

# Dominion Medical Monthly

And Ontario Medical Journal

Vol. XXXVIII.

TORONTO, FEBRUARY, 1912.

No. 2

## Original Articles

### \*TREATMENT OF TYPHOID FEVER.

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The treatment of typhoid fever which is in general use at the present time might be designated an expectant and symptomatic method. We allow, in a way, the disease to "run" its course, but, by treating the patient and protecting the various organs and tissues of the body, hope to mitigate the effect produced by the disease process, and to prevent accidents and complications. In carrying this out one should keep in mind the nature of the disease, the manner in which the bacillus of Eberth produces the various manifestations, and, also, the pathogenesis of the complications.

Typhoid fever begins as a general infection—bacillemia. Indeed, the general infection has been known to exist before the incidence of fever. However, most of the manifestations of the disease are not caused directly by the specific bacilli, but by endotoxins liberated by their solution. Thus we have two causative agents of symptoms, namely, a bacillemia and an endotoxemia. In addition one might add a third or rather a group of agents, composed of the various bacteria, such as pneumococcus, streptococcus, etc., which cause secondary infections. One might illustrate these relationships by means of the following table:

Bacillemia—Roseala, meningitis, cholecystitis, osteomyelitis, broncho pneumonia and lobar pneumonia.

Endotoxemia—Fever, headache, dry tongue, disturbance of digestion, diarrhea, meteorism, engorgement and necrosis of Peyer's patches and solitary follicles, ulceration of intes-

\* Read at the meeting of the Ontario Medical Association, June, 1911.

tine, intestinal perforation, low blood pressure, cardiac weakness, dicrotic pulse, arteritis, myocarditis, delirium, stupor, tremor and meningism.

Secondary Infections—Pneumonia, broncho-pneumonia, sepsis.

Of course a relationship exists between these groups as the bacillemia gives rise to the endotoxemia, which, itself, no doubt, predisposes the patient to secondary infections.

The advantages to be gained by keeping this classification in mind while determining on the treatment of a case is that our methods are likely to be more rational. For instance, in fighting the bacillemia one can understand the benefit to be derived from quietness, fresh air and the selection of a dietary in keeping with the assimilative powers of the patient, because these measures should tend to increase the resistance of the body against the bacilli, but one cannot understand how starvation for a week, as advocated by some, can be of service. The giving of any vaccine, serum or drug which will increase the antibodies of the blood is rational.

From theoretical considerations typhoid vaccine should be of value as a preventive measure and clinical observations appear to support this view. As a curative agent, however, there does not appear to be any evidence to show that it is of any value. Again, the giving of any drug which will increase the antibodies of the blood is rational therapy. Smith (*Lancet*, Nov. 10, 1910) reports that the administration of quinine increases the opsonic index of patients with infectious fevers. If this be true, the giving of quinine in typhoid fever would be rational therapy.

The importance of having a substance which will increase the potency of the antibodies in the blood is well illustrated by the fact that in cases of relapse, a condition in which one would expect the bactericidal substances of the blood to have been augmented by the primary attack, a fatal termination is uncommon. In 1,236 cases of typhoid fever treated at the Toronto General Hospital during six years ending September 30th, 1910, there were 65 relapses, of which only one died. In the fatal case the course of the fever was unusual and the temperature was normal for barely 24 hours preceding the relapse.

Again, in the treatment of bacillemia if one had an antiseptic which when administered internally would exercise a germicidal action in the blood, as mercury and salvarsan do in syphilis, its exhibition would be correct, but the principle of giving intestinal antiseptics for the same purpose is utterly unsound.

In the treatment of the endotoxemia of typhoid, if we believe

that the endotoxins are excreted in the urine, the giving of large quantities of water by the mouth or rectum is invariably indicated in the early stages of the disease. In the later stages it may also be indicated, but there are a number of contraindications, such as hemorrhage, early symptoms of perforation, and cardiac weakness. The last mentioned has not received the attention it deserves, as it is my belief that, frequently, large quantities of water are given in a routine manner throughout the course of the disease, which procedure in cardiac weakness might produce pulmonary stasis. This I have observed in practice. It should also be remembered that in many fevers there is frequently a tendency to retention of water, which should be taken into account in determining upon the quantity of water to give a typhoid patient, especially one suffering from cardiac weakness.

Again, if we believe that endotoxins are excreted into the intestines, the exhibition of laxatives or possibly mild cathartics is sound in principle, especially in the early stage of the disease. Clinical experience, I think, supports this view. It is unnecessary for me to mention that the profession are not a unit with regard to the use of purgatives in the treatment of typhoid. Some advocate strong cathartics producing eight or ten evacuations in twenty-four hours. This, I think, is wrong because it disturbs digestion, may depress the patient and possibly precipitate hemorrhage or perforation. On the other hand, there are others who never use a laxative after the ninth or tenth day of the disease for fear of producing hemorrhage or perforation, but make use of a simple enema once a day to empty the lower bowel. They believe that a laxative per rectum is less dangerous than one per os, although both increase peristalsis of the whole intestine.

For my part, in mild cases, I am accustomed to order an enema every morning after the ninth day of the disease, although I believe there is practically no danger in administering a laxative to a patient who shows no manifestations of hemorrhage or intestinal perforation. In highly toxic cases I feel that a laxative or simple purgative is preferable because it is more likely to diminish the endotoxemia. In my practice I frequently make use of castor oil followed in two hours by an enema. Half an ounce of the oil is given every morning. This is followed in two hours by an enema of 2 drachms of turpentine, 4 ounces of olive oil and 2 ounces of soap solution, administered with a barrel syringe. Half an hour later a simple enema is given, which, as a rule, produces a free evacuation with very little disturbance to the patient. The advantage of this combined method is that a better cleansing of the whole intes-

tine takes place, which is essential because we know in typhoid fever typhoid bacilli are frequently present in the bile and upper intestinal tract. If one uses an enema alone, this cleansing of the upper bowel is not obtained to the same extent. In highly toxic cases, therefore, I should advise the giving of castor oil every morning as a means of diminishing the endotoxemia, and, I think, clinical experience will support this method. With regard to the danger of hemorrhage and perforation after the administration of a mild purgative, I wish to call attention to the fact that both these accidents are essentially due to ulceration, which itself is the result of endotoxemia. I might also mention that with the daily administration of a purgative, associated with careful dieting, one is able to control meteorism, a complication which, if associated with hemorrhage, frequently makes the treatment of the latter manifestation very difficult indeed. The explanation of this is probably that a contracted intestine tends to stop the bleeding.

In the consideration of the subject of secondary infections I shall limit my remarks to one or two suggestions in the preventing of lobar pneumonia and broncho-pneumonia, two of the most serious complications.

First I should mention that lobar pneumonia occurring in the course of typhoid fever is generally due to a secondary infection, rarely to the typhoid bacillus. Its genesis should therefore be generally the same as that lobar pneumonia occurring as a primary disease. In pneumonia caused by the pneumococcus we are agreed that exposure is a predisposing cause. The question is—does the same ever occur in the pneumonia occurring as a complication of typhoid? I should not like to make a definite statement in answer to this, but I am inclined to the view that exposure is a not uncommon causative factor.

The consideration of the prevention of broncho-pneumonia is beset with great difficulties. The post-mortem examination of typhoid patients shows that broncho-pneumonia is generally associated with hypostatic pneumonia, and clinical experience would appear to indicate that the hypostatic is usually the primary affection. If this be true then we should pay especial attention to the treatment of pulmonary stasis and cardiac weakness. The exhibition of strychnine, camphor and other cardiac stimulants might aid in preventing this complication.

I wish now to call attention to some points in the treatment of special symptoms and manifestations. This is a very important part of the therapy of typhoid fever. In the consideration of this subject I think one gets considerable benefit from the study of the

prognostic value of the various manifestations and complications, because the knowledge so obtained tends to make one more active in the prevention of dangerous conditions and in their treatment at their incipency. The following is a list of some of the manifestations and complications which should, I think, be looked upon as danger signals:

**High Fever.**—The degree of fever is of great importance in prognosis. In cases characterized by low or moderate degree of fever the prognosis is generally favorable. If the temperature does not reach the height of 104° F. I should say that the mortality is less than 2 per cent. On the other hand, high fever, especially if unaccompanied by marked remissions and difficult to lower by hydrotherapy, is a dangerous sign.

**Dry Tongue.**—This should only be considered a danger signal when the whole dorsum is dry.

**Diarrhea.**—In cases in which care is exercised in the selection of a dietary, diarrhea is not a common symptom even in severe infections, but when present under such conditions it is always a dangerous sign.

**Meteorism.**—Distension of the abdomen is generally present in typhoid fever, being caused partly by fermentation or putrefaction of food and partly by disturbance of the neuro-muscular apparatus of the intestine. The first cause can be removed to a great extent by treatment, but the second, being due to endotoxemia, cannot be influenced by treatment to the same extent. Meteorism, therefore, uninfluenced to any marked extent by treatment should be considered a danger signal. I might add that marked meteorism associated with hemorrhage makes a specially dangerous combination of symptoms.

**Delirium.**—This is a common symptom in severe cases. The manifestation becomes more unfavorable if accompanied by insomnia, and especially if uninfluenced by hydrotherapy.

**Spasticity of Muscles.**—This is a very dangerous manifestation. It may be due to meningitis, exudation or purulent, caused by the typhoid bacillus, but is generally the result of an inflammation of the meninges without exudation—meningism.

**High Rate of Pulse.**—In typhoid fever the rate of pulse relative to the temperature is slow, particularly in the early stages of the disease. A high rate, say about 115, indicates a disturbance of the nervous mechanism of the heart or myocarditis, and should be considered a dangerous sign.

**High Rate of Respiration.**—This is a danger signal of first-rate importance because it suggests the presence of a pneumonia. How-

ever, a respiration rate of 30 may be due to the fever and endotoxemia. If pulmonary stasis is also present, then a higher rate is not uncommon, but with a remission of the temperature the frequency of the respirations materially diminishes.

Intestinal Hemorrhage.—The profession are not in accord with regard to the prognostic value of this manifestation. In some cases the condition of the patient improves immediately following a hemorrhage, and it has been suggested that this is due to diminished endotoxemia caused by the loss of blood. This is observed so frequently in practice that there can be no doubt of its truth. In many cases, however, hemorrhage produces no appreciable improvement, and the manifestation is soon followed by others of more serious import, such as symptoms of cardiac failure or intestinal perforations.

Pain in Abdomen.—This is a very important symptom of intestinal perforation. The presence of abdominal pain should, therefore, be a danger signal and an indication for a thorough and prolonged examination of the patient.

In this paper I shall only consider the treatment of the first-mentioned danger signal, namely, high fever.

The treatment of fever is, I think, an important part of the therapy of typhoid fever. There are probably two reasons why this is the case: First, high fever is usually a sign of severe infection; and second, a high degree of fever probably causes disturbances of metabolism, nervous system, etc., irrespective of the origin of the fever. In the treatment of the manifestation it is well, therefore, to try to diminish the intensity of the endotoxemia and to use means to prevent the temperature running at a high level. I have already referred to the general principle of treating the endotoxemia. These, unfortunately, applied in severe infections, have generally very little effect on the course of the temperature. In these cases one has to depend upon more direct antipyretic methods—such as cold baths, sponges and antipyretic drugs. It is not my intention in this paper to consider at length the advantages and disadvantages of cold baths or sponges in the treatment of fever. I shall merely mention my belief, which I think is that of most physicians, that external hydrotherapy is the most valuable therapeutic measure we possess in the treatment of typhoid. However, there may be a difference of opinion as to the manner in which the beneficial effect is brought about. Some contend that a reduction of temperature has little to do with it, but the benefit is essentially due to the improved state of the nervous, respiratory and cardiovascular system and to increased excretion of endotoxins. At the height of the attack, in severe cases, cold baths fre-

quently have little influence on the temperature, and these physicians maintain that this is an unimportant consideration. My belief is that this is incorrect. According to my experience the mortality is much higher in cases in which the fever is uninfluenced to any extent by cold baths or sponges than in those in which it is readily diminished by the same measures; and it is probable that the high fever in itself, without considering its origin, is an important cause of this difference. In support of this contention I wish to call attention to the fact that, although the temperature of typhoid fever is frequently high, it is usually unstable in character, being more readily influenced by cold baths or antipyretic drugs than the fevers of most other infections. For instance, 3 to 5 grains of acetyl-salicylic acid (aspirin) every four hours will in most cases produce a marked reduction in the temperature. Is it not probable, therefore, that the benefit derived from external hydrotherapy in the treatment of typhoid fever is partly dependent upon the readiness of the temperature to be influenced by such treatment? If this is true, it seems to me that it is rational in cases characterized by high fever, say above  $104^{\circ}$  F., in which we are unable to influence the temperature by hydrotherapeutic measures at our command, to bring to our aid an antipyretic drug. For this purpose I prefer acetyl-salicylic acid (aspirin) because it is sufficiently effective in small doses—generally 3 to 5 grains, rarely 6 to 7, every four hours—and at the same time does not alter the blood pressure and rarely produces any deleterious action. In the administration it is important to limit the quantity to the minimum dosage, associated with sponging the body, which will moderate the fever rather than bring it to a low level, because a temperature at the height of the disease, from  $102^{\circ}$  to  $104^{\circ}$  F. may be helpful rather than harmful. I usually commence by ordering 3 grains of the drug to be given every four hours and that each dose be followed in half an hour by a cold sponge, as in this way one combines the antipyretic agents. If this dosage does not produce the desired effect the quantity of drug should be increased until sufficient action is obtained.

**\*CANADIAN PUBLIC HEALTH ASSOCIATION.**

First Annual Meeting, Montreal, Dec. 13th, 14th, 15th, 1911.

His Royal Highness, the Duke of Connaught, on the evening of December 13th, 1911, inaugurated the first Congress of the Canadian Public Health Association, and in the course of a lengthy speech emphasized the great need for the improvement of the public health of the Dominion by the supply of pure water, by proper methods of sewage disposal, by lessening infant mortality, and by a greater general attention to matters of hygiene.

Premier Borden was present, and heartily endorsed the aims of the association, saying he did not think the Federal Government had done enough in the past to protect the public health. Hon. Mr. Martin Burrell, Minister of Agriculture, went further, and hinted at the early establishment of a department at Ottawa for dealing with the public health, while Sir Lomer Gouin told of the project for dividing the Province of Quebec into ten districts, which plan was only yesterday adopted by the Provincial Board of Health; each in charge of a qualified hygienic expert, and another project for establishing a provincial hospital for consumptives.

The Duke of Connaught was accompanied by the Duchess, and by Princess Patricia, and there was a large gathering of eminent physicians and prominent citizens to greet him. The meeting took place in the Royal Victoria College.

Dr. T. Starkey presided, and those present included: Premier and Mrs. Borden, Sir Thomas and Lady Shaughnessy, Sir James Grant (Ottawa), Dr. T. Starkey, Sir William and Lady Van Horne, Hon. Martin Burrell and Mrs. Burrell, Principal and Mrs. Peterson, Premier and Lady Gouin, Archbishop Bruchesi, Dr. Fisher (New Brunswick), Dr. Coulter (Toronto), Dr. Higgins (Ottawa), Dr. Shepherd, Capt. Worthington, Dr. Johnson, Col. Carlton Jones (Ottawa), Lt. Ramsay, Chief Justice Sir Melbourne Tait and Lady Tait, Justice and Mrs. Archer, Canon Dauth, Mayor Guerin, Miss Guerin, Capt. Guerin, Bishop Farthing and Mrs. Farthing, Archdeacon Norton, Ald. and Mrs. Dandurand, Lansing Lewis, Lt.-Col. Burland, Dean Adams, Clarence I. de Sola and Mrs. de Sola, Dr. A. P. and Mrs. Laberge, Dr. Lachapelle, D. McNicholl and Mrs. McNicholl, T. Chase Casgrain and Mrs. Casgrain, Justice and

\* Montreal Star report.



Mrs. Greenshields, Lt.-Col. E. M. and Mrs. Renouf, Dr. T. and Mrs. Starkey, Dr. Adami, Milton Hersey, Prof. and Mrs. Porter, Senator and Mrs. J. T. B. Casgrain, H. B. Ames, M.P., and Mrs. Ames, Ald. and Mrs. Rutherford, Dr. and Mrs. Blackader, Miss Hurlbatt, Campbell Lane, E. Fabre Surveyer and Mrs. Surveyer, Dr. Louis Laberge, Dr. Duncan Anderson (Toronto), Dr. Montizambert (Ottawa), Mr. Aird Murray (Toronto), Dr. Douglas, Dr. Hodgetts (Ottawa), Major Lorne Drum (Ottawa), Dr. George Porter (Toronto), Dr. McCullough (Toronto), and Dr. Adam Wright (Toronto).

Dr. Starkey, in opening the proceedings, expressed the great pleasure it gave him to welcome Their Royal Highnesses, in the name of Canadian Public Health Association. The Duke of Connaught, he said, would not only be a patron of the Association in the usual sense, but intended to take a very active interest in sanitation, and in the affairs of the Association. The first vice-president, Lord Strathcona, also took a practical interest in the Association, and had sent, quite unsolicited, a cheque for \$2,500 for its funds, while Premier Borden was the second vice-president, and the Commission on Conservation gave the Association its most cordial support.

The primary aim of the Association was the diffusion of sanitary knowledge. To this end, they must induce the public to join them, and to take an active part in the work, and get the laymen to cooperate with the professional men who gave their lives to the study of the problems of sanitation.

The Duke of Connaught, who had a very cordial reception, said: "I desire first of all to express my deep satisfaction at being present at this meeting, which has been called to organize the Canadian Public Health Association. Of the many subjects which are awaiting solution in Canada, none is so important to my mind as that of the health of its inhabitants, both adults and infants. It is a subject which affects every one of us individually, and we owe it to ourselves and to the rising generation to see that conditions are improved as far as lies within our power.

Public health is a question which rises above all politics, and it is the duty of the whole nation to join in promoting the objects of the Association which is now gathered here.

The urgent necessity for improvement in existing conditions is forced on our attention by the reports of epidemics of typhoid, diphtheria, and smallpox, which occur all too frequently, in the press, and by the study of statistics of infant mortality in your great cities. The aims and objects of this Association, as outlined

by the President, are most commendable, and the idea of expanding the membership so as to include all kinds of workers in the domain of sanitation is a wise one, because so many of the general public outside these professional men actually engaged in sanitation work are becoming extremely interested, and would gladly welcome any means whereby they could learn the better to conserve the public health.

Such information can only be obtained from experts, and it is at congresses such as these that opportunities are given for receiving and imparting instruction. Many of the general public are laboring under the delusion that to avoid epidemics and to bring health into their daily lives they must be equipped with deep scientific knowledge. That is a totally erroneous idea. Profound knowledge and deep research on the part of the scientists are required in order to arrive at logical and exact results in the field of hygiene, but these results and their application to our daily lives are profoundly simple and straightforward.

As an educational movement, the Association is of paramount importance, for what education or knowledge is so important as that of learning how to obtain health by avoiding and preventing disease, and so obtaining a sound body in which to clothe a sound mind? Thus the healthy upbringing of children in their homes and in the schools is a point of the most vital interest to everyone. This question of the education of children in hygienic matters has been undertaken more or less in most countries, but a great deal still remains to be done in that direction. Attention must be given, not so much to the task itself, as to the general routine of the daily life.

Having secured in this Association the means of teaching the public, we have to consider how best to apply this teaching in order to get the best value out of it. Everything seems to point to the education of the coming generation as the best field for our energy. While the young are being instructed, those of their parents who are desirous of learning will be able to do so, but we shall not waste our time by competing against that obstinacy and apathy which in grown people so often takes expression in the familiar saying, "Let things alone. What was good enough for our fathers is good enough for us."

What was good enough for the last generation is not good enough for the present. On the land where Ottawa now stands Indians were scalping one another a hundred years ago, but who would be so rash as to pretend that sanitary conditions have not changed since then? In those days pure water and pure air were

universal in Canada. The growth of the great cities and the settlements has altered this state of things for the agglomeration of people is inevitably accompanied by the seeds of disease.

While on the subject of crowded settlements, let me say how glad I am to hear of the garden city movement having been started here in Canada, and I trust it may meet with the success it so richly deserves. To provide decent homes for the people outside the congested districts is a sure step in the direction of the improvement of the public health, and I have no hesitation in recommending the garden city movement most strongly to your favorable consideration and support. It will go far towards minimizing the difficulties on the score of health which are met with in places where the population is increasing at a rate out of proportion to the accommodation provided for them.

Speaking of sanitation in connection with children, the thought naturally arises of the movement started in nearly all countries to reduce the terrible infant mortality which is so prevalent everywhere. It is gratifying to know that this topic, as well as those relating to the hygienic well-being of children, is going to receive the attention of this Congress.

Again, it is a matter of congratulation that among other very important questions relating to the welfare of the people to be discussed, are such questions as sewage disposal, the supply of pure drinking water, the housing of the working classes, etc. All these are extremely urgent, and affect the welfare of large masses of the population of Canada. The first two have become so urgent that action of some kind is contemplated both by the Federal and Provincial Governments, judging by the questions brought up in the legislatures, and doubtless anything tending to the solution of these problems, that may be brought out of this meeting, will be available for the benefit of these legislatures.

We must make it an object to impress on the public the necessity of obtaining health by the prevention of disease and not by its cure. Under the heading of preventive medicine comes vaccination and other forms of inoculation. I know that vaccination has many antagonists, and I have no wish to enter into any argument on the subject. I will confine myself to the simple statement of the fact that in the cemetery of Gloucester, in England (lie the bodies of 276 unvaccinated children, who died during the smallpox epidemic of sixteen years ago. Only one vaccinated child lost its life in the same epidemic.

It is only when the people have thoroughly grasped the full meaning of any movement that legislative bodies can begin their

work. Legislation, without the intelligent support of the public, is useless, and it would be wise for all of us to appreciate the fact that legislation in respect to sanitation is honestly intended for the benefit of us all, both individually and collectively.

Such being the case, we ought to give our full support to the authorities administering the laws. Here, as in most countries, there are laws designed to protect the workers in dangerous trades, but the vast majority is left to look after its own health. It rests with them to protect themselves against the ravages of disease.

I now have great pleasure in fulfilling the mission with which I am charged this evening, namely, that of inaugurating the Canadian Public Health Association, and in declaring this Congress open. In concluding my remarks, I wish you most successful results from the work you have undertaken, and I trust you will be able to provide the necessary impetus to this movement, which is designed to bring about the permanent amelioration of the conditions of the public health in this great Dominion."

Premier Borden, in expressing his entire sympathy with the objects of the Association, said that it seemed to him that, under present conditions, there was no more worthy work that could engage the attention of good citizens than that of the improvement of the public health. He did not think that as much had been done in this direction in Canada in the past as ought to have been done. It was true that a branch of the Department of Agriculture was organized for the purpose of attending to public health matters, but he did not think the Federal Government had done so much as it should in this direction. In the matter of public health, Canada had muddled through somehow, but it ought not to leave the question to haphazard any longer. When it was considered how much of the energy of the people and the nation was dissipated by disease, simply through drinking impure water, and by neglect of sanitation, they would realize that, from the standpoint of national efficiency, this subject should be dealt with in an effective way.

Many phases in connection with those momentous problems of town planning and housing were introduced at the afternoon meeting on December 14th of the Canadian Public Health Association.

Adequate statutory provision by each province in the Dominion to deal with the whole question, was a strong recommendation made and endorsed; and to prevent multiplication of Government officers, it was suggested that the powers of the administration of the Act be placed under the Department of Health, which must be enlarged by the addition of qualified officers to deal with the subject.

Large apartment houses and jerry buildings came in for strong condemnation. In place of these, garden cities and model dwellings, situated in the suburbs, were advocated, with cheap and rapid means of transit, preferably underground. The idea of Canadian cities trying to convince themselves that they had no slums was ridiculed, and the sooner steps were taken to remedy the evil the better it would be for the community at large.

Dr. Charles A. Hodgetts, Medical Adviser of the Commission on Conservation, Ottawa, in his paper on "Town Planning and Housing," stated that one must acknowledge that we are behind the times, and Canadians have made, and continue to make, serious mistakes in the laying out of cities and towns, and in not planning for their development. Acknowledging this fact, it was our duty as citizens to learn by the mistakes of the older countries of Europe.

The lumber town of forty years ago, Dr. Hodgetts said, is still a lumber town, overgrown; it has not risen to realization of its importance or to the dignity of its position as the Federal Capital of a great and growing nation. Nor does the great seaport of Canada, its commercial capital, present any outstanding features to lead one to eulogise the foresight of its wealthy and intelligent citizenship, or the system adopted of converting a once fine family residence into an apartment house or tenements of the worst type. All the new and older cities are, from the town-planning and housing standpoint, monstrosities.

He noted the tendency, which is in evidence in all these cities, of the method of warehousing humanity in apartment houses of all grades.

Posterity would come to curse the day when they were permitted to dwell in such places. To attempt to work the remodelling of our cities and the planning for the future without first securing proper legislation, would, in his opinion, be misspent time. We would also require more definite and exact legislation on unsanitary housing and unsanitary areas. He concluded by enumerating some of the advantages to be derived from town-planning, among them being improvement in general health and morals, reduction of death rate, provision of cheaper and more healthy homes, suitably located open spaces, and absolute prevention of slums, with all their attendant evils.

Dr. J. E. Laberge, assistant city medical health officer, Montreal, spoke on "Town Planning and Housing." He touched on the question mainly from the hygienic point of view.

Until recently this important matter received little consideration from the public authorities, due to the ignorance of the public in matters of hygiene.

Have wide boulevards in the places to which you transfer the people from the crowded slums. Let these outside surroundings be places where the people can obtain air, light, good and abundant supply of water, and good housing. This work should not be left to outside enterprise, but should be taken up by the municipal authorities. To educate the citizens to see that their city becomes large, beautiful, healthful, sound and prosperous.

Dr. Charles J. C. O. Hastings, City Medical Officer of Health, Toronto, in a paper on "House Problems," described the unsanitary conditions existing in the slum districts of New York, Milwaukee, and Toronto. Toronto had its slums, the same as other cities, and it was no use for people trying to disguise the fact, and they must wake up, like other cities, to the prevailing conditions, and not live in a "fool's paradise." In Toronto, he said, there were 919 families living under distinctly unsanitary conditions, some only in one-room tenements or in cellars. Slums were veritable hotbeds of vice and crime, as they are of disease, and cities must see to it that they were eradicated. Tenement houses he declared to be nothing more or less than mere packing houses—human packing houses; and he concluded by urging the securing of transportation to districts on the outside of cities, where people could be properly housed in individual homes, in beautiful garden cities.

Mr. Rickson A. Outhet, Montreal, read a paper on "Municipal powers in dealing with town-planning schemes," which mainly dealt with the town-planning in operation in England, and how these schemes could be applied to Canadian cities.

Mr. W. D. Lighthall, K.C., speaking on the subject of "Re-housing in Canada," dwelt upon the "jerry-built" tenement houses, one-room tenements, and even cellar abodes, prevalent in Canadian cities, particularly so in Montreal. Not far from the City Hall, a physician told him, the previous night, that he had found sixteen foreigners sleeping in two rooms, only suitable for one man in each, and with windows tightly sealed. He urged the planning of new districts at once, to relieve the slum districts. He knew of only two re-housing instances in Canada, those of Mr. H. B. Ames, M.P., and Lieut.-Col. Carson, both in Montreal, and they have paid well. He thought that the model suburb and model tenement would have to be combined in one company. This was done successfully in New York.

Other papers were read by Mr. Percy C. Nobbs, Montreal, on "Statistics on Housing," and by Mr. Colborne Meredith, Ottawa, on "Town Planning."

The annual dinner of the Association was held at the St. Regis Hotel, December 14.

Many of the problems which are confronting the civic authorities of Montreal at the present moment were discussed at the sessions of the Canadian Public Health Association Congress, in the McGill University medical building, prominently among them being the questions of food inspection, milk supply and milk depots. Meetings of four sections, namely, Medical Officers of Health, Dr. Louis Laberge, convener; Laboratory Workers, Dr. J. A. Amyot, convener; Sanitary Engineers and Architects, Mr. T. Aird Murray, convener, and Social Workers, Dr. Grace Ritchie England, convener.

Great importance was attached to the manner in which milk is delivered to the householder, and it was argued that it would be more safe for milk to be delivered from the can, as no system in force can ensure that bottles are properly cleansed and sterilized. It was advocated that milk sellers who are personally dirty in their habits or are considered otherwise unfit should have their licenses cancelled.

Food inspection was considered a pressing problem of the day, owing to the conditions of the hustling modern life necessitating hurried meals away from home, and how necessary it was that all places where these meals were obtained were properly inspected for cleanliness and sanitary arrangements, as well as the food itself.

Water supply, sewage systems, removal and disposal of house-garbage, town planning from a sanitary standpoint, ventilation in private houses, vaccines and the common cold, medical inspections of schools, women as sanitary inspectors, high infantile mortality in large cities and the influence exerted by milk depots, what the Federal Government might do to assist in the control of tuberculosis, and playgrounds were amongst the other important matters dealt with.

Mr. P. B. Tustin, Chief Food Inspector, Winnipeg, read a paper on "Municipal Food Inspection," which was much discussed, as was also a paper by Dr. W. T. Shirreff, Medical Officer of Health, Ottawa, on "Municipal Milk Supplies."

Mr. Tustin traced the precautions taken, and the penalties imposed by the ancient Egyptians and ancient Romans, in regard to food inspection, and he declared that if it was necessary then it is consequently more necessary in these days of refrigerating and canning.

Present-day rush calls for a strict inspection of all places where food is stored, prepared, offered for sale and sold. Food inspection, to be efficient, should cover the inspection from the raw material to

the finished product, sanitation of premises, and the cleanliness in habits and in person of the people preparing the food.

On taking over the dairy inspection in Winnipeg he realized that the cause of much of the unclean milk was due to ignorance on the part of the dairymen, rather than their wilful negligence.

The cardinal fact to be borne in mind in regard to milk supply, Dr. W. T. Shirreff stated, is that it should be used before it is 48 hours old. He advocated an educational campaign amongst the farmers and dairymen in preference to drastic regulations to secure proper sanitary surroundings and to secure a pure milk supply.

Members of the Canadian Public Health Association Congress were guests of the Montreal Water and Power Company and were shown the sterilization and filtration plants of the company.

Since sterilization, the Montreal Water and Power Company claim that the water drawn and supplied by them from the St. Lawrence River has been safely guarded from pollution of any hygienic significance.

In order to meet the spring and late autumn conditions and furnish at all times a clear and practically colorless water, the company decided to instal the filtration plant presently nearing completion. The plant is of the type known as the rapid gravity sand filter and depends for its efficiency largely on the use of a coagulant. The rate of filtration will be in the neighborhood of 125,000,000 gallons per acre in 24 hours, and the normal aggregate capacity of the units being installed at present is 25,000,000 gallons per day.

The water is first to be drawn from the intake well by low lift centrifugal pumps receiving just before entering the pumps the necessary coagulating solution. In this case it will be basic aluminum sulphate. On passing through these pumps the coagulant and water will become thoroughly mixed, after which it passes through the coagulating basin, when by means of suitable baffles, sufficient time will be afforded before filtration to render the coagulation of the water complete.

From the coagulating basin the water flows by gravity through the filter beds to the clear water basin beneath. The rate of filtration is governed by automatic controllers placed between the clear water basin and filters. From the clear water basin the filtered water flows by gravity to the high service pumps and thence is forced into the mains.

The plant at present is provided with 15 separate filter beds or units, which, with the capacity provided in the clear water basin, will afford sufficient flexibility to accomplish the necessary washing of the sand beds, without interruption to the supply of filtered



water. Provision is being made for the use of calcium hypochlorite in the effluent in case this treatment is found desirable. The plant is guaranteed to remove 98 per cent. of all bacteria without the hypochlorite, and practically all color, sediment and turbidity.

The walls and floor of the filter units, clear water basins, coagulating basins and lower parts of the machinery room, the floor of operating room, etc., are all reinforced concrete, and the superstructures are of brick with slate roofs; the buildings throughout are lined with buff pressed brick.

The plant has been designed by and is being erected under the supervision of Mr. Pitcher, the general manager and chief engineer of the Montreal Water and Power Company.

The plant is to be in charge of Mr. J. O. Meadows, at present sanitary engineer of the Provincial Board of Health. It is expected to make preliminary trials of the plant in about ten weeks.

The sessions of the Canadian Public Health Association came to a close with the election of officers and Executive Committee, as follows:—President, C. A. Hodgetts, M.D., Ottawa. Vice-Presidents, Dr. M. M. Seymour, Regina; Dr. J. W. S. McCullough, Toronto; E. B. Fisher, Fredericton. General Secretary, Major Lorne Drum, M.D., Permanent Army Corps, Ottawa; Treasurer, G. D. Porter, Toronto. Executive—Drs. P. H. Bryce, Ottawa; F. Montizambert, Ottawa; J. D. Page, Quebec; G. P. Lachapelle, Montreal; C. J. Hastings, Toronto; J. A. Murray, M. Can. Soc., C. E.; Chas. Douglas, Winnipeg; P. B. Fuston, M.R.; McKay, Saskatoon; T. Clark, Asso. M. Can. Soc., C. E., Saskatoon; C. I. Fagan, Victoria, B.C.; G. E. Duncan, Vernon, B.C.; Colonel Carleton Jones, M.R.C.S., Department of Militia and Defence, Ottawa; Drs. Smith Walker, Nova Scotia; E. O. Stevens, Moncton, N.B.; G. G. Melvin, St. John, N.B.; H. G. Johnson, Prince Edward Island; Jas. Warburton, P.E.I.; T. H. Whitelaw, Alberta, M.H.O., Calgary.

The next place of meeting will be Toronto.

## Medicine

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GRAHAM CHAMBERS, R. J. DWYER, GOLDWIN HOWLAND,  
GEO. W. ROSS, WM. D. YOUNG.

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### Oatmeal in Diabetes.

Of the various dietetic types of treatment suggested for diabetes in recent years probably none has aroused an equal degree of interest or remained in vogue to the same extent as the oatmeal "cure" introduced by von Noorden. Essentially this consists in feeding daily a mixture of 250 grams of oatmeal, 100 grams of protein, preferably of vegetable source, and 300 grams of butter, prepared in the form of a soup or porridge, at frequent intervals, along with an occasional allowance of beverages—cognac, wine, or black coffee.

Everyone acquainted with the history of the therapy of diabetes mellitus knows how warmly numerous drugs and procedures have been recommended and how disappointing these have generally been. Little reliance can be placed on any reports in which, as so often has been the case, the diet factors are imperfectly controlled; but aside from this, a marked temporary improvement and increased carbohydrate tolerance not infrequently follows the more careful attention to the details of diet and the habits of life; and the benefits are then falsely ascribed to some inconsequential accompaniment of the new routine. Despite all these considerations, it must be admitted at the present moment that there is a large body of clinical evidence indicating that even in severe cases of diabetes a considerably larger utilization of ingested carbohydrate is observed on an oatmeal régime than is the case with carbohydrates from other sources. It should be clearly emphasized that von Noorden himself pointed out that the oatmeal feeding is without influence in very many cases and may even be detrimental in some instances. It is more particularly indicated in glycosurias of the severe type, with attendant acetonuria.

Granting the validity of some of the reported evidence both from Europe and this country, the explanation of the good results achieved is far from apparent. Why should the utilization of starch by the diabetic become conspicuously favorable when this carbohydrate is derived from a special cereal, the oat? This pertinent question was debated by a number of the prominent European clinicians

at the last annual meeting of German internists in Wiesbaden. Several possibilities have been advanced and experimentally investigated. For example, oat starch may possess special chemical structural characteristics which render it unique and specific in this direction, in distinction from the starch of wheat or barley. This can by no means be regarded as evident from comparative feeding trials. It should be stated, however, that Magnus-Levy, among others, believes in a peculiar transformation of oat starch by micro-organisms in the alimentary canal, whereby it is converted into fermentation products rather than into simple sugars, as is ordinarily the case with starches. Naunyn early offered a similar explanation for the failure of oatmeal feeding to increase the sugar output in diabetics, by assuming that it is not utilized as sugar.

Other investigators have attributed the superiority of the oatmeal diet to some non-carbohydrate component in the cereal; but attempts to extract such an accessory product (perchance some enzyme, hormone, or anti-ketogenic compound) have not been very successful. Without denying for the present some specific virtue of the oatmeal itself, it seems as if the preponderance of present opinions is in favor of what may be termed the "negative" virtues of the dietary. By this we may understand the removal or lack of certain objectionable elements pertaining to the usual dietaries (meat and fats) which the oatmeal gruels replace. The latter are above all comparatively low in protein, with an abundance of fat amounting to as much as 2,500 calories (300 grams of butter). The reduction in protein metabolism and the incident replacement of animal by vegetable protein are quite in line with current tendencies and may offer an adequate explanation. It is essentially a fat-carbohydrate diet which is thus instituted.

The complicated nature of the matter is further evidenced by Minkowski's statement that the oatmeal diet is attended by a tendency towards retention of water and edema formation. Competent observers, such as Minkowski and His, incline to the belief that the conflicting views can best be reconciled by the assumption of more than one effective factor in the problem. It may not be amiss to remark that the possibility of a wide-spread employment of oatmeal in the diabetic dietary through layman's advice or careless advertising presents a danger which should be strenuously guarded against. The proper management of diabetes is characterized by an appropriate dietotherapy applied to individual cases. Every patient needs the conscientious advice of a competent observer.—*Editor*  
*J. A. M. A.*

**Duodenal Ulcer.** By J. P. CROZIER GRIFFITH, M.D., PHILADELPHIA, Clinical Professor of the Diseases of Children in the University of Pennsylvania.

Duodenal ulcer in childhood is rare, although it is a cause of melena neonatorum, yet Collis, of Paris, found 42 occurrences below 10 years of age in a collection of 279 collected cases.

These two cases of Griffith's are, therefore, of interest and may be summarized as follows:

(1) A boy aged 10 was suddenly seized with faintness and dizziness in the morning and could hardly walk home. He vomited his dinner, and on the following day again ejected his stomach contents and also passed bloody stools, which recurred for several days, but unaccompanied by no abdominal pain, although slight distension was present. A relapse of the same condition occurred six months later.

(2) The second case was a baby boy of six months old, who had with difficulty been reared on modified milk, but with poor success, as vomiting frequently occurred. Vomiting of blood and melena suddenly occurred and the child died, when a post-mortem rendered the diagnosis proven.

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**Exophthalmic Goitre in Men.** PIC and BONNAMOUR. (*Rev. de Méd.*)

This disease is rare in men, as the statistics collected by the authors of this paper show. Of 563 cases collected by Pic and Bonnamour from the literature, 109 were in men. No mention is made by the authors of the monograph by Buschan, who collected 980 cases from the literature, since which time up to 1903, 229 other cases had been published, making 1,209 in all, the ratio of men to women being as 1 to 4.6 (212 M—997F.).

*Age.*—Of the 109 cases collected by the authors, it is stated that the largest number occurred between 30 and 50 years of age, but the figures quoted by them show that the greatest number occur between 20 and 40, as follows: 24 cases between 20 and 30, 24 between 30 and 40, and 21 between 40 and 50. This also coincides with the 692 cases published by Buschan, and since that date by various authors, namely, 53 between 21 and 40. The authors state that in women, on the contrary, the disease is much more frequent in early life; the 692 cases mentioned above do not show this, as 325 of these occurred between 21 and 40, and the rest of the cases were divided over various ages up to 70. The authors only found

two cases at the extremes of life. Here again, a more extensive research into the literature would have found that 5 cases occurred before the age of 10, and 1 between 60 and 70.

*Predisposing and exciting causes.*—Nervous affections, epilepsy, hysteria, neurasthenia, have been frequently noticed in the ancestors. Mental and physical overstrain, emotions, fright have all been cited as predisposing causes. Infectious diseases, as rheumatism, typhoid fever, syphilis, tuberculosis, play the chief part as exciting causes.

*Symptoms.*—The authors lay stress chiefly on the most important symptoms met with in the male sex. The most frequent phenomenon is tachycardia. Palpitation is common, and tremors nearly always present. Goitre is also very frequent, and if unilateral, is more common on the right side than the left. The appetite is very poor as a rule, but sometimes there is bulimia. Attacks of diarrhea are common. Wasting frequently comes on early, and may be considerable. The most striking phenomenon in men is the presence of nervous symptoms: there is a marked state of unrest, excitability and irritability, the slightest noise is apt to excite him, and the smallest emotion immediately may provoke an outburst of anger. Ideas of persecution, hallucinations or even convulsions may occur. Exophthalmos may be entirely absent.

*Prognosis.*—The disease is much more rapid and the outlook much more serious than in women. Pneumonia frequently ushers in a fatal termination. The statistics quoted by the authors show the gravity of the disease very distinctly.

*Pathogeny.*—The authors suggest that, as has been shown, there is an antagonism between the ovary and the thyroid body; the cause of the gravity of the disease in the male sex is the absence of this antagonistic action.

*Treatment.*—Remedies appropriate to the disease should be employed early and actively, and if powerless for good, the authors recommend surgical intervention.—*Med. Chron. Abstract.*

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**Hookworm Disease.** H. Gunn, San Francisco (*Journal A. M. A.*, September 30), in 1905 called attention to the fact that a large number of Porto Ricans were taking up residence in California, and that over 50 per cent. of them were hookworm carriers. No attention was paid to this at the time, but in 1910 the Public Health and Marine Hospital Service began to make examinations for this disease in San Francisco, and at the present time the importation at this port is prevented, though the country is open to the carriers

in other places. He refers to his already published article on the hookworm disease in mines, and says that during the last year several cases have been imported from Hawaii, which is not surprising, as the plantations there must have been badly infected by the numbers of Porto Ricans, Japanese and Chinese immigrant laborers. A recently established Bureau of Tropical Medicine, of which he has charge, has been investigating the matter, especially as regards Hawaii, and the results are given. In 171 cases there was found 15 per cent. of infection by hookworms, besides a considerable proportion of other parasites. He says that prevention of hookworm disease in California is a task of considerable magnitude, and will necessitate the examination of certain classes of immigrants and of a large proportion of the laborers now in the Alaska fisheries, when they return. Compulsory treatment also of the infected cases must be provided for. In dealing with the disease already existing in the State, the mines are especially important, and an examination should be made of every one in order to determine the extent of the infection. Mine officials should be educated as to the importance of hookworm disease, and mine sanitation and regulations should be promulgated and enforced, including the examination of employees, the treatment of infected persons, and mine sanitation. Mine officials have not given the subject their attention, unless it has been called to it, and in only one mine has any attempt been made to systematically examine the men and treat those needing it, and in this mine only twenty-nine have been examined, and 75 per cent. were found to be infected. For the scattered cases through the State, local sanitary measures will have to be depended on, but certain regions where Hindoos, Chinese, Mexicans, etc., are numerous should be specially considered. The only preventive measures mentioned are, as before stated, those carried on by the Federal Government, confined to San Francisco, and not covering a large class of people liable to introduce the disease.

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#### CHOREA.

Charles (*Dublin Jour. of Med. Science*) prescribes rest in bed and all sensory stimuli excluded; isolation. The free use of trional is given to control the movements, and the general health should be improved by tonics and nutritious diet. Trional is strongly recommended; it produces sleep, controls the movements, and effects a rapid cure. He is not in favor of using the salicylate compounds.

## Surgery

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WALTER MCKEOWN, HERBERT A. BRUCE, W. J. O. MALLOCH,  
WALLACE A. SCOTT, GEORGE EWART WILSON.

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**Antityphoid Vaccination.** Surgeon J. M. Phalen, U. S. A.,  
New York (*Journal A. M. A.*, January 6).

Dr. Phalen describes the experience so far with antityphoid inoculation and the methods in use in the United States army. The vaccine employed is made by Dr. F. F. Russell in the laboratory of the Surgeon-General's office in Washington. The organism used is from an old culture that has ceased to be pathogenic and is sent out in sealed ampules containing 1 to 25 c.c. after having been thoroughly tested for bacteria and by inoculation into guinea-pigs. The immunizing dose is given in three injections at intervals of ten days: the first of 0.5 c.c., the second and third of 1 c.c. each. The injection is given with an ordinary hypodermic syringe into the deltoid muscle near its insertion. The site may be sterilized in any way, but with the large numbers treated at once in the military service, it is customary to paint the skin with tincture of iodine before the operation and touch the needle wound with it afterward. The reaction is usually not severe, and is comparable with the lighter cases of vaccinia following smallpox vaccination. It should not be given to persons with any illness or to the aged or debilitated, and a case has been reported of latent tuberculosis incited by it. Russell estimates the percentage of very severe reactions at 0.1 per cent., and attributes them to the introduction of the vaccine into a large vein. At first a voluntary measure, typhoid immunization has been made compulsory in the United States army for all officers and men not over 45 years of age who have not had an authenticated case of typhoid fever. About 60,000 men have completed the three inoculations. At the barracks where Dr. Phalen has been recently stationed, each recruit is vaccinated against smallpox and given the first antityphoid inoculation on enlistment. At the time of the second inoculation many men are suffering from vaccinia, and the reactions are frequently more severe, though quite transient. With this rather unavoidable exception, the inoculations are not given to anyone in any way out of health. Phalen gives a history of the use of antityphoid inoculation in armies, and says that nowhere do we

get so convincing evidence as in our own army experience. In the 60,000 men who have been inoculated there have been but twelve cases of typhoid and no deaths, and the typhoid-rate is only one-sixth as great in the inoculated as in the uninoculated. One man in the Guantanamo Naval Station died five days after his first inoculation from a case of walking typhoid, but this is the only case of the death of an inoculated man from typhoid in the government service. Among the nearly 13,000 soldiers near San Antonio there was only one mild case of typhoid, while forty-nine cases with nineteen deaths occurred in San Antonio in the city population. As regards paratyphoids, these are presumably not affected by antityphoid inoculations, though clinically they are similar, and, if the proportion of paratyphoid cases is high, the results may be a little disappointing. Possibly a mixed typhoid and paratyphoid vaccine might be indicated. The duration of immunity is not yet settled, but Firth estimates it from British data at thirty months. Leishman thinks the reinoculation should be given after two years. In the United States army, with its three-year enlistment period, the rule is for inoculation to be given at each enlistment. Further experience is needed as to this point. The treatment of actual typhoid by inoculation is still in the experimental stage, but the opinions deduced from experience are altogether favorable. It shortens the period of fever and total duration of the disease and markedly reduces complications and relapses. The mortality, as deduced from the reported cases available, is found by Phalen to be 4.9 per cent., and all agree that it does no harm, even where it does no good. The dosage is increasing and the results appear to be better. In the treatment, however, the vaccine has yet to definitely prove its full value.

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#### SPINAL MENINGOCELE.

*J. A. M. A.* says Morton's fluid, which was formerly used by injection for the cure of spinal meningocele, is made up as follows: Iodine, grs. 10; potassium iodide, grs. 30; glycerine, ounce one. After the sac was cleaned, chloroform was administered, the child lying on its side, a fine trocar was plunged obliquely in at the side through sound skin, little or no fluid being drawn off. Then one drachm of the Morton fluid was injected. The trocar was withdrawn and the puncture sealed with a bit of gauze and iodoform collodion.



## Reviews

*Dorland's American Illustrated Medical Dictionary.* The new (6th) edition revised. A new and complete dictionary of terms used in medicine, surgery, dentistry, pharmacy, chemistry, veterinary medicine, nursing, biology and kindred branches, with new and elaborate tables. Sixth revised edition. Edited by W. A. Newman Dorland, M.D. Large octavo of 986 pages, with 323 illustrations, 119 in colors. Containing over 7,000 more terms than the previous edition. Philadelphia and London: W. B. Saunders Company, 1911. Sole Canadian agents, The J. F. Hartz Co., Ltd., Toronto. Flexible leather, \$4.50 net; thumb indexed, \$5.00 net.

This dictionary is quite complete and yet concise, covering thoroughly all branches of the study and practice of medicine and surgery. One of the numerous pleasing features is the short biographies of "Masters of Medicine." It is a book well worthy of a position in our libraries.

J. H. T.

### *Special Western Number.*

In furthering the plan of producing special issues of the *American Journal of Surgery*, composed of contributions by surgeons residing within a certain geographical area, yet of international reputation, there will be issued, in the early part of 1912, a special western number of this magazine. Subjects and those to contribute:

"The Operation of Gastroenterostomy," by William J. Mayo, Rochester, Minn.

"The Surgery of Tendons," by John B. Murphy, Chicago, Ill.

"Operative Treatment for Graves' Disease," by George W. Crile, Cleveland, Ohio.

"Colonic Intoxication," by J. E. Binney, Kansas City, Mo.

"Practical Points in the Surgical Treatment of Exophthalmic Goitre," by A. J. Ochsner, Chicago, Ill.

"Treatment of Foreign Bodies in the Esophagus," by E. Fletcher Ingals, Chicago, Ill.

"Brain Surgery Technique," by J. Rilus Eastman, Indianapolis, Ind.

“Treatment of Abscesses and of the Necrotic Foci Resulting from the Use of Salvarsan,” by A. Ravolgi, Cincinnati, Ohio.

“Treatment of Prostatic Obstructions,” by E. O. Smith, Cincinnati, Ohio.

Subject not announced, H. Tuholske, St. Louis, Mo.

“Artificial Tendons and Ligaments in the Surgical Treatment of Paralysis,” by Nathaniel Allison, St. Louis, Mo.

“Uterine Cancer,” by John C. Murphy, St. Louis, Mo.

“Arthritis Deformans,” by Leonard W. Ely, Denver, Col.

“Acute Angulation and Flexure of the Sigmoid, as a Causative Factor in Epilepsy, with Special Reference to Treatment,” by W. H. Axtell, Bellingham, Wash.

The character of contributions prepared by these well-known surgeons are of such a nature as to make this number particularly interesting.

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*The Care of Infants and Young Children.* By A. DINGWALL FORDYCE, M.D., F.R.C.P. (Ed.), Extra Physician, Royal Edinburgh Hospital for Sick Children. With thirty-six illustrations. Price 1s. 6d. net, or in cloth covers 2s. net. Edinburgh: E. & S. Livingstone.

Those responsible for the care of children, or who, like physicians and nurses, are in the position of advisers, will find in these compiled lectures a practical handbook which they need have no hesitation in recommending to mothers, health students, etc. Nurses themselves, as well as medical students, may read and study it with profit and pass it, or the knowledge gained, along to those in daily need of some enlightening information of this character.

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*International Clinics.* Volume IV. Twenty-first series, 1911. Philadelphia and London: J. B. Lippincott Company.

Canadian practitioners who require—and we think all do—a practical, useful, modern and up-to-date exposition of the advances in all branches of medical science, cannot do better than become subscribers to *International Clinics*. Volume IV. completes the twenty-first series, ending the year 1911. The frontispiece is a picture of Edward Jenner. There are five articles on treatment; two on geriatrics; three on diagnosis; four on medicine; three on surgery; one—otology; one—pediatrics; one—ophthalmology; one—medico-legal; two—economics of medicine; one—history of medi-

eine. The article on the Successful Practice of Medicine by Thomas F. Reilly, Fordham University, New York, is well worth perusal and study by all. Canadians will also be interested by the article—"On Habit, Symptoms and Disease," by Professor J. George Adami, McGill University. Copies and subscriptions can be ordered and placed through the Canadian agent of Lippincott's, Mr. Charles Roberts, 608 Lindsay Building, Montreal.

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*The Physician's Visiting List*—1912. Philadelphia: P. Blackiston's Son & Co.

This is the sixty-first year of this handsome pocket visiting list. The contents of the book are: calendar 1912-1913, a new complete table for calculating the period of utero-gestation, table of signs, incompatibility, poisoning, the metric or French decimal system of weights and measures, table for converting apothecaries' weights and measures into grams, dose table, quarantine periods in infectious diseases, asphyxia and opnoea, comparison of thermometers. Then follow the blank pages for accounts, memoranda, etc.

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*Text-Book of Gynecological Surgery.* By COMYNS BERKELEY, M.A., M.D., F.R.C.P., M.R.C.S., Gynecologist and Obstetrician to the Middlesex Hospital, London, and VICTOR BONNEY, M.S., M.D., F.R.C.S., M.R.C.P., Assistant Gynecologist and Assistant Obstetrician to the Middlesex Hospital, London. 720 pages, 392 figures in the text from drawings by Victor Bonner, and 16 colored plates. 1911. \$6.00. London: Cassell & Co. Toronto: D. T. McAnish & Co.

In a review of this work one is at once struck with its essential completeness, its simplicity, and accuracy of detail. Dealing, as it does, with operative gynecology, and coming from two of London's best known and most practical gynecological surgeons, and being brief, concise and full of useful information, it cannot fail to arouse the interest and enthusiasm of its readers. The plates are of a superior kind, and the illustrative drawings are all that could be desired to display very clearly the methods of procedure in various operations. During a considerable period from ten to fifteen years ago Dr. Berkeley was well known to many Canadian graduates in medicine studying abroad as the best "coach" in London on the subjects of gynecology and obstetrics, and it was due to his untiring

efforts that many of them were able to pass with credit to themselves the examination of the Conjoint Board in these subjects. It will be a source of much gratification to his many former students to be able to acquire this splendid production. There is no other small, readable book that deals more clearly or more usefully with its subject.

F. W. M.

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*International Clinics.* Edited by HENRY W. CATTELL, A.M., M.D.  
Volume III. Twenty-first series. 1911. Philadelphia and London: J. B. Lippincott Company.

It is the rule for articles appearing in this well-known quarterly to be the best obtainable from the pens of the very best men in all departments of medicine. This volume continues as good as any of its predecessors. Many branches are treated of in the twenty-two papers contained in the present volume. Dr. Thomas F. Reilly has a splendid article, "The Successful Practice of Medicine." Another which will appeal to most men is "Economic Conditions Affecting Physicians," by H. B. Allyn. Anyone desiring to subscribe to this quarterly, which is issued four times a year, and bound in cloth boards, may do so through the Canadian agent of Lippincotts, Mr. Charles Roberts, 608 Lindsay Building, Montreal, Canada. The subscription price is \$2.00 a volume. Each number is far worth the money invested. We heartily recommend it to all.

# Dominion Medical Monthly

And Ontario Medical Journal

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Published on the 20th of each month for the succeeding month. Address all Communications and make all Cheques, Post Office Orders and Postal Notes payable to the Publisher, GEORGE ELLIOTT, 203 Beverley Street, Toronto, Canada.

Vol. XXXVIII.

TORONTO, FEBRUARY, 1912.

No. 2

## COMMENT FROM MONTH TO MONTH.

The division of professional fees, fee-splitting, "dichotomy," or whatever it may be called, was an instructive, interesting and important subject for discussion at the Academy of Medicine, Toronto, the evening of the 2nd of January.

The following is the resolution presented:

(a) That the secret division of a fee, or fees, with any person, or persons, who may be influential in influencing a patient, or patients, to apply for operative care or professional advice, is unworthy of any member of the medical profession.

(b) That if such a division of fee is made by a member of the Academy of Medicine, Toronto, it should be counted as sufficient ground for the expulsion of the member.

(c) That it shall be the duty of the Council of the Academy to investigate charges against members made on the basis of such division of fee; and on proof of offence the Council may either permit the resignation of the person or expel him from the Academy.

Before entering upon a discussion of this controversial question, one probably of the most momentous importance to the profession at large appearing on the medical horizon for years, it will suffice for the present to state that the resolution was not finally acted upon at the meeting, but that it was referred to a special committee for a report, when another discussion will take place.

The after-effects of the holiday season may have had something to do with the very slim attendance at the meeting, for announcements had been sent to members of the Academy a week or ten days before. Failing this as a reason, is it to be understood that the profession as a body is not well seized of the fact that this dichotomous practice has invaded, and even gained considerable foothold in, the county, state and national medical life of our neighbors to the south of us? Or is the profession supine in the matter, that is, mentally and morally inert?

Whilst it is understood that the practice has appeared in our midst, it cannot be said to have gained any particular headway. The discussion, however, proves that there is a feeling of unrest and a dissatisfaction with the present relationship between physician and operator.

It is well to introduce early into the discussions on fee-splitting, in order to put special and emphatic stress upon the subject, that the monetary consideration, the mere matter of dollars and cents, is not the totality of the questionable innovation. There is the moral side, which may have diversified aspects, and not the least of these is the right or wrong of paying a secret commission.

In the sister profession of law, when the solicitor engages special counsel, both charge their respective fees to the client—and all is open and above board. There is no paying on the part of the counsel moneys to the solicitor, out of the former's retainer. Both stay with the case to its finish. And that is exactly where the difference lies, for it is not so with the physician and surgeon. In the majority of cases the physician relinquishes the patient to his brother of the scalpel.

Life and restored health should be important enough to demand that both continue their services hand-in-hand to the close of the case. Then the sum total for their services could, and should, be amicably adjusted; twenty per cent., forty per cent., fifty, or whatever it should be.

Nothing is more evident in life than that there are two sides to a question. All history testifies thereto. There is no need of cudgelling this into any intelligence, be it never so backward. Your enthusiast, who, in this case, may be set down as the surgeon fighting vehemently against the introduction of this rash innovation, will not see it so; and he will probably din it into our ears that it has only one possible solution, namely, thug it to death. In the meanwhile, the neophyte in the practice, quiet, uninfluential, may be steadily at work practising and preaching the gospel of this new evangel,—for it may be good news to general practitioner, beginner,

the old man side-tracked in the race, and the budding surgeon alike.

It remains to enumerate some of the causes which have brought the question of the division of fees into medical life. The increased cost of living is said to be a potent factor; some one says overcrowding is responsible; too many medical schools, cries a third; too low standards; too many specialists; the man in general practice doing special and other surgical work; the young surgeon fighting for his life and his living; the closed hospital; because others are doing it.

The prime question, however, is, is it right or wrong? Because it is a secret process between physician and operator, it is unbecoming to the ethical profession. This is the chief condemnatory argument. But consultations are secret, as all that takes place in the consulting-room is not divulged to either patient or friends.

The whole question is one which demands the most careful and serious consideration on the part of the Academy of Medicine, or any other medical body, before any such drastic therapy as expulsion be applied. If perchance a majority of the Academy favored the division-of-fee system, and entered a somewhat similar resolution calling for the expulsion of those who did not adopt it, what would happen?

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**The supervising medical editor** on the staffs of the leading dailies has come. Many years ago, and several times since, we predicted this departure in newspaper work, and, indeed, advocated the medical editor in connection with the newspaper, not alone in the interests of justice to medical science, but as well to the public, who, if they were athirst for information of a scientific character of this description, should get it from a competent source, and not have it served hot from the juvenile pen of some "kid" reporter.

If the newspaper of the future is to be the great medium for the dissemination of knowledge regarding public medicine, which more and more is becoming appetizing reading for its patrons, it must of necessity recognize the great importance of the medical editor to supervise all items of even a medical coloring, as well as to edit and prepare such articles as shall correctly impart exact knowledge and teach the people aright.

The *Chicago Tribune* and the *New York Herald* are the two foremost pioneers in this new field, and both have recently engaged competent medical editors on their respective staffs. There are others which have for some few years employed the medical editor

tentatively, but these are the first to make him a necessary figure in the editorial sanctum.

The advisability of issuing a special journal to the public has been under consideration by the American Medical Association; and in England, a large newspaper syndicate is preparing to issue some such publication, which shall be edited, and contributed to, by members of the medical profession.

We in Canada are a community of excellent copyists; and it will probably not be long before some of our leading dailies will be seized with a desire to follow suit. And, indeed, there is plenty of evidence, every now and again, that such a supervising editor is urgently demanded.

The desire to serve the public is generally evidenced by the increment of dollars and cents. Once satisfied that there is money in the venture; that it is a matter of business as well as one of education; that accurate news of public medicine and its subsidiaries, preventive medicine, sanitary science, quarantine, school hygiene, the medical supervision of school children, etc., etc., is a producer for the newspaper, and effects sales, the newspaper directorate will act, and act quickly.

As we wrote last month, the newspaper is bound to become the great medium in educating the people in all which affects the conservation of human life and human health. That granted, the medical editor is obviously and absolutely essential.

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**Annual life insurance examinations**, according to statements by the officers of some companies, will soon become part of the ordinary business routine of life insurance work.

The life insurance companies, from a business standpoint, are alive to the great opportunities for saving, and thus increasing dividends, through taking advantage of the teachings of preventive medicine.

With a disinterestedness almost marvellous, the medical man has always taken keen action in the prevention of disease.

If annual medical examinations in life insurance, old-line life and fraternal, become practice, it will be the first instance of the profession advocating something in preventive medicine, which will redound to their own financial gain.

It will be in accord and keeping with all the medical profession has done in the past in preventing disease, for the profession now to as earnestly advocate the annual medical examinations of all policy-holders.



Satisfied that it is in their own interests, as well as in the interests of the insured, and that these examinations are something more than mere measures in preventive medicine, the companies may be depended upon to push forward the movement, and, adopted by some, it will soon become universal.

Like as in establishing sanatoria for diseased policy-holders, the fraternal societies will follow suit; and alive as is the intelligent and educated portion of the community to-day to the advantages accruing from preventive health measures, they will offer little resistance to these annual examinations, but rather welcome them, recognizing, as time goes on, the importance of the regularity of being reassured by a physician that their physical well-being is normal. So also will they appreciate the fact that it is only by this means that insidious diseases may be soon recognized and treated.

The life insurance medical man is thus destined to fill an ever-increasing sphere of usefulness in the community.

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### **DR. CHARLES E. de M. SAJOUS.**

Supervising Editor of the *New York Medical Journal*.

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We have the honor to announce that beginning with issue of December 9, 1911, Dr. Charles E. de M. Sajous, of Philadelphia, becomes the Supervising Editor of the *New York Medical Journal*. While Doctor Sajous will give up his private visiting practice, he will continue his work as a consulting physician, investigator, teacher, and author, and thus be in a position to keep in the closest touch with the needs of the medical profession.

Though born under the American flag, Doctor Sajous received his preliminary education in France. He studied medicine in Philadelphia, graduating with honors from the Jefferson Medical College in 1878. He served for two years as resident physician in the Howard Hospital, and in 1881 was appointed Professor of Anatomy and Physiology in the Wagner Institute of Science, Lecturer in the Philadelphia School of Anatomy, and Clinical Assistant in the laryngological department of Jefferson Medical College, succeeding Dr. J. Solis-Cohen, in 1883, as Clinical Lecturer and chief of that department. In 1891 Doctor Sajous went to Paris, where he devoted six years to original research. Upon his return, he was appointed Dean of the Medico-Chirurgical College. At the recent reorganization of the medical department of Temple University

Doctor Sajous accepted the Chair of Pharmacology and Therapeutics, which he still holds.

The immediate outcome of Doctor Sajous's six years of research work in Paris was the publication of two volumes on *Internal Secretions and the Principles of Medicine*, a work which gave the author high standing as an original investigator.

Doctor Sajous has had a wide editorial experience, having founded, in 1888, the *Annual of the Universal Medical Sciences*, which he conducted with the collaboration of some of the most eminent physicians in America and Europe, until the publication was abandoned in 1893. The *Annual* had a circulation of over 500,000 volumes and the *Cyclopaedia of Practical Medicine*, founded by Doctor Sajous in 1898, to succeed the *Annual*, and intended more particularly for the general practitioner, has attained a circulation of 240,000 volumes, the seventh edition being now in course of preparation.

The value of Dr. Sajous's services to medical science has been recognized in France by his being made a member of the Legion of Honor, while in Belgium he received the Order of Leopold and was made a Knight Commander of the Liberator, besides receiving other titles, both governmental and scientific. In America Doctor Sajous has been president and vice-president of many societies and is a Fellow of the College of Physicians of Philadelphia and of the American Philosophical Society. He brings to bear on the editorial problems of the *New York Medical Journal* a brilliant and well-informed mind, wide experience, and a thorough knowledge of the needs of the American physician.

The publishers of the *New York Medical Journal* feel that they as well as its readers are to be congratulated upon having obtained the services of Doctor Sajous. Comprehensive and well-directed plans have been formulated for enhancing the value and interest of the *New York Medical Journal*, and in carrying out these plans no pains or expense will be spared to give to its readers a medical journal of unprecedented authority and interest.

## News Items

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DR. HARRY PEARSON has moved from Stayner, Ont., to Toronto.

DR. G. R. McDONAGH, Toronto, left for the South on the 11th of January.

SARNIA, Ontario, has had a small epidemic of typhoid fever, there having been upwards of one hundred cases.

Two good, unopposed medical practices for sale cheap in Alberta. One has a drug store. For further particulars apply to us.

DR. BRUCE HEWSON has sold his practice in Colborne, and for the last three months has been doing special work in New York hospitals.

THE *Journal of the American Medical Association* noted 2,145 deaths amongst physicians in the United States and Canada during 1911.

DR. CHAS. H. MAYO was recently operated on in New York for appendicitis, and subsequently for gall stones. He is understood to be recovering nicely from both.

DR. S. H. WESTMAN, Toronto, died the 30th of December, 1911, of acute Bright's disease. He was 39 years of age, attached to the medical department of Toronto University and also to the Toronto General Hospital. Dr. Westman was exceedingly well liked by his confreres, and his early demise is deplored by all.

A NEW private hospital—the Madison—has been established at 159 Madison Avenue, Toronto. The rooms are sunny and bright, the operating room being exceptionally nice and complete. The charges are quite moderate. The Madison is in charge of two experienced and capable trained nurses—Miss Agnes Chisholm and Miss Elizabeth F. Sinclair. Telephone College 8599.

ONTARIO is to be divided into health districts, the old municipal boards of health to the number of 800 are to be abolished, and each district is to be placed under charge of an experienced medical man responsible to the chief health officer of the Province. It is not intended to interfere with the Boards of Health of the larger cities.

THE Western Hospital, Toronto, held its annual meeting. The yearly revenue easily met the current expenses. About \$200,000 is needed for equipment of the new wing nearing completion. Then the Western will be one of the best hospitals in Ontario.

## Publishers' Department

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IMPORTANT NEW PREPARATIONS OF PARKE, DAVIS & Co.—General practitioners will be interested in the announcement by Parke, Davis & Co. of two new products of their chemical laboratories. Proposote and Stearoson are the names chosen to designate the preparations in question. Proposote is creosote in combination with phenyl-propionic acid. It is a straw-colored, oily liquid, neutral in reaction, nearly odorless, and having a slightly bitter taste suggestive of creosote. It is insoluble in water, but is slowly decomposed by alkaline liquids. The indications for it are the same as those for creosote. Tubercular cough following pneumonia, the cough of pulmonary tuberculosis, acute and chronic bronchitis, purulent bronchitis, abscess of the lung, asthma, and bronchitis complicated with Bright's disease are among the pathological conditions benefited by its administration. Being insoluble in acid media, it passes through the stomach unaltered by the gastric juice, to be slowly broken up by the alkaline fluids of the small intestine, hence may be given in gradually increasing doses until the desired effect is obtained. During prolonged administration, as is well known, creosote disturbs digestion, impairs the appetite, and often causes nausea and vomiting. Proposote is free from this objection. Stearoson is santalol combined with stearic acid. It is an odorless, tasteless, light-yellow oily liquid that is insoluble in water and dilute acids, but is slowly broken up by alkaline fluids. The pathological conditions in which it may be employed with advantage are precisely those in which santal oil has long been used—chronic gonorrhea, cystitis, urethritis, vaginitis, pulmonary disorders, such as chronic bronchitis, bronchorrhea, etc. It possesses therapeutic properties fully equal to those of santal oil, over which it has the important advantage of being practically without irritating effect upon the stomach. The explanation of the latter fact is that the preparation is not attacked by the acid gastric juice, but passes into the small intestine, where it is broken up or emulsified by the alkaline fluid and absorbed without difficulty. The distressing eructations and loss of appetite attendant upon the administration of santal oil do not occur when Stearoson is given. Both Proposote and Stearoson were thoroughly tested clinically before being offered to the medical profession, and practitioners may be assured of their therapeutic efficacy in all cases in which they are indicated. They are supplied in 10-minim elastic gelatine capsules, boxes of 12, 24 and 100, and may be obtained through retail druggists generally.