

could all the afflicted be cured, but that an effectual check could be made against the spread of the disease generally. Large sums of money and much time and energy have been spent in all parts of the world upon open-air sanatoria, annexes, and hospitals in this belief. Disappointment has been occasioned sometimes, and doubts have arisen in the minds of those upon whom the charge of the sick has been cast, as to whether as much good has resulted as was expected, and the question raised is a very proper one for you to ask, and worthy of the most careful consideration of all who have the best interests of the community at heart.

I suggest that the question be considered from at least two aspects. We are agreed, and the people of Nelson—and you are the custodians of the public money—have shown that you quite realised the greatness of the toll which consumption exacts. You were one of the first Boards to do something to endeavour to check the ravages of this disease: you gave an earnest of your belief by erecting a suitable annexe for the treatment of persons suffering from this disease, and therefore I need not labour that point with you. It will be well, however, even at the risk of repeating a well-known tale, to direct your attention once more to what consumption is doing to the human race. Here in New Zealand, although we have almost the lowest death-rate from this disease in the world, there died in 1907 from tuberculosis 856 persons. Now, if we multiply this number of deaths by four, which is held by most authorities to be the figure which gives the best indication as to the actual number suffering from the disease, you will see that in this sparsely populated country, with barely a million of people, there are, roughly speaking, 3,400 suffering from tuberculosis, and therefore needing care. There can be no doubt as to the power of the enemy, and therefore Boards such as yours are justified in spending money to combat it. Now, this leads us to the consideration of how a campaign against the disease should be best conducted. Obviously, our chief endeavour should be, as John Locke said, "Prevention is better than cure, and much cheaper," as in all other spheres of medicine, to prevent as much as cure. Consumption, as most of you know, is caused by a small organism called the tubercle bacillus, a little chap first identified by that celebrated German scientist Koch in 1882. It is difficult to convey in ordinary language any idea of the size of the bacillus. If, however, you take the small letter "i" as it appears in your daily papers, and place alongside it a pillar four miles high, you will get some faint conception of the size of the tubercle bacillus compared to a man. You can understand, therefore, how it is that in the spit of an infected person there may be thousands of germs each capable of setting up the disease in another person. It has further to be borne in mind that the vast majority of cases which occur in any but children have been contracted from some one suffering from the disease. This is not the place to speak of the difference of opinion which obtains among some observers as to the manner in which the patient receives his infection. Personally, I am convinced that in the vast majority of instances the vehicle of infection in adult cases is the spit of an infected person. This view has been recently emphasized by that gentleman who discovered the bacillus—Koch. Whether we believe the disease is caught by inhaling the germs or swallowing them is of small concern if we recognise that the destruction—absolute destruction—of the infected sputum is the main safeguard against the spread of the disease. It has further to be remembered that bad hygienic conditions, such as ill-ventilated homes, damp localities, want of suitable food, and irregular habits are the most powerful factors which lessen one's power of resistance to consumption. That being so, there can be no question but that, whether a stay in a sanatorium or an annexe completely cures or not, it must form one of the most powerful adjuncts to any or all other methods of treatment which may be employed.

A sanatorium cannot cure all cases any more than anything else can, but you must see that, apart from any question of cure, it plays a most important part in that most important of all things—prevention. Their value, therefore, is not to be measured by the cures turned out.

Trudeau has shown "that rabbits inoculated with tuberculous material and confined in dark damp places rapidly succumb to the disease, while others inoculated in similar fashion, but allowed to approach their natural state of running wild, either recovered or manifested but very slight lesions." You can see, therefore, that though a cure may not be effected in all instances, or in most even, still, you are offering to the poor unfortunate sufferers the best—nay, the only—set of conditions which will give them a chance. Again, you see the futility of attempting to measure the value of your annexe by the number of cures sent out. Common humanity requires that we do something for the care of the indigent sick of any disease. If, therefore, you had not made the excellent provision which you have done, you would have had either to treat such cases in your general hospital or have paid for their maintenance and attendance outside. We, the healthy, have to maintain the sick who have no money, or who have money, for that matter; because, after all, the person who is unable to work for his living has either to depend upon what he has earned from the community or on what his friends have. Whichever way we look at it, the cost of treatment and maintenance must come out of the general sum of wealth of the community. In deciding, therefore, whether your annexe is a justifiable work, you have to bear in mind that you would, in any case, have had to look after the indigent consumptive; and thus the question resolves itself into whether it is wiser to set up this special room where the sufferer will have the best chance of recovery, or to mix the cases up in the general ward or maintain them in their homes at the expense of the Charitable Aid Board. When the problem is put in this form there can, I think, be no question of the wisdom of doing as you have done.

The points we have to keep clearly before us are,—

- (1.) That consumption is an infectious disease, spread from one person to another.
- (2.) That healthful surroundings such as are embraced in the so-called "open-air treatment" offer a great protection against infection, and help towards a cure, even where a person has some lessened power of resistance towards the disease.
- (3.) That the lessons learned in a sanatorium are such as offer the best protection against the spread of consumption generally.
- (4.) And, as a matter of fact, the community has in any case to look after the consumptive.