

MONDAY, 26TH SEPTEMBER, 1892.

Mr. CHARLES EDWARD ARMSTRONG, sworn and examined.

1. *The Chairman.*] You are employed in the Public Works Department?—Yes.
2. You were assisting Mr. Holmes when he was surveying the Hautapu Section of the central route?—Yes.
3. You were also engaged with him in the survey of the Stratford route?—Yes.
4. Do you know the country along both routes?—From Marton to Kerioi, on the North Island Trunk line (central route).
5. And on the Ngaire-Stratford route?—From end to end of that route.
6. How long were you stationed in the Hautapu Valley?—About fifteen or sixteen months.
7. Does that cover more than one winter?—Yes.
8. Did the period extend over two winters or two summers?—Part of two summers.
9. What is your opinion of the locality as to suitability for settlement?—I consider the locality is very good if the means of communication were established.
10. What was your experience of the climate?—During the summer months it was very pleasant indeed; but in winter it is excessively bleak, owing, of course, to the high altitude and proximity to the Ruapehu Mountain.
11. What was the duration of what you would call winter there?—Very much the same as in other parts of the North Island. I do not think the extent of the winter is materially different.
12. Do you mean that the climate up there is not different to any other part of the North Island?—Only with the exception that it is much colder during winter.
13. We would like to ascertain how far the exception extends. Is it an exception of any importance, or trifling?—It is, in this way: for cropping of some kinds it would naturally interfere with.
14. Were there any cultivations in the neighbourhood that you can speak as to the nature of the growth?—Yes.
15. Would ordinary garden vegetables thrive there?—They would have to be hardy in kind. Potatoes grow very well when sheltered, but any of the finer sort of vegetation would not do well owing to the severe frost.
16. Are the potatoes grown in sheltered situations?—Yes; in nearly every case the Maoris would plant patches in the outskirts of the bush where available.
17. So that the potatoes are to some extent sheltered?—Yes.
18. Now, how long were you engaged in the survey of the Ngaire route?—From twelve to fifteen months.
19. Did that period extend over part of two summers?—Part of two winters.
20. How did the climate on that line compare with the climate on the Hautapu Section?—It is a more temperate climate there.
21. Which of the two would you prefer to select for a home?—The Ngaire route, as far as climate is concerned.
22. What was the character of the soil along the Ngaire route?—From Stratford to the Wangamomona the land is very good, and quite suitable for settlement. From thence to Heao and Mangaroa the land is exceedingly broken, and the soil inferior, birch growing in a great many places on the ranges. From Heao to Ohura the soil is very fair. From this to the junction of the central route the land is fairly good.
23. You told us that part of the country is very rugged?—Yes.
24. What is the general character of the hills upon the rest of the route which is not included in that description? How do they compare with the hills around Wellington as to the accessibility for cultivation?—It is very hard to compare bush country with open country. I do not think the hills would be any worse than they are between here and Porirua—that, is of course, as far up as Wangamomona.
25. That is, the broken country?—Yes, as far as Wangamomona.
26. Then you have broken country at the northern end?—Yes, at the northern end it is just moderately hilly.
27. Undulating?—It is more than undulating—broken country one would call it.
28. Is it country that can be brought into cultivation?—Can only cultivate parts of it.
29. *Mr. Duncan.*] Have you travelled the country east and west for any distance?—From the Tangarakau to Tongaporutu it is excessively broken country. [Witness indicates the position on the map.]
30. That is on the western side of the route?—Yes.
31. Have you travelled across the eastern side of the route?—Yes. For about five miles towards the Wanganui River the land is very broken.
32. Did you make any exploration of the Ngaire route over the portions that were less broken?—No, because I was not engaged on the survey beyond Ohura.
33. Have you any knowledge of the country between Eltham and Tongarakau?—No; with the exception of what is included between Stratford and Tongarakau.

Mr. WILLIAM HALES, Engineer-in-Chief, further examined.

34. *The Chairman.*] Have you brought with you the plans and specifications of the Makohine viaduct as requested?—No; they are in course of preparation.
35. How far are they advanced in the way of preparation?—They are sketched out, and the design of the viaduct has been settled.
36. If the general style of viaduct only has been sketched out, the estimate which you furnished the Committee on the 13th of this month can only be an approximation?—It is an accurate estimate from quantities carefully taken out.