

164. There has been something said about rails protruding from the fall in No. 5 bord ?—Yes.

165. You will have noticed that evidence has been led here by Deputy Wear that that fall has increased at each end very considerably ?—It has certainly increased at the upper end. I do not know anything about the other end.

166. I understand it was increased at both ends ?—He said, “longer and higher.”

167. Is there any possibility that the rails had been lying there, and that the men had been sent there to remove them ?—I cannot say whether the men were going to lift them or not.

168. They were not entirely exposed when I saw them ?—The manager could not have been aware that the old fall had come down or that it was in the state it is in now.

169. The deputy stated in his evidence that the fall is greater ?—There would have been more of them exposed.

170. It is quite possible, do you think, that they were ordered to be lifted in case they were covered up ?—It might.

171. You know that it is provided in the British Coal-mines Act that where there is $\frac{1}{2}$ per cent. of inflammable gas in the return airways that would constitute a safety-lamp mine ?—Yes, that is my contention. It is to be assumed from that that gas was coming in in quantity.

172. And $\frac{1}{4}$ per cent. taken from six samples in one split by the Inspector of Mines in the ordinary ventilation would be held to prove that the ventilation is not adequate ?—Not sufficient to dilute it entirely.

173. Do you agree with that ?—Yes.

174. *Mr. Napier.*] Mr. Dowgray asked you a question regarding the gas contained in the strata : what was your answer to that ?—It was proved that the strata did contain CH_4 , whether in large or small quantities.

175. In answer to another question, Mr. Bishop, as to whether you considered this a dusty mine, in view of what you now know and of what has happened since as to the inflammability of the dust, would you not now consider it a dusty mine ? What relation has the inflammability of the dust to the quantity of the dust ?—It has no relation to the quantity.

176. So that I may take it that because the dust is more inflammable than ordinary bituminous dust it is no proof that this mine ought to be considered a dusty mine, when it was not considered a dusty mine before ?—It may not be considered a dusty mine and still it may be necessary to take extra precautions.

177. *Mr. Dowgray.*] As to the question put you just now, you said you would not consider it a dusty mine. You were referring to the amount of dust. I understand you to mean that owing to the inflammable dust in this mine, though the amount of dust might not be very great, it may be sufficient to warrant it being considered a dusty mine ?—It would render greater precautions necessary. It does not require a large quantity of dust to make a dust-explosion. One authority has set up the idea that a large quantity of dust may help to extinguish the explosion, even though it set up the explosion in the first place.

178. Since you learned of the inflammability of the dust in this mine would you say that it is a mine in which the ordinary blasting-powder should not be used ?—It would be better to do without it. The safest English explosive to be got.

179. And do you consider that other precautions should be taken by means of the appointment of shot-firers ?—I think that is a wise precaution in any mine, whether it is a safety-lamp mine or otherwise. No miners should be allowed to fire their own shots.

180. *Mr. Brown.*] Is it not customary, when men are sent into old workings to do anything, that the deputy goes or sees that the place is safe before the men go in ?—Yes, it is customary, and he should do so.

181. That door in No. 6 : would it be perfectly tight with the pressure on it ?—No.

182. Is it not a fact that it is a most difficult thing to make any stopping practically tight in a mine ?—Yes.

183. Then, if that door was not absolutely tight, would there not be a certain amount of ventilation going down No. 6 ?—A little.

184. Sufficient, probably, to remove an accumulation of gas ?—It would be sufficient to dilute some of the gas.

185. It has been suggested that there was practically 80,000 cubic feet of gas in those bords 4, 5, and 6 and the stentons adjoining ?—There is space for that quantity.

186. If that quantity were mixed to its highest explosive point with air, would the result not be an explosion with one solid mass of flame ?—Yes, it would be very disastrous. I do not think we would have seen any sign of Martin under those conditions. Such an explosion would be to the extent of eight times its bulk.

187. If 80,000 cubic feet of gas were there, as has been suggested, and was ignited, you would have 640,000 cubic feet. If that place was charged with gas to that extent the force would be something terrific, and there would be an unmistakable sign of burning all round those bords ?—Yes ; even a 1,000 ft. would result in enormous burning.

188. In gas-explosions and reports of them is it not a fact that the ribs of the bords and the stentons show unmistakable signs of charring, and become absolutely coked for 2 in. in ?—That is so.

189. In regard to the proposed amendment to the Coal-mines Act, what is your opinion of clause 48 (a) in regard to workmen's inspectors : should those men not have a practical experience as miners ?—Yes, that is to be inferred—that they are practical men with experience. It should be made clear in the Act.

190. According to the section they can appoint anybody to make that inspection ?—They may appoint two persons, whether employed in the mine or not—that is the reading of the clause.