

CANADIAN OUT-DOOR LIFE.

A MAGAZINE DEVOTED TO THE GOSPEL OF OUT-DOOR LIFE
IN THE TREATMENT OF TUBERCULOSIS, AND THE VALUE
OF FRESH AIR AND HYGIENIC LIVING FOR EVERYONE

VOL. I

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NO. 4

The Present Status of Anti-Tuberculosis Work in Canada*

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THE second meeting of the British Medical Association in Canada seems a most appropriate time to present a report of what is being done in the Dominion to combat tuberculosis, for it was in 1897, when the Association first met in Canada, that Dr. Barnes, the retiring president of the Association, Dr. Roddick, the president-elect, with others, journeyed to our northern highlands to assist in the opening of the Muskoka Cottage Sanatorium which had been built by the National Sanitarium Association.

This Association was the pioneer in organized effort to check consumption in Canada, and this was the first Sanatorium erected in Canada.

In the nine years which have followed, much has been done by this and other organizations, while private individuals, municipalities and the Governments of the various Provinces are showing increased interest in the tuberculosis problem and have given material assistance in the campaign.

In this paper I wish to review the various agencies at work, and to show as far as possible what has been accomplished.

My data has been secured from the secretaries of the various Provincial Boards of Health, from the Medical Health Officers of the towns and cities with population of over 5,000, and from the secretaries of the various Associations, while much has been written from personal knowledge.

There have been ten Associations formed in Canada for the Prevention and Treatment of Tuberculosis. Two of these are national in their scope and have a number of active branches. Two provincial associations have been formed, and a number of local associations have been and are being organized throughout the Dominion.

The following list is as complete as I have been able to collect:

National.

National Sanitarium Association of Canada. Organized 1896. Thirty-two branch

*Presented at the British Medical Association, Toronto. August, 1906.

associations. Their Excellencies Earl and Lady Grey, Patrons; Lord Strathcona and Mount Royal, President; W. J. Gage, Esq., Chairman of Executive Committee; J. S. Robertson, Secretary, Saturday Night Building, Toronto, Ont.

The Canadian Association for the Prevention of Consumption and other forms of Tuberculosis; nine branches; organized 1901. His Excellency Earl Grey, Hon. President; Senator Edwards, President; J. M. Courtney, Esq., C.M.G., Hon. Treasurer; Rev. Wm. Moore, D.D., Secretary, Organizer and Lecturer, 102 Bank Street, Ottawa.

Provincial.

British Columbia Anti-Tuberculosis Association; has numerous local branches. C. J. Fagan, M.D., Secretary, Victoria, B.C.

The New Brunswick Association for the Prevention and Cure of Consumption. Dr. Wm. Bayard, St. John, N.B.

Local.

Montreal League for the Prevention of Tuberculosis. President, Sir George A. Drummond; Secretary, Dr. E. S. Harding.

Quebec League for the Prevention of Tuberculosis. Rev. Canon Scott, St. Matthew's Rectory, Quebec.

The District of St. Francis League for the Prevention of Tuberculosis. Sec.-Treas., Dr. E. J. Williams, Sherbrooke, Que.

Toronto Free Hospital for Consumptives. W. J. Gage, Chairman; J. S. Robertson, Saturday Night Building, Toronto, Secretary.

Hamilton Health Association, Hamilton, Ont.

Local Branches of the Canadian Association for the Prevention of Tuberculosis at Charlottetown and Summerside, P.E.I.; Colechester, N.S.; Sherbrooke and Montreal, Que.; Ottawa, Toronto and Hamilton, Ont.

Thirty-two local branches of the National Sanitarium Association.

NATIONAL SANITARIUM ASSOCIATION OF CANADA.

In 1896, when one of the founders of this Association wrote to the Toronto City Coun-

cil offering to give \$25,000 to build a home for consumptives, if the city would provide a site, a reply was sent suggesting that the money be devoted to building a wing to the Home for Incurables, so prevalent was the idea that consumption was incurable. When the Association was formed, its first efforts were directed to the establishment of a Sanatorium in the delightful Muskoka region. To-day it has two Sanatoriums there, one for paying patients, one for the poor. These institutions represent a capital outlay of \$140,000 and provide beds for 160 patients. Over 2,000 patients have received treatment, the maintenance expenditure amounting to \$400,000. Some of these patients have been maintained free of all cost for periods of twelve months.

The Association is endeavoring to do its share in checking the spread of this scourge through Canada. All contributions received are devoted to educational work and the maintenance of needy patients in the Muskoka Free Hospital for Consumptives. To further its work thirty-two branch associations have already been formed in the following towns and cities. Their activity is shown in the fact that one half are contributing funds to maintain one or more beds in the Muskoka Free Hospital.

BRANCH ASSOCIATIONS OF THE NATIONAL SANITARIUM ASSOCIATION.

The following is a list of places where branch associations of the National Sanitarium Association have been established, the figures in brackets indicating such associations as have raised the requisite amount of \$300 a year to endow a bed :

Acton	Orangeville
Brantford (1)	Oshawa (1)
Brussels	Ottawa (16) xx
Belleville (1)	Picton
Cobourg	Port Hope
Campbellford	Peterboro (1)
Exeter	St. Mary's
Guelph (2)	Sarnia (1)
Georgetown	St. Thomas (1)
Goderich	St. Catharines
Hamilton (12) x	Tillsonburg
Hanover	Walkerville (1)
Ingersoll (1)	Wingham (1)
Kincardine	Woodstock (1)
Lindsay (1)	Montreal (2)
London	Stratford (2)

x A pavilion with 12 beds has been set aside for Hamilton and Wentworth County for the past two years, maintained during that period by the Hamilton Branch Association.

xx Ottawa has contributed \$4,300, which has been accepted by the Association to set aside two wards for eight patients each in the Muskoka Free Hospital for Consumptives. Ottawa not only has furnished this amount for the purpose named, but provides also for the maintenance of all patients sent under an agreement with the Association.

The following is a list of municipalities that have contributed the required \$300 a year to endow a bed in the Muskoka Free Hospital for Consumptives for a period of twelve months. Allowing four months as the average of attendance, this gives accommodation for three patients from these municipalities each year.

Brant Co., Ont.	Lambton Co., Ont.
Brantford City, Ont.	St. Thomas, Ont.
Chatham, Ont.	Lincoln Co., Ont.
Niagara Falls, Ont.	City of St. Catharines, Ont.
Perth Co., Ont.	Oxford Co., Ont.

102 other municipalities have contributed amounts from \$5 to \$100 during the past year.

Last year there were admitted to the Muskoka Free Hospital for Consumptives on order of the municipality from

City of Toronto	37 patients
" Hamilton	21 "
" Ottawa	10 "

Under statute enactment any municipality may make an agreement with the Association whereby the institutions of the Association shall treat its patients and the municipality may pass by-laws or issue debentures to raise money to assist this Association in its work.

To further its educational campaign, the Association has arranged with the National Association for the Study and Prevention of Tuberculosis (U.S.A.), that the exhibition which was so successfully organized and held in New York last winter under its auspices, and which has since been in a number of the principal cities of the States, should be transferred to Toronto, and this is now occupying the new Science Building of Toronto University.

Since this Association was organized, the death rate from tuberculosis in Ontario has fallen from 16 per 10,000 to 12 per 10,000. We cannot but think that this is in part due to the educational side of the work done.

THE CANADIAN ASSOCIATION FOR THE PREVENTION OF CONSUMPTION AND OTHER FORMS OF TUBERCULOSIS.

This was organized in March, 1901, at the instance and under the patronage of the Earl of Minto, then Governor-General. The objects of the Association are fully set forth in the Constitution then adopted.

Lectures have been delivered in all of the chief towns and centres in Prince Edward Island, Nova Scotia and New Brunswick; in Sherbrooke and the country round about, in the Province of Quebec; throughout the Ottawa Valley, on both sides of the river, in towns and cities on the St. Lawrence River; in North and South Grey, St. Mary's, London, Ingersoll, Woodstock, and several other places, including Sault Ste. Marie, in Ontario.

About two and a half million pages, bearing directly on the cause and prevention of consumption, have been distributed.

There are at present nine active branches: Charlottetown and Summerside, in Prince Edward Island; Colchester County, with headquarters in Truro, Nova Scotia; Sherbrooke and Montreal, in the Province of Quebec; Ottawa, Toronto and Hamilton, in Ontario; and the Association for the prevention and treatment of Consumption, in British Columbia, with headquarters in Victoria.

In several smaller places, where there does not seem to be room for active organization,

committees are at work distributing literature and placing leaflets wherever they seem likely to be useful.

At the last annual meeting of the Association several large committees were appointed to deal with the following subjects:

(a) Organization and work. To consider the best methods and lines for future development.

(b) How can we obviate the prejudice against the erection of hospitals and homes for consumptives, which are frequently regarded as sources of danger to the surrounding community?

(c) Care of public conveyances (steamships, railway carriages, street cars, etc.), to prevent the spread of consumption.

(d) Inspection of schools and examination of children.

(e) House to house visitation, instruction to sufferers, and early diagnosis.

As a sample of the reports of these committees, that of No. 4 is appended.

Report of Committee No. 4, on Medical Inspection of Schools and Examination of Children.

Having regard to the most essential steps for the prevention of tuberculosis, your committee beg leave to report:—

(1) That the proper sanitation of schools and the protection of the health of the children are among the matters of foremost importance worthy the urgent attention of the various Education Departments of the Dominion.

(2) That only members of the medical profession have the preparation and the experience adequate to fully judge and accurately appreciate the sanitary condition of the schools, and that reliable observations as to the influence of the school and its exercises on the health of the young can be made only by school physicians.

(3) That the inspection of schools is a State duty, and that the medical inspection of schools is a legitimate and all-important part of school inspection, and that, therefore, it is a grave responsibility of the Education Departments of Canada to take measures to protect the health of pupils in schools.

(4) That it is especially advisable, among other things:

(a) That school physicians be appointed to supervise the sanitary conditions of school buildings and their appointments, examine into the health of teachers and pupils and advise them as to all hygienic measures necessary.

(b) That steps be taken to remove present unsanitary conditions from schools in which they exist.

(c) That rules and instructions be issued as guides to teachers and pupils, aiming at the avoidance of practices and habits contrary to the spread of the disease or the deterioration of physical vigour.

(d) That in order to prepare teachers to effectively co-operate with the school physician, they should be thoroughly instructed in the training schools in the principles of hygiene, physical development and a knowledge of the dangers that commonly threaten the vigorous development of the young.

(e) That as the avoidance of alcoholic beverages is a strong factor in the prevention of tuberculosis, the attention of pupils should be systematically called to this fact.

(f) That a special medical examination be made on their (pupils') first entry into school, noting age, weight, height, constitution, state of nutrition, etc., and any significant physical and mental conditions; that it is desirable that at the first medical examination the mother be present to give information as to previous illness or predisposition, and to receive instructions as to the care of the pupil at home; that reports be made at regular intervals and copies sent to parents.

(Signed) R. H. COWLEY, Convener.

BRITISH COLUMBIA ANTI-TUBERCULOSIS ASSOCIATION.

This Association is endeavouring to collect \$100,000 to establish a Sanatorium for the Province. Local branches have been formed throughout the Province to further this object. Several city councils have promised yearly grants towards such a Sanatorium, and the Provincial Government are prepared to assist. Lieut.-Governor Dunsmuir has promised \$40,000, conditional upon \$100,000 being raised; and this will doubtless be accomplished very soon.

THE MONTREAL LEAGUE FOR THE PREVENTION OF TUBERCULOSIS.

This was organized in the year 1903. It is carrying on an excellent campaign of instruction and relief. Much literature has been distributed, not only to patients and their families, but in schools, factories, and other institutions. Lectures have been held on the subject in more than 30 Protestant churches and nearly all the Roman Catholic parishes in the city, as well as in several schools, working men's clubs, etc. Through the efforts of the Legislation Committee of the League, a by-law has been passed prohibiting spitting on the side-walks.

All cases of tuberculosis reported to the League by physicians, from hospitals or otherwise, are visited more or less frequently as occasion requires by a qualified inspector, who distributes leaflets of advice, gives verbal instructions, supplies sanitary cuspidors, endeavours to provide better ventilation, and disinfects habitations after death or removal.

In the autumn of 1904 the League opened a dispensary especially for persons suffering from pulmonary tuberculosis, where physicians attend for some hours daily for consultation, and patients may be examined and receive advice and medicines. This branch of the work has grown steadily, is much appreciated, and promises satisfactory results. When thought advisable, patients are provided with nourishing food—eggs, milk, etc., also warm clothing. For those who require nursing at home, the co-operation of the Victorian Order of Nurses is enlisted. Cases in an advanced stage of the disease who have no friends in the city are sent to an institution. The great need in this branch of the work is a sanatorium in a healthy situation for incipient cases. The work is supported by subscriptions from the public, aided by a municipal grant.

In the three years of its existence the League has dealt with about 700 cases of tuberculosis, some of whom have received continuous care and assistance for many months.

DISTRICT OF ST. FRANCIS LEAGUE FOR THE PREVENTION OF TUBERCULOSIS.

This was organized in 1903, and is carrying on a campaign of education. Local societies or sub-committees are formed in each town or municipality of the district about Sher

brooke. The League arranges for examination of all sputum submitted and looks after all indigent patients.

HAMILTON HEALTH ASSOCIATION.

This Association has established this year the Mountain Sanatorium at Hamilton, for the care of patients from the city and from Wentworth County, who are in the earlier stages of pulmonary tuberculosis. Far advanced cases are not to be admitted. Temporary buildings are at present in use. The Association has 100 acres of land, with funds of \$35,000 to carry out its work. About twenty beds are already provided.

There being no provision for far-advanced cases, the Association maintains a visiting nurse to care for such cases in their homes, keeping in touch also with the local Board of Health.

TORONTO FREE HOSPITAL FOR CONSUMPTIVES.

This Association has been formed in Toronto to make provision for all patients with far-advanced disease. It first provided beds only for the far-advanced poor of the City of Toronto, but such has been the success of the undertaking that kind friends have made it possible for this Association to enlarge its scope, and it soon hopes to be able to accept the far-advanced cases not only of Toronto, but to provide a number of beds for patients from elsewhere in Ontario. The Hospital of this Association is situated at Weston, Ont., overlooking the Humber valley. It is the first institution in Canada to care for those advanced in consumption. With a capital expenditure of \$50,000, beds for over 60 patients have been provided. In its first year 136 were cared for.

PROVINCIAL MEASURES.

British Columbia

(Reported by Dr. C. J. Fagan, Secretary of the Provincial Board of Health.)

Notification laws have been adopted and are reasonably well carried out, as is also the anti-spitting by-law.

Local societies are formed all over the Province, the objects of which are:

(a) To collect funds for the maintenance of a Consumptive Sanatorium.

(b) To look after the interests of local consumptives.

(c) To establish a course of lectures on consumption in public schools.

(d) To ask for a municipal grant from local authorities towards the maintenance fund.

(e) To ask clergymen to devote one Sunday sermon each year to health matters, the collection to go towards the maintaining of the Sanatorium.

Cases of pulmonary tuberculosis are not admitted to the wards of public hospitals, but it is advocated that special provision be made for the handling of advanced cases by hospitals.

The Vancouver General Hospital has provided a special building for the handling of advanced cases, and it is hoped that other public institutions will do likewise.

At present there is no special hospital for the treatment of incipient consumptives, but I may state that a considerable sum of money has already been collected for building purposes, and most of the British Columbia towns have organized societies with the object of maintaining our Sanatorium. Already a considerable sum is subscribed and promised, and I am satisfied from indications that we can depend on receiving a sufficient sum for maintaining an institution for our own tuberculous patients.

Disinfection after tuberculosis is attended to as it is after any other contagious or infectious disease.

All milk dealers must produce a certificate, signed by the Provincial Veterinary Surgeon, that the herd from which their supply is derived is free of tuberculosis.

Alberta

(Reported by Dr. A. E. Clendenan, Provincial Health Officer.)

This Province, being inaugurated September 1st, 1905, has not yet a Public Health Act, such as is in operation in the older provinces, nor is there a Provincial Laboratory. Physicians and druggists are asked to report all cases known to them. Owing to the large number of consumptives coming to Alberta, many of whom are indigent, an effort will be made at the next session of the Legislature to enact that every case that enters must report his condition to the Government and be prepared to either pay all expenses for maintenance or come provided for by the governments of the other provinces of the Dominion Government.

It is hoped that in the new Public Health Act, tuberculosis will be put as nearly on the same footing as other contagious diseases as is practicable, each case being reported in such a way that every affected person will be under the direct supervision of the Government and be provided with literature and given such other attention as is necessary to eradicate the disease from the Province.

An effort is on foot to organize a very considerable number of anti-tuberculosis associations, such as exist to a limited extent in eastern Canada.

Approximately there are two hundred cases of tuberculosis amongst the Indians of the Province reported by the Dominion Indian Reserve doctors to the Dominion Government. Since these cases are entirely under the control of the Department of the Interior, the ordinary means of combatting tuberculosis are difficult of operation. The Indians and whites, however, mix but little.

Manitoba

The Manitoba Sanatorium for Consumptives has been incorporated, with the object of providing a sanatorium for the Province. It is to be indirectly under provincial control, but to be directly managed by a Board of Trustees. The municipalities will maintain all patients whom they may send to the

Sanatorium. \$50,000 has already been subscribed, and the Legislature has promised \$25,000.

The Provincial Laboratory examines all sputum submitted.

Ontario

(No report from Secretary of Provincial Board of Health.)

The Province of Ontario has enacted special legislation to assist in the erection of sanatoriums, providing one-fifth of the cost (up to \$20,000) of a sanatorium erected by any municipality or recognized association. Three Sanatoriums have received the help to date.

In addition to assisting in the initial cost, the Government grant assistance to the extent of \$1.50 per week per patient for all public ward patients, in lieu of the ordinary hospital grant, which is about 15 cents per day.

At the last session of the Legislature, \$15,000 was voted the Muskoka Free Hospital for Consumptives, to assist in its work.

The Provincial Laboratory examines all sputum free of charge.

Quebec

(Reported by Dr. Elzear Pelletier, Secretary of the Provincial Board of Health.)

In January 1895 the legislature set apart 400 acres in Trembling Mountain Park for sanatorium purposes, but nothing has been done to supplement this. In June, 1905, 137 acres were granted for sanatorium purposes on Lake Edward, 1,200 feet above sea level. Towards construction of the proposed sanatorium, Rev. Canon Scott reports \$22,000 promised, conditional on \$40,000 being raised.

Legislative enactments:

(1) The Health Act enacts that open tuberculosis is to be notified to municipal authorities.

(2) The By-laws made by our Board (under the authority of the same Health Act) renders disinfection obligatory after the death of a tuberculous patient.

(3) The By-laws made by our Board respecting factories, provide for lighting, cubic space, aeration and ventilation, evacuation of dust, etc.

(4) Tracts and "Sanitary Bulletin" are distributed gratis.

The Provincial Board of Health has transmitted to the Government, for sanction, additional by-laws which, when duly sanctioned*, will:—

(a) Make disinfection obligatory after the removal of a tuberculous patient (as well as already done after his death).

(b) Forbid spitting in streets, roads, public places, buildings and conveyances.

(c) Provide for confiscation of meat from tuberculous animals, about on the lines suggested by the Royal Commission on Tuberculosis.

(d) In regard to habitations: provide for (1) a minimum cubic space, (2) natural lighting, (3) prohibition of the use of cellars for day or night occupation, (4) minimum cubic space in night refuges, (5) open spaces around dwellings, (6) damp courses in certain cases.

(e) In regard to hospitals, homes, asylums, prisons, provide for cubic space and ventilation.

(f) In regard to dairies, provide among other things, for (1) the notification of tuberculous cases, (2) the isolation of suspected tuberculous cows until a veterinary surgeon has verified to the udder not being involved, the certificate to be renewed at least every three months and to be put aside whenever bacterial examination would show the existence of the bacillus in the milk.

(g) In regard to educational institutions, provide for cubic space, ventilation, natural lighting, prohibition of dry sweeping.

New Brunswick

The New Brunswick Medical Society and representative business men have met the Government urging the establishment of a Provincial Sanatorium. The Provincial Board of Health have made similar recommendations. The Government have as yet taken no definite action.

Nova Scotia

Nova Scotia has been the first and so far the only Province in Canada to build a Provincial Sanatorium for its patients. This is situated at Kentville in the Annapolis Valley. Initial cost \$20,000. Annual grant \$9,000. Twenty beds. The province does not intend to provide beds for all, but has undertaken this work rather for its great educational value. The Provincial Laboratory examines sputum free of charge.

Prince Edward Island

No Board of Health Regulations re Tuberculosis.

MUNICIPAL AND LOCAL MEASURES.

Letters of enquiry were sent to sixty-two towns and cities with population of 5,000 and over as recorded at the census of 1901, submitting the following questions:

(1) Have you any special hospital or sanatorium for the treatment of cases of pulmonary tuberculosis?

(2) Are cases of pulmonary tuberculosis admitted to the wards of all or any of your hospitals?

(3) Have any special wards been provided for the care of these cases?

(4) Have you a special dispensary for the treatment of tuberculosis? If so, kindly outline its organization.

(5) Have you any local organization for the care of tuberculous patients in their homes?

(6) Have you an anti-spitting By-law? (6a) Are notices posted without by-law?

(7) Have you compulsory or voluntary notification of phthisis.

(8) Does your Board of Health disinfect after tuberculosis as after scarlet fever and other infectious diseases?

(9) Other measures.

The replies received are tabulated on page 6.

*Sanctioned September 8th, 1906.

REPLIES TO INQUIRIES AS TO MUNICIPAL AND LOCAL MEASURES ADOPTED FOR THE PREVENTION AND TREATMENT OF TUBERCULOSIS.

	Pop. Census of 1901	1	2	3	4	5	6	6a	7	8	9 (other measures)
YUKON											
Dawson	9142	No	Yes	No	No	No	No		No	No	None. Disease rather rare except in Native Indians.
BRITISH COLUMBIA											
Vancouver	26133	Yes	No	No	No	No	Yes		Vol	x	Literature sent to all cases reported. x Where reported.
New Westminster	6499	No	Yes	No	No	No	a		Vol	Yes	Local Society raising funds for Provincial Sanatorium. a Provincial By-law b To private wards only
Rossland	6159	No	Yes b	Yes	No	No	a		Vol	Yes	b To private wards only
Nelson	5273	No	Yes b	No	No	No	a		c	No	None. c Prov. Bd. of Health provides for notification of all cases.
MANITOBA											
Winnipeg	42340	No	Yes d	Yes	No	No	No		Com	Yes	Literature distributed. Considering Sanatorium. d Admitted to isolation wards.
ONTARIO											
Hamilton	52634	Yes	Very few	No	Yes	Yes	Yes		Com	Yes	
Smiths Falls	5155	No	Yes	No	No	No	No		No	No	None.
Chatham	9068	No	Yes e	No	No	No	No	f	No	Yes	None. e Incipient cases only. f Local Bd. of Health notices.
Peterboro'	11239	No	No	No	No	No	No		No	No	None.
Owen Sound	8776	No	Yes h	No	No	No	Yes		No	Yes	g Occasionally. h Early cases only.
Stratford	9959	No	No	Yes i	No	No	No		No	Yes	i 2 Tents. j Queen's Daughters give special attention to tuberculosis.
Berlin	9747	No	No	No	No	No	Yes		No	k	None. k Where requested.
Toronto Junction.	6091	No	No	No	No	No	No		No	No	None.
Rat Portage	5202	No	Yes l	No	No	No	No		No	No	l Admitted to private wards only.
London	37981	No	No	No	No	No	Yes		Vol	Yes	
Brantford	16619	No	No	No	No	No	Yes		Vol	Yes	Literature sent to all cases reported.
Toronto	208040	Yes	No	No	Yes	Yes			Yes	Yes	m Incipient cases sent on city order to Muskoka Free Hospital for Consumptives. Advanced cases to Toronto Free Hospital for Consumptives.
Ottawa	59928	No	No n	No	No	Yes	Yes		Vol	Yes	n Local Auxiliary of Nat. San. Assn. arranges for admission of cases to Muskoka and Toronto Free Hospitals for Consumptives. A few hopeless cases admitted to isolated wards in one hospital.
Sault Ste. Marie	7169	No	No	No	No	No	Yes		Com	Yes	None.
Lindsay	7003	No	No	No	No	No	Yes		No	No	None.
Collingwood	5755	No	Yes p	No	No	No	No	x	No	q	None. p Incipient cases admitted to private wards. q When requested. x Notices posted.
Sarnia	8176	No	Yes	No	No	No	Yes		No	No	None.
Galt	7866	Yes	No	No	No				No	No	Has Cottage Hospital for advanced cases 1 mile from town.
Belleville	9117	No	Yes r	No	No	No	No		No	Yes	r Sometimes admitted, but are generally isolated.
QUEBEC PROVINCE											
Westmount	8856	No	No	No	No	No	Yes		Com	Yes	Working along lines of Montreal League.
Sherbrooke	11765	No	No	No	No	Yes	Yes		Vol	Yes	None.
Hull	13993	No	No	No	No	No	No		No	No	None.
Quebec	68840	No	Yes	No	No	No	No	x	Com	Yes	Nothing but compulsory tuberculin test on cows. x Notices posted.
Montreal	267730	No			Yes	Yes	Yes				
NEW BRUNSWICK											
St. John	40711	No	Yes s	Yes	No	No	Yes		No	t	s Hopeful cases only. t When requested.
Fredericton	7117	No									
NOVA SCOTIA											
Truro	5993	No	No	No	No	No	Yes		No	Yes	Literature sent.
Glace Bay	6945	No	No	No	No	No	No		Vol	No	None.
Halifax	40832	No	Yes u	No	No	No	Yes		Com	Yes	u Incipient cases only admitted.
Yarmouth	6430	No	No	No	No	No	No		No	No	
Springhill	5178	No	Yes	No	No	No	No		No	No	
PRINCE EDWARD ISLAND											
Charlottetown	12080	No	Yes v	Yes w	No	Yes	No	x	No	No	None. v Incipient cases admitted. w One hospital admits occasional cases into a special ward. x Notices posted.

SPECIAL HOSPITALS OR SANATORIUMS

No municipality, as far as I can learn, has built a sanatorium or hospital for the care of its tuberculosis patients. Local philanthropic organizations have made provision in some places, while some municipalities send their patients to existing sanatoriums.

Vancouver has a special building for tuberculous cases at its General Hospital.

ADMISSION OF PATIENTS TO GENERAL HOSPITALS.

Six towns and cities have no hesitation in accepting tuberculosis cases into their hospitals. Seven admit, but insist on patients being isolated, one or two using isolation wards. Four admit only incipient cases. No hospital has constructed special wards. In some tents are used.

Three cities have Tuberculosis Dispensaries. Five cities have organizations for the care of the poor in their homes.

British Columbia has a Provincial anti-spitting by-law. Of the thirty-one towns outside this province which have reported fifteen have anti-spitting by-laws, while four others have notices posted. In some, little attention is paid, except by the street car companies.

Notification of cases is requested by the Provincial Board of Health in British Columbia. In other provinces six have compulsory notification and five voluntary.

Twenty disinfect after death or removal of patient, or during course of illness if patient has been careless, where reported or requested.

LIST OF SANATORIUMS IN CANADA.

Ontario

Muskoka Cottage Sanatorium, Gravenhurst; 85 beds, \$12 and \$15 weekly. For incipient cases. Dr. J. H. Elliott, Physician-in-Charge.

Muskoka Free Hospital for Consumptives, Gravenhurst; 50-70 beds. Free, or patient pays in part if able. For incipient cases. Dr. C. D. Parfitt, Physician-in-Charge.

The Mountain Sanatorium, Hamilton, 20 beds. Dr. A. D. Unsworth, Physician-in-Charge.

Toronto Free Hospital for Consumptives, Weston; 60 beds. For advanced and far-advanced cases. Free, or patient pays in part if able. Dr. W. J. Dobbie, Physician-in-Charge.

Galt has provided a Swiss Cottage for care of advanced cases.

Stratford has two tents for advanced cases.

Quebec

Lahl Ghur, Ste. Agathe des Monts, for incipient cases; \$14 weekly; Dr. Howard D. Kemp, Physician-in-Charge.

Camp of Montreal League for Prevention of Tuberculosis, for poor of Montreal.

Nova Scotia

Provincial Sanatorium, Kentville. 20 beds for residents of the province. Patients pay \$5.00 weekly; Dr. W. S. Woodworth. Wolfville Highlands Sanatorium, 10 beds. Private. Dr. G. E. DeWitt, Wolfville.

Alberta

Calgary Sanatorium, Calgary, 16 beds. Private.

SURGICAL TUBERCULOSIS.

In Europe and the United States much attention is just now being drawn to the beneficial effect of the seashore on tuberculous children, and many seaside hospitals for children are being established. For many years the Victoria Hospital for Sick Children in Toronto has, during the summer months, transferred all cases of surgical tuberculosis to the Lakeside Hospital on Toronto Island, with most satisfactory results.

There is a special ward for tuberculous children in the Toronto Free Hospital for Consumptives at Weston.

DISPENSARIES

1. Dispensary of the Montreal League for the Prevention of Tuberculosis, 691 Dorchester Street. Opened November, 1904. Open six days weekly. Last year 193 patients attended. When too ill to attend they are visited in their houses. Patients are supplied with all the necessaries in the way of food and clothing.

2. Tuberculosis Dispensary and Clinic, Toronto General Hospital. Opened January, 1906. Visiting nurse visits all homes and reports surroundings and conditions. Patient given sputum flask, etc., with instructions. Food and clothing supplied when needed. Special wards available if necessary to bring patients into hospital. Houses reported to Board of Health for fumigation. When possible patients sent to sanatorium at Weston or Gravenhurst.

3. Tuberculosis Dispensary of Hamilton City Hospital. Opened 1906.

Brehmer Rest, Ste. Agathe des Monts, Quebec. Dr. A. J. Richer, Physician-in-Charge. Miss Barnard, Secretary, 33 Lorne Avenue, Montreal. Patients pay \$4.00 per week.

This sanatorium has been instituted for the care of patients who have no active tuberculosis, but who are convalescing from pneumonia, pleurisy and typhoid fever, also patients with anæmia, debility, etc. Such institutions play an important part in the prevention of tuberculosis.

WHAT REMAINS TO BE DONE.

This summary of the anti-tuberculosis work in Canada shows that much has been done in recent years. Each year new measures are brought forward, an increasing number each year, and yet we have little

more than begun—much earnest work has yet to be done to secure a marked decrease in the death rate throughout the Dominion.

There is still much apathy shown when active measures for the suppression of the disease are adopted—lax enforcement renders them useless. More than one local medical health officer has reported: "We have an anti-spitting by-law, but it is never enforced." In another town where no measures have been outlined, the health officer writes: "Public interest in this question is dormant. It is a labor of Hercules to even try to arouse it. Our Board of Health takes no interest in tuberculous patients."

The work of prevention requires the co-operation of all the forces available. We must first deal with those suffering with the disease, for inasmuch as the disease is spread only from those having an open-tuberculosis, we must concede (leaving out of discussion here the communicability to man of bovine tuberculosis), that the disease would soon all but disappear could all who have an open tuberculosis be placed under proper discipline, and all sputa and other bacilli bearing discharges be destroyed.

This entails much work on the part of the physician who is attending the patient—full personal instructions must be given and these instructions must be carried out. Leaflets of instructions to patients are very useful, but personal instruction is more efficient.

For those patients who will not follow the directions given and are careless, special hospitals for detention are necessary, and such should be provided for such people as are wilfully unclean and whose habits are such that they are spreading disease about wherever they may be.

Sanatoriums are a necessity for the care of those who cannot be kept under close supervision at home or whose surroundings are not conducive to recovery, whether this be from unsanitary conditions, the presence of meddling relatives and friends, or the thousand and one petty things which prevent a patient following the necessary out-of-door life and observing the prescribed rest or exercise. More Sanatoriums are required throughout Canada, particularly for the poor, who are not in a position to go far from home.

Separate provision should be made for incipient and far-advanced cases.

Special dispensaries can do much for those who must continue at work, as in the case of the bread winner in a poor family. The dispensary physicians and nurses can see that his house is suitable, and can assist in arranging for out-of-door sleeping, can see that he is provided with all necessaries and also be assured that he is careful of those about him. The dispensary staff too should examine at intervals all of the family, so that any infection may be discovered while still a closed tuberculosis.

Physicians in attendance upon all cases, whether poor or in good circumstances, should endeavor as far as possible to see that all the members of the family are carefully watched; particularly so in houses where the patient has been known to be careless, or where, as is not infrequently the case, he has been suffering with an open tuberculosis, the presence of which has not been suspected or recognized.

The members of tuberculous families should be given special instruction in hygienic living and be warned of the dangers of lowered vitality, whether due to disease, over-work, poor food, or vice.

The physician should be proficient in diagnosis and should endeavor to make diagnosis early, remembering that under sanatorium treatment 75% of incipient cases recover, of moderately advanced about 15% and of far-advanced cases barely 1%. To state that the physician is often careless is unpleasant writing, but again and again we meet such cases. An instance, such as the following, is unfortunately far from uncommon. A young man came to me for examination and treatment. I found far-advanced disease involving all of the left lung and half of the right, with well marked cavity formation in the left upper lobe. There was also intestinal tuberculosis. Sputum one ounce daily, teeming with tubercle bacilli and much elastic tissue present. I gave his mother a report with necessarily an opinion of hopeless prognosis. He is the only son and she a widow. She writes:—

"It is all so uncalled for. I have had him under medical treatment for five months and all along urged that he have the best attention, and if his lungs were in danger I would send him away from home if necessary. I have been exceedingly anxious for four months and wanted a consultation, but my physician assured me only a few days before my son left home that there was nothing wrong with the lungs. I was so anxious, however, that I sent the sputum to the Provincial Bacteriologist the next day on my own account, with the result that my worst fears were realized."

No comment is needed. In my work I see this too frequently.

Notification of all cases of tuberculosis is necessarily a part of efficient work in the crusade, and where there is a live earnest Board of Health, which will co-operate with the physicians, no time should be lost in enforcing compulsory notification.

Local associations can do much in assisting the authorities. They can carry on an educational campaign, disseminate knowledge concerning the methods to be adopted for the prevention of tuberculosis, assist in movements for the erection and maintenance of sanatoriums, special hospitals, dispensaries, etc.

We must not forget that every measure that makes for a higher standard of living is of value in the campaign against tuberculosis. We should see that our houses, our

towns, our cities, are rendered as sanitary as possible, admitting sunshine, avoiding dust-gathering rugs and hangings, keep our streets clean, do away with the smoke nuisance, destroy unsanitary buildings, inspect our schools, workshops and factories, arrange for medical inspection of school children and of workmen in factories, especially those whose occupation predisposes to tuberculosis.

Our Federal and Provincial Governments must pay much more attention to the subject of human tuberculosis and make liberal and judicious appropriations to be expended along proper lines before much headway can be gained. Do we not feel rather ashamed that our Dominion Parliament expends yearly large sums to combat tuber-

culosis in cattle, but has no annual appropriation to combat human tuberculosis, which carries off 10,000 of our citizens each year? It spends about \$8.00 per head to bring in immigrants, but will make no expenditure to assist in stopping this large yearly migration.

Every individual, every municipality, every Province, as well as our Federal Government, has a special duty in this crusade to fight a disease which has attacked over one-half of our homes.

By increasing the efficiency of the means now at our disposal, by the introduction of such measures where now none obtain, and by earnest, active aggressive work of education, our large annual mortality should soon show a marked decrease.

“SUNSHINE IS LIFE”

THE people of Glasgow, Scotland, have a great future before them. They are going to become “smiling, sober and polite.” If we may be permitted to lay stress on these good qualities we would particularly emphasize the need for the second one; and we might add that it is likely to increase rather than diminish their portly fund of pawky wit. Mark Twain, they say, looks very sober when he is bubbling over with richest humor. It would be delightful, though seriously overwhelming, to pay a friendly visit to over half a million real humorists when the mists have died away. But what is going to bring about this solemn revolution? We have already hinted at the cause, but let the Glasgow people, like good cheeses, speak for themselves.

“There was a time, not so long ago, when the superiority of town over country in regard to warmth and dryness underfoot was more than balanced by the smoke-clouds which hung over great centres of habitation, poisoning the atmosphere and inducing terrible fogs. Now, with no wish to be over-sanguine, it does seem to us that fogs are becoming a little scarcer, and less

appalling, than they were. . . . True, we are not yet rid of the ‘Fog Fiend’; perhaps we shall never be entirely rid of him, and in any case, we have still a long way to go and much to do before we reach the limit of purification. It will not be in this generation that we shall attain to the atmospheric condition of anthracite-burning New York, of which, says a recent traveller, the outstanding feature to one approaching up the harbour is the white jets of steam shooting up in the clear air. When, however, we do succeed in banishing the smoke, which is one of our worst enemies to-day, it is certain that we shall have improved our climate both directly and indirectly. For one thing, we shall have much more sunshine, and, in advertising phraseology, sunshine is life. That suggests another interesting inquiry—namely, whether our improved climate will improve our manners and morals. It ought to if the improvement is reasonably appreciable. It is a mere common-place that good weather induces in most people an increased cheerfulness, and cheerfulness induces a kindly feeling towards others, which is the basis of good manners. Again if there is no excuse for drunkenness on a dismal, wet or foggy day, there is less on a day of bright sunshine. But we must pause; these visions of Glasgow’s happy multitudes, smiling, sober and polite, are becoming too dazzling.”

MUSKOKA IN THE FRONT

DR. GUY HINSDALE, of Hot Springs, Va., Secretary of the American Climatological Association, recently read a paper on “Some aids in Teaching Climatology and Climatotherapy,” which is being largely circulated among the medical schools of the country. In his classification of health resorts on this continent, he places Gravenhurst first for

pulmonary tuberculosis; the highlands of Ontario, in which he includes the Muskoka Lakes, the Lake of Bays, the Magnetawan District, Penetang, Midland, Georgian Bay and Kawartha Lakes, first for hay fever; whilst Muskoka and the Georgian Bay districts are given an important climatological place for the treatment of chronic malarial affections.

CANADIAN OUT-DOOR LIFE.

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TORONTO, CAN.

GOVERNMENT HELP FOR NEEDY CONSUMPTIVES

A DEPUTATION of the trustees of the National Sanitarium Association and the Toronto Free Hospital for Consumptives waited on the Ontario Government on 19th inst., each asking for a grant of \$25,000 towards their respective institution. The deputation included Mr. W. J. Gage (Chairman of both Boards of Trustees), Hon. W. A. Charlton, H. C. Hammond, Esq., J. L. Hughes, Esq., Ambrose Kent, Esq., R. H. Davies, Esq., J. J. Crabbe, Esq., W. Loyd Wood, Esq., Dr. N. A. Powell, Dr. W. J. Dobbie (Physician-in-Chief, Toronto Free Hospital for Consumptives) and J. S. Robertson, Secretary of the two Associations. The Hon. W. J. Hanna, Provincial Secretary, under whose department the hospitals and charities of the province are administered, received the deputation. Mr. W. J. Gage presented the claims of the Muskoka Free Hospital, and Hon. W. A. Charlton, Vice-Chairman, and Mr. H. C. Hammond, Treasurer, those of the Toronto Free Hospital.

It was clearly pointed out that these hospitals are practically caring for the consumptives of the entire province.

An important point brought out in the conference was the fact that these institutions have constantly in residence patients who had been inmates of various public

institutions of the province, because they had been taken ill with tuberculosis. To illustrate:—Two prisoners from Kingston Penitentiary, one from the Central Prison, one from Mimico Industrial School, one from the Girls' Home, one from the St. Vincent de Paul Society, one from the Annie MacPherson Home, Stratford; emigrant boy from Marchmont Home, Belleville; one from House of Refuge, Whitby; one from House of Refuge, Cobourg; one from Institute for Blind, are, among those who have been treated for tuberculosis in either the Muskoka or Toronto Free Hospital for Consumptives.

Whether a prisoner at Kingston or at the Central, a resident of the Provincial Institute for the Blind, or an inmate of one or other of the houses of refuge throughout the country, when taken down with tuberculosis, it is at once recognized that such are a source of infection and danger to all others in prison or elsewhere.

These applicants are always promptly accepted by the management, and hitherto a charge on the province, their cost of maintenance is thereafter borne by these institutions, which depend almost altogether on the charity of the public for their income. Surely for this reason, as well as others, their claim for provincial aid is a strong one.

Our Schools and the White Plague

SOME years ago the Department of Public Instruction for the Province of Quebec issued a pamphlet on the subject of tuberculosis. It contained the findings of the Berlin Congress on the subjects, some extracts of which we publish below.

The step is one suggestive to other educational bodies. In a former issue of CANADIAN OUT-DOOR LIFE we pointed out what was being done by the Montreal Anti-Tuberculosis League in bringing this subject before the schools of that city through the offering of prizes for essays on the question.

Ontario would seem to be rather behind the sister province in this matter. The Educational Department might with profit to the health of the Province take some practical steps to have this subject brought under the notice of the teachers, and, through them, the scholars of the Province.

The subject of the Berlin Congress was considered under four heads—

1. Dissemination of tuberculosis.
2. Its cause.
3. Its prevention.
4. Its treatment.

The disease is most readily disseminated among people, who live in crowded centres, poorly ventilated rooms, whose occupation is sedentary and who are exposed to irritating dust entering the lungs. All these causes are made more effective by reduced vitality on the part of the person exposed.

"The tubercle bacillus," says the report, "is the direct cause of all varieties of consumption in the human subject." The tubercle bacilli are parasites, which flourish in living animal tissue, but they soon lose their virulence outside the animal organism.

"From the *pus* of the diseased part comes all the infection. In the *pus* of the tuberculous sore, in the sputum of the diseased lung, in meat and milk, if infected, it is the tubercle bacilli, which convey the disease. Every human being infected with tuberculosis and every infected animal are centres from which the disease spreads.

In spite, however, of the number of sources of their origin and the immense production of tubercle bacilli, they are found principally in the surroundings of consumptive patients, where their production is enormous. If, however, the patient be removed the infection to a great extent ceases, *for the bacilli have but little vitality outside the living organism. Direct sunlight, putrefaction and desiccation soon destroy them.*

Hereditary tuberculosis is very rare. Experiments have shown that it occurred in about one case in sixty.

The prevention of the spreading of the disease depends almost wholly on the care that is taken by those afflicted in destroying the sputum of the diseased lungs. If this

were done there would be little chance of further infection. People should be instructed in regard to the danger of carelessly spitting the excreta of the sick lungs, where it may reach the lungs of others, it should be destroyed by disinfection, or put into small paper spittoons, the whole box and its contents being burned.

The report further recommends that parents should be taught "that the disease was acquired in the young people *by breathing the germs.*" Every care should be taken to keep children free from infection, and also to see that they were well fed, live as much out-doors as possible and have such extra nourishment as may be necessary to strengthen their tissues and make them able to resist the disease.

Commenting on this subject the *Educational Record*, of Quebec, says:

"Thus far the information deals with the cause of consumption, the manner of infection and how to prevent its spreading and is of much value to the sensible teacher and her pupils. Are not many of our schools *crowded centres*, with *chalk dust-laden atmosphere*, to which is often added the filthy dust of the school-room floor, when it is swept at noon by the pupils in turn? Moreover, is not the occupation of the school-room *sedentary* for both teacher and pupils and is not the atmosphere of the room both *diluted* and *polluted*? These four conditions constitute the *favourable circumstances!* required to make a *consumptive hot-bed*. All that is further required is the importation of a few germs of the tubercle bacilli. These are frequently found in some of the homes of the pupils, and their importation to the school-room is only a matter of time.

"It is a sad truth that the provisions for ventilation of many of our public schools favour the disease, but no wide-awake, sensible teacher will sit still and perish without doing all she can to save her own health and that of her pupils.

"*First*—Let the floors be swept after school each day with a damp broom. When this is being done the windows or ventilators should be open to allow fresh air to enter and the foul, dust-laden air to go out. Next morning the blackboards should be cleaned with a damp cloth and the furniture dusted with a soft cloth moist with coal-oil. If the floors are cleaned regularly, or even every two months in winter, the best results will accrue to the school in health and cheer and wide-awake pupils.

"*Second*—The crowded condition can be somewhat overcome by combatting its effects by ventilation. To do so, where the door and windows are the only means, it is well to give the pupils some vigorous exercise, in which all must join, thus preventing the quieter pupils from remaining motionless

aside and catching cold. In this manner the *sedentary* fault is overcome as well as the *crowded* condition and the few minutes used for this purpose are soon made up by the renewed hope and fresh vigor of the brightened pupils, whose teacher is more valuable to them than rubies.

Moreover, if the teacher so conduct her school she will find a brighter class of pupils, less irritation, better lessons, no need for "keeping in" after school and long hours in a foul atmosphere. Let us arouse, be watchful and strenuous in the conflict for better things and a fair share of reward shall be ours.

The Passing Milkmaid

THE most romantic feature of farm life bids fair soon to disappear. An edict has gone forth that the milkmaid must go. She may be pretty and pleasing, but she is not scientific.

The milking machine has arrived to take the milkmaid's place. Sometimes it is run by electricity, with the help of a storage-battery. Simple of construction, it is nothing more than an ingeniously-contrived pump, with which are connected a number of rubber tubes. When the tubes are adjusted, the requisite suction is produced by the pump, and the milk flows into the pail.

By the help of such machines, a whole stableful of cows can be milked simultaneously and expeditiously, at less cost. Milkmaids must be fed, and, as a rule, have large appetites; they are never cheap. On the other hand, the mechanical substitute does the work quite as well and demands neither wages nor board. If preferred, it may be run by a gasoline or an alcohol engine at trifling expense.

It is not economy, but the microbe question that is back of this reform. Milk is a natural "culture medium," and within half a dozen hours after it comes from the cow an average sample of it will contain about 10,000,000 bacteria to the quarter-teaspoonful. This is considered not an excessive allowance. Most of the germs are harmless, but some may be dangerous, and, this fact being realized, great efforts are at present being made to reduce as far as possible their rate of breeding.

The electric, or gasoline, milkmaid is merely the newest expedient adopted for the purpose. Inasmuch as the milk comes from the cow almost, if not quite, germ-free, and passes directly from the udder through a sterilized tube, without coming into contact with human hands, it must reach the pail (which likewise has been sterilized) in a condition practically devoid of microbes. If, thereupon, it is transferred to sterilized glass bottles and sealed in them, it must reach the consumer in a state beyond reasonable criticism.

An "Open-Air" Parliament in Switzerland

NO more interesting sight could be imagined than the scene in the quaint old market square opposite the ancient Rathaus. First of all his faithful followers wait upon the President, with other members of the government, and escort them from the Rathaus to the platform of the big square which has been erected the previous day.

In front of this the thousands of burghers stand bareheaded in the sunlight as the venerable President opens the parliament with a prayer and a modest speech. The men assembled before him take an oath to vote according to conscience, "for the good of the land and the avoidance of all evil."

Next a list of candidates for the cantonal government is handed up to the platform, and the members of the new body are elected simply by a show of hands. The old President reads out each name and the question of "Aye?" is put to the people, much as Moses

himself must have done in ancient Biblical days.

Up go the hands of those who are in favor of the candidate. Then "Nay" is called, and hands go up also. Of course, the majority decides. And in this simple way is this law-abiding and prosperous community ruled. Then follow various discussions about roads, laws, and new regulations,—all of which matters have been freely discussed in the little local journals for weeks before the parliament met.

The foreign onlooker is amazed at the peaceful and dignified procedure throughout. Of excitement or unseemly fighting or insults there is absolutely none. Every phase of the work in hand is conducted with quiet self-possession that many a magnificent senate might envy.—From "The 'Open-Air Parliaments' of Switzerland," by W. G. Fitzgerald, in the *American Monthly Review of Reviews* for February.

The Curability of Tuberculosis

By W. J. DOBBIE, M.A., M.D.C.M., Physician-in-Charge of the Toronto Free Hospital for Consumptives.

TUBERCULOSIS is both communicable and preventable. Let it be known equally well that it is also curable. Of this there is an abundance of adequate proof, and yet it is not easy to present in a concise form the grounds upon which is based this now almost universally accepted belief. Formerly tuberculosis was thought to be an absolutely incurable disease. Some there are still who are firmly of that opinion. Others again, while admitting the possibility of a more or less temporary improvement, do not believe that anything like an absolute cure is ever possible.

It is true that the proportion of absolute cures obtained is not as yet large, and that much depends on the progress made by the disease before the patient is subjected to treatment. For, as in any other disease, it would be unreasonable to expect as good results from cases which are advanced as from cases which are but in the early stages. These considerations, however, are only such as would be taken into account in the case of any other disease. The proofs available are of different kinds and come from various sources.

The most distinguished pathologists in the world have made known the conditions found at many of their autopsies. Observations have been made by them in cases in which tuberculosis has been the cause of death, and in cases in which death has been brought about by some other disease or condition. In the latter cases, in which tuberculosis was never thought of as a cause of death, healed tubercular lesions have been found in the lungs. This did not happen in one or two isolated cases in which it might have been possible to suspect some misconception or mistake in observation, but forty to fifty per cent of such cases were found to have had at some time tuberculosis, and, as demonstrated beyond doubt after death, the disease had been cured. Other cases, moreover, in which tuberculosis was known to have been an active disease some years before death, but in which death had been caused by some other disease or condition after the tuberculosis had been apparently cured, were examined in like manner. In these also healed lesions were found in the lungs. Such proofs as these furnished by post-mortem examination are most convincing, although when Brehmer attempted to apply such post-mortem findings to practice, and to accomplish similar artificial cures by treatment, he met with considerable opposition.

Equally convincing, however, are proofs of a different nature which are also available. The results published from

time to time by the different sanatoria cannot but be accepted as fairly reliable data. Such institutions are as a rule in charge of men who are specialists in their particular line, and in the cases quoted in their statistics, the disease had been recognised beyond the shadow of a doubt. This is a very important point to make because it is a common habit of those who are inclined to be sceptical to say, when instances of cures are quoted, "oh, they never had it." As a matter of fact, the rule is for the case to be diagnosed by the family physician or a consultant before the patient enters the sanatorium at all. And furthermore, if there could be any such chance of error, the results would not be, as they are, accepted by the most progressive medical men of the day.

It is quite impossible to give summaries of statistics from any but a few of the numerous sanatoria now in existence. Similar results are, however, being obtained everywhere and the statistics of one institution do not vary very materially from those of another.

Dr. Brehmer, one of the pioneers of the open air treatment, established his sanatorium in Goerbersdorf in 1859. This institution has now 250 beds, and as the result of investigation in over 5000 cases, Dr. Brehmer gives the following statistics as to the number that have been cured:—

Incipient Cases (early)	59%	cured
Moderately Adv. Cases	21%	"
Far Advanced Cases	3%	"

The German Imperial Health Office analyzes the results of treatment in 6,273 cases treated in sanatoria in the years 1899 and 1900 with the following results: In the opinion of the sanatorium physicians 87.7 per cent. were cured or improved, of whom 67.3 per cent. were regarded as sufficiently well to resume work at their former occupation.

Dr. Burton Fanning reports on 716 cases collected from various sanatoria in England, Scotland, and Ireland. Quiescence of the disease or relative recovery was obtained in 37.4 per cent. of cases; amelioration in 40.2 per cent.; no improvement in 22.3 per cent., and this in spite of the fact that only 52 of those cases or 7.4 per cent. could be described as "cases of slight lung mischief."

The second annual report of the Henry Phipps Institute for the Study, Treatment and Prevention of Tuberculosis, in Philadelphia, shows that of 2,344 cases treated in two years, there were 9 cases of disease arrested, 810 improved, 768 unimproved, 528 cases in which results were not recorded, and 229 dead. These cases were, as the

report says, "with few exceptions advanced cases. Most of them were taken into the hospital because they were reported to the Institute as dying cases. Nearly one-half of those admitted were discharged as improved."

The ninth annual report of the Massachusetts State Sanatorium, at Rutland, Mass., shows that of 566 cases taken into con-

sideration during the year only 7.4 per cent. did not improve, 53.9 per cent. improved, and 33.7 per cent. were arrested or apparently cured.

Similar results have been obtained in Canada. At the Muskoka Cottage Sanatorium 1,287 patients have been treated and the results of the various years, estimated in percentages, are as follows:—

CLASSIFICATION OF PATIENTS DISCHARGED FROM THE M. C. S. DURING NINE YEARS

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th
Apparently Cured	15%	24.2%	19.5%	15.1%	27.5%	20.9%	21.4%	8.5%	18.8%
Disease Arrested	28	34.5	34.4	28.3	44.2	35.6	34.3	27.2	29.0
Much Improved	35	16.2	23.6	26.3	14.5	26.1	30.0	38.0	31.2
Stationary	13	16.2	11.4	20.2	7.9	14.8	8.4	21.7	15.9
Failed	6	6.9	12.3	8.1	3.9	2.6	3.7	3.8	3.0
Died	3	2.3	.8	1.0	2.0	0.0	2.2	.8	2.1

And in connection with the above the Physician-in-Charge says:—

"That we can report 19% apparently cured and 29% with disease arrested, when our admission table shows only 16% with incipient disease and 40% with moderately advanced disease, is most satisfactory; this, too, in face of the fact, that only a small proportion of patients are willing or able to remain under treatment a sufficient length of time."

Such results might be considered however, to be merely temporary. To offset this, the subsequent history of a patient is the crucial test, and in this connection certain statistics are of interest. At Rutland, of 2,200 patients healed there were:

- 1,179 able to work,
- 34 not able to work,
- 377 from whom there was no reply to letter,
- 49 of whom no trace could be found, and
- 561 who had died.

While of 989, who had been discharged as arrested and apparently cured, there were:

- 743 able to work,
- 14 not able to work,
- 139 from whom there was no reply to letter,
- 19 of whom no trace could be found, and
- 74 who had died.

In Canada, results are equally good. Quoting from the eighth annual report of the Muskoka Cottage Sanatorium, "of the first 92 cases discharged apparently cured, whom we have been able to trace, 5 have died of other disease, 13 have relapsed, of whom 5 have died, and 74 or 80 per cent. remain well. Only 5 per cent. have relapsed and died. Of 163 arrested cases who have reported, 92 or 56 per cent. are as well as on discharge after five and one-half years."

More details are furnished by the following tables of the present condition of apparently cured and arrested cases, discharged

August, 1897 to September, 1902, the average time since discharge being six and one-half years.

APPARENTLY CURED CASES

Year	No.	Not heard from	No. Reporting	Well	Disease again active	Died of Pulmonary Disease	Died of other Diseases
1897-8	12	2	10	10	0	0	0
1898-99	21	1	20	18	1	1	0
1899-00	24	2	22	15	3	3	1
1900-01	15	2	13	11	0	2	0
1901-02	27	0	27	17	4	2	4
	99	7	92	71	8	8	5

"This table shows that of the first 92 cases discharged as apparently cured, whom we have been able to trace, 5 have died of other disease, 16 have relapsed, of whom 8 have died, and 71 or 77 per cent. remain well. Only 9 per cent. have relapsed or died."

ARRESTED CASES

Year	No.	Not heard from	No. Reporting	Well	Disease again active	Died of Pulmonary Disease
1897-8	23	3	20	13	6	1
1898-9	32	0	32	14	18	0
1899-00	40	2	38	17	21	0
1900-01	29	1	28	14	14	0
1901-02	45	3	41	21	16	4
	169	10	159	79	75	5

"This table shows that of 159 arrested cases who have reported, 79 or 50 per cent. are as well as on discharge six and one-half years ago." Such figures need no comment. The story they tell speaks for itself. These are the facts. Various interpretations may of course be made of them. The consensus of medical opinion is however that they represent in a fairly accurate way what is to be believed.

The opinions of eminent authorities agree in like manner. Notwithstanding the fact

that the term "cure" is a more or less elastic one on account of the personal equation and other factors which enter into the various estimates of results obtained, there is no reason to suppose that this is the case to any greater extent in tuberculosis than in any other disease. The fact remains that the curability of tuberculosis is a part of the common knowledge of the most prominent physicians of the day, and in this connection a few opinions may be quoted:—

Dr. G. Cornet, of Berlin, says:—"Of the possibility of a cure there can be no doubt."

Dr. Osler says, in connection with the subject of Tuberculosis:—"Not all persons in whose bodies the bacilli gain a foothold present marked signs of tuberculosis. Infection does not necessarily mean the establishment of a progressive and fatal disease. In my autopsies, excluding cases dead of pulmonary phthisis, 7.5 per cent. presented tuberculous lesions of the lungs—a low percentage in comparison with the records.

"In many cases a natural or spontaneous cure is effected, for the conditions favorable to the development of the disease are not present—in other words the tissue-soil is unfavorable. Apart from this group, a

majority of which probably do not show any sign of disease, there may be spontaneous arrest after the symptoms have become decided."

Dr. Lawrence F. Flick, Medical Director of the Henry Phipps Institute, says, in the report referred to elsewhere:—"Tuberculosis is quite amenable to treatment. Nearly all cases can be benefitted for a time, at least, and many can be cured. The curability of the disease depends upon the stage and somewhat on the chronicity. Even advanced cases, however, often can be benefitted. It is indeed remarkable how much even the most advanced cases improve for a time when put at rest in the open air and properly fed."

Similar statements from other authorities of recognized standing might be given in great number. Suffice it to say, that while it is the hope and expectation of the medical profession that further advances in medical science may, in the near future, discover improved methods of treatment for this most common disease, that hope and expectation but serves to emphasize the belief now held that, as it is communicable and preventable, so also is it curable.

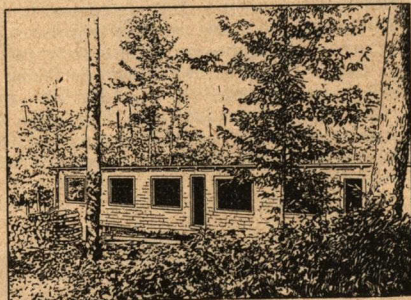
SANATORIA NOTES

The Manitoba government have agreed to grant to the trustees of the proposed Manitoba Sanatorium the sum of \$25,000, when the Association shall have raised \$50,000.

At the Muskoka Cottage Sanatorium seventy patients are in residence, representing almost every province in the Dominion, and not a few from different parts of the United States.

The new buildings being erected on the property of the Toronto Free Hospital for Consumptives, and which will constitute a new sanatorium for pay patients in the advanced stages of the disease, are being well pushed forward to completion.

In the Nova Scotia Provincial Sanatorium, at Kentville, there is a uniform charge of five dollars per week, this being less than one-half the expense to the government. A similar rule is followed in the State Sanatorium at Rutland, Mass., and again in the more recently erected New York State Sanatorium at Ray Brook, in the Adirondacks, N. Y. This is different to the practice of the Muskoka Free Hospital for Consumptives and the Toronto Free Hospital for Consumptives, where it can be said that no applicant has ever been refused admission because of his or her inability to pay. The trustees carry the large deficit on maintenance account, trusting to a philanthropic public to cover the amount.



VIEW OF HENNERY AT THE MUSKOKA FREE HOSPITAL FOR CONSUMPTIVES

"I shall pass through this world but once. Any good thing, therefore, that I can do, or any kindness that I can show to any human being, LET ME DO IT NOW. LET ME NOT DEFER IT OR NEGLECT IT, FOR I SHALL NOT PASS THIS WAY AGAIN."

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LITERARY NOTES

GEORGE Kennan who won his spurs by his remarkable series on Siberia and Russia's Exile System has been added to McClure's staff. The results of his recent investigations and work will appear at an early date.

* *

The *American Monthly Review of Reviews* presents an attractive table of contents for February. Some interesting features include an article on James Bryce, British Ambassador, by W. T. Stead, with portraits; The civilizing work of Modern Christian Missions, by Cyrus C. Adams; Swiss "Open Air" Parliaments, with illustrations, and the Longfellow Centenary, with portraits and other illustrations.

* *

In the acquisition of *Recreation* and the publication of that paper with *The Illustrated Outdoor News* under the title of the former, several objects were sought by the publishers. First of all, the broader title, *Recreation* has been retained, not only because of the greater age of the publication which had borne this name, but because it has been felt that it more nearly represented the sphere and purposes of the new publication than *The Illustrated Outdoor News* or any other name possibly could. The new magazine will be broader than *Recreation* has ever been, but will retain many of the characteristics and best features of this publication.

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