

332. In regard to the question of lamps, I think Mr. Reed said he brought you a couple of electric lamps?—Yes, those we used in the deep levels at the Thames, and I think also in the Waitangi Mine for about three hours. He left them with me and suggested that I should show them to Mr. Fletcher, believing that they would give adequate light in Ralph's Mine for the high bords that were being worked. That was about the 6th or 7th September. These lamps have no value whatever for detecting firedamp—they are merely to give light; and a miner might be using one of those and be in a dangerous mixture without knowing it.

333. I think you had a brother-in-law, Mr. Holden, lost in the disaster?—Yes.

334. What position did he hold in the mine?—Generally speaking, he was an official who was held in reserve by the underground manager. If any of the men were absent on holiday or through incapacitation he was employed as underviewer at Ralph's: that meant that they had one spare manager.

335. He was a very experienced miner?—Yes.

336. How many years' experience had he had?—I should say, about forty-six years.

337. If you had been apprehensive of danger you could have got a confidential report from him?—Yes, and I have had confidential consultations with him when I thought some little matters were being concealed, and the only information I was able to get from him was that he thought my instructions to Mr. Fletcher that only shot-firers should be permitted to fire shots were not being carried out as fully as I wished, and probably as Mr. Fletcher expected.

338. So that neither you nor Mr. Holden apprehended any serious danger in this mine?—No.

339. In regard to your duties, under section 58 of the Act, if the mine is exceptionally dangerous, have you full power to remove the men?—Yes.

340. Subject to the right of appeal by the company under section 57?—Yes.

341. Where a mine is dangerous from firedamp you have full power to call the men out?—Yes.

342. *Mr. Napier.*] Then, following on that answer, may I take it that you never did consider that this mine was specially dangerous within the meaning of that section?—I never did.

343. Would you recommend the compulsory introduction into the coal-mines of the Dominion of the lamp submitted by Mr. Reed?—No.

344. *Mr. Dowgray.*] I understand that the liquid ran out of it: it is not on that account that you would not recommend it?—No, but because it gives no indication whatever of the presence of firedamp. Moreover, the luminous flame is so little better than the oil-lamps we have. They could not be procured in this country—they would have to be brought from England.

345. *Mr. Napier.*] I think we all understand, and a vast amount of evidence has been led to prove, that firedamp is the most dangerous in any mine?—Yes, that is so.

346. And that the principal object of legislation and rules is to enable the presence of firedamp to be immediately detected?—Yes.

347. Then if a lamp is worthless for the purpose of detecting the presence of firedamp it is of very little use?—Yes.

348. Are there no other means of detecting the presence of firedamp than with the safety-lamp?—No other practical means.

349. You have worked in similar capacities during your long career to that in which Martin worked?—Yes.

350. And you would understand, I suppose, how a man in his position would act in a given contingency?—Yes, in a position such as his I would not have gone into that section of the mine without first having received instructions from a responsible officer.

351. If you had been in Martin's position would you have gone through that little door under the circumstances, or would you have gone round by the circuitous route?—I should have gone through the little door.

352. Have you seen that plan upon which Mr. Reed marked with green ink a certain section which he called a "panel"?—I know the section on my own plan.

353. He drew an arbitrary boundary himself?—I have seen the plan here, but I have not seen the line he made. [Plan explained to witness.] I recognize the plan produced and observe the green boundary-line marked on it by Mr. Reed.

354. Can you tell us whether it was possible to ventilate that section enclosed in that green line?—Quite possible.

355. *Mr. Dowgray.*] With the aid of brattice?—No.

356. *Mr. Napier.*] Would you tell us what means you would adopt for the ventilation of that portion of the mine?—Many cut-throughs could be closed with canvas stoppings, or brick or timber stoppings. The dead ends can be ventilated by carrying canvas up one side about 3 ft. from one wall, the air travelling up either between the canvas and the wall or returning.

357. Then you would not say that permanent stagnant air would remain in the portion surrounded by the green line?—No, the small door was not a check door or a double door, but No. 1 and No. 2 bords were leading across from the intake to the return, where it is very desirable that as little leakage as possible should take place. We have what may be called an air-lock—that is, two doors. By opening one you pass into a chamber, then you open the other and pass into the return. That makes the leakage very, very small indeed. But this door at the end of No. 6 bord was not an air-lock—it was a single door; and no matter how closely it fitted there would be a considerable amount of leakage through that door. I measured with an anemometer after the disaster, when the stoppings were blown out, and found that there was only approximately 12,000 cubic feet of air passing through that place. The air-pressure would be against that door with the door in that position, and the leakage would be very considerable. [Witness here discussed the plan with Mr. Dowgray.]