

85. You do not mean dangerous inflammably, do you?—Yes, I do. I mean that with any gas in the return airway—say $\frac{1}{2}$ per cent. or 1 per cent.—safety-lamps ought to be used. It is reasonable to assume that if you find 1 or 2 per cent., or even $\frac{1}{2}$ per cent., in the return airway there must be some places in the mine giving off gas very freely to contaminate the air to that extent. The whole ventilation of the mine is in the return airway, and if that contains gas, even in small percentages, there must be some places giving off gas in considerable quantities.

86. Then it is merely because of the pollution of the air by gas, as the result of the leakage of gas somewhere, that you say it is dangerous?—Yes; that is, in the presence of naked lights.

87. But supposing that Deputy Wear fairly established that the percentage right through was 1 or $\frac{1}{2}$ per cent., would you not consider that air or gas dangerous to men inflammably?—No, it might not be; but it is a very well-established fact that a very small percentage of gas may cause a very serious disaster in a working-place.

88. The gas-mixture will not explode unless the percentage is 5 or 6?—It is established that you cannot explode a weaker mixture with an ordinary flame.

89. By "dangerous" you do not necessarily mean that it has reached explosive consistency?—Not unless peculiar conditions are set up, and it has become possible to cause a flame with detonation.

90. As a prudent and experienced man you mean that any percentage would be dangerous, and would lead you to take precautions against that danger being increased?—Yes.

91. It is really a tell-tale of something that might exist somewhere else in the mine?—Yes.

92. Does not firedamp, even with a high percentage of gas, have a constant tendency to diffuse?—It has.

93. If good ventilation is provided the gas would be swept away or diluted almost as fast as it exuded?—That is so.

94. You said in your evidence at the inquest that the gas having ignited the coaldust would feed itself in its progress?—Yes, that is my opinion.

95. So that once you started a gas-explosion there might be a series or succession of explosions of the dust?—There might.

96. And the later ones might be even fiercer than the preliminary one?—That is so.

97. The latter explosions, of course, being dust-explosions, once the gas set fire to them?—Yes.

98. Now, you know, I believe, that the bodies were recovered some distance out, where apparently there could have been little gas, but where the flame was fiercer. Those bodies were considerably burned?—Yes, I understand they were badly burned.

99. More than Martin?—Yes.

100. Martin was not burned at all?—No.

101. And if there had been what Professor Dixon calls a fierce flame at or about where his body was found he would necessarily have been considerably burned?—If there had been a large quantity of gas when ignited Martin would have been much more badly burned.

102. Therefore it is conclusively proved that there could not have been a very large gas-ignition in the beginning?—That is my opinion.

103. Based upon the evidence?—Yes.

104. I think you said his coat was 10 ft. away?—That is so, according to this plan.

105. That is not a very great distance; he might have dropped it just before the explosion?—He might.

106. The force could not have been very great?—There must have been considerable force when once the explosion started, later on, if not then.

107. Now, Mr. Wilford suggested to you that because it took over a week from the date of the explosion to clear the mine of gas, therefore that proved that before the explosion there must have been a great quantity of gas there, or that the ventilation was defective?—I did not take Mr. Wilford to mean that at all.

108. Then the question had no meaning. Any condition that existed since this explosion—do you say that that is evidence of the quantity of gas present before the explosion?—None whatever. Mr. Wilford meant that there must have been a large quantity of gas present after the explosion, and it certainly took some considerable time to get in the stoppings and so on.

109. However, I want to get it clearly from you. Would the presence of any quantity of gas since the explosion be any indication or give any idea of either of the two things—i.e., that there was defective ventilation before the explosion, or that there was a large accumulation of gas?—No, it does not.

110. Do you say that the rails which were protruding from under the old fall are still in their original position?—Yes, as far as I can see.

111. They are not loose rails?—No.

112. *Mr. Tunks.*] Do you know whether those rails extend right down the bord?—No, they do not, as far as I can see.

113. Those rails are not the heap of rails that were going to be taken out?—I cannot say what they were going to do.

114. Now, in your evidence before the Coroner you are reported to have said that if a manager knew there was gas in the old workings he should make careful inspection once a week. Did I understand you to mean by that that that should be done without such an incentive as the danger of an explosion or the presence of gas?—Yes, if a man knows that gas has been given off he should take every precaution.

115. Quite so; but you are speaking now of old workings?—Yes, but even in old workings you could have liberations of gas which would endanger the whole mine.

116. Is it usual in this country to examine old workings in the way that has been done in this mine?—No. I said in my evidence before the Coroner that I considered that the manager was doing some-