104. Would it not be less railage for the people going to Auckland?—Yes.

105. About fourteen miles less?—Yes.

106. Do you not think that that would be the most sensible place for the people on the Wairoa to catch the train for Auckland? Do you not think it the most sensible place to meet the line, seeing that they would save twelve or fourteen miles of railage?—The line is past that point now. It is out of the question.

107. *Hon. Mr. R. McKenzie.*] Could you form any opinion of the route of the North Auckland Railway by looking at this map of Mr. Mander's?—It is merely a sketch-plan of the line.

108. Could you locate the railway anywhere on it when it gets away from the water at Young's Point?—You could not locate it if you carried the map on to the ground.

109. Nor anywhere else, could you?—It would be difficult to do so.

110. It has been suggested that the railway is to follow the route shown on this map. Would that be a gross exaggeration as to where the line goes?—It is incorrect. It is merely a sketch.

111. Is this McCarroll's Gap, as shown here?—It is intended for it. I could not say whether it is in the right position or not.

112. Could you state whether on this map it is ten miles away from the actual position?—I do not think the plan is to scale, so that one could not judge closely.

113. Anyhow, are you satisfied that that map distorts the position of the line?—It does not truly show where the line goes at all.

114. As District Engineer at Auckland, it is your business to supervise the surveying and construction of this line?—Yes.

115. Is that your principal business as District Engineer?—The survey and construction of the North Auckland line is the most important work in the Auckland branch.

116. Consequently it is your duty to be familiar with every detail of what is going on in connection with this work?—Yes.

117. You control all the other engineers who are engaged on it?—Yes.

118. You know the line that runs from the point of deviation round by Pukekaroro to Brynderwin on the eastern route?—Yes.

119. You know the ballast-quarry that was prospected at the Bald Hill?—Yes.

120. You say there is equally good ballast to be got at 105 miles on the western route?—Yes.

121. What length of branch line would be required to get to the ballast-pit at 105 miles?—About a mile.

122. As against what length at Pukekaroro?—From the western route, no less than four miles.

123. And the ballast is equally good in both cases?—Yes.

124. Supposing that you have to construct that line for the Government, which ballast-pit would you adopt for the western route?—I should ballast as far as possible from the ballast-pit at 105 miles.

125. How far would you ballast south from there, assuming that that ballast would be twenty miles north of Young's Point?—By arranging the work you could ballast twenty miles south of it.

126. That would bring you within a few miles of where you would branch off to Pukekaroro ballast-pit?—Yes.

127. As to the relative cost, you know the length of Ross's Hill tunnel on the eastern route?—Yes.

128. Take the tunnels between there and Maungaturoto. Supposing you put a tunnel through here, at 86 miles on the eastern route, how long would it be?—That would be 16 chains.

129. And the other one—at Ross's Hill?—Seventeen chains, and then there would be a short one of 11 chains at Kaiwaka Station.

130. That makes 44 chains of tunnelling?—Yes.

131. What is the length of the Ross's Hill tunnel on the western route?—Sixteen chains.

132. Are there any other tunnels until you get to Maungaturoto?—Yes, two going through Bickerstaffe.

133. What is the length of them?—One is about 5 chains and the other about 11.

134. That is, 32 chains of tunnelling on the western as against 44 on the eastern route?—Yes.

135. Coming to the bridge over the Otamatea, you estimate the cost at £16,000?—£17,000.

136. You have known me as a bridge-builder for many years?—Yes.

137. Do you think I could judge the cost of that bridge as well as, say, Mr. Holmes, or Mr. Stewart, or even yourself?—Yes, I think you could as well as myself.

138. Supposing that I offered to build that bridge for £12,000, do you think I should be able to do it—that is, with an ironbark superstructure and not a steel one?—It would be built very much cheaper with an ironbark superstructure. That estimate of mine is not for an ironbark superstructure.

139. Supposing it to be of ironbark and was to be put out to contract, do you think £12,000 would be too low for it?—I am not prepared to say you would be too low. You would probably be about right.

140. As to the approaches, say, on the western side, there would probably be 5 or 6 chains of approaches. The main bridge would necessarily be a cylinder bridge, but on the rubble perhaps 6 or 7 chains could be filled in to advantage, could it not?—Yes, about 400 ft. or 500 ft. could be filled in.

141. I think you said that this approach would cost much less per lineal foot than the bridge would?—Yes.

142. This bridge would be across salt water, would it not?—Yes.

143. Would you require to have either concrete piers or iron piles in that bridge, on account of the teredo?—It would be better to put cylinder piers or concrete piers in there on account of the teredo.