

114. *Mr. McLean* (to witness).] But this ground was of such a nature that in your opinion it was absolutely necessary to have a sole-plate?—Undoubtedly.

115. That if the sole-plates were away these props would be really all that was holding up the enormous weight on the length; so that it was absolutely necessary to put a sole-plate in here for supporting purposes; it would not have done to have depended on those rakers?—You could not have depended on those because it would have capsized the sills.

116. *Mr. McKenzie*.] Suppose that sill had been left in, could you have made provision for carrying the brickwork past it?—The simplest thing in the world.

117. You would have to leave a hole of 18 in. square?—Yes.

117A. Suppose you went two or three lengths past and you bricked that up, you would have no difficulty at all, if these sills had been left in, in taking out the posts and bricking up the holes afterwards?—Yes.

118. *Mr. Hales*.] I think we are getting away from the point altogether. This sill is supposed to support that [indicating on the plan] until you get to the next length?—Just so; but that sill was not taken out in any case.

119. You say this was taken out altogether, and you left that supported on your laggings and punchings?—Yes.

120. Before you put in your brickwork you took that set out altogether, and then you let your crown bar come down on top of your brickwork?—Yes.

121. Then you took this out [indicating on the plan] and the whole weight of your material was resting on the brickwork?—Yes.

122. And you took this sill out because you were ordered to take it out?—Yes. I had instructions to that effect.

123. But we have got different kinds of stuff here. Was this sill in connection with this heavy land?—Yes, in connection with the heavy ground. Sometimes the ground was better and there was no need of the sills; sometimes it was heavy. The weight varied on account of so much water.

124. *Mr. McKenzie*.] You say you had a letter from Mr. Witheridge instructing you to take out that particular sill?—To take out or cut the ends of that particular sill.

125. Which part of the tunnel was that in?—Previous to coming to the break.

126. *Mr. Duncan* (referring to the plan).] Would this be solid brickwork?—Yes.

127. At the time you took the supports out how far was your brickwork advanced?—A whole length previous.

128. It stood in that way, then, until you were ready to brick this?—Yes.

THOMAS DONOHUE, of Auckland, Miner, was then called on behalf of Messrs. McLean.

129. *The Chairman*.] Have you been engaged by Messrs. McLean in this Makarau Tunnel?—Yes.

130. *Mr. M. McLean*.] You were employed by us as a miner in the Makarau Tunnel?—Yes.

131. What state was the tunnel in when we employed you?—It had collapsed.

132. Describe the position that you found it in when we employed you. What were we trying to do?—To put a drive in—trying to pick up the length that had come down.

133. There was a shaft in ahead, and the stuff was extremely bad?—Yes.

134. In tunnelling you have had considerable experience?—Yes.

135. Will you state to the Committee the extent of your experience in tunnelling?—I should think I have been engaged about ten years in railway tunnelling.

136. Continuously working in tunnels?—Yes.

137. Where have you been working on tunnels?—In New South Wales, Queensland, and Victoria.

138. And in what capacity were you employed?—As foreman.

139. It has been stated here that we as contractors had very little knowledge of tunnelling—in fact, we were practically inexperienced in tunnelling. What was your opinion of my knowledge of tunnelling when you became employed by us?—Well, I considered you knew equally as much about it as I did.

140. And that I was thoroughly practical in my knowledge of tunnelling?—Yes.

141. The ground when you were employed first was practically impassable: was that so?—It was.

142. Under the system that we were doing the work it was impossible to proceed with it, in your opinion?—It was.

143. And how did we overcome the difficulty?—By cutting the water off.

144. And who suggested cutting the water off?—You were the first that I heard suggest it.

145. And the drive that I proceeded to put in was not a success?—No.

146. But afterwards between us we took other methods?—Yes.

147. Which eventually proved successful?—Yes.

148. Of course, in your connection with tunnelling you have had a great deal to do with brick lining—at any rate, you have seen brick lining put in in soft ground and timbering put in in soft ground. Now, is it customary to leave the main sills in the brickwork until the next length is bricked up?—If it is not considered safe you leave them in; it is no detriment whatever to the brickwork.

149. You leave the sills in the brickwork?—Yes.

150. Suppose, for instance, you were to cut the ends of the sills off, what would be the use of those sills?—It would be worse than taking them out; it would be a trap.

151. You consider that if the ends of the sills were cut off and the framework of the sill were left there it would be worse than taking it out altogether?—Yes.