

Wells (Fr.)

## SUGGESTIONS ON PUBLIC HEALTH WORK IN MICHIGAN.

PRESIDENTIAL ADDRESS TO THE MICHIGAN STATE BOARD OF HEALTH, LANSING,  
APRIL 9, 1897,

BY HON. FRANK WELLS, PRESIDENT

[REPRINT No. 491.]



*Gentlemen of the Michigan State Board of Health:—*

Two years ago, when I last had the honor of addressing you in compliance with the rules of this board, the State and Nation were just recovering from well-grounded fears that cholera, which had become epidemic in many parts of Europe and had menaced us with its horrors, would reach our shores. Though the danger from this old enemy of humanity had passed, another equally dreaded was still ravaging portions of our land. Small-pox was epidemic in Chicago, and had fastened its loathsome fangs upon cities and towns of our State. At that time our thoughts and our efforts had been directed for nearly three years towards preventing these historic giants of destruction from gaining a foothold in Michigan.

Fortunately the entire country was preserved from an inroad from the first of these foes, while science again justified her methods in checking the ravages of the second. The Michigan State board of health felt keenly its responsibility during this period. In few, if in any, of the other States of the Union could those having in charge their health interests have felt greater responsibility. The pathway of a very large proportion of the emigrants from Europe lies across the territory of our State. It was from this class that the danger had been apprehended, for it was this class which it was well known had for many years furnished to our people the seeds of many of the dangerous communicable diseases. Visitors to the exposition at Chicago, and immigrants in unusually large numbers, mostly of the lower classes, passing through our State during these years, excited the fears not only of the members of this board but of nearly all our citizens.

Though these fears may now seem like dreams, and no one in Michigan today expects or dreads an outbreak of either cholera or small-pox, yet it is well to recall the experiences of those days in order to remind us of the fact that our fears were largely due to our knowledge of what these two enemies had meant to mankind in the past, rather than what they mean at the present time. They are conquered foes and wherever intelligence

prevails need not be feared. Our losses from them during a quarter of a century does not equal the losses we annually sustain from the weakest of the foes which continually menace us. We believe that all these other foes which are always with us may in time be rendered equally powerless. This is a result we hope and strive for, even though the breeding places of these enemies in the old world are continually sending reinforcements to our shores.

*Michigan Especially Endangered by Immigration.*

A marked effect of the danger from cholera and small-pox, so happily averted, has been, I believe, to impress upon the members of this board and many others this fact—that Michigan is peculiarly liable, from her position, to outbreaks of nearly all the dangerous communicable diseases. These have been in the past and will continue to be brought into her borders by immigrants, from every foreign country. So long as such immigrants are permitted to enter and pass through the State without inspection or disinfection of baggage, it places upon this board and upon many local boards of health, responsibilities and duties unknown to similar boards in most of the other States. Our State and local authorities should not, therefore, be censurable because such outbreaks occur, for under present conditions they are powerless to prevent them. Such authorities are only censurable when they neglect the best known methods for their restriction, and epidemics follow as the result of outbreaks.

I congratulate you on the fact that during the past two years there has been, substantially, restriction of all the dangerous communicable diseases, to the individuals, families or localities in which outbreaks have originated. Outbreaks of these diseases have also, with a single exception, been less numerous during the last two years than during any of the preceding years of which we have records. This important fact, considered in connection with the fact that immigration has greatly lessened during that period, furnishes additional evidence that it is the European immigrant, passing into and through Michigan, who often sows the seeds of disease and death among our inhabitants. For this reason, Michigan needs from those to whom her health interests are intrusted, both State and municipal, unusual courage, judgment and knowledge.

Another reason why Michigan will always require from such officials the exhibition of these qualities, is her natural and geographical situation. Her insular position, her vast coast line, and the numerous streams and bodies of water which form so large a portion of her surface, are conditions which render her inhabitants peculiarly liable to certain diseases.

*Michigan is a Summer-Resort State.*

The beautiful shores of the larger lakes that so nearly surround our State, their delightful climate during the hot months of the year, together with the picturesque and charming inland lakes that diversify her landscape, are rapidly causing Michigan to become a deservedly-popular health and summer resort for the entire country. Scarcely second in value and beauty to similar resorts upon the Atlantic coast, ours have the advantage of rapidity and ease of access both by water and land, and of the comforts and conveniences of life which many of those upon the shores of the ocean do not possess.

Yearly the number of the best citizens of other States who come to Michigan for health and recreation during the hot months of summer increases. These are welcome guests, for they bring with them intelligence, culture and wealth. As their host, Michigan should not only do all she can to render their visits agreeable, but she should also see to it that they are as free from danger of infectious disease as knowledge and skill can render them.

Summer resorts, experience has shown, are peculiarly liable to those diseases which arise from the use of contaminated water, and from lack of, or defective sewers. Frequently have such resorts been the theatres of epidemics, and those who have sought these delightful retreats for the restoration of health and strength have found instead disease and death. Local health authorities cannot always be depended upon to deal with the problems which arise from the varying conditions pertaining to the unsanitary surroundings which so often exist at these resorts. One of the reasons for this is lack of the necessary knowledge and experience, resulting from yearly entire or partial changes in the personnel of such authorities. Another reason is the sudden transformation of a sparse rural population, during a large portion of the year, to the numbers of a city during the summer months. Local authorities usually reside at a distance from the scene of these changes, and their attention in such cases is rarely called to or their services offered to solve these problems. Members of the State board of health of Michigan acquire this experience, and for this reason are presumably more competent to advise with reference to the questions relating to the health and lives of those who live, for longer or shorter periods, directly upon the shores of our extensive water ways than can those who have no such experience to guide them. Such experience must be of yearly increasing value, and should be utilized in rendering the growing health and summer resorts of Michigan free from those special diseases which always menace aggregations of human beings possessing imperfect or no organized methods for their prevention.

#### *State Inspection in Outbreaks of Dangerous Diseases.*

In this connection, it seems to me desirable to call your attention to the method adopted two years ago by this board for investigating outbreaks of dangerous communicable diseases in localities where the local health officials were, from any cause, unable to subdue or discover the cause of such outbreaks and there was liability of the disease spreading. When appealed to under such circumstances, this board has usually sent, as an inspector under act 47, laws of 1893, one of its own employés, Dr. Catermole, a gentleman qualified by education and practice for this purpose, to investigate the character of the disease and all the facts connected with its appearance and progress. These have been reported by him to this board for its action, and the results have thus far been entirely satisfactory. Occasionally the larger experience of Secretary Baker has been invoked for this purpose, when his other duties would permit. The plan has proved successful in accomplishing perfectly the objects sought in such investigations, while the cost to the State has been extremely small.

*Actions for Restriction of Diseases Have Been Followed by Decreases in Sickness and Deaths.*

As you all know, the list of diseases regarded by this board as communicable has been a continually-increasing one. Whenever, as a result of scientific observation and experience, the members of the State board of health have become convinced that a disease owed its origin to some specific organism capable of being transmitted directly or indirectly from one person to another, always causing the disease when thus transmitted, such disease has been included in the board's list of dangerous communicable diseases. Local health officers were then admonished of the fact, and such rules and regulations as in the board's judgment seemed most practical for the restriction of such disease were furnished. The records in the office of this board show that a marked diminution in the sickness and death-rate has uniformly followed its action in every disease now included in this list, concerning which the advice of this State board has been accepted and adopted.

In none of these diseases has such result been more significant than in the last one so classified by this board—consumption. Work of an educational character was begun by it upon this disease many years ago. Its first leaflet was published in 1891, but it was not until 1893 that it was formally included in the list of "diseases dangerous to the public health."

It was a surprise to me and it may be to you, to learn how rapidly, according to the "sickness-report" cards received at this office, consumption is diminishing in Michigan. So marked was this reduction during the last few years that a comparison of these cards indicate only one-half of the number of cases in 1896 that there were in 1886, ten years before. The reduction thus indicated has been more marked during the latter portion of this period, and is especially noticeable during the last two years. While the Michigan State board of health may not claim all the credit for this remarkable and gratifying result, it is certainly entitled to a very large share of it. To my mind, it is to the educational value of its literature disseminated among the sufferers from this disease and among those exposed to its contagion that this striking diminution is largely due.

*New Lines of Sanitary Work.*

While the securing of the enforcement by local health officers of the laws relating to isolation and disinfection during outbreaks of contagious diseases, and the distribution of its literature at such times must always, it now seems, be the most important work of this board, yet there are many other lines of work which either in the near or late future it is likely to be called upon to perform. These will come as a result of the sanitary knowledge which is slowly but surely finding its way into the minds of the people. The time is sure to arrive when the general diffusion of this knowledge will render apparent to the many, as is now discerned by the few, various lines of effort whereby this knowledge may be made practical for the protection of human life and health.

Permit me briefly at this time to call your attention to some of these lines; among them, the disposal of garbage, waste and excreta, especially outside the larger cities, and the prevention from contamination or the purification of water supplies, are becoming every year of more and more

importance. Investigations of outbreaks of typhoid fever and other diseases of this class by this board have shown that some, at least, of the villages of this State use for drinking water filtrations through all the most offensive results of the habitations of mankind. The ordinary shallow well is the only source of water supply in most of the smaller towns of the State. In very few of these is any attention paid to the unsanitary surroundings, and in a still less number, if any, is water from wells tested until an outbreak of disease has occurred. Should it not be the duty of the State to exercise supervision where the public health is so vitally concerned, and by means of inspection of the water supply of these hamlets, especially during the later months of the year, not only furnish some degree of protection, but at the same time teach the inhabitants how contamination from this source may be prevented. An obvious objection is the expense, but when we consider the large sums of money placed by the legislatures of Rhode Island and Massachusetts at the disposal of their State boards for practical purposes upon similar lines, in the manufacturing districts of those states, the amount required for the purpose I have indicated in this State should not be withheld. I believe it will not be when the value of such inspection is understood by its citizens.

*Milk and Meat Inspection for the Prevention of Tuberculosis.*

Another line of work which this board has had in view, but in which it has been unable to do anything practical, is the inspection of those two prime articles of food,—meat and milk. Upon you who know so well that a large proportion of infantile mortality is directly traceable to the use of cows' milk, and that this article as well as the flesh of animals used for food is liable to contain the organism of tuberculosis, I need not urge the importance of State inspection of animals furnishing these foods.

Many of the obscure cases of this common and fatal disease undoubtedly owe their origin to this source. Inspection of cattle seems to be imperatively demanded as an important factor in the work of stamping out this disease. Fortunately in tuberculin we have an unerring test for its existence in animals, so that no loss need be incurred from the slaughtering of suspected animals unless they are shown, by this test, to have the disease. The Live Stock Commission of this State has its veterinarian, Dr. Grange, make tests of herds where it is supposed to exist, and good work has been done by it in extirpating the disease from such herds. Unfortunately animals may have tuberculosis a long time before they show any sign of it to the ordinary observer, and during this period a cow may be furnishing milk charged with the germs of this disease, for human consumption. This can only be prevented by regular and systematic testing of all cows which supply milk for food. Outside of large cities, such inspection can rarely be left to the local health officers, for, although the tuberculin test is shown to be reliable, it cannot be used by inexperienced hands. It is this board which should take the initiative in bringing about government inspection of animals furnishing the milk supply of the State to its citizens, in order that they may be protected from that fatal and insidious disease, consumption, through this source. Inspection of meat, though of less importance

because it is usually cooked before being eaten, seems also likely to be demanded when the serious consequences which may follow its being taken into the stomach before being subjected to sufficient heat to kill the organisms, are generally understood. Michigan has properly made wise provision to secure its citizens against loss or danger from the use of adulterated food. Danger to health or life from the use of such food, as we well know, is infinitely less than from the milk or flesh of tuberculous animals.

#### *State Hospital for Consumptives.*

An effort was made by this board two years ago to secure from the legislature an appropriation to build and equip a State hospital for consumptives. Though the project failed at that session of the legislature, and though the present may not be an opportune time to again ask that body for favorable consideration of this subject, the board has not lost sight of this need of the State, nor does it regard it of less importance now than when it was first proposed.

Among the numerous factories in Michigan where articles are prepared which are intended to go into human mouths or stomachs, many consumptives are known to be employed. The disease is liable to be conveyed by means of the articles they handle, and doubtless to this source might be traced many obscure cases of tuberculosis. Such articles as cigarettes, chewing gum, cigars, capsules, and confectionery, with their wrappers, are all liable to become bearers of infection. It would be unjust to deprive consumptives who are earning livelihoods in such factories of the means of subsistence, but it is still more unjust to permit them to become bearers of the disease to others. To provide a hospital for this class, where its inmates could be made comfortable, where the chance for their improvement would be the best, and where they could learn how they could cease to be a menace to family and friends, and to the public, would not only be an act of humanity on the part of the State, but would materially diminish the spread of this disease.

The removal of all the causes which promote the continued existence of tuberculosis, by the methods we have been considering as well as by others we may yet discover, must continue to be one of this board's most important lines of work until the disease has entirely disappeared from our midst.

#### *Sanitary-Science Teaching in the Schools.*

Two years ago an act of the legislature, initiated and advocated by this board, was passed which required that every public school in the State should give instruction in sanitary science to its pupils, and also required the State board of health to supply teachers with its literature for that purpose. No step ever taken by the Michigan State board of health seemed fraught with more far-reaching consequences than this. It placed before a large proportion of the youth of the State knowledge concerning the dangerous communicable diseases, their causes and prevention, far beyond that which was in the possession of the parents of most of them. This knowledge, it was felt, when stamped upon the impressionable minds of children who were soon to become the men

and women of the State, would result in producing a generation infinitely better equipped to contend with the foes of life and health than the world had ever before seen.

Teachers, all over the State, became enthusiastic to learn, and to be able to instruct in the new work. In supplying the literature required, and in paying postage, even with the aid of the office of the Superintendent of Public Instruction, the resources of this board were severely taxed for this purpose, for the legislature had failed to appropriate any money to carry into effect the provisions of the act. An unfortunate result of the expenditure of a large portion of our meagre appropriation for this purpose, as you all know, was the relinquishment of the Sanitary Conventions which for many years had been an important and valuable work of this board. These conventions were for the instruction of adults in sanitary knowledge, in much the same way that children, under the law, are now instructed in the schools. Both kinds of instruction are valuable, and this board will not voluntarily relinquish either.

In this connection, it may not be amiss to call attention to the fact that no proper text book for teaching sanitary knowledge exists. The leaflets of this board, which had been prepared for other purposes, and have been used to supplement the leaflet especially prepared for use by teachers, contained much needless repetition when used for this purpose, while they lack the elements of continuity and of the evidences of the truths upon which all their statements are based. If this board is to continue this work, some one of its members should prepare a text-book suitable for use in public schools. Among our members are those thoroughly competent for this work.

#### *Coöperation of State and Local Boards of Health.*

Probably the most important work of the board, in the future as in the past, will be the keeping in active operation the best methods for preventing the spread of communicable diseases. The practical part of this work is wisely left by the law to the local health board and its officers. Upon their knowledge, judgment, fidelity and tact must every community rely when threatened with the spread of any contagious disease. It is for them to see that the means which experience has proved to be the best and which they are instructed by the secretary of this board to use are never neglected. To increase the efficiency of the local health officers of Michigan, and to bring them into closer relations with the State board, three annual conferences of local health officers have been held at Ann Arbor. These have convened in the rooms of the State Laboratory of Hygiene, giving those in attendance opportunity to observe and become familiar with the valuable work and methods of this well-appointed laboratory. The last of these meetings, held in July last, was well attended and was especially valuable and interesting. Dr. Vaughan, the director, and his associate, Dr. Novy, did everything in their power to make this, as well as the former ones, valuable to the conference. Papers and communications by these gentlemen, and by other prominent experts in various departments, kept alive the interest for two days, and rendered great service to the health interests of the State.

I believe every member of this board is impressed with the importance of holding a similar conference every year, for it is manifest that this board cannot in the future afford to leave anything undone which will bring its members in touch with that large body of generally-intelligent men who are now doing so much to preserve the health of the State and who seem desirous of still further increasing their power for good in this direction.

*Popular Education in Sanitary Knowledge.*

In calling your attention at this time to those lines of work which now seem to me to be of most importance for the future, I am not unmindful of the fact that none of them are new nor that upon several of them work has already been done by you. Neither do I forget that the promotion of the objects we have been considering will require both legislation and money, and I need not tell you that these are not always to be had for the asking merely. I can suggest but one way by which such requirements can be secured. It is a way you are already familiar with and have done much to effect. It is popular education in sanitary knowledge. The flood of light which the last decade has shed upon the causes of all the dangerous communicable diseases and the methods of their prevention, you must continue to disseminate among the people. The prospect for an appropriation by the present legislature which will enable you to continue such educational work in the schools, and also give you means to revive the sanitary conventions which were abandoned two years ago for lack of funds, seems at the present time good. Such aid at this time means much for health work in Michigan. Should it be granted, you will be inspired with increased vigor for the achievement of still greater successes than those which have already crowned your efforts, while the people you serve will be enriched by the outlay many fold.

As the pleasant relations I have sustained towards you as your presiding officer for more than three years terminate today,\* and as our official relations will doubtless soon cease entirely, it seems a fitting time to express to you how agreeable these relations have been to me. I assure you, one and all, that I have most heartily appreciated my association with you, and shall always remember it as one of the happiest experiences of my life. To those of you who are to continue to bear the burdens and the honors of the noble work upon which we have been engaged, there will, I feel, be no lack of zeal in carrying forward the purposes for which we have striven and which, I believe, have given to this board a reputation and character second to no similar board in our country. I shall continue to watch your work with the deepest interest and with full faith that, as the years go on, your achievements in life-saving work may be even more valuable than they have been during the years that are past.

\* [Although President Wells' term of office as a member the board will soon terminate unless he shall be re-appointed, he was, at this meeting, unanimously re-elected President for the ensuing term of two years or such shorter time as he shall continue to be a member of the board. H. B. B., Secretary.]