Mr. O'Connor. 2nd Dec., 1879.

116. Do you think from what you now know of the decrease in the cost of material, &c., that the line, with the deviation now under consideration, could be completed at or under the original estimate? -No, I do not.

117. Mr. Seddon.] Do you know that the line, including deviation, could not be made for £220,000?—I feel sure that it could not.

118. Would you consider it proper, in order to give people out of the line of railway like facilities to those along it, that a branch line should be made to Kumara?—I think that is a question of policy, and scarcely a matter of professional evidence; but, as one of the community, I think it would be very desirable.

119. I understand that you have not made an actual survey of the route, Mr. O'Connor; but you can probably tell us what is the steepest grade?—I have estimated that there will be grades at least as steep as 1 in 50; and, in connection with this, I should like to show you the evidence we have upon that, because you might think it is more rough than it is. This [producing a map] is a map got up in connection with proposed water-races some years ago, and you see it is thickly studded with levels; and it was through this that we compiled the section and statement of grades along deviation line: so that, although, as I said before, we have had no special survey made of the deviation, there was sufficient data to enable us to form a pretty reliable estimate of what the grades would be.

120. Very well, then, what is your steepest grade?—Well, we know we will have to have 1 in 50.

121. Mr. McLean.] You are talking now of the deviation?—Yes.

122. Mr. Seddon.] Do you consider 1 in 50 a heavy grade for railway purposes?—It requires powerful engines, and a different class of engine from what we are using on the West Coast.

123. The Chairman.] But it would be a very small portion of the line of that gradient, would it not?—No; there is a lot of it. There are in all miles of it—viz., two miles together at one place, a mile and a half at another place, and so on at different points.

124. Is it as steep as 1 in 50 anywhere between Greymouth and Kumara?—Yes, in some places

125. Mr. Seddon.] What is there then between Canterbury and Otago?—There is lots of 1 in 50 in Otago. None as yet, I think, in Canterbury.

126. There is some 1 in 15, is there not, in Otago?—No; nothing so steep as that.

Wellington is 1 in 15 is it not?—Yes. From 1 in 1

127. But the Rimutaka, near Wellington, is 1 in 15 is it not?—Yes. From 1 in 15 to 1 in 17, I

128. The next question I wish to ask you is this: You speak about this line being constructed to Otago: what distance have you got to go before you get to Otago from Hokitika, and what is the country you have to go through?—It is something like 400 miles, I believe, but I do not remember exactly. The exact distance is given in the Public Works Statement for this year.

129. Do you think the traffic solely between Greymouth and Hokitika would pay expenses?—

The original estimate made out that it would do so.

130. Do you think it is reasonable to mix up the present question with the remote contingency of a line from Greymouth viâ West Coast to Dunedin?——

130A. The Chairman.] What Mr. Seddon wishes to show is, that our impression is that the Haast Pass route is an impracticable route at present, or, at any rate, not likely to be gone on with at present?—As to that, it is of course a matter of policy for the Government to decide. I looked at it from the view of what I saw in the Public Works Statement, and thought it my duty to point out that if the construction of that route *ria* Haast Pass was in contemplation, the deviation of the Hokitika-Greymouth Railway through Kumara would be undesirable. For many years to come, however, there will be no chance of a railway viá the Haast Pass to Otago. I do not think, that even if commenced now, it would probably be completed for thirty years or so.

131. Mr. Seddon.] In the meantime, then, as a matter of policy and expenditure with a view to repaying working expenses, the loop line is preferable to the line on the beach?—You would get

more traffic by the loop line than by the beach.

132. Would there be any traffic between Hokitika and Greymouth? For instance, if the line was made, would it take the timber to the shipping ports?—Yes. It would probably carry timber from the Teramakau and intervening points to Hokitika on the one side, and Greymouth on the other.

133. But the only through traffic between Hokitika and Greymouth would be coal, would it not?—Yes, except when one bar happened to be good and the other bad.

134. What tonnage of coal do you think there would be taken from Greymouth to Hokitika?—About ninety tons a week was the estimate made some years ago. I do not suppose there would be so much now.

135. You have not made an actual survey of the loop. Do you not think it would show to much better advantage if you had an actual survey made?—I cannot say. The information supplied is as complete as I can give it from the data I had to go upon. I have no reason to think it would be either better or worse.

136. You admit that by going through Stafford, and Goldsborough, and Kumara it would be only twenty miles, whereas by making branches to Goldsborough and Kumara, in addition to the line

along the beach, it would be a quarter of a mile longer?—Yes.

137. The Chairman.] If you remember, before the tramways were made from Hokitika and Greymouth, they never imagined they could have got such level lines?—No, not at that time; but the country is better known now, and I have availed myself of all the information obtainable about it. But it will be observed that I have not in this matter gone into any question of excavation at all—that is to say, I have not gone into any question of gullies or terraces, but have merely shown the ruling gradients which the main levels of country will require to be adopted, and these grades no survey will get over.

138. Mr. Seddon.] Would it not require two extra plants to work the two branch lines?—It would, I think, unless the traffic was very slight.

139. What would be the cost of the plant required to work these two branches?—At the outside, I would say about £10,000.