

to go underground, and consequently his life is lengthened, while the disease is prevented from spreading to other miners. In the last stage the disease is really galloping consumption. A doctor who is not conversant with miner's phthisis—say, one practising in Nelson or Hawke's Bay—if he met with such a case, would undoubtedly say that the patient was suffering from galloping consumption. The nature of the miner's work tends towards the spread of the disease. He works in temperatures of from 75 to 80 degrees, in confined spaces, with vitiated air, consequent upon poor ventilation. These men work in rises 6 ft. by 3 ft., with their bodies sweating, and breathing in one another's faces, so one can imagine what happens. If a man is in the second stage of the disease he is a positive danger to his mate. It has been proved that the disease is spread by means of spittle on the tools the man works with, and also by spittle on the rungs of the ladders by which he has to travel in the passes, and through men breathing in one another's faces in confined places. Spitting at "crib" places is another cause. It has been proved in practice at Broken Hill that the disease is spread in that way. It is held that in order to deal with the problem in a practical way the proper course is to stop the disease in its first stage, and prevent men from going into the mines when they arrive at that stage, thus preventing the disease from spreading. In view of the fact that we have only the men at Waihi and at Waiuta to deal with, the number is infinitesimal in comparison with the large numbers concerned in the matter at Broken Hill and in Africa. In those countries every man working in the mines has a clean bill of health, and is not in the condition that conduces to the spread of the disease, so they are cleaning it up. If that can be done in countries where so many more men are working, surely we can do the same in New Zealand with our smaller number. I believe there are not more than eight hundred men employed in the New Zealand quartz-mines to-day. Amongst those eight hundred there are a large number of men whom I know to be suffering from the secondary stage of the disease. I have seen some pathetic cases on the Reefton Goldfield. It is most distressing to see a man forced to continue working when he reaches the second stage of this disease. Such a man knows that he is doomed—that he has received his death-warrant—but he cannot leave his work. He wants to pay off the cost of his house, and he may have three or four children to keep, and he knows that though he gets the pension, the £1 15s. per week will not support his family. He is obliged to keep going in order to supply his family with food. I know of one case of a man who died at Waiuta when forty-one years of age. He was an expert miner, and would be earning £5 to £6 a week on contract. He was in such a condition that he had to take a young man into the face to assist him. I went to him and asked him if it would not be as well for him, considering the state of his health, to knock off working. He asked me what he was to do in that case, seeing that he had his wife and four children to support. He knew that he was not able to work properly without the assistance of the younger man, and that he was causing his mate to run the risk of contagion. He kept on until finally he fell down on the roadside when going home from work, and from that time onward he could work no longer. The miners raised £127 for him, and that supplement to his pension kept him until he died. That was about 1922.

6. *Mr. H. E. Holland.*] And then is it not a fact that his widow was better off than while he was alive?—That is the irony of the matter. As soon as her husband died I applied on her behalf for the widows' pension, and under the more liberal scale allowed under that system she received £3 7s. 6d. per week, so that she was really much better off than when her husband was alive. Then, while he was ill there had been medicines to pay for, and other expenses from which she was relieved after his death. I know of other men who have hung on to their work from necessity, because they had no other alternative. I feel sure that if the X-ray examination had been made compulsory—if a man had had to bring a clean bill of health before he was permitted to work underground—the disease would be practically stamped out in New Zealand to-day. Under such a system provision should be made for the Government to give such a man a full wage, or at any rate sufficient to enable him to maintain his wife and family. I heard some questions put to Mr. McKane as to the local doctors. In the case of every miners' pension granted from 1915 to the time I left office as secretary I made out the application form, and had something to do with bringing the man to the doctor. Speaking advisedly, I will say that my experience is that external examinations of the applicants are of no use. They are not in the interests of the miner. Though I speak as a layman, I am sure from the number of border-line cases I have seen that all methods of external examination are useless as a method of diagnosis for silicosis or miner's phthisis. I am satisfied that by the time the medical men in the mining districts are able to diagnose the disease with certainty it is too late for the miner—he is doomed. I would say that it is beyond the power of the medical man to make a real diagnosis until the man is incurable and has not long to live. With the X rays the diagnosis is a certainty. If there is only a very small patch of fibrosis or silicosis on the lung it is discerned—there can be no further argument on the subject. The question of personal bias does not come in, for the miner gets a fair go. There are cases on record where the doctor in the mining district, very conversant with the disease, turned down three men, and reported to the Commissioner of Pensions, quite definitely, that they were not suffering from miner's phthisis. The result was that the Commissioner wrote to each of the applicants stating that he regretted that he could not grant pensions to them, in the face of the medical advice that they were not suffering from miner's phthisis. We put the case to the Commissioner—it was then Mr. Fache—who was very sympathetic, and told him we were satisfied that the doctor was acting conscientiously, but that some mistake had been made. The men were brought to Wellington and examined by means of the X rays, and the examination showed long-standing phthisis. The men were therefore granted the pension. That incident showed that the external examination is of no use. Had those men been examined with the X rays in the first instance, years of weary waiting would have been saved to them, with the worry attendant upon it. To sum up, I would say that the disease could be stamped out quite easily in New Zealand by the use of the X rays. Within two years there need not be a miner in the Dominion in the second stage of tuberculosis.