town, the provisions are brought from the town and are handed over to the persons who are sick, and thus the disease germs may pass quarantine, although quarantine may be effective otherwise. There is another point: the ship arrives in quarantine and the baggage is disinfected and the ship disinfected, and the passengers are put out on shore. Then these passengers are suspects for a time to see if the disease should break out among them. In the meantime another ship arrives, and the first passengers may not have gone. The new passengers are disinfected and put ashore. These may not have the disease but it may break out on shore among the first lot or among the second lot. So there should be a place where the passengers under observation would be completely separated from the others, and there would be no chance for their contracting the disease again if it should break out among them. There is another question with regard to immigration. Dr. Bryce has stated that if immigrants were prevented for a year from coming to this country, except from Norway and Sweden and the British ports, we might keep out the cholera, but there is nothing to prevent immigrants coming from infected ports to Liverpool and taking through tickets from Liverpool to this country. A steamer arrived at Quebec yesterday, the "Sardinian;" she came up after being forty-two hours in quarantine. On board the "Sardinian" was a man coming from an infected port, or at least a port in which there has been recently some cases of cholera. I have a personal knowledge of that, and how many among the six hundred immigrants came from infected ports nobody knows.

Dr. J. W. MILNE (Vancouver)—I am health officer of the city of Vancouver. You must discuss quarantine not only of the individual himself, but disinfection in every particular. To illustrate, although I do not wish to condemn anyone at this

time, either the Government or its officers, I will show how we were unprepared for smallpox in British Columbia. During the first week of June the "Empress of India" arrived at Vancouver. She is one of the finest ships of the C.P.R. line. She brought over a large number of immigrants, chiefly Chinese, and some Japanese and other passengers. A Chinaman was found ill with the disease. He was quarantined at the station, eight or nine miles from Victoria, and the ship was disinfected. Only the Chinamen were detained. The Japanese and other passengers were allowed to go to Vancouver and everywhere. When that vessel left Japan smallpox was epidemic there. Now the Japanese passengers should have been quarantined. The Japanese passengers went out through the country and we have had smallpox there to a great degree, and to show you that our apparatus at that time was inoperative and not sufficient for the case, in the city of Victoria we had only one case for six weeks after the arrival of the ship, and within ten days afterwards we had forty cases in the city of Victoria. You can understand what a panic it caused. Although I have never made it known there and though I have never asked for a commission to see how the disease came to spread so rapidly, I will show you one point that I believe was the cause of that disease spreading. Within three days there were, I think, six grocers all taken down with smallpox. Two or three of these grocers died, so you can understand the feelings of the people on that occasion. I believe the Japanese teas were one mode of infecting the people of the city of Victoria. If we had had the proper apparatus to disinfect the cargo at the time, I do not believe we would have had one-half the number of the cases that we had there. Forewarned is forearmed. The Government have since taken proper steps to have a proper disinfecting apparatus there which should be and I hope will be sufficient. Dr. Bryce has pointed out that at the port of the East every precaution is being taken. I hope the Government will take the same precautions in the far West. The fact is, there is a class of immigrants coming to British Columbia, such as Chinamen, a class who are likely to disseminate diseases, a class, to use the remark of my friend behind me, whose alimentary canals cannot be kept in right

condition. They will eat rice and you cannot keep them clean. If we can only check them from coming into the country as soon as any epidemic is made known to us, we will be quite willing, as far as the Chinese and Japanese are concerned, that the immigration should cease at once. That is a point worthy of consideration by the Government of this country if they find cholera is likely to come in here. I think that, as far as we are concerned in the far West, we could well do without the Chinese immigrants. I hope the remarks of Dr. Bryce in this matter will be considered, and the Government will take proper steps to procure the right disinfecting machines for the Pacific as well as for the Atlantic coast. We have no idea of how soon that disease will break out in China and Japan, and I think the rapid means of transportation that we have will help its spread. I hope the Government will take every means to prevent the disease not only coming in through the eastern ports, but also through the ports in the far West.

Dr. BERGIN (Cornwall)—I have listened with very great attention to Dr. Bryce's remarks. As far as he has gone, I think he means that he proposes for the prevention of cholera coming into this country every means that will be most effective. If preventive means are to be used only, I quite agree that everything would have been done if we acted on the suggestion of Dr. Bryce. But we must go very much further than that. A gentleman behind me touched the very core of the subject. Cholera, when it visited this country in 1832 and 1854, was confined principally to two main lines of travel, the rivers and the lakes and the line of the Grand Trunk Railway; but there is an entirely different state of affairs now. These two lines of travel form but the minimum of the great lines of travel of to-day. We have not only the great Canadian Pacific Railway in addition, but we have the hundreds of lines that herringbone this country in connection with the Grand Trunk and the Canadian Pacific Railways, all built since 1854, so that the possibilities of cholera spreading have been magnified many hundred-fold since 1854; and therefore the means to be taken to prevent the spread of cholera in this country by the Government, and the responsibility necessarily resting upon the Government have increased many hundred-fold also.

Speaking of Grosse Isle, it is looked upon as the quarantining ground—the only quarantine station, in fact, in the Gulf of St. Lawrence—the only station at which we now stop ships coming into this country, and I think we might ask ourselves what has been done and what is being done to prevent cholera coming into this country. Dr. Bryce has told us that there you have a small apparatus constructed upon the best known principle to-day, an apparatus capable of thoroughly and efficiently disinfecting the clothing of the passengers who come to that island upon the ships, but it is quite manifest that if that instrument is to be of any use it must be enlarged many times. We must have more than one of the larger size should there come any number of people to this country upon these ships. I avoid at this moment discussing the question whether we should prevent immigrants coming into this country at all during next year, but suppose five or six ships with, as they usually have, from six hundred to a thousand passengers, are lying at Grosse Isle to-day, what are you going to do with those vessels? Where will you put them? What means have you of landing the passengers on the island, and what provision has been made for their comfort and protection, and their clothing and provisioning at that island? It is a question that is not likely to be called much into consideration to-day, but it is a question which we will have cause to consider very seriously before next spring. You will require to provide protection in the shape of dwellings or tents for next spring at Grosse Isle. You will require to see that you have also, after these people have been disinfected, other buildings in which they shall be placed before they are removed from the island, and these buildings should be isolated from the building in which the suspects or the passengers will be placed that follow those who have been in it the day before. You require to thoroughly disinfect those buildings after the passengers leave them before you introduce new passengers, and those new passengers must be disinfected before they are put in that building. You must see that the clothing they receive is not infected in any way before it is given them. You must see that when being moved from the island they are not exposed to contact in any way with any one who may be suspected, or whom you have any reason to



suspect. You must see that the vessel in which they go is thoroughly disinfected so that they may carry nothing further with them. When we have provided them with shelter, clothing and food, what provision is made to give them pure, wholesome water at Grosse Isle? Have you any means of providing pure fresh water in quantity to accommodate five or six thousand passengers at Grosse Isle? If you have not, it is one of the duties that you must perform during the coming winter.

Now I think it is unfair to the Minister, and unfair to the country, that we should conceal anything that we think is absolutely necessary to be done to secure immunity in this country from cholera. Dr. Bryce has pointed out that he is merely outlining the general features of what he thinks necessary to be done at Grosse Isle, for all these things must be done. None of them can we afford to overlook if we should secure this country from cholera. Now I would like to ask Dr. Bryce, who has lately visited Grosse Isle, what provision has been made for disinfecting the buildings there after the immigrants leave them, and before the passengers are introduced into the new buildings? I am asking this in the interest of the Government and in the interest of the country. I am asking this more than all in the interests of the Minister, who, not being a specialist, has asked us to give him the fullest and freest information to-day. I am asking him whether we are provided with the best and most thorough material for disinfecting the ships, whether we have it for disinfecting the cargoes as well as for disinfecting the clothing. I ask what means we have—and Dr. Bryce has incidentally directed attention to it—what means we have of reaching the ship with the necessary material for disinfecting it? I would ask what means we have for removing the passengers safely and comfortably from the ships to the island? I would ask what means we have for thoroughly disinfecting the ships before the passengers are returned to them, or whether it would not be better for the Government to provide such a vessel as Dr. Bryce has spoken of as being in use in Philadelphia, and whether it would not be, in the emergency, the better means to take for using the apparatus I have mentioned? I know that it has been suggested that a long wharf at Grosse Isle is a necessity. Now that brings up two questions, whether the long

wharf, if constructed, would be required for many a long year to come? Supposing it were in existence to-day, would it be required for a long period? We seldom get through the St. Lawrence any disease that causes general alarm beyond cholera. Since 1848, when we had that unfortunate visitation of typhus fever, I might say we have had nothing except cholera to cause widespread alarm. The estimate, as I understand, for the construction of that wharf is two hundred thousand dollars, but that two hundred thousand dollars I think might be devoted very much better to the purposes of which we have spoken. There are other points on the St. Lawrence where a quarantine as effective as that at Grosse Isle could be found, and where it would not be necessary to construct a wharf of that kind, where there is deep water and plenty of shelter, and where the facilities for landing and transporting the passengers would be better than they are at Grosse Isle. This is a question which I point out to the Minister as one to be considered during the coming winter. I am not proposing to pronounce dogmatically upon any of those questions. I am throwing them out as matters which require consideration, and which, when the country finds are being thoroughly considered, and that the Minister is giving to them, and will give to them during the winter, that care and attention which he has given to them during the last two or three months, will go a long way to do away with that dread which has so much to do with the mortality of cholera when it once appears in the community. We all know that if we are in the best of health, and if we have also the fullest courage, we are not likely to succumb to attacks of disease, but if we are overpowered with fear and our vitality has left us when the dread destroyer comes to destroy us, he will; and therefore I think it is desirable that the country should have the fullest knowledge, and it is having it every day, that all the scientific bodies in this country are devoting their attention to this question; that we have our health officers all through the country, as you know from what you have heard from Dr. Bryce to-day, and from our friend from British Columbia: that we have the very ablest sanitarians of the day at the head of such departments, and it gives confidence that the administration of the health department is alive and active and all that

under God can be done by human means to prevent the introduction of cholera into this country will be done, and there man's mission ends. After that comes the duty of the provincial officers, the duties of which Dr. Playter has spoken, and which we have the best evidence will be fully done by those provincial officers. I have no desire to intrude longer upon the time of the meeting, and although there are several other points which I desire to touch, I think it would be unfair, when there are so many here, to endeavour to exhaust the subject without giving others an opportunity.

Hon. Mr. CARLING—I can assure you it gives me very great pleasure, indeed, to meet the Canadian Medical Association. This discussion shows that you are fully alive to the interests of the country, and prepared to do everything you can to prevent anything like an epidemic of cholera in this great Dominion of ours. I can assure you that the Government are fully alive to the importance of having everything that can be done (as has been said by my friend, Dr. Bergin) by the Government of the Dominion to prevent cholera appearing in Canada attended to before next spring. (Applause.) Of course, as you are aware, we have perhaps not taken the precautions heretofore that we are taking now, because we have not been troubled by anything like cholera, and in fact other countries have taken perhaps no steps greater than we have. I believe that no quarantine was established at ports in either England, Ireland, or Scotland, that patients are taken to the hospital—so I am informed—that they have no disinfecting appliances at Liverpool or the chief towns, cities or seaports, except at the hospitals, which are provided either by the Government or by the municipality or locality, and I believe now that the city of Portland, the city of Boston, and many other cities of the United States, have not provided any more appliances for the prevention of cholera being introduced into the country than we have in Canada. But we are determined, as far as we are concerned, that we will use every effort and introduce every appliance that can be suggested to prevent cholera being brought in at Grosse Isle, or at Victoria, or at Halifax and many other points. Everything nearly that has been spoken of to-day, and every suggestion that has been made is now being put into operation. I

may say to you that in New Orleans they have steam disinfecting appliances which I believe have been most successful, and I have been informed on good authority that since the appliances at New Orleans have been in operation no cases of yellow fever have passed the city of New Orleans up the Mississippi River. The appliances they have there have been most effective. They have appliances in the city of San Francisco which are equally effective. We have had reports from our quarantine superintendent at Grosse Isle, Dr. Montizambert, recommending certain appliances similar to those at San Francisco, and also similar to those at New Orleans and other cities in the United States, and I might say to you that the appliances we propose introducing at Grosse Isle will be similar to those that we have now. We sent to Toronto, and the authorities there at the Isolated Hospital were good enough to let us have a disinfecting steam apparatus that they had constructed, for use at Grosse Isle, at what they paid for it, and that they are now having a new one constructed. We are using that to the best advantage for this autumn, but for next spring we have plans and specifications, and are receiving offers for the construction of steam disinfectors to be made this autumn and to be placed in position this autumn, so that there will be appliances to disinfect any vessels that come up the St. Lawrence. I believe the largest vessel that comes up the St. Lawrence can be disinfected inside of twelve or fourteen hours with these appliances. (Applause.) I may say to you that this steam disinfecting apparatus at Grosse Isle is very simple, and it was the best we could get. It is only nine or ten feet long, by some four feet in diameter, and three men are constantly kept there to use it to the very best advantage and to put through it every article of clothing, luggage or bedding as fast as it can be done. But the appliances that we intend putting there next fall are three large steam disinfectors, each one twenty-four feet long and eight and a-half feet square. We will have three of these, with steam boilers for each one, and vacuum pumps, and no matter how many vessels come in, with those appliances we expect to be able to disinfect the whole ship-load inside of twenty-four hours at any rate. That is being done at the present time, and we have given positive orders to the Public Works that those

appliances must be in place before December, 1892.

Then, in regard to the water, we have now wells which have been deepened and enlarged, and I believe there is a good supply of pure water both at the eastern and the western ends of the island. We are now taking steps to have large condensers, and instead of taking the water from the south side of the island, where it is inclined to be muddy, we intend to pump it from the north side of the island, where there is no sewage or dirt, into a reservoir, from which we can supply any quantity of water for washing, or closets, or baths, or anything of the kind. So I can promise you there will be an abundant supply of water at the quarantine station before the winter sets in. Then, with regard to the buildings, we have large sheds there. Perhaps they were not in the condition they should have been. I fancy it was overlooked by the officers on the island not asking for it, but we have had a staff of carpenters sent down there with instructions to do everything that is required or asked for to put the buildings in good condition, furnish them with chairs and tables and cooking stoves, and all the appliances that are really necessary to make the people that are unfortunate enough to be brought there comfortable. All these appliances are being provided at Grosse Isle, and with regard to the deep water wharf, Dr. Montizambert has urged the deep water wharf over and over again, and my own impression is that it should be built, unless there should be some serious objection that we have not foreseen, but it has been suggested by some gentlemen that the water in the channel going up to the wharf is not sufficiently deep for a vessel drawing some twenty-five or twenty six feet of water. That is something that has been mentioned lately, that if we were going to build a large wharf which is estimated to cost not so much as Dr. Bergin has stated I know it has been estimated to cost half a million—but . . . Cost, of the Engineering Department, has made an estimate of what it will cost to extend it into deep water, so that the largest vessel coming up the St. Lawrence would be able to touch at it. The price would not exceed one hundred thousand dollars.

Dr. BERGIN You can safely add 50 per cent. to that.

Hon. Mr. CARLING--Perhaps so. We are taking steps to ascertain the depth of the channel, to see that if a wharf is built the channel will be of sufficient depth and width to allow the largest vessel coming up the St. Lawrence to go to the wharf. If it is not, we are ascertaining about other places that have sufficient depth of water and whether they are suitable for quarantine, but in the meantime, as we have not the wharf, and as we have the whole Dominion at our back, there are plenty of vessels to be procured. We have the "Challenger," and the "Druid," a steamer belonging to the Marine Department who have kindly offered it for our service and it is used at the present time, and if it is necessary to use another vessel, or to have two or three vessels, money shall not stand in the way. (Applause). We will have all the appliances there that are necessary until we get a wharf, and the question now is whether the wharf will be abandoned or commenced immediately and other means adopted, or another place selected; but Grosse Isle is a very suitable situation, and I think one of the best we can get. It is about thirty miles below the city of Quebec, and with all the buildings and appliances we have there now, it would be a mistake to change the site if it can be made as we expect it can. Then with regard to other places, we are taking the same steps at Albert Head, in British Columbia, which is on the Strait of Fuca. We have a quarantine ground there, some ninety acres I think. We have a building there which was rented some eight or ten years ago. We have applied for and put on board a small vessel a dioxide blast to be used for disinfecting the baggage. In addition to that we will have two large steam disinfectors, similar to those to be placed at Grosse Isle, placed at Albert Head during the winter, the same as at Grosse Isle, and we are bound to make the quarantine at Vancouver, which is the port for the vessels coming from China and Japan, and Honolulu, and San Francisco and different places in the United States - we are bound without any delay, or without any regard to cost. We are not going to throw money away, but the Government gives me full power to complete those stations in a thorough and effective way to meet the wishes of the people of this country. (Applause). No stone will be

left returned to make every quarantine station as complete as it is in any other country in the world, not excepting the United States. Our buildings at Halifax have been used for barracks. The troops were withdrawn some years ago, and since then they have not been needed, but now we do need them and we are putting the buildings in thorough repair. We are urging the Public Works Department, and they have instructed their officers at Halifax, and Chatham and St. John, N.B., and other points, to put the buildings in repair, and the proper appliances are being got ready to put them in proper order during the present month, so that should cholera happen—though I hope it will not—to be brought to Canada next spring, we will be prepared to meet it at all outlying ports east and west. (Applause).

In addition to those steam disinfectors we are making smaller ones. We may not require large ones at all the different ports, but we think at Grosse Isle and British Columbia they are really necessary. Perhaps at St. John, where there is no great number of immigrants coming in, we will not require as large a steam disinfecter as at Grosse Isle, neither will we at Pictou, nor at Charlottetown, P.E.I., nor at Chatham, N.B. All those different points are being looked into at the present time, with a view of having them put in a thorough condition by next spring, and there is no hesitation on the part of the Government to provide means to put them in proper condition. They have given me full power and authority to spend whatever is necessary to put them in the condition they should be in. I do not think I have anything more to say to you at the present time. I shall only be too glad to answer any questions that may be put to me. As you will see, we have issued a proclamation to quarantine our inland ports along the frontier. Our good friends, the Americans, a short time ago talked of calling out fifty thousand soldiers to guard the frontier against cholera which they expected would be introduced from the great Dominion of Canada. I think if there is to be any calling out of soldiers we will have to call them out in this country to prevent cholera being brought into Canada from the United States. We have taken and are taking all the precautions that we can. A proclamation has just been issued to all our custom house officers

along the frontier, appointing them quarantine officials with authority to call in medical aid at every one of these ports when required, and to do all they can to prevent cholera coming into Canada. What has been done in the Maritime ports has been done at the inland ports, and not only in Ontario and Quebec but all along the lines from the Atlantic to the Pacific wherever railways come in and wherever there are custom house officers, and we have a good many all the way from Victoria in the west to Sydney in the east. We are taking steps to prevent anything like cholera coming into these ports. I do not know that I can say anything more.

Dr. BERGIN—There are two or three questions that I would like to put to the Minister, that I think possibly he would like to answer, as the public are very anxious over them. One question is as to what disposition is to be made of discharges from the patients who will be in hospitals at Grosse Isle. Another is as to how the clothing of the dying and of the dead will be treated, and another is as to the dead themselves—the disposition that will be made of their remains—whether they shall be interred at Grosse Isle or whether their bodies shall be cremated, and if so, whether preparations are being made for those purposes.

Hon. Mr. CARLING—I am very glad to hear the questions from my friend Dr. Bergin, but really at the present moment I am not able to answer the questions as we have left chiefly matters of that kind to our superintendent at Grosse Isle. I know that he has full authority to do whatever he thinks his best, but he of course makes his reports to the Department, and every question of that kind will be very fully considered. A very large number of people were buried on the island when the cholera broke out before.

Dr. BERGIN—That is the very reason that I asked that question.

Hon. Mr. CARLING—I am not prepared to give an answer to the question but I am very glad that it has been asked; and it will give me an opportunity of ascertaining the views of Dr. Montizambert as to what is the best to be done under the circumstances.

Dr. BERGIN—The object of my question is this, that so many have been buried there who died of malignant diseases, that if we were obliged to bury

a very large number again we might possibly disinter typhus fever.

Hon. Mr. CARLING—I should like to know from the medical gentlemen here what their view is as to the best means of disposing of the dead. Perhaps they would suggest that they should be cremated or buried away from the island. It is an important subject.

Dr. BERGIN—Dr. Wright has suggested, and it is a suggestion so full of truth, that these wells on the island might absorb, from so many bodies and drains filled with the dead as there are on Grosse Isle, the germs of diseases: and through the water they might be communicated to those who had been disinfected of cholera, and who might be supposed to be perfectly free from any danger of the disease. One of the most important precautions that have been taken in England and France is to provide everywhere filters of smaller or greater size, which are known to be germ proof.

Hon. Mr. CARLING—The well that has been there for a number of years has been very much enlarged and deepened and the officials report to me that the water is first-class. We have considered the question of sinking artesian wells through the rock to a great depth, or if we should not do that, to get the water from the north side of the island, pump it into a large vat or cistern that will be made, a settling tank, and then have the most improved condensers that can be found to condense the water and make it pure. All that is under consideration now, and nothing will be left undone to provide plenty of water and as pure water as can be procured.

Dr. Cameron moved that the thanks of the association be tendered to the Minister of Agriculture, for his satisfactory statement of the intentions of the Government with reference to the protection of the country from an epidemic of cholera.

The motion was seconded by Dr. Christie, of St. John, N.B., and adopted.

Dr. BRAY—It has afforded me very great pleasure individually, and I am sure it has also every member of the Association, to listen to your lucid explanation of what the Government is doing to prevent the introduction of cholera into this country. The object of inviting you here to-day, before this national Association, composed of members from one end of this Dominion to the other,

was to strengthen the hands of the Government, and of your Department in particular, in the course that you are pursuing. When you have a body of scientific men, who have made this subject a special study, supporting the Government in the policy they are pursuing, I am sure it will not only strengthen your hands but also tend to allay the fears of the public. I have very great pleasure in tendering you a vote of thanks from the Association. (Applause.)

Hon. Mr. CARLING—I am exceedingly obliged to the Association for their kindness, and I hope this is not the last time that I shall have the pleasure of meeting you. I am sure it is the desire of the citizens of the capital to make your stay here as pleasant as possible. I concur in your opinion that the discussion to which we have listened to-day will be of advantage to the whole Dominion, and possibly beyond the limits of Canada.

Dr. HENDERSON (Ottawa)—In conversation with Prof. Webster, of Virginia, on the subject of cholera, he asked me to mention to the Association that, during the late epidemic of cholera in the United States, he made inquiry as to the effect of occupation on the disease. He wanted a pointer as to prevention. He found that the mechanics employed in workshops of copper almost entirely escaped the disease. He thought that this fact might be of value and wished it brought before this Association. His suggestion was that vapourized copper might be used as protection. If the vapour of copper in workshops prevented the comma bacillus from thriving, why should not the same vapour be used for the purpose of protection against cholera?

Dr. W. W. DICKSON—I think the meeting should give an expression of opinion as to the disposal of the bodies and clothing of those that die of the disease. I think we should not go on burying the remains of those who die of such diseases as smallpox, cholera, and typhus. I think the bodies and the clothing should be destroyed by fire. It has been suggested that a committee should be appointed to prepare resolutions offering suggestions to the Department as to the proper means of carrying out the idea of which I have just been endeavouring to express.

Dr. J. A. MULLIN—I think the committee should deal with the question as a whole.

Dr. BRAY—I think this should be referred to a committee who will consider the matter thoroughly and report to the meeting, and the report will then be forwarded to the Department.

Dr. J. E. WHITE (Toronto)—I think the meeting should consider whether they are not reflecting on the officer of the Department who may be taking steps to do exactly what is now recommended to be done.

Dr. BRAY—It would be endorsing his action.

Dr. Cameron moved that a committee be formed for the purpose of drawing up resolutions embodying the suggestions of this meeting on the subject.

The motion was agreed to, the committee appointed, and the meeting adjourned until tomorrow. The Committee were Dr. Bergin, *Chairman*; Dr. Bryce, *Secretary*; Dr. Dickson, Dr. Christie, Dr. Cameron, Dr. Playter, Dr. Milne, Dr. Lachappelle.

The committee brought in the following report, which was considered clause by clause and adopted without amendment:

First—That in the opinion of the Association the time has come when public health interests demand the appointment of a permanent, executive officer to supervise all matters relating to public health, such as quarantine and vital statistics, which are by law in charge of the Federal Government.

Second—That quarantine regulations should be made applicable to the protection of all the internal borders of the country, and that houses of observation and detention of suspects and hospitals for the treatment of the sick be supplied and equipped at Niagara and similar border points.

Third—That in view of the constant danger from clothing and baggage of immigrants, drying chambers should be constructed on every passenger ship, and their use enforced after the clothing and baggage are placed in the disinfecting solutions.

Fourth—That isolation rooms be supplied on the decks of all passenger ships for the treatment of those sick of suspected contagious diseases.

Fifth—That all passenger vessels be required to supply themselves with sterilizing apparatus for water for drinking purposes, such as that of West, used at the Philadelphia quarantine.

Sixth—That at quarantine stations all personal clothing, bedclothes, towels, etc., from the sick

should be immediately placed in the disinfecting solutions, and that mattresses, pillows, etc., be burned immediately after use unless steam disinfecting appliances are at hand.

Seventh—That at whatever ports immigrants are to be permitted to land it is absolutely necessary (1) that facilities exist for housing and proper accommodation of suspects both from steerage and cabin, as well as for hospital accommodation, and extra tent accommodations should be always available; (2) that proper and sufficient bath-rooms be supplied at every station where suspects can safely and comfortably wash; (3) that a safe and adequate supply of wholesome water be always on hand; (4) that modern latrines, with proper conveniences for the observation of the dejecta of the subjects, be supplied, and that after disinfection the sewage from the latrines be disposed of in a manner that will insure perfect safety; (5) that furnaces and fans be fitted up either on the wharf or on the quarantine steamer, whereby holds and cargoes of ships can be rapidly and thoroughly disinfected; (6) that at every station where there is no deep water wharf, safe and commodious steamers be provided for landing passengers, and for patrol observation and other quarantine purposes; (7) that ample bedding and clothing be provided at every station to supply the necessities of persons landed from the ships; (8) that the means for the safe and speedy disposal of the dead at quarantine stations have been given careful consideration by your committee, and it is of opinion that the ordinary practice of burial employed in the past at such stations as Grosse Isle may, if continued, be attended with danger, and would hence tend to render these stations unfit for continued use as such, and under these circumstances it is believed that cremation of the dead is the best way of securing the safety of the living; (9) that steel cylinders for disinfection by superheated steam of sufficient capacity for rapid disinfection of passengers' effects should be supplied at every station.

Eighth—That the Government at once secure islands if possible, or other isolated locations, at Grosse Isle and other quarantine stations, where those whose detention may be necessary may be comfortably provided for, and that for this purpose buildings similar to summer hotels be erected and maintained.

Ninth—That in view of the imminent danger of cholera reaching America in 1893, the Association is of the opinion that the Government may very properly consider the expediency of preventing immigration to Canada from infected countries.

Tenth—That in the opinion of the Association it is a matter for regret that though it is twenty-five years since Confederation, no Government executive officer has yet been appointed to the charge of quarantine and other Federal health matters, and the Association urgently presses the immediate appointment of such an officer, in order that the foregoing recommendations be carried out with the greatest possible rapidity, and that such officer should be a man of the highest scientific attainments, a well-known sanitarian and one devoted to the work.

THURSDAY MORNING.

*September 22nd, 1892.*

The President, Dr. Bray in the chair.

Dr. J. E. Graham, of Toronto, opened the discussion in medicine by reading a paper on TREATMENT OF PULMONARY TUBERCULOSIS. (See page 95.)

#### DISCUSSION.

Dr. L. C. PREVOST. I am very sorry to have to follow Dr. Graham. He has covered the ground in such a masterly way that I have nothing else but congratulation to offer him. I could not help, when I was listening to him, making a remark which will perhaps lead you to think that I am a pessimist, and although I really feel young, notwithstanding I have had twenty years' practice, I find that others older than myself agree with me that we are not much further in advance to-day in the treatment of tuberculosis than we were twenty years ago. Still it is such an interesting subject that every medical man must make it the aim of his studies, considering so many things have been said of tuberculosis and knowing that so many things will be said in the future. We are not surprised therefore to find such an interest taken in the subject when we know the mortality caused by the disease. We know, for instance, that four out of every five persons who die are cut off by tuberculosis, and it is no wonder that we study the disease so carefully. Lately attention has been called more to the agent itself rather than to the patient. We have devoted too much attention

to the disease when we should have looked carefully upon the patient. As has been said before, we have to treat tubercles, not tuberculosis; but still I do not want to disparage the discovery of the bacillus, for it was through that discovery that we know to-day that the disease is infectious. And in all infectious diseases there are two aspects to the question. We must try to prevent the microbe reaching the patient, and when it has got there we must try to cure the patient. It is in the prophylactic treatment that the microbe comes into requisition. We know that it comes from somewhere, and that it is in the sputa, and we have, in the prophylactic treatment, to take into consideration the isolation of the patient, and creating hospitals for consumptive patients. We should take care never to let the expectoration dry up—to see that it is disinfected or burned and that the room where the patient is kept is disinfected. This is only one part of the prophylactic treatment. There is a germ, and wherever there is a germ it is necessary there should be a soil for its development. If we take care that the constitution is always in good health, I am sure that cases of tuberculosis will diminish in number. Whenever there is a good constitution—whenever we pay attention to the laws of hygiene and put our systems in a state of health, there is no room for the development of the bacillus. That is why we see descendants of those disposed to tuberculosis pulling through without that disease. We all look after the soil to see that it is kept in proper condition. When children are brought to us in their youth with rickets and diseases of the eye, then it is time to look after them and fortify their constitutions. Later on when we meet with those predisposed candidates of tuberculosis, we should look after them. We recognize them by the æsthetic appearance of the body—red-haired, blue-eyed, white-skinned people who are predisposed to tuberculosis. They should not be sent to boarding-schools where they would catch diseases easily. They should be kept outside. If we pay attention to this, we will do more by prophylactic treatment than by the therapeutic means at our disposal. Of course this is not all. The disease will get into the lungs some time and then the destruction will begin. But we must not lose sight of the agent altogether. The human body must be considered as a fortress. We

have arms to meet the enemy in the field, but as soon as it is in the body, if we shoot at the microbe we run the risk of destroying the fortress. It is almost impossible at the very beginning to say how we must treat tuberculosis, because it depends on the evolution of the disease and so many conditions that it is almost impossible to give general rules of treatment. What we may say is this—if we expect to effect a cure, since we are talking of the cure of tuberculosis, it must be only at the incipient stage. Later on it is too late. Therefore it is necessary that there should be an early diagnosis of the case. It is only thus that we can find out if there is an enemy in the place to be fought. Against this we have the old hygienic laws to be called into requisition. You know them just as well as I do, but if I wanted to sum them up I would only mention this—take care of the digestive system. See that the patient has good digestion as well as good nutrition. This is often forgotten. Give them cod liver oil: it is a powerful remedy. An old medical man of forty years' practice has often told me that he cured more cases with cod liver oil than with any other remedy, but it was properly applied. Cod liver oil given while the patient is suffering from fever or in hot weather does no good but only destroys the digestion. Let the patient live all summer in the country, and take methodical gymnastic exercise, and watch the lungs to see if there is any congested point and remedy it. The patient should always be well covered, but not enveloped in three or four thicknesses of flannel. These are the general means that must be tried to cure consumption at the beginning. Later on, when there is much fever and destruction of the lungs, it is too late. We must not expect to cure consumption. There are exceptions, but they are not dependent upon the therapeutical means put at our disposal. Sometimes we must cut the Gordian knot that we cannot untie. Probably later on surgery will come to our aid and our grandchildren will witness the discovery of the philosopher's stone, as I may call it, in the healing of the disease. (Applause.)

Dr. NELSON (Kingston)—Dr. Graham, in alluding to the treatment of tuberculosis, mentioned a great many of the remedies used. The arsenal is certainly very large, but after all when one

comes to find really useful remedies the number is greatly reduced. It often occurs that these few cannot be applied. The patient is often reduced to that condition that very little relief can be given him. Recently, within a few years, you have read of an agent which unfortunately has been rather tabooed and looked down upon by the profession at large, when really I do not see why it should be, for after all we should not despise any useful method of treatment. I allude to hypnotism. Of course, no one pretends that hypnotism can cure. I do not propose it as a curative agent in those cases, but in many instances of tuberculosis, hypnotism is very useful. I shall, if you will permit me, give an instance in my own practice. Fortunately I have very few tuberculous patients to attend. Mine is a military practice, and men are not enlisted unless they are in a good state of health and strong. However, in one instance, a trumpeter became consumptive. He had been ill for two years, and he was in such an advanced stage of consumption that I expected his death within two months. His digestive powers had been destroyed, he had occasional hemorrhages, and he could not sleep without opiates. He suffered pain to such an extent that I did not know what to do to give him relief. That was two years ago. In those days hypnotism was being written up in our medical papers. I thought it would be of assistance to him if he could procure sleep and rest. I attempted to hypnotize him. He consented very readily, and he was glad to have any experiment tried to relieve him. To my surprise he was readily hypnotized. He had not slept without an opiate for some time, or for more than a couple of hours a night, but that very night I produced sleep, and he slept six or seven hours. He declared that he had not slept so well for months. I continued this hypnotic treatment without any medicine whatever for a fortnight. The man had been in bed for six weeks. At the end of that fortnight he could get up and walk. His digestion had returned to a certain extent, and there was a marvellous improvement in his appearance and particularly in his feelings. There was no possibility of his recovering eventually, but he was happy and contented. I calculated that the man would have been in his grave very soon after I began the



treatment. Three months after that the man was well enough—he was a trumpeter—to go about, although it was early in April, and even to use his trumpet. I permitted him to do so to strengthen the lungs. It could not do him much injury. He continued that way for six months, when I was obliged to leave for Europe. After I left he became much discouraged because I could not continue the treatment, and he died of hemorrhage in August. I commenced the treatment in January. I merely mention this as a palliative means of treating patients under special conditions by means of hypnotism. I am glad to see that hypnotism has been investigated by a committee of the British Medical Association, and has been favourably reported upon, as it should be, as a means worthy of being considered by the profession at large.

Dr. BULKLEY (New York)—There is a certain mode of taking milk which would be beneficial—I suppose some of the gentlemen here know it by practical experience—in connection with consumption, it will often help us a great deal in getting milk into the system, and thereby fortifying the constitution against the disease. My theory is, with regard to taking milk, that it should be taken absolutely alone into an empty stomach and kept there until it has disappeared without digesting. We know the difficulty experienced by consumptive patients in digesting, and we know that a similar difficulty presents itself with other patients. The system which I am about to recommend has met the approval of everyone that I have spoken to about it. I believe that milk can be absorbed into the system through the stomach, if it can be got in at the right time, without digestion. What called my attention to it first was an injection of milk into the veins, showing that it could be got into the system without curdling. We know that if we put milk under a microscope, it appears very like the blood. The question is how to get milk into the system so as to be absorbed in its primary condition without having undergone curdling. Of course, if it once becomes curdled the solid matter is lost. We know that half an hour before a meal, or an hour before a meal—certainly three or four hours after digestion—physiology tells us that the stomach is alkaline. If now we

can get the milk into the system at that time and preserve it alkaline, it is absorbed absolutely and immediately without any process of digestion by the stomach. If the stomach, however, has become acid in any way the milk becomes curdled. If by any chance there should be a crumb of bread, or anything, however small, that will excite the gastric juice, the entire mass of milk becomes curdled. If by any chance you can get it in at the proper time and preserved there, it is absorbed immediately. My claim is verified by my own use of it. I cannot take milk with my meals. If I take a bite of cracker with milk, I am sure to have a headache, and that has been my experience for several years. I have for some years been taking a quart of milk a day. I take it in the morning and I take it at bedtime. If I take it too soon after meals it curdles. If I should take it with a crumb of bread in the morning it has an ill effect. I have given it to many of my patients, and have mentioned it to many physicians who have told me afterwards that it has been of great benefit to them, and I cannot forbear mentioning it here.

Hon. Dr. SULLIVAN—Has the temperature anything to do with it?

Dr. BULKLEY—It has. I found that if I took the milk from the refrigerator it did not do so well, so I put it on the stove and bring it to a blood heat. It should not be so warm as to get a scum on it. You must take it without even a crumb of bread with it. Sometimes after dinner, if I feel that my dinner has not been digested, I take a little soda with water. When carbonic acid is disengaged, I take my milk. If I fail, and get the milk curdled, I have a headache.

Dr. W. W. DICKSON—How long have you found it necessary to retain the milk before it is digested?

Dr. BULKLEY—It does not digest. It takes about twenty minutes to absorb. I believe if the milk is warm and the condition of the stomach perfect it is absorbed. My instructions to patients are to take it an hour before a meal, and not less than half an hour. If you have taken a hearty meal there should be an interval of four hours, and if you take it about half an hour before a meal it is satisfactory.

Dr. PLAYTER—A good deal has been said about sipping milk: should it be taken in that way?

Dr. BULKLEY I believe that sipping milk does harm. It excites the flow of the saliva. I have known the picking of the teeth after sipping milk to curdle the milk, and it has taken half an hour to digest. Now, in sipping the milk you always take more saliva than is necessary. I am not more than a few seconds drinking it. In the evening I take it at eleven o'clock, and if I forget it I feel troubled. At night I take three goblets, one at eleven, another at half past eleven, another at twelve, and then I go to bed. This is my routine.

Dr. DICKSON—Do you fortify the milk with anything?

Dr. BULKLEY—No, I take the milk pure.

(To be continued in next issue.)

Therapeutic Effects of Testicle Juice.—Capriati (*Rif. Med.*) has studied the therapeutic effects of injections of testicle juice, first in four lunatics suffering from acute forms of mental disease with depression, and next in healthy persons. In the former series of cases, after sixteen days of treatment, no real modification of the morbid state, bodily or mental, was ever observed. In all them, however, throughout the treatment, and especially in the first few hours immediately following an injection, a definite effect was clearly produced on the cardio-vascular apparatus; this consisted in the strengthening of the heart's impulse and an increased tonicity of the walls of the blood vessels. These effects ceased on the discontinuance of the treatment. In the case of the healthy patients, it was chiefly the effect on the muscular power that was studied; the results were entirely negative. From these experiments Capriati concludes that testicle juice has no dynamogenic influence on the nerve centres, its effect being limited to temporary stimulation of the nervous system. He attributes the wonderful effects reported by other observers, not to the action of the substance, but to the influence of a powerful psychological factor such as suggestion.—*British Medical Journal*.

THE UNIVERSITY OF VIENNA.—Dr. Krafft-Ebing has been appointed to succeed the deceased Professor Meynert in the chair of psychiatry. Dr. Josef Englisch has been promoted to be professor extraordinary of surgery, and Dr. Ferdinand Hochstetter to a like position in anatomy.—*N. Y. Medical Journal*.

## Ontario Medical Journal

Contributions of various descriptions are invited. We shall be glad to receive from our friends everywhere current medical news of general interest. Secretaries of County or Territorial Medical Associations will oblige by forwarding reports of the proceedings of their Associations.

TORONTO, OCTOBER, 1892.

### THE MEDICAL DEFENCE ASSOCIATION.

Dr. Fowler, President of the Medical Council, arranged a conference between the Legislative Committee and the Executive of the Medical Defence Association. On Thursday, September 29th, the meeting was held in the Council Chamber of the Medical Building. There was a very good attendance, and it may be looked upon as one of the most important gatherings that has taken place in medical affairs for some years, not only in the results which will follow, but also from the change of attitude towards the Medical Council which must result from the convincing proof then given to the profession, that at all times its desire is to do the very best that can be done, under circumstances not always fully understood.

This conference has shown that where reasons are properly given and clearly laid before the Council, asking for some modification of existing regulations, the benefit or otherwise of which can only be determined by the results of its practical working, the Council will lend a kindly ear to them.

It was proved at this Conference that the desire by which the members have always claimed to be actuated, is to do their duty to the public and the profession faithfully and honestly.

There always is a reluctance on the part of representative bodies to take the initiative in any very radical measure until it is made apparent to them by some manifestation of public opinion on the subject. In this characteristic the Medical Council is decidedly strong, and they might well hesitate before increasing the territorial representatives—until outside opinion asked for it.

Only such questions were not agreed to as were debatable, or might if acted on at present, prove

they did not voice the sentiments of the profession. These were wisely left in abeyance, and it was agreed that, at the coming election with an increased territorial representation, an opportunity would offer to secure the views of the profession (we refer particularly to clause 41 A. of the amendment to the Act), the Legislative Committee agreeing in the meantime to suspend it during the regime of the present Council.

Notwithstanding the little friction developed during the debate, which rendered it all the more interesting to both parties, mutual concessions were the order of the day, and the conclusions arrived at seem very fair and make a very liberal compromise of the difficulties which the meeting determined to overcome.

The general *personnel* of both parties deserve our congratulations for the spirit of tolerance and amity evinced by the debate. There were present sufficient men of a reasonable and temperate mind to overcome such obstacles—men who saw that concessions had been freely given. While perhaps not going so far as their private opinions might lead them, yet the changes decided upon were to as full an extent as should be expected from the committee in their representative capacity or as they would be authorized to go at present in interpreting the wishes of the general profession. From present indications a common ground of amity and good-will has been found. The committee yielded gracefully what they could, and the members of the Defence Association were not less desirous of making a settlement, and yielded with a good grace some of their points.

These mutual concessions being so much greater than has ever been granted in the past, the compromise will commend itself to the profession, and that a cordial good feeling between them and their representatives will be more firmly cemented than if the late unpleasantness had never materialized. It may safely be expected that many of the points raised will be brought before the Council, and conclusions satisfactory to all arrived at. To this point the ONTARIO MEDICAL JOURNAL will leave nothing untried. Our mission is to work until the most perfect harmony exists between the profession and the Council—with an eye single to the interests of that great body of men who compose the profession of the Province.

At the close of the debate the Defence Association set forth the changes they desired as follows:

1. That section 41 A be repealed.
2. That the matter of annual fees be held in abeyance until the medical profession are properly represented in the Council.
3. That the teaching bodies, viz., the Universities of Queen's, Toronto, Trinity and the Western University, have one representative each and the profession have seventeen.

Immediately after the adjournment of the Joint Committee, the Legislative Committee met and agreed to the following propositions, viz.:

1. We consent to 41 A, remaining in abeyance until after the next election and the electorate pronounce upon it.
2. We do not consent to suspend section 27, but will still rely on the honour of the profession to pay the fee.
3. We will favour adding five additional territorial representatives.
4. We will not object to institutions which neither teach nor grant degrees being deprived of representation.
5. We are in favour of protested elections being referred to the Senior County Judge in the division in which the election took place.

The Legislative Committee was composed of Drs. Fowler, Day, Bergin, Williams, Britton and Johnson. Drs. Geikie, Thorburn and Orr, members of the Council, Dr. Wylie, M.P.P., and Dr. W. T. Aikins, Treasurer, were also present.

The Defence Association was represented by Dr. Meecham, Odessa; Dr. Armour, St. Catharines; Dr. Coburn, Oshawa; Dr. Comford, St. Catharines; Dr. McLauchlin, Bowmanville; Dr. Sangster, Port Perry; Dr. Hutchison, London; Dr. Hillier, Bowmanville; Dr. Bingham, Peterboro'; Dr. White, Toronto; Dr. Mitchell, Enniskillen; Dr. Gunn, Ailsa Craig; Dr. Corbett, Dr. Starr, Dr. Rutherford, Dr. Jessop.

MEDICAL ADVERTISING.—The Royal College of Surgeons in Ireland have adopted a resolution declaring that "announcements of the departure of a physician from his residence are of the nature of advertisements, and are, if made by Fellows or Licentiates of the College, derogatory to his dignity."

## CHOLERA.

The Provincial Board of Health has not been slow in providing for so serious an emergency, as the appearance of cholera in New York. A special meeting was held on the 17th ult., and certain regulations respecting cholera were adopted. An order in council giving those regulations the force of law, was passed on the same day.

These regulations provide, that whenever cholera is present in any municipality in Ontario, the council of every such municipality, and of every municipality adjoining the same, shall at once appoint one or more sanitary policemen. In case the council of a municipality neglects to take immediate and effective action in carrying out these regulations, or any of the health Acts of this Province, or any health by-law in force in the municipality, the Provincial Board of Health may take the necessary steps to combat the disease. The medical health officer is enjoined on receipt of information respecting a suspected case of cholera, to enquire into the facts either by consultation with the attending physician, by his own personal observation, or by both. He is also to see that suspected cases of cholera are isolated.

Should a case occur in a municipality, the medical health officer shall at once remove the person attacked to the isolation hospital, tent, or other place provided, or cause the person to be otherwise efficiently isolated, and shall take proper measures for the disinfection or, if necessary, the destruction of clothing, which may have been exposed to the contagion, and for the disinfection of every rail-car, steamboat, apartment or dwelling, which may have been exposed to the contagion. He shall also make provision for the isolation of persons who may have been exposed to the contagion. He shall also provide a suitable vehicle for the removal of persons sick with the disease to the hospital, and shall also supply nurses and medical aid at the cost of the patients, if able to pay, otherwise at the cost and charge of the municipality. The medical health officer is also enjoined to inspect rail-cars, steamboats or other conveyances coming from infected localities into his municipality, and take proper precautions respecting infected passengers, baggage, etc.

Provision is also made for the appointment, by

the Lieutenant-Governor, upon the recommendation of the Provincial Board of Health, of Medical Inspectors, who shall board boats or trains coming to Ontario from infected localities, and see that the regulations of the Provincial Board are properly enforced.

Local sanitary authorities shall when required, aid these inspectors in the performance of their duties. Rags or clothing coming from infected localities will not be landed if not accompanied with a proper certificate stating that the articles had been disinfected before shipment, or that they were free from infection. Special rules for the guidance of medical inspectors are also given. In the case of the death of any person from cholera, the medical health officer shall be immediately notified by either the physician or party in charge of the body, and shall cause the body to be enveloped in a sheet thoroughly saturated with a solution of mercuric chloride in the proportion of 1 in 500 parts; an outer sheet shall also be applied to prevent evaporation. As soon as possible, the body shall be placed in a coffin and surrounded by a quantity of chloride of lime, and the coffin shall be immediately thereafter permanently closed. The funeral shall be private and the body buried in some cemetery of the municipality. The infected apartments, clothing, etc., are to be thoroughly disinfected, and the apartments are not to be entered or occupied by members of the family or other persons, until after they have been disinfected.

One of the Toronto daily papers tried to find fault with the regulation providing that the bodies of persons dying of cholera shall be, after being placed in a coffin, covered over with chloride of lime. This criticism is rather weak in view of the fact, that in the quarantine station at New York, cremation of the bodies of cholera victims was regularly practised. There can be no doubt also, that, in the opinion of sanitary experts, cremation of the bodies of persons, who die of contagious diseases is an eminently proper procedure. Should, however, an epidemic of cholera break out next summer, the regulation of the Provincial Board respecting the burial of cholera victims will be quite sufficient to protect the public health from any danger to be appre-

hended from the dead, which we believe to be the principal object in view in framing such a regulation.

A circular was also issued by the Provincial Board, giving advice to the public for the restriction and prevention of cholera. Premising by the statement, that the disease cannot exist unless the germ (comma bacillus) exists, the circular states that every precautionary effort has relation to preventing the propagation of this germ, and to its destruction. The vomit, stools and urine of a cholera patient contain the infecting germ. The germ may become reproductive outside the body under conditions of moisture, warmth and filth. Polluted water, if also affected with the germ, is recognized as one of the most active agents in the spread of the disease. A warm moist atmosphere when putrefying organic matter is present, is also very favourable to the development of the germs of cholera. The spread of cholera when once introduced into a locality is principally associated with a contaminated water supply, filthy habits and bad personal, domestic, and municipal hygiene. It is one of the "filth diseases."

The personal precautions relate principally to cleanliness, the prevention of diarrhoea, the use of boiled fluids only, avoidance of raw fruit, etc., and the preservation by every possible means of a perfectly normal condition of the organs of digestion, especially the stomach.

The precautions to be taken by householders, refer to the cleansing and airing of the house and cellar; outhouses, sheds, etc., are to be lime-washed; defective plumbing and drains to be repaired or renewed. Earth or water closets are recommended instead of privy pits: if retained, privy pits are to be disinfected every day with solution of chloride of lime: water closets, sinks, etc., to be regularly flushed and disinfected; drains, gutters, stables and outhouses to be cleaned and disinfected: rubbish, refuse, garbage, etc., to be burned if possible, otherwise disinfected and removed; manure boxes to be cleaned every week or oftener, and the contents removed.

The Discipline Committee will meet in a few weeks. They have evidence to take in a couple of cases which, under the Act, has to be submitted to the Council before action is taken.

## PERSONALITIES.

The JOURNAL, in determining to take an independent course in criticising public matters, and among them those pertaining to medical education, did not expect to please everyone, though it did expect to have the support of the profession generally. Its expectations have been fully realized in both respects. It has hewn to the line and the chips have fallen where they may.

Some writers of newspaper letters whether desiring to remain unknown under assumed names, or wishing to become known by appending their own names, have repeatedly attempted to provoke this journal into editorial personalities, but without success. The JOURNAL declines to cross swords with those who, because wrong systems are exposed, feel themselves personally aggrieved. If they wince, it must be because the pressure of a general exposition of abuses touches a tender place, and the persons having the weak spot hitherto not located, experiencing a sense of hurt, cry out:

"O it is monstrous! monstrous!

Methought the billows spoke, and told me  
of it:

The winds did sing it to me."

An English writer of some repute has stated a principle:

"So full of fearful innocence is guilt,  
It spills itself in fearing to be spilt,"

and it is quite possible that the same principle still obtains.

There are some persons who have such a large opinion of themselves, and who are so self-important, that everything said or done in their region must, in their estimate, be by them or have them for an object. Everything done by them is of course perfect. Everything contrary to their opinion is wrong and unjust. Without their tendered gentle sympathies organizations must wilt. Their humble efforts withdrawn, institutions must cease to be satisfactorily maintained. The powers that be must yield to their powerful and impetuous supplications, and devote to destruction all opposed to the personal interest of the suppliants, or likely to interfere in the working out of their plans. Should their prayers prove futile, then they become self-constituted martyrs who must stoically bear:

"I pray thee, peace! I will be flesh and blood;  
For there was never yet philosopher  
That could endure the tooth-ache patiently,  
However they have writ the style of gods,  
And made a pish at chance and sufferance."

The JOURNAL will not engage in personalities unless it should be compelled to do so in the public interest, therefore such persons "et hoc genus omne" it must respectfully bow out.

#### MEETING OF THE CANADIAN MEDICAL ASSOCIATION.

The twenty-fifth annual meeting of this Association was held in Ottawa, in the Railway Committee Room of the Parliament Buildings, and was in every way a very successful convention. Over one hundred members registered their names, but the attendance, considering the character of the meeting, was not as large as it should have been. Most of the papers read were of a high order of scientific merit, and the discussions on the more interesting ones were well sustained. By an arrangement made with the official stenographer, the JOURNAL has procured a report of the proceedings which will be found in this and a subsequent number.

Dr. Bray, of Chatham, proved himself to be a model president, and by his well-known generality and tact kept the various elements in harmonious association. In this he was ably assisted by the popular general secretary, Dr. Birkett. The members of the profession in Ottawa succeeded by their courteous and unwearied efforts in making the time of the visitors, when not engaged at the sessions, pass most pleasantly. On the first evening an enjoyable conversation was held, and on the second evening the usual Association dinner took place at the Russell House. There were seven on the committee who had this in charge, viz.: Drs. L. C. Prevost, J. Sweetland, F. N. Valade, J. F. Kidd, H. P. Wright, A. E. Garrow and R. W. Powell. The following gentlemen formed the committee on arrangements: Drs. Rogers, Hill, Prevost, Small, Powell, Horsey, Henderson, Cousins, Wright, Garrow, Malloch, Grant, jun., McDougall, St. Jean, Sweetland and Sir James Grant.

The next meeting will be held in London, under

the presidency of Dr. Sheard, of this city. No better choice could have been made, both as to presiding officer and place of meeting.

#### MILITARY MEDICINE.

The following resolution, which was passed at the last meeting of the Ontario Medical Association, states clearly the very unsatisfactory state of the militia medical service. It is high time the authorities looked into the matter and showed some interest in the welfare of the men committed to their charge:

*Whereas*, our military medical colleagues have formed an association for the promotion of the physical welfare of the troops under their professional care, and for the furtherance of military medicine, surgery, and hygiene,

*Resolved*, that this Association extends a hearty welcome to the Association of Medical Officers of the Militia.

*And whereas*, this Association has become painfully aware of the inadequacy, inefficiency, and lack of proper organization of the medical services of the militia,

*Resolved*, that this Association pledges itself to aid in every way possible our colleagues in the promotion of the objects of their Association, and that copies of this resolution be sent by the secretary to the Minister of Militia, Major-General Herbert, the Prime Minister, the secretary of the Medical Officers' Association, and the medical press.

Further comment on this resolution will be reserved for a further issue.

#### COUNCIL BUILDING.

At the request of Dr. Miller, of Burlington and Home divisions, the following statement was presented to the Council. It shows in a very concise form the amount paid on building, mortgage, revenue, etc.:

ITEM NO. 1.	
Site cost.....	\$13,000 00
New building.....	75,046 54
Total.....	\$88,046 54
Less material in old building....	100 00
Cost up to June 14th, 1892.....	\$87,946 54

## ITEM No. 2.

Paid on building and site up to  
June 14th, 1892..... \$28,146 54

## ITEM No. 3.

Mortgage principal..... \$60,000 00  
Interest since 1st May, 1892, to  
14th June, 1892..... 375 00

Amount of principal and interest  
due this 14th June, 1892.. \$60,375 00

## ITEM No. 4.

Rent for 1888 89, from Sept. to  
June ..... \$1,853 45  
Rent for 1889-90, from June to  
June ..... 3,888 91  
Rent for 1890-91, from June to  
June ..... 4,090 72  
Rent for 1891 92, from June to  
June ..... 4,097 34

## ITEM No. 5.

Estimated amount of revenue if  
all offices were rented.... \$7,150 00

It is to be hoped that the profession will retain the property, and if in time they can realize not only what they gave, but considerably more, then it will be time enough for them to sell and secure a building for medical purposes only.

## QUARANTINE.

It is quite time that the Hon. Mr. Carling, Minister of Agriculture, under whose care all quarantine regulations must originate, grasped the importance of the position in which he is placed. If he has glanced over the history of past epidemics of cholera, he must surely see the necessity of leaving nothing undone, no matter what the expense, to prevent an invasion of this country next year.

A body of expert sanitarians should be at once appointed by the Minister with power to consult and act with the present existing quarantine officers. All the ports of entry should be visited and examined. Where quarters for isolation purposes are required for the reception of travellers, immediate steps should be taken for their erection and not delayed until the imminence of the peril stares us in the face. In a matter of this kind, delay is not only dangerous but criminal.

In other matters the government looks closely after the lives of her subjects, and it is imperative that every effort should be made and every means employed to stay cholera's onward march.

That cholera will visit our shores the ensuing season is a certainty in all human probability, and now in the period of calm is the time for thorough preparation, and the more perfect these preparations the greater the chance of preventing untold misery to affected and unaffected alike.

A long period of immunity from contagious diseases has caused our port quarantine arrangement to fall into a state of innocuous desuetude, but we would implore the Minister to immediately take action.

## EDITORIAL NOTES.

Almoxia is a ferruginous wine made from grapes grown in Spain in a locality where the ground is very rich in iron, and we can recommend it for anæmic patients.

The formal opening of the Royal College, Kingston, this year was of a special character to mark the re-establishment of the Medical Faculty of Queen's University. As it took place on the 14th inst., the report was too late for publication.

The Hamilton *Spectator* evidently likes novelty in the surgical line, and in a recent issue describes an operation for the removal of necrotic bone from the tibia in romance language. "The decayed portion of the bone was gouged out, then the flap of skin was forced down into the cavity and held in position by being nailed to the bone. A triumph of surgery. Dr. ——— is pardonably proud of this case."

Dr. Norman Bethune died on the 12th of this month, at the ripe age of seventy. For many years he was connected with the Toronto General Hospital on the active staff, and for the past sixteen years he has been a consultant to that institution. He was known as a most skilful, brave and successful surgeon. A few months ago he had an attack of hemiplegia, and was removed to the Home for Incurables where he received every care and kind attention.

Hon. G. W. Ross is in Europe in connection with public educational business. He has consulted Sir Andrew Clark with respect to his condition of health, and Sir Andrew has pronounced him as free

from any organic trouble and suggested that he should sojourn in the southern part of France for a few weeks, with the encouraging prospect that he would be entirely freed from a slight rheumatism which has troubled him. Hon. Richard Harcourt is acting Minister of Education in Mr. Ross' absence.

**THE TORONTO CLINICAL SOCIETY.**—A few evenings ago a number of the profession met together to discuss the desirability of establishing a new medical society, not in a spirit of hostility to existing societies, but it was thought that it would be in the interests of the profession to have one conducted on somewhat different lines. On motion of Dr. Temple, it was resolved to form an association to be called The Toronto Clinical Society. A committee was appointed to formulate the necessary by-laws.

**THE UNIVERSITY ELECTIONS.**—The vote polled by the graduates in medicine of the Universities of Toronto and Victoria College, was a very heavy one, over 760 ballots having been sent to the Registrar. The four former representatives were re-elected, and deeply appreciate the honour conferred by their fellow-graduates :

I. H. Cameron, M.D., Toronto	487
Adam H. Wright, M.D., "	468
L. McFarlane, M.D., "	441
W. H. B. Aikins, M.D., "	412
R. A. Reeve, B.A., M.A., "	381
A. B. Macallum, B.A., M.D., "	273
John A. Mullin, M.D., Hamilton	267

#### MEDICAL FACULTY, TORONTO UNIVERSITY.

**DR. OLDRIGHT DELIVERS AN INTERESTING AND ELOQUENT ADDRESS ON THE PROGRESS OF THE SCHOOL.**

The inaugural meeting of the Medical Faculty of Toronto University was held in the University biological building. A large number of "Meds" and outsiders gathered in one of the lecture rooms. Dr. W. T. Aikins (the Dean) presided. Among the medical fraternity present were : Drs. Oldright, Graham, H. W. Aikins, Primrose, J. Caven, F. Cane, F. Starr, Bruce, Way, L. McFarlane, A. H. Wright, R. A. Reeve, J. M. McCallum, J. O. Orr, Britton, Norman Allen, Machell, Cameron, W. H.

B. Aikins, R. B. Orr, U. Ogden and B. Spencer. Dr. Oldright delivered the inaugural address, during the course of which he was frequently and enthusiastically applauded. In speaking of the continued progress of the school, he said that at the opening of the session of 1889-90, there were in attendance 68 first-year men, and 258 attendants in all ; in 1890-91 81 first-year men and 263 in all, and in 1891-92, 85 first-year men and 283 in all. And the school was still progressing. Dr. Oldright went on to say that the financial needs of the institution were great. In passing, he referred to the gifts bestowed by Chancellor Blake, Vice-Chancellor Mulock and the late John Macdonald. The doctor held, however, that state aid was what the institution should look for.

#### TRINITY MEDICAL COLLEGE.

**DR. N. A. POWELL DELIVERS THE PUBLIC INTRODUCTORY LECTURE.**

The session of 1892-93 at Trinity Medical College was opened when the public introductory lecture was delivered at the College, Spruce Street, by Dr. N. A. Powell. The lecture room was filled to the doors. Dr. W. B. Geikie, Dean of the College, presided, and seated beside him on the platform were : Drs. Temple, Sheard, Ryerson, Davison, Gordon, Teskey, Cowan, Kirkland Baines, Pyne and Pro. Clark, of Trinity University. After a few introductory remarks the chairman called upon Dr. Powell to deliver the opening address, which proved exceptionally interesting.

After acknowledging the honour that had been conferred upon him in being selected as the lecturer on this occasion, and extending a cordial welcome to the students, Dr. Powell referred to the ideals that were being formed of what a doctor's life should be. If the ideal life were low, the real would never reach any high plane. Ideals changed from year to year, but, as Webster wrote : "All is safe so long as the better sentiments are uppermost."

#### WOMEN'S MEDICAL COLLEGE.

**THE TENTH SESSION OPENS WITH A LECTURE BY DR. J. EMILY IRVINE.**

The opening lecture of the tenth session of the Women's Medical College was delivered in the lecture room in the College building, Sumach



Street, by Dr. Emily J. Irvine. Dr. R. B. Nevitt, Dean of the College, presided. On motion of Ald. Atkinson, seconded by Rev. Professor Cayley, a vote of thanks was tendered to Dr. Irvine for her instructive paper. At the close of the meeting Mrs. James Gooderham, a staunch friend of the institution, was asked to say a few words. She expressed the gratification which she felt at the success of the College and her hopes for its continued prosperity.

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### Personals.

Dr. J. T. Duncan, of this city, has returned from Europe.

Surgeon J. H. Radford, of the 29th Waterloo Batt., has resigned his commission.

Dr. R. W. Garrett has been promoted to the surgeoncy of the 14th P.W.O. Rifles, Kingston, vice Henderson, deceased.

Assistant-Surgeon C. O. Gorman, 40th Batt., has been granted the rank of Surgeon, having served the necessary term for promotion.

Surgeon Stuart and Assistant-Surgeon Dame are engaged in organizing an ambulance corps in connection with the 48th Highlanders. Pte. G. J. Watts, late of the Grenadiers corps, will be Hospital Sergeant.

Professor G. Sterling Ryerson has been elected an Honorary Chairman of the Section of Otology of the Pan-American Medical Congress, which meets in Washington next year.

The Dominion Government have honoured another member of the profession, by appointing Dr. John Ferguson, of Welland, to the Senate. We congratulate the honourable gentleman upon his elevation to the Upper House.

The following gentlemen form the Medical Council of British Columbia: Drs. Milne, Harrington and Daire, of Victoria; Drs. Le Fevre, Tunstall and McGuigan, of Vancouver, and Dr. De Wolf Smith, of New Westminster, president.

Dr. Hugh Watt has been elected in the late Premier Robson's place, to represent Cariboo in the Local Legislature, B.C. Dr. Milne was the only medical representative in that body prior to Dr. Watt's election. Both are old Toronto School

of Medicine and Victoria graduates of 1880. They are on opposite sides of the political fence at the present time.

OFFICERS OF CANADIAN MEDICAL ASSOCIATION.  
 —*President*: Dr. Chas. Sheard, Toronto. *Vice-Presidents*: Ontario—Dr. Wickard, London; Quebec—Dr. Shepherd, Montreal; British Columbia—Dr. Milne, Victoria; Manitoba—Dr. Chown, Winnipeg; North-West Territories—Dr. Kennedy, Fort McLeod; Nova Scotia—Dr. Lindsay, Halifax; New Brunswick—Dr. Daniels, St. John; Prince Edward Island—Dr. McLeod, Charlottetown. *Local Secretaries*: Ontario—Dr. Waugh, London; Quebec—Dr. Desrosiers, Montreal; British Columbia—Dr. Le Fevre, Vancouver; New Brunswick—Dr. McLaren, St. John; Nova Scotia—Dr. Morrow, Halifax; P.E.I.—Dr. F. B. Taylor, Charlottetown; N.W.T.—Dr. Cotten, Regina; Manitoba—Dr. Milroy, Portage la Prairie. *General Secretary*, H. S. Birkett, Montreal; *Treasurer*, W. H. B. Aikins, Toronto.

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### Correspondence.

*as The Editors do not hold themselves in any way responsible for the views expressed by correspondents.*

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### THE REORGANIZATION OF THE MEDICAL FACULTY, UNIVERSITY OF TORONTO.

*To the Editor of ONTARIO MEDICAL JOURNAL.*

SIR,—In my former letter I pointed out some of the glaring acts of injustice, which had been done by the Committee of the Senate on Medical Faculty. In this letter I intend to point out, still further, some of the results of the report in its practical working.

1. The expenses of the Medical Faculty for a number of years to come is fixed at about \$8,352.24. This is the result of a very careful examination of the needs of the college, in both eastern and western buildings. It is made up as follows:—Anatomical expenses, \$3,000; expenses connected with the medical branches, \$2,500; joint expenses of all medical branches, \$1,500; and retiring allowances, \$1,352.24. It is very reasonable to suppose that this sum is more likely to increase than to decrease. Some of the retiring allowance, pro-

vided for in the report, will lessen year by year, so far as Drs. J. Thorburn and H. H. Wright are concerned, but there is every certainty that others will have to be added to the list. The current expenses of the Faculty cannot lessen in other items.

2. The sum guaranteed, as salaries, to the nine assistant demonstrators of anatomy, after the present session, will be \$850. This is a fixed amount, and according to the report cannot be lessened.

3. To the nine lecturers on various subjects, the sum of \$1,520 is guaranteed in salaries. As these lecturers cannot be reduced in numbers, nor in pay, this must remain as a standing liability.

4. Two of the professors, Drs. John Caven and A. Primrose, are guaranteed each, as a minimum, \$1,500: or, a total of \$3,000. As this is a fixed guarantee, it must be met out of the earnings of the college.

5. These four sums make a grand total of \$15,722.24, that must be paid before there can be any division made to the other professors. In any year should the 40 per cent. not meet the expenses, there would of necessity have to be a levy on the 60 per cent., as in no case could the general funds of the University be encroached upon for such purposes.

6. Now, the committee has based its report, and the emolument that each professor shall receive, upon the estimate that there shall be for the future 85 first-year, 75 second-year, 70 third-year, and 60 fourth-year students. But this may not be the case: indeed, there are many reasons for believing that the numbers will decrease. It is not necessary to give these reasons. Everyone familiar with the situation can at once judge for himself of the correctness of this conjecture. For the sake of stating the case clearly let it be put thus:

60, first-year, at \$75.....	\$4,500
50, second year, at \$75.....	3,750
45, third-year, at \$85.....	3,825
40, fourth-year, at \$85.....	3,400
	<hr/>
Total for the four years....	\$15,475

This will be the grand total earnings for one session from all the years. Now from this sum there must be deducted the guaranteed outlay, \$15,722.24. This would leave a balance of

\$1,752.76. But from this again must be deducted the amount due as arts fees for such an attendance. The sum thus due, at the rate of \$14 for each first-year student, and \$15 for each second-year student, would be \$1,735. The net balance left for division among the professoriate, other than Drs. J. Caven and A. Primrose, as their pay has been already guaranteed and considered, would therefore be \$17.76. The number of lectures and clinics that must be given by all the professors, other than the above two, is 545. The emolument then for each lecture would be \$17.76 divided by 545, or 3 cents. For each professor then who delivers fifty lectures, there would be forthcoming the magnificent sum of \$1.50. Thus it could happen that the senior professors might receive less remuneration than a junior lecturer, whose salary is guaranteed. This may be realized in the near future, as the present first-year, up to date, number about 65: while there has been a considerable falling off in the second-year.

7. On the other hand should the attendance of students be greater than that calculated for by the report, the gross income would be to that extent greater. In this way the incomes of the professors might be as high as \$20 or even \$25 per lecture; while the lecturer who does equally good work, requiring as much knowledge and time, receives \$3, or \$4, or \$5 for a lecture. I do not think after such action, the committee can exclaim with Horace, "Exegi monumentum are perennius." Much more appropriate would be the words of Plautus, that the report resembles the work of a "Stulta atque inscita mulier."

8. There is in the above plan of paying the members of the staff, evidence of stupendous folly. It is clear that the report has been prepared by persons who did not understand the matter. The income of the Faculty is dependent exclusively upon the attendance. To go to work then and make such extensive guarantees, and have only the unguaranteed balance for the professoriate proper is practically to say to them, "that you are accorded the status of professor, but there is no provision by which you shall receive any remuneration, unless the earnings reach a certain sum." To issue such a report to the public is simply to stultify the committee and

Senate, to insult the professors, less the two who have a guarantee.

9. A few years then of adversity to the Faculty, caused by small classes, would sweep away the small reserve on hand, and leave the scheme in a position totally unable to pay those who did the most valuable part of the work. The professors, under these circumstances, would have little left for their labours, except the knowledge that they had discharged important duties to the University for the sole purpose of securing the money needed to pay expenses, and furnish the salaries of two colleagues and some assistants and lecturers. If the Faculty can be strong on such an adjustment, one can imagine a great oak securely rooted on the top of a little sand heap.

10. The opposition at the present moment is very keen. The numbers attending the Medical College in London are increasing. The Kingston College is making decided headway. McGill is in a better position than ever with new and splendid hospital facilities. Trinity Medical College is active and united, and making herself strong in a good staff and a steady, fixed purpose. These colleges will continue to attract increasing numbers of students. The total number of students to be educated in medicine is likely to decrease, rather than increase. The profession is now fearfully crowded, and young men will turn their thoughts to other callings. The number of Ontario young men that go to the United States to study in American colleges with a view of practising there, is on the increase. This can be abundantly proven by taking the college announcements of ten years ago, and those of last year, and comparing the numbers marked from Ontario. This will become more marked under the five-year regulation of the council. One of the greatest difficulties, however, in the way of the Faculty, is to be found in the divided state of the college work. The student in the future shall make strong objection to taking one part of his course in one building and the other in another building. The whole body of students in this way never get fully acquainted. The primary men are shut off from the final men. This condition of things is very injurious to the life and progress of any college. No doubt it will begin to have its full effect as soon as the students realize that the Park Hospital scheme is not likely to

materialize. Indeed the hospital may be a thing of the past. Under these circumstances there is now little hope that the students shall ever be gathered together to do their work, as was the intention at one time. Students are thus limited to two sessions of hospital facilities.

11. But there are other features about the condition of the Faculty that does not impress the outsider favourably. Why all this contention in the Faculty? One faction warring against the other is not the best method of producing strength. "A house divided against itself is sure to fall." Just look at the letters in the public press; or, see the letters that have been sent out through the country. or, think of the intriguing that took place last spring over the reorganization; or, bear in mind that all this will be repeated in the future, at the next election in three years, at the next partial reorganization in three years, and at the next general reorganization in five years. The signs of dissolution are much more evident than are those of evolution.

12. The five-year term of office is not going to work well. A man may be very faithful in the discharge of duty, but the interests of friends have to be served. From one reorganization to the other a Senate election, or even two Senate elections may take place, the chancellorship may be changed and the government defeated at a general election. In this way the Medical Faculty will come under the control of a new set of potentates, who will try their hands at the construction and reconstruction of the Faculty, which, of course, will mean the introduction of new blood on the grounds of friendship and politics, and not merit. The man, who for the time has "the pull," gets the plum. Great care should be exercised in the first place to get the proper staff. but once this is done, their positions ought to be made secure. Fancy an arts faculty retiring every five years for re-election, or the staff of an asylum, or the judges of the supreme court. This plan would cause chaos in a very short time. The effect is paralyzing on effort. No matter what may be said to the contrary, it leads to jealousy, intrigue, unscrupulous ambition, wire-pulling and all the evils of the election system. The ear of a committee man is worth more than many years of hard work for the college. Once on the staff a man will begin to make himself strong.

Combinations will be formed to secure extra power in the Senate.

13. One member of the staff who happens to have a dearly beloved friend on the committee, seeks the aid of another member of the staff who has a dearly beloved friend in the Provincial Government, and these two again combine with a third who has the innings with several members on the Senate. In this way a strong pull, and a long pull, and a pull altogether is the result. For the time being they are victorious, and in this, as in similar affairs, "to the victors belongeth the spoils." By the end of five years, however, this "combination" is broken, and a new one takes its place. The key that once unlocked the door to position and emolument has been lost. Someone else comes along who has found the magic word, he whispers "sesame," and those in power say, "receive of the treasures that others have earned, enter into the fruits of others' labours, thou favoured one." The doors open wide, and some new professors are made, and there is great joy in high places, and they sit down together.

14. Some might be foolish enough to think that the five-year plan will have the effect of spurring on the teachers and making them energetic in the discharge of their duties. This cannot be shown to be the case. Healthy rivalry in the different departments will have this effect. The Arts Faculty in the University of Toronto is second to none on this continent, and yet it is not spurred on by a triennial, or quinquennial house-cleaning. The Medical Faculty in McGill is certainly a good one, and there the professors do not require to give an account of their stewardship every few years. The scheme is a very poor one, indeed, and shall yet prove the greatest rock in the course of the University Faculty in Medicine. Now that certain persons have obtained professorships, perhaps an effort may be made to change the statute, so as to make the appointments permanent. It remains to be seen what the friends at court will do in this matter; but, judging by what has taken place, such a further step is quite conceivable.

15. That the picture just drawn is not an exaggerated one, the following little incident will abundantly prove: I have learned from several sources, that last winter, towards spring, one of the younger men on the teaching staff said, that "there was a

combination formed, and that unless one was in that combination he would get nothing: and, further, that he was in the combination." Here, then, is an example of the very point.

16. One more point which I think is very important. By the report of the Committee on the Medical Faculty, \$7,000 must be used for certain working expenses that must be paid out of the 40 per cent. of gross earnings. Now, 40 per cent. of \$17,500 is exactly \$7,000. Should the income in any year fall below \$17,500, there will be a difficulty at once. By statute, the 60 per cent. portion, for the teachers, cannot be touched for the purposes covered by the 40 per cent. portion. In like manner, the government have stated emphatically that public funds must not be used. Here, then, is a rock of real danger to the Faculty. If the earnings are less than \$17,500 in any year, the Faculty will not be able to meet its payments under this heading.

17. Finally, almost every physician in the Province now is familiar with the fact that certain professors gave their influence to defeat Drs. McFarlane, Wright and Aikins at the recent Senate elections. They were, however, elected fairly and well, and with the exception of Dr. Cameron, a former representative who practically withdrew from the ticket, the ticket of four was thoroughly routed. The medical graduates, then, of the Universities of Toronto and Victoria, have not approved of the policy of these professors. Under this protest from the graduates, I would think that the honourable course for these two gentlemen would be to resign their positions on the staff at once. Very possibly the authorities could be induced to accept their resignations, and make an effort to fill their places out of the large number of intelligent medical men who have voted against their views. Indeed, it is very questionable if harmony can ever be restored among the former friends of the Medical Faculty so long as these two retain their positions on the staff.

MEDICAL BYSTANDER.

Toronto, Oct. 12th.

*Doctor*— "Ben, what's your face so bunged up for?"

*Ben* (sadly)— "Dat fool, George Williams, done it. I was at the cake-walk las' night, and all I say to his gal was, 'Good ebnin, Miss Annie, you's lookin' quite pregnant dis ebnin.' What make him hit me, doctor?"

## THE MEDICAL DEFENCE ASSOCIATION AND ITS OBJECTS.

*To the Editor of ONTARIO MEDICAL JOURNAL.*

DEAR SIR,—I have been asked to state briefly the objects of the Medical Defence Association.

The Medical Defence Association consists of a goodly number of leading practitioners throughout the Province, in whose ranks are to be found past members of the Medical Council, members of Parliament and others who have taken an active interest in and been identified with many of the most important movements in the progress of our profession in the past.

Necessarily when circumstances arise, which justify the union of such a member of the profession for some definite, concerted action, it becomes the duty of everyone to make inquiry into the conditions which provoke such actions. Into these our confreres are invited to enquire.

The objects of the Defence Association are, to secure the removal of recent amendments to and other sections of the Medical Act, which they believe to be objectionable to the best interests of the profession in many ways. Such as the old section No. 27, giving power to make a limited tax annually upon all who pass the Council's examinations, for that body's proper support: the recent action of the Council doubling this same disputed fee, and currently known as the "double or quit" resolution: the issuing of a yearly certificate called the "pill pedlar's license," to practise upon conditions which the Defence Association consider intolerable: as also the Council's action in placing in the hands of a single individual (one of its employees), no matter how worthy he may be, the autocratic power, under certain circumstances, of cutting off the professional head of every practitioner in the Province.

The Defence Association also voices that latent conviction in the profession, which has been forcing itself stronger and stronger to the front every Council election, that the present number of elected members (twelve) are not sufficient in influence or strength to rule the Council, when it comes to a question of Medical School interest, against that of the general practitioner; invariably succumbing to the mixed blandishments and snubbing, alternate hospitalities and cool indiffer-

ences practised so skilfully on them, the result being that the Council is ruled by the teachers sent there by bodies not representing the interests of the profession, and often opposed to them; that it is desirable to increase the number of elected members from twelve to seventeen: that all election disputes be referred to the County Judge, and not to a member of the profession; that however justified past Councils may have thought they were in involving the profession in the immense expense of the present building, or all the pressing need of funds which the Council says exists (though the Treasurer states the contrary), it is claimed by the Defence Association, such a condition could not exist (if it really does) if proper financial skill had been used. That the duty of this Council was not to attempt extorting from students and the profession, but to relieve them of the burden of this building, year by year growing more irksome, and cut down the expenses wherever possible.

They hold that the Council should have only one confirmatory final examination: that tests of the progress of a student are nothing to the Council nor the public, and may be safely left to the teachers of medical subjects, who will take good care their students go fully prepared to the Council's final test: that so many examinations are needless, expensive and vexatious; that neither the public or profession are interested in the elementary steps leading up to this examination; that universities having medical faculties engaged in active teaching, send one of that faculty as its representative to the Council annually, so long as its faculty is actually teaching with a full staff: that this representative will assume in his person the duties performed by the two representatives heretofore sent from university and medical faculty: that no one will be received from any university Senate, not approved of by its medical faculty; that no teacher in any university or medical school, no one holding any position upon any faculty, nor connected in any function with any school where medical students are being taught, shall *hold any office whatsoever* in the control of the Council.

That the term of office for the elected members be reduced from five to three years.

That all notices of motion relating to any

change in existing laws or regulations, given at the final meeting before the term of the then Council shall expire, shall be published in an Ontario medical journal, and accompany every official notice of that election, whenever or however printed for the Councils or sent to the profession, that the profession may have full notice of them, and their opinions expressed by their votes at the election. There are many other matters the great tax on students for examinations—the needless number for the purposes of the public or profession—the degree which ex-President Williams states so explicitly the graduates receive no value for—the function of the various offices—the effort to make the Medical Council the exact reflex and power of the whole profession—to do away with all factors of antagonism, which have made the Medical Council appear more like a tyrant in the eyes of the profession than a righteous and powerful protector. In the carrying out of these briefly expressed and other much needed repairs to our legal machinery, all who believe it their duty to join hands with the Defence Association will be welcomed.

Do not regret, Mr. Editor, the space you have kindly given here. It goes far to prove your announcement to the profession, that the *ONTARIO MEDICAL JOURNAL* though having business relations with the Medical Council—did not propose to have its policy interfered with by anyone, against the interests of the whole profession.

My best wishes are that your journal, having proved worthy of, will soon hold such a well-earned confidence, that it will prove to be the powerful factor in healing the differences between the profession and its chosen executive, the Medical Council, whose beneficial labours could not be more highly appreciated than they are by

Yours truly,  
(Signed) J. E. WHITE.

#### BRAIN LESIONS AND MENTAL INTEGRITY.

*To the Editor of* *ONTARIO MEDICAL JOURNAL.*

MY DEAR SIR,—Dr. J. Ferguson, of this city, has indulged in a little friendly criticism of a paper read by me at the Annual Meeting of the Association of the Medical Officers of the Militia, held in this city last June.

My object in writing this is not to enter into a discussion of the localization theory of Ferrier, and of his school, but rather to show that the Doctor missed the aim of my paper altogether.

The examples were not given to produce arguments against the doctrines of these localizers, but to show how much brain lesion can exist with *mental integrity*.

Not a single argument was advanced in the examples to show that the injury was done to the motor areas, so-called, in the neighbourhood of Rolandic and Sylvian fissures.

The Ferrier devotees hold that the front sections of the hemispheres are centres of ideation and not of physical function. To refute that statement was the fulcrum idea of the paper. Mental operations are with them simply brain activity, and all mind action is only a resultant of molecular movement in nerve substances. The examples adduced were culled principally to show mental condition, after injury to the front parts of the cerebrum. Let me quote from my introduction: "In its life function the brain is the organ of the mind. Our relation with the external world and our immediate knowledge of it, are carried on and recognized through this mass of nerve substance. We can predicate the proportion of mental force by the mass, complexity and tone of this mental instrument. Notwithstanding the existence of these important functions which belong to the brain, and as a result of the necessity of its healthful condition to make manifest its psychic force, yet there is no organ of the body which can be lacerated with such impunity as the brain. It is astonishing how tumours can grow and impinge on its domain without producing much disturbance of activity: exostosis may even grow into its substance without being suspected, until after death by some other disease.

"Abscesses may form because of thromboses or emboli, and no functional or mental derangement ensues commensurate with the injury inflicted. It is surprising what pathological conditions may exist, or what traumatic injuries may be inflicted which, reasoning from analogy, would be supposed to prove fatal, and yet the victims of disease or of surgical lesion remain afterward good and useful citizens. It is not, however, my intention to discuss brain lesions in general and the results flow-

ing them from, but rather to give a few examples of brain injury, *and the slight mental alienation which resulted from these lesions*, many of which were of an extensive and serious character." This is a declaration of the purport of the paper. It is true I incidentally mentioned my disbelief of the Ferrier localization theory, but these statements were not based on the examples cited. I have given my views in full on this school in a number of monographs published during the last few years, some of which have been translated and published in several of the medical journals, especially in Paris, France. These contributions, however, are not the subject of the Doctor's criticisms.

I repeat, that my paper was mainly written to show that extensive brain injuries of the front part could take place without the loss of mental integrity, commensurate with destruction of tissue. How could these parts be centres of functional ideation?

Such being the case, Dr. Ferguson's critical scalpel has been dissecting a ghost.

I thank him, however, for his not unfriendly remarks, as they give me this opportunity to explain what, in my hurry and want of perspicuity, may lead to a like misunderstanding in the minds of other medical readers of the JOURNAL.

My respected friend might have a tilt at such men as Seguin of New York, Brown-Sequard of Paris, Schiff of Florence, Italy; Rokitansky of Russia, Gower of England, Beevor of London, and a host of other distinguished men who do not accept the doctrines he has so warmly espoused. This monograph has enabled the Doctor to show his acquaintance with the literature of the subject.

DANIEL CLARK, M.D.

Asylum, Toronto.

#### THE BALLOT IN MEDICAL COUNCIL ELECTIONS.

*To the Editor of ONTARIO MEDICAL JOURNAL.*

SIR,--The fierceness of the contest which has just taken place for the election of members of the Senate of Toronto University, and the apprehension of differences that may arise therefrom, among the various candidates and their respective supporters, have caused a desire on the part of a large number of convocation, for greater protection in future elections.

This might be accomplished in an easy and sat-

isfactory manner by employing the secret ballot system, now so nearly universal.

It has been a matter of surprise to me, that the Medical Defence Association in its late conference with a committee of the Medical Council, did not advocate this method of voting in territorial elections, as in these contests difficulties of a similar character have frequently occurred.

It is suggested that this scheme be proposed to the Medical Council before its next session in 1893, in order that, if approved, it may come into force at the next territorial elections.

I am, etc.,

Toronto, Oct. 10. J. H. BURNS, M.D.

#### AD EUNDEM DEGREES IN TORONTO UNIVERSITY.

*To the Editor of ONTARIO MEDICAL JOURNAL.*

SIR,--The University of Toronto, as stated in its Announcement, will grant the ad eundem degree to graduates in medicine of Provincial or Dominion Colleges, provided they pay \$20, and have been in practice for ten years; considering the federation of Victoria and Toronto Universities. Would the above mentioned requirements be exacted of a graduate in medicine of Victoria, if he wanted the degree of Toronto University?

Sept. 21, 1892.

MEDICUS.

#### Book Notices.

*The Hygienic Treatment of Consumption.* By Dr. M. L. HOLBROOK, New York.

We have been very much pleased with the contents of this little book. Within the compass of about 200 pages, necessary instructions are given to those who have a tendency to tuberculosis, as well as to those who are in the incipient stage of the disease, which if carefully and judiciously followed will prolong life, or may effect a complete cure. Each case, however, requires treatment peculiar to itself, and patients should not follow this or any other plan without consulting a competent physician. Although this work is written largely for the public, we are sure it will be read with great profit by the general practitioner. It makes prominent plans of treatment which are too much neglected.

PAGE

MISSING



## Births, Marriages, Deaths.

## Selections.

### BIRTHS.

BROWN. At Port Hope, on Wednesday, Oct. 5, the wife of Dr. Fred. J. Brown, of a son.

CLENDENAN.—At Toronto Junction, on Sept. 26th, the wife of Dr. G. W. Clendenan, of a son.

FERGUSON.—On Sunday, Sept. 11th, at 12 McDonnell avenue, Toronto, the wife of Dr. G. A. Ferguson, of a daughter.

McLACHLIN.—At Auburn, Ont., on Sept. 25th, the wife of Dr. J. Y. McLachlin, of a daughter.

MEIKLE.—At Mount Forest, on the 20th inst., the wife of Dr. T. D. Meikle, of a daughter.

### MARRIAGES.

COWAN—MICHIE.—At St. Andrew's Church, Toronto, on Oct. 4th, by the Rev. D. J. Macdonnell, B.D., Francis Percival Cowan, M.D., to J. Alex., third daughter of the late John F. Michie, Strathdon, Aberdeenshire, Scotland.

MALLOCH—McNAB.—On Monday, the 12th Sept., at the residence of C. Mah, Esq., Brooklyn, Belgian Consul at New York, by the Rev. Dr. Moment, of Brooklyn, Archibald Edward Malloch, M.D., of Hamilton, Ont., to Alice Barbara, youngest daughter of the late Daniel McNab, of Hamilton.

PATTON—HAMILTON.—On the 22nd of September, 1892, at the residence of the bride's uncle, Albany P. Barr, Esq., Pollokshields, Glasgow, Scotland, J. C. Patton, M.D., of Toronto, third son of the late R. G. Patton, Esq., formerly postmaster of Quebec, to Agnes, only daughter of the late David Hamilton, Esq., of Altrincham, Cheshire, England.

SHANNON—ROSS.—At St. George's Church, Goderich, on October 5th, by the Rev. Canon Young, Dr. J. Reginald Shannon, to Agnes Matilda, daughter of Hon. A. M. Ross.

### DEATHS.

BETHUNE.—At Toronto, Wednesday, October 12th, 1892, Norman Bethune, M.D., aged 70 years.

TREATMENT OF CHOLERA. —Volovsky (*Vratch*, No. 31, 1892) says the following method gave excellent results in his hands during a severe epidemic in 1872. Immediately after admission the patient is placed in a bath as hot as can be borne (not under 30° R.), and an icebag applied to the head. A few minutes later he is given a scruple of calomel and an ounce of castor oil, with some wine or brandy. In about half an hour, or as soon as he begins to complain of giddiness, he is taken out of the bath, put to bed, and rubbed dry, after which a large sinapism is applied to the whole abdomen, sides, and lower half of the chest, and kept on for fifteen or twenty minutes. Mild cases recovered most quickly, but even many of those admitted in the algid stage were discharged well in forty-eight hours.—A. D. Pavlovsky, of Kieff (*Kievskoe Slovo*, August 4th, 1892), suggests the following plan for eliminating the cholera bacilli and their toxins in the early stage: A purgative dose of calomel with naphthalin should be given at once, and half an hour later hot, weak tea with rum or brandy. If the patient's general strength and the action of the heart are still good, the subsequent treatment should consist in the administration of small doses of calomel with naphthalin, and hot tea, with claret, brandy, etc. If cramps are complained of, hot packs and baths should be used, and the tinctures of valerian and convallaria given in doses of thirty drops hourly. If there be profuse diarrhoea and tendency to cardiac failure hypodermic injections of a 0.7 per cent. solution of chloride of sodium with carbonate of soda must be resorted to as early as possible. Opium should be avoided.—A. G. Rosenoel (*Vratch*, No. 31, 1892, p. 770) has studied the action of the following substances on the cholera microbe in pure cultivation: Bisulphide of carbon, aniline water, iodine, carbolic acid, iodoform, resorcin, boracic acid, alum, salicylic acid, and thymol. He has come to the conclusion that: (1) All these drugs, except thymol, kill the microbes only when used in very strong solutions. (2) In order to destroy the microbes in a cholera patient's intestines the drugs should be introduced in quantities which would poison the macrobe as well.

(3) Thymol, however, kills the bacteria in five minutes, even when used in the proportion of 1 to 1,000; (4) therefore, to disinfect the intestinal tract in a cholera case it would be sufficient to inject into the patient's bowels not more than 4 grammes of thymol dissolved in 4,000 grammes of water—a quantity which may be regarded as perfectly safe. Only five minutes' contact of the fluid with the intestinal contents and walls is necessary for all purposes.—V. A. Manasseïn says (*Vratch*, No. 32, 1892, p. 811) that he has received a telegram from I. I. Lvebomüdroff, of Tionet, stating that salol as well as hydrochloric acid seem to act excellently well in cholera.—*British Medical Journal*.

PROTECTIVE INOCULATION AGAINST CHOLERA INTOXICATION.—G. Klemperer (*Berl. klin. Woch.*, August 8th, 1892) says that there is no longer any doubt that cholera is caused by the comma bacillus. This bacillus cannot develop in animals, and is thus non-infective for them. The question of the pathogenic action of micro-organisms is not

limited to the indefinite power of growth in the body, but includes their toxic properties. Thus micro-organisms may be toxi-pathogenic but non-infective. Thus enteric fever bacilli do not develop in animals, but if injected into the peritoneal cavity these animals quickly die from the toxic effects. So it is with the comma bacillus. The first object then is to protect these animals against this fatal intoxication. A sure inoculation against such intoxication is a protection against the most infective bacteria, as may be seen in the case of pneumococcus immunity. It would appear that one-half the community is immune against cholera and protection is conferred by one attack for four or five years. Hitherto immunity has only been brought about in animals by the addition of the extract of the thymus gland to the injected culture of cholera bacilli. The cholera virus proves itself much more resistant to attenuating influences than the pneumococcus poison. The author then records his experiments. (1) Inoculation against intraperitoneal intoxication by means of heated cultures. It was found that seventeen hours after the injec-

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tion of the virus thus attenuated, the fatal dose of cholera did not kill, and that the serum from rabbits made immune against cholera protected guinea-pigs from that disease. (2) Inoculation against cholera intoxication starting from the intestinal tract. A disease like human cholera can be brought about in guinea-pigs by introducing cholera bacilli into the stomach, if the gastric juice neutralized by soda and peristaltic action prevented by opium. It is more like human cholera than that produced by intraperitoneal injection, and a greater degree of immunity is necessary to prevent it. Two intraperitoneal injections of the warmed culture will produce certain protection against it. (3) Protective substances introduced through the mouth. The amount of cholera bacilli given to the guinea-pig after the soda-opium treatment may be such as just to avoid a fatal result. A few days later an absolutely fatal dose is without effect although control animals invariably die. The author believes that this is the first time that immunity has been conferred experimentally through the mouth—a fact of much interest. (4) Protective inoculation by means of cultures treated with electricity. It was proved that a constant current of 20 milliamperes and of 24 hours' duration completely killed the cholera bacilli in a bouillon culture one day old. The poison was so weakened as to be of use in conferring immunity and acted like a culture kept at 70° C. for two hours.—*British Medical Journal*.

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### Miscellaneous.

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Dr. Rudolph Virchow has been chosen as the new rector magnificus of the University of Berlin. It is said that he has been twice defeated when standing as a candidate for the rectorship. This has been due to political antagonisms. It is doubtful if, even at the present time, provided Prince Bismarck had still the reins of government, Virchow's friends could have secured for him the votes required to honour the university by putting its most eminent alumnus temporarily at its head.—*N. Y. Medical Journal*.

THE RETIREMENT OF SIR JOSEPH LISTER. — The eminent originator of modern antiseptic surgery, having attained the age of sixty-five, has been retired from his post as lecturer on clinical

surgery at Kings College Hospital, London. The rule requiring his retirement on account of age has been commented on quite freely as an unnecessarily harsh measure, for the distinguished surgeon is no less capable and active to-day than when he was invited down to London. The hospital does not altogether lose his services, for by a special act of grace Lister will continue for a year longer to occupy his position on the attending staff.—*N. Y. Medical Journal*.

THE *British Army Surgeon* has a sore grievance against the Duke of St. Albans. In a recent magazine article on one of the tropical colonies, His Grace mentioned incidentally that a military doctor, having mistaken one case of yellow fever for delirium tremens, proceeded to treat subsequent cases of "drink" as yellow fever, in order to avoid the repetition of the error. The noble duke probably meant it for a joke, but he forgot that he was writing for British readers, and until they "catch on" he must suffer for his imprudence.—*N. Y. Medical Record*.

The result of Bertillon's statistics is to show that the conjugal association, provided it is not prematurely entered on, is salutary to both sexes, though it is the husband who benefits most from the union. The dangers of childbearing neutralize its benefits to the female up to the age of twenty-five in France, and in Belgium and Holland even up to the ages of forty or forty-five. "The comparison," he says, "of the vitality of married women and widows above the age of fifty with that of spinsters is very significant. It shows that the dangers of maternity are prolonged beyond that time of life. A woman who, by her celibacy, has deprived her organs of their special function, who has denied to her youth the pleasures of love, and the labours and joys of motherhood, has not thereby insured her old age against the dangers peculiar to it, but, on the contrary, she remains more exposed to them. Love and motherhood, in the salutary conditions of marriage, far from exhausting vitality preserve and protect it in the present and in the future, because in France, the mothers of families, wives, or widows, at every period of their existence after the age of twenty-five pay a smaller tribute to death than the spinsters of corresponding age."—*Prof. A. R. Simpson*.