

rolling-stock in use on the New Zealand railways. It is possible that some alterations might be required so far as the cars are concerned, and they might have to be restricted to that particular line; but I do not think the same contention would apply to bogie trucks which are in use at the present time, and the business would have to be done with rolling-stock of that description, as I believe it is being done at the present time. I think the company have one four-wheel brake van, but I am not quite sure. When I was at Putaruru some time ago I took the opportunity of examining the truck tires, and I found the wear-and-tear was very severe indeed. Even with bogie stock it goes to show that on curves of $1\frac{1}{2}$ -chain radius the wear-and-tear is very excessive. The sharpest curve that we have on the New Zealand railways, with the exception of the $4\frac{1}{2}$ -chain curve that Mr. Holmes mentioned—and that has been improved—is 5 chains, but we have sidings with curves as sharp as 3 chains; the Department is eliminating these curves even on sidings, making the worst curve not less than 5 chains. Something was said by the previous witness as to what it will cost to put rolling-stock on the line. Well, I have taken the Gisborne Railway, with a mileage of thirty-one miles to Otoko. The value of the rolling-stock on that line is £29,680. There are three locomotives, ten carriages, one horsebox, four cattle-trucks, twenty sheep-trucks, thirty-one L wagons, thirty-five M 8-ton wagons, eight U bogie wagons. The total cost is £29,680. The same class of plant would not be suitable for the Taupo Totara Timber Company's line, because you would require bogie trucks only; four-wheel wagons would not work the curves.

3. That would be more expensive?—Yes. I do not think, if you were to provide new rolling-stock, working the present business and, in addition, the passenger traffic, you would have to spend more than £30,000 for equipping the line with new rolling-stock. I have information which might be of interest to the Committee. It refers to the Darjeeling-Himalayan Railway in India. In some respects it is similar to the Taupo Totara Company's line.

4. *Hon. Mr. Fraser.* Is it the same gauge?—No, it is a 2 ft. gauge, fifty-one miles long, which, "starting from Siliguri, 398 ft. above the mean sea-level, rises to a height of 7,407 ft. at Ghoom Station, forty-seven miles distant. It then descends to Darjeeling, which lies four miles further on, the terminus itself being 6,812 ft. above the sea-level. Although of only 2 ft. gauge, the construction of this line presented serious difficulties, the steep ascent requiring the provision of frequent loops or spirals and reverses, one of the latter having gradients of 1 in 28. The average ascent for the forty miles between Sookna and Ghoom is 170 ft. per mile; for the first seven miles to Sookna Station the gradient is gentle, but from this point to the summit at Ghoom the average gradient in the sections varies from 1 in 29 to 1 in 37, and curves of 70 ft. radius are numerous. To work such a difficult line with safety the ordinary locomotive is ill adapted, and a special locomotive was designed." That goes to show that it is possible to work lines in special circumstances having worse curves than the $1\frac{1}{2}$ -chain curves on the Taupo Totara Timber Company's line. I produce a photograph of the engine. Then, again, in Tasmania they have a similar locomotive working a line there where the conditions are very severe. They are called "Garrett" locomotives. They are specially designed to work round short curves. With regard to the report of Mr. Coom, late Chief Engineer of the New Zealand Railways, I desire to say that the cost per mile of relaying a 55 lb. track with 70 lb. rails would mean £1,400 a mile. In this connection I might say that we had a very large mileage of 30 lb. track working in the South Island. Iron 30 lb. rails were used, with the exception of those laid on the Outram Branch, which were 28 lb. to the yard; also the Sentry Hill line to Waitara; but the traffic was not heavy on those lines. The fact, however, remains that we got about thirty years of life out of this track. They were iron rails, and in the days when they were rolled it was excellent iron that was used, and of a very much better description than you could get to-day for the same purpose.

5. *Hon. Mr. Ngata.* Not so good as steel?—I beg to differ with you, because corrosion goes on with steel, and the Railway Department have had to relay what a layman would say was an excellent track, because of the wasting by corrosion of steel rails. This obtained on the Manawatu line when the Government took it over. On the sea-coast, as on the line from Timaru to Oamaru, the wasting by corrosion is very severe, and I went so far as to ask English rail-makers whether we could not get iron-rolled rails instead of steel, but the cost was so great as compared with steel that I had to abandon the idea. It would be cheaper to put in two steel rails in place of the iron one. Assuming that the Department had to relay the line with 55 lb. rails, which is the standard for branch lines—it is 55 lb. for branch lines where we shall never have a heavy fast traffic—it would cost £1,150 to relay the company's line per mile, or a total of £57,500. I consider it would not be a prudent thing to do, because there is at present nothing to justify so large an expenditure, so long as you could carry the traffic on the existing line running at a certain rate of speed. The difficulty I see, if the line were taken over by the Government, is that pressure would be brought to bear—as it always has been, and will be under the present system of railway control—to compel the Department to put on unnecessary trains, which would swamp the whole business. Each train costs 5s. 10½d. per train-mile. In my opinion the company could manage the business much more economically than a Government Department. The late Manawatu Company is a case in point. When that company managed the line people went to the general manager for extra trains, and he said, "You will have to give us a guarantee if you want an additional service." The service on that line has been greatly improved, and yet the public want more trains and are everlastingly petitioning the Minister and coming to the Department for additional services. Mr. Coom mentioned that it would only cost a nominal amount for equipping the stations. I take it for granted that the settlers would want a shelter-shed with lock-up rooms, and that would cost £40. A ramped platform would cost £20, and some people are not satisfied when they get one; they want a platform with concrete or timber face. Then they would want stock-yards and a goods-shed. The goods-shed would be required to shelter the manures and goods. Then there are approach roads, &c.; and the estimate for