

Mr. C. B. KNORPP, Inspecting Engineer, examined.

573. *The Chairman.*] You know the object of this Committee?—Yes.

574. With which of the proposed lines have you any intimate acquaintance?—I have been over a portion of the line from Marton to Te Awamutu, and also over a portion of the line from Te Awamutu down towards Stratford, and over the line round the Mokau to Waitara. I have been over the ground, and I have, in former years, been over part of the line from Napier—several portions of it—where it approaches the coast-road.

575. What portion of the central line have you been over?—From Marton along up to Hautapu, and across Murray's track, and up the Murimotu, and round the east of Ruapehu to Tokano, and then to west of Ruapehu to Waimarino, and then came back through Tokano, and then till you get to the crossing of the Wanganui. Then I went up partly along the line and partly along the tracks to Te Awamutu.

576. Can you tell the Committee the nature of the surveys that have been made on that line?—The first survey that was made was just a reconnaissance survey, with the aneroid, by Mr. Rochfort. Then he made an approximate section from that, and afterward made a preliminary survey with the instruments.

577. You have seen the sections he laid down?—Yes.

578. Do you consider, from your knowledge of the country, that those sections can be improved upon?—Before the final location there would be room for improvement, I should think, because, for want of time and similar reasons, the Engineer cannot always locate the best. Generally great improvements are made; but the heights, and so forth, will remain the same.

579. Taking the general cost of the construction of New Zealand railways, what is your opinion as to the comparative cost of this line?—I have made an approximate estimate on Mr. Rochfort's first preliminary survey, and from what I saw of the ground, and according to what we usually find is to be allowed for rails, rolling-stock, and stations, and all that sort of thing, I made the cost from Marton to Te Awamutu £1,260,000.

580. Does that include any road alongside the line?—Of course there would be roads made, but that would be included in the cost of the work. The contractors would probably make roads. It does not include a through road alongside the line, but it would include roads necessary to give access to the work. I presume the line would be constructed from both ends at once, so that the heavy material would come up by the open railway.

581. As a matter of fact, on the sections submitted to the Committee there are no gradients worse than 1 in 50?—None.

582. Mr. Rochfort has told us that they could be reduced to 1 in 70, and that there are no curves worse than 9 chains: will you tell the Committee, from your knowledge of working railways, what is the speed that could be safely run on such a line?—Do you mean the maximum speed?

583. Taking the way in which the time-tables are set now; for instance, the express train in the South?—I think that is fixed at twenty miles per hour. It would depend on the engines very much. I should think you could run twenty-five miles per hour very well.

584. You do not quite follow me. Suppose this line is laid down as proposed on these plans, with the small improvements which Mr. Rochfort is of opinion can be made, would you be able to train through on this line at the same speed as from Dunedin to Christchurch?—I should say so, quite; 1 in 70 would be a very good grade in portions.

585. From what you have seen of the country, is it adapted for railway construction? Have you got ballast and timber at hand?—There is timber in a great many places along the line; in fact, I should say almost everywhere, except, perhaps, just towards the Waikato.

586. And is there material for ballast?—Yes.

587. And what is your idea of the fitness of the country for settlement?—The country varies very much. The southern portion, up as far as the Hautapu, is very good land, tawa, white pine, and rimu; there are some fine valleys in it. In some portions it is broken, and there is a very small extent of birch, but a very small extent only, just on the highest part of Murray's track. Then, up to where the road goes off to Tokano, the good land ends about there on the north side. Then, towards the south, the land appears to be good again. We went in some distance there. Round about Ruapehu and Waimarino the land is very poor, and also a small piece at Waimeha, just before you come into the Mokau country. Up to Te Kuiti it is splendid land, with clover growing.

588. *Mr. Fergus.*] You know the country pretty well between Oamaru and Christchurch?—I have been through there several times—along the railway principally.

589. Would you say that the general run of land along the Marton line is as good as the land between Oamaru and Christchurch?—I would not say that.

590. Say from Timaru to Christchurch?—That is some of the best land in the country.

591. Would you think that the land along this line would, on an average, be anything like the country, taking it as a whole, from Dunedin to Christchurch?—That is rather a difficult comparison to make. One country is under cultivation and the other is in its native state. It wants a great deal better judge of land than myself to answer that question.

592. You know the line pretty well between New Plymouth and Stratford?—Yes.

593. That is not very much in a state of cultivation?—No.

594. Would you think, then, that the land was as good as that?—Some of the land is better. It would be easier to clear. It is rather light land at New Plymouth. There is better land between Hautapu and Marton—at Te Kuiti—limestone country. Of course, with regard to the intermediate part, I did not go south-west of Ruapehu, and so did not see it.

595. You think there is plenty of timber?—There is totara in patches, and a great deal of rimu.

596. *Mr. Montgomery.*] What is the quality of the soil for the first fifteen or twenty miles from Marton?—Good soil; it is strong clay soil.