

THE NEED OF ORGANIZED
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TUBERCULOSIS.

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Central International Bureau for the
Prevention of Consumption, etc.

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FOR THE PREVENTION OF CONSUMPTION, ETC.

In this age of multiplicity of organizations, it is well for us to inquire whether there is need for an organization such as the Southern California Antituberculosis League, and I have chosen to make the answer to this question the burden of my remarks at this the first public meeting of our society.

Tuberculosis is not a newly discovered disease. Even before the Christian Era it was credited with being man's greatest enemy. Down through the ages it has strewn its path with suffering and death. The discovery of its cause and nature, however, brings the subject before us in a new light, and gives us our first hope of staying its progress. As long as the old crude notions of its heredity were held, it was not thought possible to prevent it; but when Robert Koch in the year 1882 showed that the disease was caused by a specific germ, he paved the way for its eradication. If the measures which are now known to science were enforced, it would be possible to free the world of tuberculosis. Professor Nocard said: "With suitable assistance I will rid France of bovine tuberculosis in eight years." What can be

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done in cattle, can be done in man; but to accomplish the eradication of human tuberculosis is more difficult. Diseased cattle we can kill, but diseased men we must educate to a realization of the responsibility which rests upon them.

It has been estimated that tuberculosis causes 2,000,000 deaths annually, that is nearly four per minute. In the United States, where the mortality is among the lowest of civilized nations, it kills nearly 150,000 people a year, or one every three and one-half minutes. According to the Public Health Reports for the year ending December 31, 1900, there were in eight cities and towns in the southern part of California, having an estimated population of 147,449, five hundred and twenty-one deaths from tuberculosis, or a death rate of ten per week. This means that since Koch's discovery of the cause of tuberculosis, which showed the disease to be communicable, and likewise preventable, it has been allowed to produce death in a number of individuals which is far greater than the entire population of these United States. In the United States, in that time, there have died nearly 3,000,000 people from tuberculosis, or twice the present population of California. Let us compare this loss of life with that caused by the Civil War. It is estimated that that sad conflict caused the death of about 300,000 men; tuberculosis, on the other hand, causes the death of 600,000 individuals every four years. Think of it! An army of 150,000 of our fellow-countrymen destroyed annually by tuberculosis, a preventable disease. Is this not enough to warrant the formation of our society?

Appalling as these figures are, they might fail to secure your interest were it not for the fact that this disease is so widespread. What one of us can say that we have neither a relative or friend who has tuberculosis? What one of us can be sure that we

may not some time be afflicted? If we have not that altruistic spirit which will make us care for the health of our neighbors, we certainly have an interest in the prevention of tuberculosis from the standpoint of selfishness. We may not realize it, but the interest in the prevention of this disease is universal.

Science has shown us that every one of these 150,000 people who are lost to our nation annually were infected from some previous case of tuberculosis. Every one died because some previous case scattered infection. It is well for us to stop for a moment and inquire whence come these infecting organisms? They are found in all tuberculous processes and given off in discharges from tuberculous ulcers. The principal source of infection, however, is the sputum of the patient who is suffering from pulmonary consumption. This often contains bacilli in great numbers. This sputum, when expectorated, if allowed to soil the clothing, carpets, or furniture, becomes dangerous; for when it dries, then the bacilli enter the air as dust and may infect those who come in contact with them. Every one who breathes tubercle bacilli into his system does not become infected. It seems that there is a certain predisposition necessary to infection. One man will resist while another under the same circumstances will become infected; but so far as science is able to determine, every one is liable to become infected if the conditions are right at the time he is exposed to the bacilli. Those things which favor infection are such as lower vitality, and make the resisting power of the individual low.

A patient in an advanced stage of pulmonary consumption will cast off in his expectoration several millions of tubercle bacilli in a day. If these bacilli were all virulent and all remained so, the entire race would certainly perish of tuberculosis. With one

hundred and fifty thousand people dying annually in the United States from this disease, and most of these expectorating their millions of bacilli daily for months before death, where is the hope of checking the ravages of the disease?

This is certainly a dark picture; but I have only shown you the dark side. If we look at the other side it is radiant with hope. This disease which destroys so many lives and leaves in its wake so much suffering and sorrow is a preventable disease. Ordinary precautions on the part of the afflicted individual will make infection rare; and painstaking care on his part will protect his attendants fully. Perhaps I could impress upon you the difference between care and carelessness in dealing with this disease in no better way than to show you the difference between tuberculosis in the tenement houses, and that in sanatoria. The tenement houses stand for everything that is unclean and insanitary, the sanatoria are examples of hygiene and sanitation carried to the highest point of excellence. The inmates of the former are ignorant of sanitary laws, careless in their personal hygiene, so poor that it would be all but impossible to be careful if they knew how. The inmates of sanatoria, on the other hand, are taught to be cleanly in their habits, live in sanitary quarters and are furnished with everything that is necessary to prevent the spread of infection. As a result, tenement houses are hotbeds of infection, while sanatoria are, from the standpoint of infection, most desirable places in which to live.

In the Fourth and Sixth wards of New York (which include the thickly populated tenement districts), during the years 1894-5, and 6, cases of tuberculosis were reported from 38 per cent. of the dwellings and from twelve houses in this densely populated district, 136 cases were reported to the authorities in eight

years previous to 1897. Since only about one-half of the cases were reported, it is probable that twice as many, or about 275 cases, occurred in twelve houses in eight years. That means that those rooms were so thoroughly infected that no one should have occupied them until they had been thoroughly renovated and disinfected. What could better present to your minds the things that are favorable to the spread of infection?

Now let us see how the nurses and attendants who are intimately associated with tuberculous patients in sanatoria fare. In the Brompton Hospital in London there have been treated in the past twenty years fifteen thousand cases of tuberculosis, and yet neither a nurse nor an attendant has become infected. The same freedom from infection on the part of attendants has been enjoyed at Falkenstein in Germany. The Adirondack Cottage Sanatorium and the Winyah in the United States. These examples show plainly that tuberculosis can be prevented. Here we have a prolonged association in an intimate manner of attendants and patients; but because of the sanitary surroundings and the care on the part of those afflicted, there is no danger of spreading the infection.

These examples teach us two important truths: first, experience in the tenement houses shows that tuberculosis is a communicable disease and that it can be communicated from one person to another; second, experience in the sanatoria teaches that tuberculosis is not a contagious disease in the ordinary sense in which that word is used, and that the afflicted and the well may associate intimately together without infection taking place, provided the necessary care is taken. In other words, tuberculosis is preventable.

If tuberculosis is preventable, why is it not prevented? This is a very pertinent question. There

can be but one answer: the people have not learned that it is preventable and consequently have not endeavored to learn how to prevent it.

While tuberculosis is found in all lands and all climates; in the country as well as the city; and while it affects the rich as well as the poor, nevertheless it is preëminently a disease of the city and preëminently a disease of the poor. Those who live in poorly lighted, badly ventilated, overcrowded rooms and who subsist on insufficient and badly prepared food are the most prone to infection. It is perhaps not far from the truth to say that 85 per cent. of the people who are suffering from tuberculosis have not the means to place themselves in the proper surroundings for regaining health.

This disease is not only preventable, but it is also curable. At least 50 per cent. of those who are treated early can get well, and with the best of care and treatment a much larger percentage than this. This blessed message of hope is but a mockery as it falls on the ears of the poor; for without help there is no hope for them.

Those of us who are in better circumstances cannot look upon tuberculosis among the poor with indifference. If our love for our fellows does not appeal to us, if the suffering and misery that this disease produces in these wretched homes does not call forth our sympathy, we still cannot shut our eyes to the fact that as long as there is tuberculosis among the poor there will also be tuberculosis among those in better circumstances. Carelessness, ignorance, and poverty are the greatest factors in the spread of tuberculosis, and these we find are working in combination among the under class, preventing any active sanitary measures.

This, in brief, is the statement of facts as we find them. What is to be done? In the first place. public opinion must be aroused. No great movement

can go ahead of public opinion. Tuberculosis is so common that the aid of society as a whole is necessary in order to check its ravages. The public must be made to understand that the enormous death rate and the indescribable sufferings which are caused by this disease are unnecessary and that they are caused by a disease that is preventable. The fact of its communicability must also be impressed upon the minds of the people. They must be taught to understand how the disease is communicated from one individual to the other, what things favor this spread of infection and what ones prevent it. While we are teaching these truths, we must be careful not to create an unnecessary alarm. The tuberculous patient should not be treated as a leper. There is no danger in associating with him if he is careful. Humanity should prevent us from heaping additional burdens upon him when science tells us that they are unnecessary. It is our duty to instruct tuberculous individuals how to destroy their sputum, and also to impress upon society that, when this is done, the danger of infection is taken away.

Not only must those who are well be considered, but those who have been so unfortunate as to become afflicted. If 50 per cent. of those who are afflicted can be cured when treated early, as statistics show, then the public conscience should be aroused to its duty to see that those who are afflicted are given the opportunity to get well. Then, too, if one-half of those who are ill can be saved from reaching that stage in which they are giving off so many bacilli a day, it can be readily seen that this would be an important move in the prevention of the spread of the disease. Every case that is prevented from reaching the advanced stage, and every case which has already reached it that is cared for, as is done in hospitals, is a step in the ultimate eradication of the disease.

In order to prevent the spread of tuberculosis it is not only necessary to care for the afflicted; to educate them how to care for their sputum; and how not to infect their surroundings; but also to educate the well so that they may withstand infection. The danger of spreading tuberculosis is not all on the part of the afflicted. On the contrary, people are doing those things every day which lower vitality and make infection easy. The pernicious habit of living in poorly ventilated and badly lighted apartments which is so common in civilized lands is accountable for much of the tuberculosis among us. I do not mean that living in such quarters alone will produce tuberculosis, but that the evil effect of such a life makes the organs of respiration weak and unable to resist the germs of infection which are taken in, and also renders the general resistance low, so that when the germs have found lodgment they have little to oppose their progress. So, while we are teaching the people how to prevent the spread of the germs that cause tuberculosis, let us not forget that it is equally important to teach the necessity of living natural lives with a generous supply of sunlight in our homes and surrounded by fresh air day and night. The principles of hygiene and sanitation must be made to be the guides of our lives.

How are these truths to be taught? How is public sentiment to be aroused? Only through organization. There must be some central body whose business it is to teach the people how to prevent tuberculosis. It must be the duty of this organization to teach the people that this disease is communicable, that it is preventable, and that it is curable; to educate public sentiment and guide it in the right channels.

Here let me quote from my address on the occasion of the first meeting of the Board of Directors of this organization:

"The work of the Southern California Anti-tuberculosis League should be carried out along several lines. In the first place, we should educate the people to the fact that tuberculosis is communicable. We should teach them just where the danger lies, and that if the bacillus-bearing discharges, of which the sputum is the chief, and in most cases the only, one, are destroyed, there is no danger from the tuberculous individual. While we must insist on the enforcement of sanitary laws, yet we must avoid creating in the minds of the people an unnecessary fear which will work undue hardships on those afflicted. Nowhere can it be said with greater justice that "a little learning maketh mad," for those who have learned that tuberculosis is a communicable disease, and have learned nothing more, have become frightened, and are associating, in their minds, tuberculosis with such diseases as smallpox. We must emphasize with equal, if not greater, care that tuberculosis is preventable. We must furthermore teach them how to prevent it; give full and explicit directions for the afflicted, and also for those who must care for him. The necessity of sunlight and fresh air must be emphasized,

"Sanitary laws relative to the prevention of infection, such as those forbidding expectoration in public places, providing for the notification of tuberculous cases and the disinfection of rooms occupied by tuberculous individuals before being re-occupied, should be passed. In order to facilitate and encourage early diagnosis in the cases among the poor, free examination of sputum should be made of those who are too poor to pay for the same. Laws regulating the height of buildings, the height of ceilings, the ventilation of workshops and tenement houses, preventing the construction of insanitary dwellings and overcrowding, would do much to prevent that lower vitality which facilitates infection

and would offer less opportunity for the bacilli to thrive.

"Lest I be misunderstood, I would like to offer a word on the subject of notification, before passing. There is objection raised to this on the part of some, believing that it would work as a quarantine. Not so. It is only intended that the case be reported, that the health officer may see that precautions are carried out. No one but the attending physician and the health officer need know that the individual is tuberculous. It should work in favor of the afflicted instead of against him.

"Another important field of work for our league is found in caring for the afflicted poor. This is a necessary measure from the standpoint of prevention and desirable from the standpoint of the humanitarian. As long as the poverty-stricken tuberculous individual is compelled to care for himself, he will be forced to occupy insanitary quarters, and will scatter infection about him, either because of ignorance or because of a spirit of apathy. Since each patient, on an average, infects about one new one, and each careless one may infect several, it can be plainly seen that the care of the helpless poor bears a very important relation to the problem of prevention of tuberculosis, and since hospital facilities are provided for those suffering from other diseases, it is but just that they should be provided for these.

"The Antituberculosis League could perform for the tuberculous poor an act of mercy, render society a noble service, and do itself a great honor, if through its efforts there should be established in our midst a system of dispensaries in the cities where those afflicted could come for advice and those who suspect the disease could be examined while they are in a curable stage; and further, if through its agency there should be provided sanatorium facilities for

those who are curable and hospitals for those in the advanced stage.

“Such is the work that has been done by organizations of similar aim. Such is the work that, I hope, will be accomplished by ours. We have to work slowly, for we can not go faster than public opinion, but by the distribution of carefully written pamphlets, by the delivery of thoughtfully prepared lectures, and by the judicious use of the public press I believe that it is possible to secure a hearty coöperation on the part of the people.”

