

or dock-work, or any other sort of work. My experience has been this: Where a man is contracting it matters very little whether it is earth or iron or stone or wood he is working in: he gets specialists for each kind of work, and he knows that is the only way of putting it through. It is generalship and management which is the first necessity in a contract.

24. And you are satisfied that we as contractors are capable of exercising sufficient ability to carry on works of this kind?—Certainly.

25. We carried out a number of works under your supervision—for instance, we carried out a very large contract in the Rotorua Railway under you as Engineer, and you are satisfied that we carried out the work as systematically and as cheaply as any other contractors you have had?—A long way cheaper than any I have known.

26. On the usual railway contract?—Yes; and with about as heavy earthwork as existed in the colony.

27. Prior to the Makarau Railway contract you had no knowledge of us as railway contractors—I mean in constructing railways?—I do not know the date of the Makarau Railway contract. You had done bridge-work before that.

28. And notwithstanding that we were able and capable of carrying out this work?—Yes; there is no mistake about that.

29. *The Chairman.*] I gather from what has been said that you have been in the Government service, and have in that capacity had considerable experience in supervising public works?—Yes.

30. And you have supervised contracts that have been carried out by the petitioners?—Practically the whole of the Auckland railways, with a few exceptions.

31. And your answer to the petitioner is that you have the fullest confidence in the way he carried out his work and the general way he goes on with it?—Certainly.

32. *Mr. Flatman.*] Are you in the service now?—No.

33. Would you mind stating why you left the service?—I left the service when reductions were made in 1881, when the Hall Government succeeded Sir George Grey.

34. You stated that you visited the Makarau Tunnel?—Yes.

35. Were you officially there, as a Government servant?—No, advising Messrs. McLean.

36. And you found it to be in a bad state?—Very bad.

37. Was it due to the faulty work of the contractors?—No, I could not say that. The statement that was made to me I could hardly believe at the time—that was, that they were forced to take out those miner's sills—for I found that the brickwork a few chains behind where they were working had showed signs of weakening. That was the explanation given me; and that the sills were ordered out. The catastrophe that occurred could hardly be wondered at. But the tunnel was in an exceedingly bad state when I saw it, so much so that you could not take a single poling-board away without the mud squirting out. It was a very long time before they got round it; and, as I was told, they had been months before that and had made no progress whatever. They could not get in another timber, and it was so very bad at that time that the only way I saw of effectually getting through was to cut it open from the top. They got through in another way, but they had a very great deal of work over it.

38. Do you consider the thickness of brickwork, as specified in the specification, was strong enough for the tunnel?—Not for the tunnel as it turned out. An invert had to be put in; and, besides, there were cracks, showing the weakness of the sides. I do not know whether they still exist or not, but they existed when I was there. I have only been there once.

39. And you consider it was necessary that there should afterwards be an extra ring of bricks for the safety of the tunnel?—If they had not put in that invert there would be no tunnel there now. There would have been a collapse.

40. *Mr. R. D. D. McLean.*] You say you always bore the ground. Is that customary?—Yes; and it has always been customary for me to let the contractors use the information so obtained, but it has been my custom to take no responsibility for it. All information that I procured I have allowed them to use freely for their guidance, but there was no guarantee that it was correct.

41. Is that the custom of the department?—I believe I explored the ground more than was generally the custom of the department.

42. *Mr. Massey.*] I think I heard you say you were of opinion the undertaking, so far as Messrs. McLean were concerned, was done in a workmanlike manner?—Yes. The brickwork was first-class, and they had a thoroughly systematic method of getting the ground taken out and the brickwork put in.

43. In this matter of the sills, do you think because the overseer insisted on the removal of the sills, that he was to blame for the collapse of the tunnel?—It was stated that Mr. Witheridge ordered them to be removed. I must believe it; but it was a most mistaken thing in my experience. There is no question in my mind that the removing of the sills was the cause of the catastrophe.

44. Then do you think the Government is responsible for the mistake of their overseer?—Well, I should think so.

45. *Mr. Wright.*] Tell the Committee, Mr. Stewart, what general experience you have had in the supervision of railway tunnels?—During the eight years in which I worked as an engineer in the Old Country I filled only subordinate positions. In the tunnels here there was the Parnell Tunnel—

46. *Mr. Massey.*] May I ask, was the Parnell Tunnel constructed under your supervision?—Yes. It is a short tunnel of about 14 chains with very bad ground at the end of it.

*Mr. Crowther:* Shocking bad ground.

47. *Mr. Wright.*] But although in a subordinate position you have, I suppose, had experience of tunnel-work. Will you mention it?—Well, there was part of the Caledonian Railway.