

**TENTH ANNUAL REPORT
OF THE
PROVINCIAL BOARD OF
HEALTH OF ONTARIO, 1891**

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Tenth Annual Report of the Provincial Board of Health of Ontario, 1891 by Various

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TENTH ANNUAL REPORT
OF THE
PROVINCIAL BOARD OF HEALTH.

TO SIR ALEXANDER CAMPBELL, K.C.M.G.,
Lieutenant-Governor of the Province of Ontario.

May it Please Your Honor :

In presenting the Tenth Annual Report of the Provincial Board of Health, it is pleasing to note that during the past year the Province has been singularly free from outbreaks of contagious disease. Diphtheria it is true still continues to claim many victims, especially among children. As this Board has previously had occasion to remark, there is no single cause which contributes so largely to the dissemination and continuance of this pest as the introduction of its contagion into the school-room. Thorough and frequent cleansing of school-rooms, together with efficient ventilation and good heating, would act very powerfully in removing this source of contagion. It is also very desirable that the establishment by Local Boards of Health of isolation hospitals for the treatment of this disease should receive a great impetus. Removing the infectious from the healthy prevents them from becoming fresh centres of contagion, and this, together with the necessary disinfection of exposed articles and the discovery of the cause of the outbreak, places the sanitary authorities in a position to prevent its further dissemination. Now that all outbreaks of diphtheria must, by Order in Council, be reported to the Provincial Board of Health, we are placed in a better position to assist the municipal authorities in applying the proper remedies.

The tracing of typhoid fever to the use of potable water polluted with excreta is undisputed. So true is this that a wholesome water supply will practically banish this disease from a city. But when, on the other hand, a city draws water from a lake into which its crude sewage is discharged, there is danger that at times the water will become impure. Bacteriological examination of Lake Ontario water close to the Toronto water-works intake proves that, according to the direction of the wind, sewage-tainted water with a very slight diminution of the bacteria, can be transported a considerable dis-

tance. Mere dilution of sewage will therefore prove insufficient. The city sewage should be intercepted and treated at the outfall so as to produce an effluent, which being free from bacteria could be safely discharged into the lake. The special germs of typhoid fever being thus destroyed its reintroduction by means of the water supply would be prevented.

The diseases of animals, such as tuberculosis, anthrax, and actinomycosis, have received considerable attention in the laboratory of the Board during the past year, and a reference to our Secretary's report will convince the reader that prompt and thorough extinction of these diseases is of great importance to the well being of many lucrative and useful industries.

A wholesome water supply being a prime necessary of good health, and contamination of potable water from various causes being unfortunately but too common, it is satisfactory to know that by the use of some of the most modern artificial systems of water filtration an inferior can be converted into a first class water. Some of these have for several years been in operation in several cities of the United States. At St. Thomas three Hyatt filters with a filtering capacity of 1,500,000 gallons are now in operation. A bacteriological examination of the St. Thomas water made by the officials of this Board, both before and after filtration, shows a very high degree of efficiency in these filters.

The municipal councils of this Province have not neglected that provision of the Ontario Health Act, which calls for the appointment every year of Local Boards of Health. There are at present 531 Local Boards of Health, and of these 332 have appointed Medical Health Officers.

This Province is fortunate in possessing so many estimable and useful citizens who, without fee or reward, other than that of an approving conscience, devote themselves to the greater good of their neighbors, and the extension to all of some of the best blessings of civilisation. Modern sanitation, however, is rapidly leaving uncertain and debatable ground, and in the hands of skilled Medical Health Officers is pointing with precision to known and removable causes of disease; and we observe with sincere pleasure that medical men of high attainments are thus enabled through the appreciation of an intelligent public to devote themselves almost entirely to the practice of preventive medicine.

Trusting that with the onward march of medical science and the diffusion of sanitary knowledge among the people an enlightened sentiment in regard to the true methods of preventing contagious diseases, and greater energy in removing the recognised conditions which favour their spread, may grow and still further develop amongst us,

I have the honour to remain,

Your obedient servant,

J. J. CASSIDY.

PART I.

REPORT OF THE SECRETARY.

CHAPTER I.

A HUNDRED YEARS OF SANITATION IN ONTARIO.

To the Chairman and Members of the Provincial Board of Health:

GENTLEMEN.—It gives me pleasure to recall to your recollection the fact that the year 1891 completes the first decade of this Board's existence, and ten years of the first permanent governmental organization for dealing with health matters of provincial interest and extent in Ontario.

This year likewise completes one hundred years of organized government in the Province of Ontario, or Upper Canada, and it may not be without interest that a survey of the century be made, and that something of a comparison be instituted between the health conditions of the last decade and of those which have preceded it.

When Governor Simcoe, with his executive councillors, passed westward from Kingston to establish law and government in the newly created Province, settlement can be said to have existed in little more than name. Though Kingston and Newark had been settled they held few others than soldiers of the garrisons. Whatever settlers had come into the country were from the lately rebellious States, and their views on the subject of Medicine were doubtless those prevailing at the time in the United States.

Then was the period "of systems of medicine, wrought out by the imaginations of some few of the great leaders of our profession." The systems of Boerhave of Leyden, Cullen and Brown of Edinburgh, and Darwin of England, had each had their day, only to be succeeded in the United States by that of Benjamin Rush, a revolutionary and signer of the Declaration of Independence, a member of Congress, and Professor of Chemistry in the University of Pennsylvania. He it was who said "that the time must and will come when, in addition to the above remedies, viz., air, light and water, which are used by all without a physician's advice, the general use of calomel, jalap and the lancet shall be considered among the most essential articles of the knowledge and rights of man;" and of whom his political colleague, Thomas Jefferson, said in writing to a medical friend in 1807: "We have seen the fashions of Hoffman, Boerhave, Stahl, Cullen and Brown, succeed one another like the shifting figures of the magic lantern; and their fancies like the dresses of the annual doll-babies from Paris, becoming from their novelty, the vogue of the day, and yielding to the next novelty in ephemeral favour."

With the establishment of government and society, having an especially English form and fashion, the early physicians of prominence in Upper Canada brought their views from the schools especially of London and Edinburgh*. In the few medical names

*Strange as it may appear to the present medical profession a Medical Board for examining and licensing practitioners in Upper Canada existed as early as 1815, and in 1832 the only persons entitled to practice without such examinations were Licentiates of the Royal College of Surgeons of London.

coming down to us we find those who may be said to have grown up with the theories developed during the so-called "epoch of observation" in Medicine, made famous by the great teachers of the French school, Andral, Louis and Chomel. This era beginning with 1830, saw in England, at a period when Canada was in the throes of a political rebellion, the elements of modern Medicine taking form, though as will be seen later on, very practical views were held in some quarters with regard to what sanitation meant on its preventive side.

In 1832, Edwin Chadwick, an English lawyer and writer on economic questions, was made secretary to a Commission of Enquiry into the poor law system of that country, and in 1838 he persuaded the Poor Law Board to make an enquiry into an outbreak of typhus fever in the Whitechapel district of London. The publication of this first sanitary report created a sensation in London; while the same year was made further notable by the appointment of the late Dr. William Farr as the first Registrar-General of births, marriages and deaths.

In Upper Canada at this time the medical profession was in an unusually advanced state, there existing a Medical Board, with power to examine new-comers into the Province, and grant licenses to practice. Its views on medical practice, as also the powers it exercised, partook largely of the autocratic methods in vogue in other legislative matters of the time. There may be found in one of the old newspapers of the time, a letter, complaining loudly of the fact that the licentiates of the Royal College of Surgeons, London, were the only persons entitled to practice without a previous examination by the Medical Board; and the complaint was the more well-founded from the fact that while these surgeons were entitled to practice both medicine and midwifery, they were empowered to examine licentiates from Dublin, from the Apothecaries' Hall, London, and from Edinburgh University, who were already licensed in medicine and midwifery.

Strange as it may seem, the exigencies of the colony had already called into existence laws for protecting the public health. As will be seen later on in a review of the public health Acts of the Provinces of Upper and Lower Canada, the emigration which came in by way of the St. Lawrence had created an ever present danger to the health of the colony. The long ocean passage, principally by sailing vessels, and the wretched condition of many of the immigrants, occasioned the frequent introduction of pestilential diseases, amongst which typhus, or ship-fever, and cholera were the most common.

This is illustrated in the Report to the Legislature of the York (Toronto) Hospital and Dispensary, dated York, Nov. 19th, 1832, which is as follows:—

The great increase in the population of this town and its vicinity, and the misery and wretchedness of the lower classes of emigrants could not fail to disseminate amongst them disease in its various forms. Typhus fever, in its most malignant form raged to a most alarming extent; many of the fatal cases above reported upon have been of this malady brought into hospitals from the steamboats or from the confined and filthy parts of the town. . . . It is worthy of remark that most of the lower orders have such an aversion to an hospital, that they will not submit to be removed until they are conveyed hither in a state of insensibility.

(Signed)

C. WIDMER, Surgeon.
F. DIEHL, Surgeon.
JOHN KIN, M. D.
JOHN ROLPH, Surgeon.

The hospital register gave the following:—

Acute disease.....	408
Surgical.....	83
Chronic, medical.....	74
Adults and children received aid and medicine at dispensary.....	2,100
Removed, last return.....	17
Since admitted.....	648
Discharged, cured.....	437
Believed.....	8
For surgery.....	1
Died.....	61
Remaining.....	58

In this same year cholera was introduced into Canada by way of the St. Lawrence; and though it disappeared in the early autumn, its ravages were of an extended and most fatal description. It was a mysterious disease to the medical profession in Canada, and here, as elsewhere, the knowledge of its causation and method of propagation were the subject of constant speculation. Many supposed that winds of some peculiar and special character spread the disease from country to country, and the reports which had reached Canada of its westward march from India in 1827 to Russia in 1829 and later to Britain had created serious misgivings lest it should be transported to these western shores. To the end of preparing for such a contingency the Canadian Executive of Lower Canada published in October, 1831, a communication on the subject of cholera transmitted from the Colonial office in London. On its receipt a conference of physicians was called in Quebec to discuss the matter, with the result that the Government despatched M. Dr. Tossier to New York to there study the measures being adopted against the introduction of the disease.

The first Sanitary Commission instituted in Canada to deal with cholera was appointed in Quebec in February 1832, and was composed of Drs. Morrin, Parent and Perrault, and some months later a Board of Health was organized which adopted some quarantine and other regulations.

Though not appearing in epidemic form till June, the first cases of cholera arrived in the St. Lawrence on April 28th, 1832, and were landed at Grosse Isle from the ship, *Constantia*, from Limerick, having 170 emigrants of whom 29 had died on the voyage.

On May 14th, the ship *Robert* from Cork arrived and had 10 deaths on the voyage.

On May 28th the ship *Elizabeth* from Dublin arrived with 145 emigrants and 42 deaths.

But the weather by June had grown warmer, and on June 3rd the ship *Carrick* from Dublin arrived having had 145 emigrants of whom 42 had died on the voyage.

This may be said to have been the beginning of the epidemic in Canada. The Grosse Isle station, having only been opened that spring, there were no conveniences, and no proper quarantine precautions. All who seemed well were allowed to pass up the St. Lawrence, disinfection was unknown, and hence all the soiled clothing of the emigrants was forwarded unwashed. Further there was constant intercourse between sailing and steam vessels westward to Montreal. It ascended the Richelieu and thence reached Lake Champlain and the Hudson.

By June 10th the disease had reached Montreal and spread rapidly to different parts of Lower and Upper Canada. It had disappeared by the middle of October, having lasted four months.

The discontent and famine in Ireland had caused an extensive emigration to American shores, and by September nearly 30,000 emigrants had come up the St. Lawrence.

Deaths amongst these people were so common from every cause, that no very special record was kept of those from cholera; but it is stated that in Quebec there occurred during this fatal summer 2,208 deaths from cholera alone, and that in Montreal 800 deaths occurred in the first fortnight and by September 1,843 had been slain by the disease.

In this brief history we have seen that some idea had been obtained of the necessity for preventing the introduction of cholera by establishing quarantine; but the results make apparent the ignorance of what was necessary to be done to attain such an end.

Returning, however, to Upper Canada it will be seen that the epidemic of 1832 soon passed westward from Montreal appearing in Prescott on June 14th. That the colony was greatly agitated at the advent of this mysterious plague is seen from the following letters found in the Journals of the Legislative Assembly of 1833; while the circular of the Lieutenant-Governor and the Order in Council are most interesting as showing the intelligent appreciation of the public danger, and of the prompt action taken to do all, which the knowledge of the time made possible, for the limitation of the disease.