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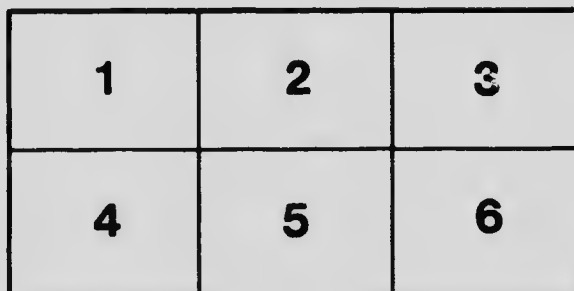
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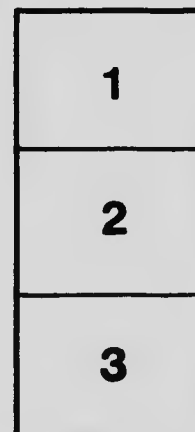
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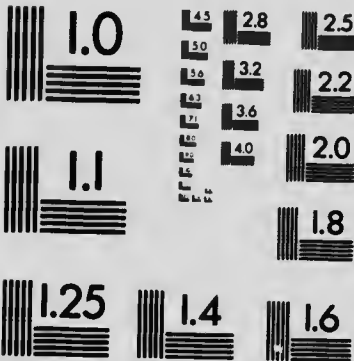
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*Le devant l'Association pour la prevention*

ESSENTIAL MEASURES OF PROPHYLAXIS AGAINST  
TUBERCULOSIS.

BY L. LABERGE, M.D.  
*Medical Health Officer, Montreal.*

Mr. Chairman, Ladies and Gentlemen:—

It is with no little diffidence that I present myself here to-night to offer a few remarks on some essential measures of prophylaxis against tuberculosis. I am laboring under two great difficulties. The subject is such an extensive one and one which has been so often lectured and written on that it is almost impossible not to repeat what has already been said and thus fall into plagiarisms. Perhaps it is just as well, however, to repeat certain things no matter how often nor how well they may have been said before, so that they may become engraved in the memory of every one and bear good fruit thereby.

My second great difficulty lies in my imperfect knowledge of the English language, but on this point I shall throw myself on the good will and generosity of my audience, who I am sure will kindly overlook any of my short-comings.

I will begin my remarks by examining whether in the Dominion of Canada this scourge of society, by its prevalence and fatality does not seriously affect the development of our population; whether in the vast extent of our territory tuberculosis maintains the deadly reputation it has very justly acquired in nearly every country of the civilized world where it has commonly been called "The most deadly of all the diseases to which the human race is subject," and is held to be alone more fatal than small-pox, cholera, diphtheria, scarlatina, measles and typhoid fever put together. In fact it is declared and is even shown by very conservative statistics to be the cause of at least a fifth of the general mortality.

It is difficult to arrive at anything like precise figures even by vital statistics. The changes in the nosological classification of Sir William Farr modified by Dr. Jacques Bertillon of the Paris Demographical Bureau and the transition between the two systems are of too recent a date to permit us to arrive at any conclusion based strictly on figures.

The older classification accepted consumption as a constitutional disease and it alone represented tuberculosis. The euphemism "Chronic Bronchitis" may have been used by those not desiring to employ the term "Consumption" in connection with their patient.

But since the adoption of the newer classification, all diseases related to tuberculosis, such as: lupus, coxalgia, white swelling, Pott's disease, meningitis, tabes mesenterica, etc., are grouped together.

According to a calculation which has been prepared by our city statistician concerning the total mortality by pulmonary tuberculosis or consumption (the only form of tuberculosis mentioned) in the City of Montreal during the last thirty years, from January, 1878, to January, 1908, there were 16,256 deaths from this disease, a relatively high figure. Dividing this into decades we find in the first one from 1878 to 1888 a proportion of 27.9 deaths from tuberculosis per 10,000 of the population. In the second decade from 1888 to 1898 the rate was 24.6 per 10,000, and the third decade 1898 to the present year, 20.5 per 10,000, showing a diminution of a little over 7 per 10,000 of the population in the three decades. The annual maximum was 30.7 per 10,000 in 1880 and the annual minimum 18.0 per 10,000 in 1904.

I have some figures here from the Provinces of Ontario, of Nova Scotia and of Quebec, but it would take too long to read them and they are not detailed enough to enable us to make any practical comparisons.

As to the mortality from this cause throughout the whole Dominion we have the statement of our friend, Dr. Richer, placing it at 8,000 per annum which, calculated on the population of our last census 5,371,315, would give us a rate of 14.8 per 10,000.

Concerning the number of cases of tuberculosis existing in Montreal, we have no information, attention having been given to the prevalence of these cases only since the foundation of our League, and its experience has been too limited to permit of our making any comparisons. Despite the reputation for health-

fulness of our climate it must be admitted that the length and severity of our winters, especially the sudden variations of temperature, variations ranging at times from 30 to 40 degrees in twenty-four hours, are liable to cause, particularly among the poor, disease of the throat and lungs and other affections, which when once established in a chronic form in the individual present conditions very inviting to tubercular infection. We can readily understand the effects of such variations of temperature during a severe winter on a lowered physiological condition among the very poor with scanty food, little or no fire in their homes and thin clothes to protect them abroad, and how easy it is under such conditions for them to contract chest affections which expose them to the ravages of tuberculosis.

Considering these unfavorable factors I think we are justified in saying that while Canada certainly does not offer a more favorable field for this disease than other countries, we must keep strictly in mind that poverty in our climate, from the point of view of public health, is a grave problem and deserves the serious attention of the authorities.

It is admitted by every professional man to-day that tuberculosis is contagious in an eminent degree, so it is not necessary for me to bring up any arguments on that point. It is more important to state what the sources of infection are, how the virus may be taken into the body and what precautions should be taken to prevent its ingress. The infection enters the body chiefly in three ways; through the respiratory tract, the digestive tract, and by direct inoculation, this last being rather rare and accidental.

The contagiousness of tuberculosis had long been suspected even by Aristotle and Galen, but it was scientifically proved to be so in 1865 by Dr. Villemin who was the first to tuberculise animals by causing them to live in an atmosphere saturated with the dust of dried tuberculous sputa. In 1882 Professor Koch bestowed a boon on humanity by his discovery of the tuberculous bacillus, thus setting aside all doubt as to the specific cause of tuberculosis in all its forms. To contract tuberculosis two things are essential, Koch's bacillus or the SEED and an

organism susceptible to its development or the soil. The whole problem, therefore, consists in destroying the seed and in sterilizing the soil. The bacillus of tuberculosis is to be found chiefly in the sputa of consumptives in the advanced stages of the disease, and it is on these sputa that incessant war should be waged. The danger is at a minimum as long as the sputum is in a liquid or moist state, though, as was pointed out in 1885 by the late Professor Pfister of the Montreal Polytechnic School, there is danger from flies and other insects lighting on the moist sputa and carrying the contagion around on their feet or suckers. When the sputum dries it becomes ground up into dust, floats in the air and enters the body through the respiratory organs, and meeting with suitable conditions within the body, becomes the most common and most dangerous of all sources of infection.

This poisonous dust may settle on the clothes, on the hair and fur of dogs and other animals, or may be gathered up by the trailing of dresses of women, and is thus carried into homes where it does not fail to find suitable soil for its growth and development. This same dust may also be blown into open milk cans and bread wagons, into butcher shops, into fruit and vegetable stores and settle on articles of food, and in a thousand other ways find its resting place at last in the human organism.

Ordinances and by-laws against spitting on floors and sidewalks are easily formulated, but the proper carrying out of these ordinances is the difficult part, and here proper training and persuasion will do more than legislation. The consumptive himself must be taught and impressed with the fact that he is a danger to those around him on the same degree that he neglects this precaution in regard to his expectoration.

It must be thoroughly understood and firmly taught that when once consumptives are prevented from expectorating about indiscriminately, one of the greatest, if not the very greatest, cause of the spread of tuberculosis shall have been eliminated.

Tuberculosis infection through the digestive system, though less frequent than through the respiratory, is nevertheless common enough to deserve the most serious attention. The



infection may occur in two ways: the food itself may come from a tuberculed animal, or it may have been contaminated by contact with such animals, or subjected to bacillus-laden dust from sidewalks and streets by being exposed at shop doors or windows, etc.

A person may contaminate himself by neglecting the most obvious rules of cleanliness, as in carrying food to his mouth with unwashed hands which have been in contact with tuberculed dust or other infected medium.

To obviate any possibility of contagion from infected meat it is of primary importance to insist on the necessity of having the inspection of meat made UNIFORM, OBLIGATORY and GENERAL, without distinctions as to whence it comes or where its destination may be, and it should not be offered for sale without being officially stamped to show that it has been declared sound after careful inspection by a competent officer.

As to milk, the indispensable food of children and of the sick, its inspection cannot be too severe and should extend to the milk cows themselves and to the stables and dairies. The animals should be submitted to the tuberculine test. The preservation, transportation and distribution of the milk should also be supervised as well as the cleanliness of those who do the milking and of the vessels used. Even the health of the milkmen and that of their families and employees should be looked after.

To make assurance doubly sure that no tuberculous contamination can enter the system through the alimentary tract it is recommended to use no meat that has not been thoroughly cooked, and milk should be pasteurized or even sterilized. It is almost superfluous to state that the hands should be carefully washed before eating, and as the finger nails are notorious receptacles for germs of all sorts these should be kept well scrubbed.

To combat the general ignorance which prevails as to the precautions to be taken to avoid consumption and to proclaim the great necessity of proper treatment of the disease at its very onset, are of primary importance, not only for its prevention

but for its cure, as the statistics of sanatoria tell us that 59 per cent. of the patients are cured when the disease is treated at its inception, whereas only three per cent. are cured in the more advanced stages. Here we are met by a prejudice which should be combated; I refer to the dread of the word "Consumption," a term which conveys a feeling of terror to the patient, his relatives and friends. It is conceivable that with the older ideas of the heredity and incurability of consumption, it was, to a certain extent, important to conceal from the patient his actual condition in as much as he was considered irredeemably doomed, and it would be cruel to take from him all hope of life, by making known to him the terrible nature of his disease, just as in some countries a criminal condemned to death is kept in ignorance of the day of his execution in order to give him at least a hope for life. But with the modern idea that tuberculosis is both a preventable and a curable disease, such fear is unnecessary. It were better to do away with this prejudice on the part of relatives and others, and the victims should not be encouraged in their belief that they have not the disease, thus exposing them to neglect the means of preventing its dissemination, and aiding its further development. Such ignorance and neglect expose them also to the great danger of auto-intoxication, which greatly accelerates the progress of the disease and opens the gates of the tomb for them all the quicker. As soon as we are convinced of the necessity for letting the victim of tuberculosis know the truth of his condition, instead of allowing him to labor under any illusion as to his health, he should be induced to enter a sanatorium, or if unable to do so to follow some special dispensary. This is of the greatest importance, both in his own interests by enabling him to profit by the scientific treatment afforded in such institutions, and in the interests of his family and neighbours who are exposed to infection through him.

It also offers to him the incalculable advantage of proper treatment in the initial stages of the disease before the tubercles have broken down.

And here let me draw your attention to the great necessity that exists for the early reporting of all cases of tuberculosis. Whether the reporting be voluntary or compulsory, it is of the

utmost importance not only to the individual, but to the community in general. The reporting, isolation, and immunising of cases and the disinfection of houses are prescribed for the prevention of other epidemics, and there is no valid reason why these measures should not be put in practice in the case of tuberculosis. On the other hand if society demands this sacrifice on behalf of public and private interests it should be clearly understood that the object of such reporting is to enable us to give such care and treatment as are required in each case, that is to say, to treat it at home through the medium of suitable dispensaries, or remove it to a sanatorium, and in the case of a pronounced incurable, to have it transferred to a specially equipped institution where a quiet existence may be passed without danger to society. There is no doubt that in the past when tuberculosis was considered inevitably fatal, the reporting of the case would have been of doubtful utility; to-day, however, it is different and the carrying out of this rule, by enabling the authorities to adopt measures for the isolation of the patient and the disinfection of his home, renders an inestimable service to humanity. Where is the patient, physician or citizen who would hesitate to comply with this law when it is demonstrated to him that his own interests as well as those of society in general are safeguarded by his compliance? Whether the reporting is done voluntarily or by compulsion, matters little, provided it is done, and in this connection permit me to state that in this as in all other public health measures, my experience of a quarter of a century as medical officer of health, has taught me that however necessary legislation on these matters may be, there is something higher even than the law, and that is education. The great mass of the public must be educated up to that point of understanding a law and appreciating its value and utility. When that has been reached there will be no difficulty in its application. How to make this education as general as possible for all classes of society is a subject beyond the province of hygiene properly so called, but instruction in matters of health should be upon every programme of public instruction and be obligatory; and it would be important to have a special paragraph teaching that tuberculosis is not such a terrible evil if measures for its prevention and cure are taken in time. From

this point of view, that is to say of applied public hygiene, sanatoria and dispensaries give this practical instruction very fully, and every patient coming out of them is a devoted disciple of their teachings.

There is a large class of consumptives, those in the very early stage, in whose case it is very difficult to apply any strict rule of isolation, for the contagion is, so to speak, locked up in their own bodies and dangerous to themselves alone.

It is of the greatest importance, however, to hunt these up and to tender them all possible chances of cure. These chances, as every one knows, consist in pure air, nutritious food and rest under the supervision of competent experts, and it is here that the creation and multiplication of popular sanatoria and dispensaries for the treatment of the poor are necessary.

The best and most efficacious method public hygiene has discovered for preventing the spread of epidemic diseases, whether exotic or endemic, is the isolation of those attacked. Isolation strictly enforced is certain to prevent any dissemination of contagious germs which in default of fresh pastures to feed on, inevitably perish of inanition. In older times a sanitary cordon was drawn around infected areas, but to-day special hospitals are preferred and every Board of Health has its isolation wards for small-pox and fever hospitals for other contagious diseases.

The many varieties of tuberculosis, the slowness and insidiousness of its development are among the causes that render the isolation of its victims more difficult and give rise to many perplexing problems. The isolation of all consumptives is impossible, especially in the initial stages before the breaking down of the tubercles, the disease is not transmissible and is dangerous only to the victim and not to his entourage. Still, as I have already stated, it would be better for all concerned if, even at this stage, isolation should be adopted. In the more advanced stages of consumption or any other form of tuberculosis where there is expectoration or other discharge of bacillus-carrying matter, however, isolation is of primary importance. It is a duty we owe to society, a duty be it said in passing, too much neglected

in our provinces, to have special popular hospitals where the incurable tuberculous poor could be placed. If society has a right to hospitalize, to use a French expression, its other incurables who are not a danger to it, is it not all the more its duty to look after those who are both incurable and dangerous?

The Provinces of Ontario and Nova Scotia have in 1900 given us the best examples by their legislations in regard to Municipal Sanatoria for consumptives. This year Quebec intends to follow in the track thus laid out at the present moment, and is considering similar legislation at the instigation of the Montreal Anti-Tuberculosis League. But with these legislatures the power of erecting such buildings is optional not imperative.

Fearing that these legislative acts should remain inoperative in the various municipalities on account of local prejudice against the erection of such buildings in their midst, it was thought advisable in our province to modify the laws of Ontario and Nova Scotia and grant to municipalities the power of transferring their privileges to incorporated societies with the sanction of the Provincial Board of Health. In this way municipal councils will avoid the risk of undertaking works the ultimate cost of which would be altogether beyond their power to foresee. Aldermen would also avoid displeasing their constituents by expropriating land in their midst for the erection of edifices which are looked upon as contagion centers for the immediate neighbourhood. Next to the isolation of consumptives in the order of preventive measures comes the necessity of disinfection. It is generally accepted that the living of a consumptive in a public or private dwelling exposes those who live with him, or in the same apartments after his departure, to the risk of contracting the disease if the germs he has left behind him are not destroyed. While the patient is still in the house he should be provided with pocket or sanitary spittoons and the dust should be removed by wet sweeping instead of the dry method which only scatters the dust still more. After the removal or death of the consumptive, all the apartments, body clothes, bed clothes, linen, etc., should be thoroughly disinfected. The disinfection must be done in such a way as to ensure the complete destruction of all infectious germs, and should be undertaken by the health

authorities or under their immediate supervision. It should be done free of charge.

A wise precaution on the part of the public would be to see that every house into which families move at the usual nomadic period of the year, be cleansed, disinfected and renovated if necessary prior to its being occupied.

Another good weapon in the battle against tuberculosis consists in the medical inspection of schools. This has two advantages, it impresses on the pupils themselves the precautions they should take to prevent the spread of the disease, and the necessity of taking care of their health and of being clean in their persons. It puts the examining experts in constant contact with sickly pupils and gives them the opportunity of reiterated observations, thus enabling them to detect the first symptoms of tuberculosis and to combat it before it has reached the expectorating stage. Medical inspection in schools has given such good results that it might be advised to extend the service to the large industrial institutions and factories. The services of physicians might possibly be utilized also as means of arbitration between employers and employees in regard to the hours of labor for persons subject to tuberculosis, in the interests of public health, and by preventing overwork, in the interests of the individuals themselves.

While bending all our energies to prevent the spread of tuberculosis, we must not overlook certain causes which in a large measure tend to favor its development, and which present us with serious, if not disheartening problems to solve, but which nevertheless must be bravely faced. These two factors are alcoholism and pauperism. I am not here to give you a lecture on temperance, I only desire to draw your attention to the fact that the immoderate and continued use of liquor has a disastrous effect on the vitality. It brings on a degeneration of the stomach, liver and lungs, which is followed by a like action in the other vital organs, it gives rise, therefore, to a certain diathesis or state of the system most favorable to the infection and development of tuberculosis. The drunkard lives in a constant state of mental aberration, in which he neglects all sanitary precautions. He

is irregular in his diet, exposes himself to cold and wet, is careless about his person and in countless other ways lays himself open to become infected. It is no doubt to the physiological evils that he endures and to the susceptibilities he has acquired for himself, that the mortality from tuberculosis is so great amongst those who are connected with the liquor trade. Temperance societies aided by by-laws against the adulteration of liquor or any laws regulating or restricting its sale and its use, will help wonderfully in our fight against the white plague.

The most important cause, however, in my opinion is pauperism. Although it is an undecided question as yet, as to the elements of poverty which are its efficient causes, yet pauperism with all that it entails must be regarded as the most potent predisposing factor in the development of the disease.

Pauperism acts in various ways. It may, for example, diminish the resisting powers of the individual through overcrowding, insufficient food, absence of sunlight, ventilation and cleanliness, habitation of damp and unsanitary hovels; insufficient clothing for protection against inclement weather, increase the chances of infection, etc.

From the point of view of united effort for the suppression of tuberculosis as a social evil, two nations have distinguished themselves, and I would say have attracted the admiration of the whole world, and the success obtained by them should serve as an example for other nations that have remained inactive in this matter. The countries I allude to are England and Germany, which have, within twenty years up to 1901, succeeded in diminishing their mortality from 18 to 13.6 per 10,000 of the population in England, and from 31.1 to 22.7 per 10,000 in Germany, and without having had recourse to the same methods of action. But if the means employed to obtain this end were to a certain extent different, both were directed to attenuating the common cause of tuberculosis, and this cause was certainly pauperism and neither nations hesitated to promulgate the necessary laws, and both made the necessary sacrifices for the proper execution of these laws. Considerable financial means were found to raise the poorer classes to a point where

ease and material comfort were realized. Public health was improved and mortality from tuberculosis diminished; thus, naturally lowering the total death rate in which phthisis counted for a fifth or even a fourth.

In England the movement for house sanitation and better domestic hygiene was begun many years ago, but it can easily be seen that it is a consequence of the promulgation of the "Public Health Act of 1875." The disappearance of unhealthy houses in towns brought about the disappearance of the overcrowded back yards, lanes and alleys, and these houses were replaced by new ones built between yards and gardens in such a manner as to give air and light to the rooms and ensure the permanent aeration of the houses. Millions of pound sterling were thus spent and, as Sir R. Thorne writes, the work is not yet finished.

If, however, the death rate from phthisis has diminished in England, the mortality from abdominal tuberculosis in children under one year has increased 27 per cent. since 1850. For over 50 years the English have used every effort to make their homes, workshops and cities more healthful by destroying every chance of infection through the respiratory system, which is the chief channel for the propagation of the disease in the adult, but they have done little or nothing to prevent infection through the digestive tract, which is the commonest way of acquiring the disease in children brought up on the bottle. Sir Richard Thorne writing in 1901 does not hesitate to attribute the increase of tuberculosis in very young children to the absence of all supervision over dairies and to the want of laws forbidding the use of milk from tuberculosed cows. All those who have studied the milk question agree with this expert. Similar improvements with respect to air and lighting have been carried out in connection with large manufacturing establishments, schools, etc. The system of co-operative societies has increased the welfare of the laboring classes. They can now live in comfortable houses and enjoy better food. As to the children, their labor is subject to certain protective conditions. It must not be forgotten that in England the "poor rates" amount to no less than £24,000,000



annually, of which £12,000,000 is expended for the direct relief of the poor.

The following table showing the relation between pauperism and tuberculosis from 1855 to 1905 is particularly striking. It comprises a comparison between the three countries forming the United Kingdom. In 51 years pauperism was decreased while the mortality from phthisis decreased during the same period from 28 to 11 per 10,000 of the population. In Scotland pauperism decreased from 40 to 22 per 10,000 and phthisis from 25 to 13 per 10,000. In Ireland pauperism increased from 17 to 21 per 10,000 and phthisis also increased from 14 to 23 per 10,000. This confirms the fact observed in other countries that there is always a relation between pauperism and tuberculosis.

In Germany the fight against tuberculosis is carried on principally by means of popular sanatoria, kept up by compulsory insurance among workmen against sickness and old age in accordance with progressive legislation. The first law relating to sickness dated 15th June, 1883, came into operation in 1884, two-thirds of the expenses being paid by the workmen and one-third by the employers. On the 1st January, 1891, the infirmity and old age insurance law came into force, this insurance was paid one-third by the workman, one-third by the employers, and one-third by the Empire, and was the starting point of the creation of popular sanatoria. There were 83 such establishments in 1901, following what is termed the "hygieno-dietetic" treatment, comprising pure air, diet and rest, with the addition in some cases of other hygienic measures, with generally favorable results. Returns from these institutions show 87.7 per 100 cured or improved, 8.8 per 100 not improved, 3.1 sent out worse and 0.5 dead, with an average period of 15 weeks' treatment. The annual average number of patients is between 10,000 and 30,000. Although all these patients do not leave the sanatoria with sputa entirely free from tubercle bacilli they are all impressed with the necessity of rendering these sputa innocuous.

The annual expenses for the erection and maintenance of these sanatoria are very large, but they are held to be justified when account is taken of the influence which their results exercises

on the prosperity of the patients and their families as well as on the population as a whole, a view which is further supported by the consideration of the inestimable benefits which must accrue to the next generation.

Notwithstanding these benefits of sanatoria their most zealous champions will not contend that tuberculosis can be gotten rid of by means of these institutions alone. To effect this wholly or in greater part it would be necessary to have in addition a whole series of institutions and to promote their co-operation during many years, and amongst other measures to find a practical way of combatting pauperism. We would then achieve more happy and complete results in the suppression of tuberculosis as a social evil.

The treatment of tuberculosis as a national peril is one of the highest importance for our country and one to the promotion of which any honest citizen respectful of his duties as such should be prepared to devote the best energies of his life. Such task to be successful must be carefully planned and energetically executed.

Its scope extends far beyond the restricted spheres of our local organizations, whether municipal or provincial, it requires for its conception, initiation and direction a governing body free from local interests and prejudices having in view the health of our entire Dominion. The Federal Government as head of all our provincial and territorial administrations should take the lead in the movement to eradicate tuberculosis, following in this the practical example of England and Germany which have made this one of the planks of their imperial policy. It should help the provincial authorities to collect data for their statistics in regard to the extent of the disease, its causes and results, and aid in finding ways and means to combat it. It should enact laws suitable to meet the requirements of the situation and vote the funds necessary for the carrying out of these laws whether directed against pauperism as the chief, or any other cause which statistics might demonstrate. It should settle upon the number of sanatoria to be erected where those too poor to pay for their treatment could be placed and desig-

nate the proper localities for them. It should attend also to the establishment of homes for the incurable and those advanced cases which are incapacitated from earning their living and who are a danger to and burden on relatives and friends who, through pure charity, run great risks sooner than leave them to die on the road side.

If prisoners, lunatics and incurables are under government protection and supervision, surely those incapacitated by tuberculosis should be seen to and protected in like manner, for in all these cases it is the safety of the public which is at stake.

In the great struggle for life between society and the tubercle bacillus, it is necessary in order to fight the white plague more efficaciously and in more comprehensive and uniform manner that the leader in command of the operations should receive his mandate from a unique and centralized authority. Local sanitary organizations being isolated from each other and in comparatively small centers, have no common bond of union and action, such as the health of the population at large would require for its protection. Whether such power should be vested directly in a minister of Public Health as was suggested by the Canadian Medical Society, or in a Consulting Board of Public Hygiene, or even a Permanent Tuberculosis Commission, matters but little, provided something be done. Those who fear that the formation of such a centralized commission would be a trespass on provincial autonomy need have no such apprehension as such a body would be composed of representatives of all the provinces and of the different anti-tuberculosis leagues and such an organization would be a complement to the power the Federal Government already possesses in regard to tuberculosis in animals. As to popular sanatoria or tuberculosis farms or camps, the Federal Government would be more in a position to erect them in accordance with the needs of the population than could be done under the present system where the wealthiest provinces and cities would have them, while the poorer communities which want them the most would, owing to the prevailing poverty, have to do without them and thus suffer the most disastrous consequences on account of their impoverished condition. What is true as to the crection of

popular sanatoria for the cure of indigent patients is true also in respect to the "Homes" for incurables, and those in an advanced stage of the disease, who are wholly incapable of earning their living or attending to their wants, and who are thus a center of danger to those around them as well as to the general public. Finally, if any legislation for the regulation of pauperism, as in Great Britain and Germany is considered necessary, it is the duty of the Federal Government alone to attend to it, for it alone has the power to do so and the necessary funds at its disposal to carry out its reforms.

I will conclude by stating ONCE MORE, that all the great and most essential measures for the eradication of tuberculosis MUST be taken by the Federal Authorities and as soon as possible. Without such direct co-operation I greatly fear that purely individual effort will not accomplish very much in carrying out our motto which should be The Health of the Public in the Supreme Law. "Salus Populi Suprema Lex."

