

(2.) HOW THE ACCIDENT WAS CAUSED.

The accumulation of firedamp which caused the explosion occurred in bords 4, 5, and 6, owing to inadequate ventilation and inspection. Bords such as these, rising as they do from the southward to dead ends, favour the accumulation of firedamp, the air being stagnant, and there being no signs of stoppings or brattice in the vicinity, having been used. The firedamp mixture was ignited by a miner's naked acetylene cap-lamp carried by John Martin, a contract trucker, while performing his duties in that part of the mine.

(3.) WHAT LIGHTS WERE USED IN THE DIFFERENT PARTS OF THE MINE AT THE TIME OF THE ACCIDENT.

For the daily examination of the mine by firemen and deputies before work was commenced safety-lamps were used. Miners and others used acetylene-lamps and other naked lights. Stationary electric lights were installed at the shaft-bottom. At the time of the accident naked lights only were carried in the mine.

(4.) TO WHAT EXTENT THE PROVISIONS OF THE COAL-MINES ACT, 1908, AND RULES WERE COMPLIED WITH.

(a.) *As to Ventilation and Lighting.*

There is no evidence that firedamp was permitted to accumulate in the actual working-places and travelling-roads to and from such working-places in contravention of Special Rule 3, but with respect to the old workings we are satisfied that sufficient examination for gas was not made, and that gas was allowed to accumulate in dangerous quantities.

In contravention of Special Rule 1, the manager did not see that the mine was properly ventilated in all parts, and did not see that the working of the mine was carried on with all reasonable provisions for the safety of the persons employed.

In contravention of Special Rule 16, the door for ventilation and safety purposes connecting bord No. 6, in which the disaster occurred, with the working portion of No. 5 district, and which was only used occasionally, was not locked, or even provided with a lock.

In contravention of Special Rule 18, the old workings and return air-courses of the mine, also bords 4, 5, and 6, No. 5 district, were inadequately fenced, persons being therefore liable to inadvertently enter the same.

Notwithstanding repeated ignitions and explosions in Ralph's and the adjoining Extended Colliery, any one of which might have created a disaster, the manager continued to permit naked lights to be used, although under Special Rule 14 it was his duty to direct the underviewer to see that locked safety-lamps only were used and naked lights excluded wheresoever and whensoever danger from firedamp was apprehended.

(b.) *The Examination of the Mine.*

The daily examination of No. 5 district, in which the explosion originated, was entrusted to John Whorskey, the holder of a fireman and deputy's certificate of service without examination. He had held an appointment in that capacity prior to the passing of the Coal-mines Amendment Act, 1909, which first required candidates to pass an examination. Whorskey, with both the other examining deputies, John Skellern and H. Peckham, were killed in the explosion. None of these men had passed the Mines Department's gas test, the only two officials in the mine who had passed such test being Deputy John Darby (deceased) and Joseph Young, formerly assistant inspector of the old workings, but now out of the company's employ.

The frequent occurrence of gas in the old workings was, in our opinion, a source of danger, and there is no evidence that No. 6 bord was examined on the morning of the 12th September. Had the provisions of the Act been strictly adhered to on that occasion the explosion would have been averted.

We consider, therefore, that no regular or systematic examination for gas was made in the old workings.