23. And if properly constructed would serve all the needs of goods and passenger traffic for many years?—Yes, a great many years.

24. Quite recently, I understand, you have made a study of light lines in other parts of the

- world?—Yes.

 25. Where?—In America and Europe, but more especially in the United States and Vancouver.

 26. You examined into the construction of light railways in countries which somewhat resemble New Zealand?—Yes.

27. Did you find in those countries that the policy of light railways is approved?—Certainly. 28. The railway from Putaruru which was constructed under your supervision is carrying timber freights just now?—Yes.

29. Supposing it were completed to Taupo, can you say whether it would serve all the traffic needs of settlement, very close, in the district through which it is passing?-It would serve it very well.

30. Is it a line upon which passenger traffic can be run with safety?—Yes.

31. I would like to be quite explicit about that. The cuttings are rather narrow at present, and some small improvements are expedient?—Yes.

32. Would an expenditure of, say, £5,000 remove any objections you see to the line as a

passenger line?-Yes.

33. Something has been said about the curves: I know you have considered this matter carefully in connection with some Californian lines?—Yes.

34. What do you say about the curves generally on those lines?—In laying out light lines the first thing to consider is a good grade, because when you want to work your traffic profitably you have to haul heavy trains. Sharp curves are practically no detriment except so far as they limit the speed. If you can bunch your sharp curves in a short distance, you run fast through the easier portions of the line and slowly through the sharp-curved portions. Sharp curves are very important, because if you can follow the contour of the land in rough country you save enormously in the cost by even small deviations, because when you cut into, say, spurs you not only strike a deal of heavier earthwork, but you often have to contend with rock.

35. You have in view a line near San Francisco?—Yes.

36. What is the name of that line?-The Mount Tamalpais Scenic Railway, at the north side of the bay, near Golden Gate.

37. That is a light line?—Yes. To be exact, not so much a light line as a very tortuous one.

38. It is light as compared with our standard railways?—Yes.

- I have been there, and, if I recollect rightly, the curves are worse there than anything on the Putaruru line?—Yes.
 - 40. That line carries an enormous number of passengers?—Yes, it has an enormous traffic.
- 41. And at what speed?—I came down when I think the rate through was fifteen miles an
- 42. I think they travelled the curves at fifteen miles an hour?—Yes. It is all a question of having suitable rolling-stock.

43. And it has been running for some years without any accident of any sort?—Yes.

44. It is not a question of the curves, but a question of the nature of your rolling-stock?

45. Now, coming to the Putaruru line, it followed the contour of the country?—Yes.

46. And the grades are better than on the Rotorua line?—They are as good; perhaps they are better. The Johnsonville line is 1 in 40; and 1 in 36, a piece of it.

47. You have nothing so heavy as that on the Putaruru line?—No. 48. The line was as economically constructed as efficiency allowed?—Yes.

49. Do you agree with Mr. Coom that on the straighter portions a speed of twenty to twentyfive miles an hour with suitable rolling-stock would be possible?—Yes.

50. Is there much of the line fairly straight which would permit of that speed?—Yes.

51. Have you any doubt that with suitable rolling-stock the distance from Putaruru to Taupo—sixty-five miles—could be traversed in, say, four hours?—No.
52. Safely?—Yes. Of course, you are aware that at present they have not got suitable rolling-

stock.

53. We do not cater for passengers?—No.

- 54. Is there ever likely to be heavier traffic on the line than the heavy timber traffic now going over it?-No.
- 55. So that for some years it has been tested by as heavy traffic as is likely to go over it?— I should like to say that they are taking as heavy traffic on their trucks as they can carry on the Rotorua Railway.

56. Just by way of illustration, you have been in New York, as probably most of the gentlemen here have !-Yes.

57. Have you examined the light overhead lines there?—Yes. Do not let us say "light lines" but "sinuous lines."

58. Those overhead lines running in New York run at a very high speed?—Yes.

59. And what are the curves?—Some of the curves are about equally as sharp as those at

60. Do you remember what the curves are?—About 90 ft. radius.

61. And with the suitable rolling-stock there employed they are found to be perfectly safe for reasonably high speed?—Yes. They run at a high speed on the easier portions, and easily up to twelve miles an hour on the sharp curves, and make a great deal of noise.

62. There is a special risk there because, in case of accident, those up above would suffer as

well as those down below?-Yes.

63. Then, from your experience, observation, and training you see no objection to the curves on this line?-No.