

equipping a station would be about £610. There is no Board of Trade here to compel the company to provide signals, but two of these would cost £40 each. If the country became settled we should be asked to fence the track on both sides which, with crossings, gates, &c., would cost £150 a mile; and if cattle-stops were put in each cattle-stop would cost £30. With regard to the sleepers, the number per mile should be 3,500 for a 30 lb. rail, but our 30-lb.-rail track is all up-rails now, and we relaid our 50 lb. track with 53 lb. second-hand, taken from the main lines. The sleepers should be spaced about 18 in. apart. The company's sleepers, I believe, are spaced 19 in. apart. The number of men required to keep the track in order, in accordance with the experience of the Department, is one man per mile and a quarter for a 30 lb. track, and one man for every two miles on a 55 lb. track; so that a ganger and six men would have to be employed on a 30 lb. track as against four men on a 55 lb. track. That is what we have found to be necessary in actual experience. If the line were completed to Taupo it would take nine hours on the journey from Auckland and twenty-two hours from Wellington. The locomotives used by the company are geared locomotives, which are doing successful work throughout the country, but the speed has to be limited to from eight to ten miles an hour, otherwise the wear-and-tear is very excessive. It takes eight hours to do fifty miles. The heavy grades are taken slowly, and no doubt they slacken down when going round the sharp curves. The formation of the track is good, and the ballast is pumice. The Railway Department uses gravel pumice on the Rotorua line, and the ballast is of the same general description. Pumice is not a very satisfactory ballast. It is subject to being blown away, and has to be renewed frequently. The Department is replacing it as fast as possible with broken-metal ballast. The maximum axle-load which could be allowed to run on a 30 lb. track would be 5 tons 16 cwt., which is our standard.

6. *Mr. Buchanan.*] Are you of opinion that the rolling-stock should have been made heavy enough to admit of its running on the Government lines?—In the interests of the company I think it should. It might have cost 25 per cent. more, but it would have saved the cost of transferring the timber at Putaruru, which probably costs 6d. per 100 ft.

7. You have shown that there is a wide difference between the freight charged by the company, for account purposes, for the carriage of timber on the company's line and what would have been received by the Government if it had worked the line, say, in conjunction with the general lines?—That is so.

8. Could you give us a general percentage—that is, how much less per cent. would the Government get for carriage if it took over the line?—It would require working out. I have quoted the figures.

9. The Committee have had an offer of a guarantee of £11,600 for fifteen years in freight: how would that item stand if the line were taken over by the Government?—I do not know that it would stand. If it were a cash guarantee it would stand. We have had guarantees before.

10. *Mr. Dalzell.*] Not of this kind?—No, not of this kind. The £11,600 would be very much more. According to my figures, on the basis of last year's working, the Government would get £3,900. Now, according to the company's proposal, instead of getting £3,900 we should get £11,600; that is the position. But the Government would not be dealing with the company for their business alone; the settlers along the line would have to be given the benefit of the ordinary Government tariff rates. You could not charge a settler on the £11,600 basis, because on the company's basis they are debiting themselves for freight with a very much larger amount than they would be debited if the Government were working the line.

11. You gave us a sketch of the number of men required in given mileage for maintenance: do you not think the cost would be less on pumice country, which does not grow grass, than on, say, the New Plymouth line, where you have difficulty in keeping down the grass?—It is a dry climate, but the maintenance of that line would require less than two miles to the man. The heavier the rail the easier the maintenance.

12. Can you give us any opinion as to the advisability of inaugurating light lines in different parts of New Zealand?—In Mr. Hall-Jones's time—he was an advocate of light lines and also of a broken gauge—a light line was constructed from Stratford to Toko, which will ultimately become the main line between New Plymouth and Auckland. He wanted a broken gauge and 40 lb. second-hand rails. He had the bridges built of timber, which was obtained on the spot—rimu and so on—and the banks and cuttings were made exceptionally narrow. Later on the Railway Department had to relay that line with 53 lb. steel rails and renew all the bridges. That was a bad sample of light railway. When the idea was broached of breaking the gauge, I offered on behalf of the Railway Department to build that line for the Public Works Department with the standard gauge for the same amount of money which they proposed to allocate for it on the broken gauge—I think, 2 ft. 6 in. The result was that there was no break of gauge. There are parts of New Zealand where light railways could no doubt be made with advantage to the country at a fair and reasonable cost, the same as was done in Canterbury years ago; but you must have suitable rolling-stock and light engines. The Department worked the traffic with 30 lb. rails successfully in Canterbury, and had about two hundred miles at one time. It is not a light railway as interpreted in England, where they put a heavy rail down, but it is what I call a light railway. In fact, the New Zealand railways as built to-day are light railways according to the interpretation an English railwayman would put on them.

13. Can you give us a general idea of the difference in cost between what you would call the most useful light railway for New Zealand and the present standard line?—It is very difficult to arrive at that. It all depends on the country you run through. I could not give you an estimate without going into the matter carefully.

14. With your experience of some of the lines in New Zealand which have been losing money for years, could you have saved that money if light railways had been adopted instead of standard railways?—Of course, if you could reduce the capital cost very largely it would alter the situation. If you had £50,000 to find interest on instead of £100,000 it might be a reasonable proposition.