

thing by means of this inspection which was not required under the Act, and I do not know any other mine where they do it so carefully. In a mine where the pillars are extracted it is not so necessary.

117. Is this mine not unique in that it has a lake and river over it?—Yes.

118. Are there not mines in Australia which extend under the sea, like this one?—Yes, but you have a different class of roof, and there they also leave the pillars.

119. A great deal has been said about watering the dust in the mine. Do you consider this mine a dusty mine?—No, I do not, not as we understand dusty mines. Wherever there is small coal there must be some dust.

120. And do you consider that watering is necessarily effective to prevent coaldust-explosion?—No, watering has been found very ineffective.

121. Have you seen this report published by the Legislative Assembly in New South Wales this year on the question of the best means of dealing with coaldust in collieries, with the object of preventing explosions of coaldust being initiated and carried through the workings?—No, I have not had an opportunity of reading it.

122. It is dated the 22nd July, 1914. I would like to read you this extract to see if you agree with it. I will read the whole paragraph. It is under the heading of "The best methods to be adopted to remove coaldust or to render it innocuous": "In the first place, it may be pointed out that to remove the coaldust from many collieries to such an extent as to make an explosion impossible is considered by your Committee as impracticable. In support of this view the following quotation is taken from page 86 of the Second Report of the Imperial Royal Commission on Mines: 'It is quite clear that the entire removal of coaldust from a mine so as to render it completely immune against an explosion is out of the question. A great deal can, no doubt, be done in keeping sections of the mine absolutely clear, especially when they are specially prepared. Much can also be done by other methods, such as by preventing dust from entering the shaft, by making the tubs or trams dust-tight, &c. Most of the witnesses thought that the "primary" remedies offered the greatest safeguard, especially stricter precautions in the use of explosives; and it is obviously better to stop an explosion at its origin rather than to depend on checking it in its career when it may be found to be unmanageable. Unforeseen accidents, however, such as a sudden outburst of firedamp, the breakage of or defect in a safety-lamp, the 'personal equation' in the handling of explosives, have to be taken into consideration, and it is therefore inadvisable to rely only on such precautions. No doubt a certain proportion of the dust can be removed by filling it into tubs and sending it to the surface, but this is of no value from the point of view of preventing the extension of an explosion. Having regard, however, to the enormous extent of the roadways and working-places of a modern colliery, the increasing depth of cover, and, in some cases, the temperature of the strata, it is not, in our opinion, practicable to maintain a dusty mine throughout all its ramifications in a constant state of safety in relation to coaldust-explosions. We emphatically recommend, therefore, a remedy such as stone-dusting of a permanent character in preference to watering, which, by evaporation, may become useless within a few hours if not renewed. In no case within our experience, where the seam is dry and dusty, have we observed any mine so thoroughly treated by watering as to prevent a coaldust-explosion being carried through the workings; and, while thorough treatment by watering would undoubtedly ultimately arrest an explosion, the impracticability of doing so is fully recognized by many authorities; and in effect, therefore, to look upon watering alone as a remedy for coaldust-explosions is to lean upon a broken reed.'" Do you agree with that?—I do.

123. Do you know whether the use of inert dust has ever been tried in New Zealand?—No instance of it has ever come under my notice.

124. So that this process of treatment by inert dust may be looked upon as quite in its trial stage?—It is under trial, and it has not proved to be effective so far.

125. *The Chairman.*) You have no information yourself as to what is the most effective method?—No, it is very hard to decide. It is best to keep the mine clear of dust.

126. That would mean taking it out of the mine?—Yes, and that is quite impracticable.

127. Somebody has suggested reversing the ventilation?—I do not know what would be the effect of that.

128. The ventilation always running in the one current is said to have the effect of leaving coatings on the pillars, and so on, but by reversing the current you would dissipate that dust?—I think you could get exhaust-fans to take it up to the surface, but to send it one way to-day and another way to-morrow would be no benefit.

129. I think you said at the inquest that you thought there should be a stricter examination of these old workings in the future. What did you mean?—I meant a stricter examination for fires and gas. It was not made clear that a strict examination for gas was made.

130. I understand that was not part of the men's duties. What would you do supposing you had charge of that mine and wanted a proper examination of those workings made: what instructions would you give to the inspector who went down to see them?—That all the workings should be examined for gas. It is not a complete examination unless they are all examined.

131. Would you think it sufficient for the examining official to be silent on the point if he found no gas?—It is taken for granted that if it is not found he says nothing about it.

132. Would it not be an improvement to say that he did not find any gas?—Yes, it would be an improvement.

133. You said that in the examination of these old workings the manager did more than he was required to do by law—something extra?—It is not provided for in the Act. The Act only prescribes the examination of the actual working-places.

134. Do you think it is the manager's duty to look after all the workings in the interests of the safety of the mine?—Yes, and if the manager knew that his men were going to do work in the old workings he should have that place specially examined.