78. You have had many years' experience in public works?—Yes.
79. About how many?—I have been forty-one years engaged in railway-construction.

80. When you started the standard was very different from the standard of to-day?—Yes. 81. For instance, what were your standard curves?—I do not know that we had any fixed standard particularly. The sharpest curve we endeavoured to use was 5 chains. I have known sharper curves to be used. We had a 4½-chain radius on the Greymouth-Brunner Railway.

82. What you sought to use was a 5-chain curve as the sharpest curve?—Yes. 83. That was on main lines?—Yes.

84. What rail did you use at that time—the minimum weight?—28 lb.

85. Those were on district Government railways?—Yes.

86. And how about the sleepering: was it similar to the present Government sleepering, or better, or worse?—There were fewer sleepers used.

87. Fewer than to-day !-Yes.

- 88. Then you know that our line has more sleepers than the present Government standard?
- 89. So that 30 lb. rails with the present sleepering of the Taupo Totara Company's line make it equal to many of your district railways in past times? --- Yes, better; because more sleepers have been used with the same weight of rail.
- 90. I want to make this quite clear: I understood you to express the opinion that this line as constructed to-day is sufficient for the carriage of the goods traffic of the Taupo district? -Yes.

91. I also understood you to say that the line could be made at comparatively small cost capable of carrying passengers safely !-- Yes.

92. In making your report I gather-and I would ask you to confirm this or not-that you were advising on what would be the best line to serve the Taupo district as a permanent railway for all time?—My instructions were to report as to the best route to connect Taupo with the existing railway system.

93. In carrying out those instructions you were looking, quite naturally, to bringing the

service of the country up to the present standard?-Yes.

- 94. And you took into account the fact also that this country would be served by the Tauranga Harbour ?-Yes.
- 95. Because you refer in your report to the Oruanui height, and suggest that it is inadvisable to go over that height?—Yes.
  - 96. You know that the present Rotorua line at Mamaku is the same height as Oruanui?—Yes.
- 97. So that while Auckland has to serve the Taupo district you have to go over the same height on the Rotorua line as at Oruanui?-Yes.

98. These two alternative lines would have to get to the same height?—Yes.

99. Mr. Buick.] Is Oruanui on the present portion of the line?—It is between Mokai and Taupo.

100. Mr. Dalziell.] In comparing the traffic from the respective districts you relied in the first place upon the passenger traffic. Can you say this: would you advocate to-day the construction of a standard line from Rotorua to Taupo for the sake of the passenger traffic ?-Not at the present time.

- 101. How long, from your experience of the past construction of railways, will it takeassuming it is determined in the near future to construct this railway from Taupo to Tauranga —to construct the standard line, considering the usual amount that is set apart annually for the construction of railways?—The line right through would be about ninety miles, and I suppose it would average about £8,000 per mile to construct, and if we multiply those two sums together and know the amount the Government is likely to spend annually we can arrive at a decision. 102. Say that provision is made for it?—I suppose it would be about five miles a year.

103. That is about eighteen years i—Yes.

104. You referred to the timber traffic: of course, you have in view the distant future, about thirty years hence, the timber from the State forest?—Yes.

105. Then the produce of the district, as you rightly say, is very little?—Yes.

106. So that, in your opinion, it would not pay to construct that railway in the near future?

-That is my opinion.

107. You have had a great deal of experience in the development of country: can you tell us whether it would be an advantage to serve this country by the proposed extension of this line to Taupo in order to give steamer service all round the lake, apart from the question whether Government or private enterprise has to do it?—One would naturally look to steamer service on Lake Taupo as a source of revenue to the railway.

108. Do you think it would be an advantage to extend that line at the present time in order

to develop that country?--I am hardly prepared to say Yes or No to that question.

109. With regard to the question of sharp curves: you referred to many sharp curves on portions of this line-I think they are limited to the section from the river to Mokai?-I think there is a large number in climbing up the Wawa Hill. Until you start climbing that hill it is a very good line.

110. The matter of curves is merely a question of speed?—Speed and wear-and-tear of rollingstock, also power.

111. That difficulty is a good deal removed by the provision of special rolling-stock?—Yes.

112. Mr. Buchanan.] There is a point of importance mentioned in your report, as to the portion of cultivable and uncultivable land in that district, and you have expressed the opinion that it depends upon whether the land is cultivable or not as to whether it could be put to use? −Yes.