

39. You had no previous acquaintance at all?—No.

40. You have had sufficient, at any rate, for you to come to the opinion that the western route is the better from an engineering point of view?—Yes. That is what I mean to convey.

41. Your opinion is that both lines would cost about the same to the 93rd mile?—I think the cost of the two lines would be about the same to McCarroll's Gap—98 miles.

42. Do you consider that an estimate showing that the western route would cost £93,000 more than the other one is a reasonable one?—I think it quite unreasonable—incorrect.

43. That is taking into consideration the cost of that large bridge across the Otamatea and another across the Wairoa?—No, we are not as far north as the Wairoa. The Wairoa is about 128 or 129 miles; it is further north than the 98-mile point.

44. Is there any work going on on the deviation at the present?—We have a few men working there, I think.

45. *Hon. Mr. Buddo.*] What is the usual method of finding out whether a proposed railway is practicable?—Making a trial survey of the proposed route.

46. In making a trial survey would you make any comparison of the country adjacent to the area in a similar direction, in order to find out the best route?—You would examine the country in the neighbourhood.

47. Would you take any elevations?—You would take complete levels on a trial survey.

48. That is to say, after making a trial survey you would be able approximately to——?—To lay down the line of the permanent survey very closely.

49. And give the grades?—Yes.

50. Have you made such a comparison on these two routes?—Such a comparison has been made.

51. From the comparison you have made, what, in your opinion, is the best route?—I consider the western route is the better route.

52. From a commercial point of view which route would you decide on for that railway? Let me put it in this way: If you were acting in the capacity of advisory engineer to a company or to any Government that was railing a district largely agricultural and pastoral, which of these two routes would you prefer?—I should certainly put the line on the western route.

53. You have been over both routes up to about a hundred miles, have you?—Yes, to 98 miles.

54. Is there a sufficient quantity of metal to be obtained at a reasonable price on this western route to keep the cost of the railway within reasonable bounds?—Yes; excellent ballast is obtainable at 105 miles—crystalline limestone, in large quantities.

55. Then there is no great difficulty in the way of ballast?—No. It could be railed from Mount Albert, as we are doing now; and it could be obtained elsewhere.

56. In past experience of railway-construction in New Zealand, you have met with difficulties here and there with regard to slipping country, have you not?—Yes.

57. Did you notice on either of these routes any country that is more likely to slip than any other place you have been constructing railways through?—There is slip ground on both lines. There is more slip ground, I consider, on the western route.

58. *Mr. Hogan.*] Taking the whole distance up to the 135-mile point—the converging-point of the two routes, I think—would the western be cheaper than the eastern?—I should not be prepared to say that. It is not in my district. I have not gone into it.

59. *The Chairman.*] From the point where the railway is brought up to now, it could deviate either east or west?—Yes.

60. Is it rougher country, with more rivers and gullies, on the west than on the east?—In that respect it is easier.

61. Is ballast not easier got at on the east than it is on the west?—I think ballast is rather easier obtained on the east.

62. And it would be cheaper there?—Yes.

63. How many miles is it from the point the railway is at now—the deviation-point—to McCarroll's Gap?—Twenty miles.

64. Have you any idea what it will cost per mile on the western side? Did you reckon it up?—I divided the line into sections. I could not give them from memory.

65. You could not give an average right through?—I would rather put it in writing.

66. How many feet long is that bridge that you mentioned—the bridge that would cost £17,000 without the approaches?—Eight hundred feet would be sufficient.

67. How many feet would the approaches be?—Between 400 ft. and 500 ft.

68. *Mr. Stallworthy.*] You have been pretty well over the country in question?—Yes.

69. I made a trip with you at one time, when we went right through the centre?—Yes.

70. So you have a very good knowledge of the country?—Yes.

71. Prior to your going to the North, had there been any survey of the western route—I mean, sufficient to form an opinion as to cost and so on?—There had been a flying survey as far as Young's Point.

72. Not beyond that?—No, none further.

73. So that until you went to the district there was no man in a position to form an opinion as to the relative value of the eastern and western routes?—No reliable opinion could have been formed.

74. We have in you, therefore, the man who has had as much, if not more of the information regarding the two routes before him than any other man?—I have had the whole of the information that has gone to the Engineer-in-Chief.

75. You have had better opportunity of judging than the Engineer-in-Chief himself, for this reason, that you have seen the country on the western route more than he has?—I would not say I have had a better opportunity of judging.