

1991. And nothing else?—And joggles.
1992. Would it not make sleepers?—I should not prefer it for sleepers.
1993. Why?—It is too hard.
1994. What effect would putting in hard sleepers have on the line?—I do not think a man would be able to bore a hole to put a spoke in.
1995. Suppose you could bore holes?—It would do very well then.
1996. It would not shake the rolling-stock to pieces, I suppose?—Perhaps it would; I have never seen any used.
1997. What character of country is this tunnelling referred to for £900 per chain?—Papa-country.
1998. *Mr. Larnach.*] How far do you think the ballast would have to be conveyed in making the line?—I do not know.
1999. Would it have to be conveyed from either end, or could you get it anywhere in the middle of the line?—I think we could get some in the Tangarakau—about the 60th mile from Stratford.
2000. You say that, in your estimate, you have doubled the usual estimate for ballast?—Yes.
2001. On what principle have you doubled it?—On account of the apparent difficulty of getting it.
2002. Then, why not take three times the usual amount?—I do not think that would be a fair estimate.
2003. Are there any parts of the line that would cost a great deal more than double?—Yes; I dare say a few miles.
2004. Well, would it not make a very great difference if the ballast had to be conveyed fifty miles instead of ten?—Yes.
2005. If it would cost so much for ten miles, it would cost more than double for fifty miles, would it not?—Yes; I should say it would.
2006. So that your estimate is chiefly guesswork?—Yes; guided by experience.
2007. The whole of it?—Yes.
2008. If the radius of your curves was enlarged, would not that make a difference in the cost?—Yes; it would increase the cost of the work.
2009. Might it not double the cost of going round some of the hills if the radius was much enlarged?—Of course it would add greatly to the cost.
2010. Is it possible, or rather is it probable, that in many parts of the line the radius of the curves would have to be enlarged?—I do not exactly understand the question.
2011. In taking levels and finishing the survey, is it probable that the radius of many of the curves would be extended?—No; I do not think so.
2012. *Mr. W. White.*] In reply to Mr. Fergus, I understood you to say that you preferred totara for the superstructure of the bridges?—You would have to go into the whole question of the construction of bridges to discuss such points.
2013. But you say that for the superstructure you prefer totara?—I prefer totara, except for the running beams and stringers.
2014. But are not those part of the superstructure?—Yes.
2015. *The Chairman.*] Which timber would you prefer for running beams and joists?—Black birch.
2016. And what do you prefer for the rest of the work?—Totara.
2017. *Mr. W. White.*] In reference to the maire: do you think the maire would last any longer than the black birch?—I have not seen maire employed much in the ground at all.
2018. Supposing you can get maire from 2ft. to 5ft. through, and from 30ft. to 40ft. long, do you think it would be preferable to use maire instead of black birch?—I must say that I have never seen or heard of maire as large as you mention; and I know that when maire timber is dry you cannot bore an auger-hole through it. I have tried that myself.
2019. Then, you would lead the Committee to believe that maire is useless for bridging-work and sleepers?—Yes; except in certain places.
- 2019A. But for braces and piles and sleepers?—Yes; it is useless.

Mr. J. ROCHFORD, further examined.

2020. *The Chairman.*] In reference to this estimate of yours, Mr. Rochford, have you seen any reason since you gave evidence here before, and put this in, to make any alterations in it, or are you still satisfied it is fairly correct?—I think it is a fairly-correct estimate.
2021. Can you state at what price you have taken the ballast on the rate of £,3000 per mile which you have allowed for the permanent-way and stations?—2s.
2022. And for sleepers?—I took the general price of £700 for platelaying.
2023. Does that include ballast as well?—Yes.
2024. *Mr. W. White.*] What price have you allowed for bridge-timber?—About £2 per cwt., taking it all through; that would be fixed.
2025. What kind of timber are you providing for?—The timber that would occur along the line.
2026. Is that totara or matai?—Totara, matai, black birch, and maire.
2027. Do you propose using any maire in any portion of the bridge?—Yes; I think it would be often advisable to use it for stringers. There are some very fine spars of it.
2028. Do you think maire is preferable to other kinds of timber for that purpose?—I think it would be preferable in an economical point of view when it is most handy to be got, and I believe it is a very good bridge-timber.
2029. Would it be too hard to work?—No; I think not. It has been used a good deal.