

**GROVE. Brownhills, Staffordshire. 1st. October, 1930.**

The colliery was the property of Messrs. W. Harrison, Limited with Mr. N. Forrest, the agent and Mr. J. Patterson, the manager of the colliery. The Shallow Seam was worked at the mine and it was in this that the explosion took place. A strip of coal, roughly 150 yards wide, had been recovered by a pair of cross measure drifts on the downthrow side of a 40 yards fault. The area of the coal in this strip had been developed by a pair of winnings which started from the bottom of the drifts and went on a line running slightly north east and reached the boundary of the royalty, a distance of about 900 yards. From the boundary the coal was being extracted by a system of retreating longwall panels. At the time of the explosion three of these panels had been extracted. A new face had been prepared at the rise side of the next panel to be worked. The coal cutting machine and the conveyors from the abandoned face of the No.3 panel were being moved into and installed in the new face on the day of the explosion.

The seam was about six feet thick and was immediately overlain by two feet of bass followed by eight feet of strong rock bind. In the longwall faces, from a foot to half a yard of coal was left up to form a sound roof to avoid trouble with the bass immediately above it.

The ventilating air entered the district by the main haulage road and just inbye of the No.2 road a single stopping with two door in it, one for each of the rails, diverted the air to the new face along either No.1 or No.2 road. From the new face the air travelled back to the main level by no.3 road where it had a choice of two returns, one by slits S1 and S2 or by the main cross road. The quantity of air ventilating the district as measured on 24th. October at a point 100 yards from the new face was 3,480 cubic feet per minute.

Safety lamps were used in the seam and there had been an ignition of gas in the cross measure drifts which were being driven which caused injury. In other districts naked lights were permitted. There was a conspicuous notice posted 100 yards from the downcast shaft at the entrance to the Shallow Coal workings prohibiting naked lights being taken beyond this point. With the exception of the firemen and coal cutting machine men, all the workmen were provided with electric safety lamps. Out of a total of 17 lamps in use in the district at the time of the explosion, three were flame safety lamps which had been issued to the fireman in charge of the district, to a fireman who was working as an ordinary workman and one to the coalcutting machineman.

To comply with Section 35 (2) of the Coal Mines Act, 1911, ten percent of the men forming the shift in this district were searched for matches and other contraband articles before they entered the district. Electricity was used to drive the coal cutting machine and the conveyors while compressed air was also laid and was used for boring shot holes and for working two turbo electric lamps. When necessary, the machine cut coal was got down by explosives which was permitted explosive fired by a magneto exploder.

During a normal working day there were workmen in the Shallow Coal district all day and night and so there were three firemen, one for each shift, day afternoon and night respectively but all the firemen's time was spent in the machine section. Each fireman had to look after a small area of workings, in which the coal was got by hand, neat the foot of the cross measure drifts, if and when work was proceeding in these areas.

Supervision was exercised during the day and afternoon shifts by the Manager, Mr. J. Pattison, who was also the manager of another mine, and an undermanager, Mr. T. Hyde. The night shift was supervised by an overman, Mr. G. Stenton. Work during the afternoon and night shifts was almost entirely in the Shallow Coal. Only a few

repairers and pump attendants were employed in the other districts of the mine. Over and above these officials, Mr. N. Forrest, the Agent, paid regular visits below ground at regular intervals.

On the day of the explosion coal getting operations in the Shallow seam had been temporarily suspended and during the morning shift the extraction of coal from the No.3 panel had been completed and the rest of the shift had been dismantling the conveyors and removing them from the old No.3 face and the afternoon shift had been organised to complete the removal of the machinery and to install it on the new face.

Reginald Ashcroft, the day fireman made the statutory inspection prior to the commencement of work on the afternoon shift. Three workmen, George Locke, a fitter, Joseph Harold Dodd, and assistant electrician and Horace Tate, electrician's mate went to work in the district. Nothing was known of the state of the district after the day shift left.

Ashford made his inspection between 2.30 and 3.20 p.m. and at the end he met the afternoon fireman, John Scoffham, in the main level near the bottom of the No.2 road and handed over the district to him. Ashford had found no indications of firedamp during his inspection. The ventilation up to that time had been satisfactory and there was nothing to indicate that there was anything amiss with any part of the workings. It was understood between Ashford and Scoffham that during the afternoon, the doors in the main level just inbye of No.2 road, would have been taken out in order to allow some of the larger pieces of machinery to be brought from their old positions to their new ones at the bottom of the No.2 road. The two doors really acted as one since they were fixed abreast, one for each line of rails.

Locke, the fitter, had been dismantling the machinery in the main level all day. During the afternoon shift one of the doors in the main level had been removed and a brattice cloth had been erected in its place. as far as he could judge, this made no difference to the ventilation. When he left at 5.30 p.m. to go to the surface everything was quite normal. Dodd, his mate, and Tate arrived in the district about 3.30 p.m. to dismantle a bell which was fixed on the frame of the doors. After they had done this they went to trail cables in No.1 road. The air current was passing through this road and there were no falls of the roof or sides to obstruct the passage of the air nor were there any indications that a fall was likely. Later while they were trailing cables in No.3 road, Scoffham, the afternoon fireman joined them on his way to the new face to make his inspection.

About half an hour later at 6 p.m., Dodd and Tate went up the No.3 road towards the face. at this time, two workmen were moving the coal cutter along the face from No.2 road to No.3 road. As far as Dodd could judge that the ventilation was all right and there was nothing unusual in any respect. Going outbye along No.2 road, Dodd passed several men at work at the bottom. Some of them were taking a conveyor motor up the road on a trolley, others were getting bottom up in the level and some were doing other work which Dodd could not specify. The time was 6.30 and nothing had happened to alarm anyone.

What happened between the time Dodd and his mate left the district and the time of the explosion is wrapped in mystery for of the fourteen working there, none survived. During the afternoon shift of 1st. October these fourteen were the only men working in the Shallow Coal. None of the effects of the blast were felt near the downcast shaft, one and a half miles from the downcast shaft and it was known at what time the explosion took place but judging by the amount of work that had been done it must have been about 9 to 9.30 p.m.. This was borne out by a watch belonging to one of the deceased, that had stopped 9.18.

The first indication that all was not well was at 10 p.m. when the night fireman,

Abraham Joseph Dodd, went down the pit and was surprised not to find the afternoon fireman, John Scoffham at their usual meeting place near the pit bottom. Dodd went inbye expecting to meet Scoffham at any moment with the other members of the shift. Dodd first became aware that something was wrong when he reached a point in the main level in the Shallow Coal where he saw that a separation door was smashed down and blown towards the return airway. He advanced with caution about 50 yards along the

level when he found the roadway obstructed by a jumble of tubs, displaced roof supports and a heavy fall of stone. He shouted, hoping to get a reply but hearing nothing, he realised that there was little he could do so he quickly went outbye.

At the top of the cross measure drift he met the men from his own shift and the overman. George Stanton and reported what he had found. Stanton went into the return airway and found it foul with the smell of burning. He then sent one of the men to warn the manager and with the fireman Dodd and the other workmen he hastened inbye. Firedamp, afterdamp and the threat of a fall barred their progress beyond the place in the main level that Dodd had previously reached. Brattice cloth was placed to try to reduce the leakage caused by the broke door.

At this point, the manager, John Pattison arrived and he and Stanton made further unsuccessful efforts to advance beyond the fall in the level. They climbed up on the debris, but in the cavity in the roof there was a large accumulation of firedamp which blocked any further progress. It was now recognised that there had been a serious incident and a call was sent for the Rescue Brigades. In the meantime steps were taken to level down the obstruction and when this was done it was found that they could get to the bottom of No.2 road.

A few yards outbye of the No.2 road a body was found. There was a large fall at the bottom of the No. 2 road and four bodies were found there. Just beyond No.2 road there was another and larger fall. The atmosphere in the main level as far as No.2 road was now fairly good but because of afterdamp nothing could be done on Nos. 1 and 2 roads without breathing apparatus. While they a party was waiting for the Rescue Brigade the bodies that had been found were removed and temporary repairs were made where possible.

When the Rescue Brigade arrived the whole of the district was explored. No.1 road was blocked by a heavy fall and there were falls in No.2 but not so bad as to stop the exploration of the face where four bodies were discovered. In the main level near the old face of No.3 panel a further four bodies were located which left one man not accounted for. This body, William Whittaker, was not discovered until the following day when it was located in a narrow part of the no.3 road between a cock and the rib-side. The ventilation was restored with no serious difficulty and the bodies removed.

Those who lost their lives were- Alfred Boden aged 50 years, John Brownridge aged 38 years, Benjamin Corbett aged 52 years, John Hackett aged 31 years, Alfred Heath aged 33 years, John Holland aged 41 years, David Richard Howdle aged 30 years, James Malley aged 34 years,

Alec Martin aged 32 years, William Robins aged 46 years, John Scoffham aged 46 years, Harry Smith aged 38 years, John Bernard Whittaker aged 44 years and William Whittaker aged 62 years.

The inquest on the deaths of the men was held at the Memorial Hall, Brownhills before Mr. F. Cooper, H.M. Coroner for the South-East District of Staffordshire. The jury brought in the following verdict-

"The fourteen men met their deaths as an explosion at Grove Pit on 1st. October, 1930. There is not sufficient conclusive evidence to prove how the explosion occurred. We consider that the fireman Ashford carried out his duties efficiently."

The inquiry into the disaster was held by Sir Henry Walker, H.M. Chief Inspector of

Mines at the CO-operative Hall, Walsall from the 28th to the 31st. October and the 3rd. and 4th. November, 1930. There was general agreement that the point of origin of the explosion close to the left hand side of the top of No.2 road. It was also agreed that coal dust played little part in the disaster. the presence of an explosive mixture as gas had been encountered for a few days before the explosion.

All possible sources of ignition were examined. Electrical causes, shotfiring, spontaneous combustion, sparks from falling stones, an exposed flame from a safety lamp and sparks from the broken filament of an electric lamp were all ruled out as sources of ignition. The circumstantial evidence pointed to the source being the flame from a match. The clothing of the deceased was searched which revealed that out of the fourteen that lost their lives, six were found to be carrying contraband and four of these six were working on the new face where the explosion originated.

Sir Henry Walker came to the conclusion that- "I find that the explosion was caused by a naked light, used in connection with smoking, which ignited a considerable accumulation of firedamp, the fringes of which extended into the new face. This accumulation of firedamp existed in the headings on the rise side of the new face and probably also i the goaf of the recently worked out panels to the left thereof I do not find, however, as I was urged to do so by the representatives of the Miners' Federation, that there is evidence to justify charging the management with a breach of Section 29 91) of the Coal Mines Act, 1911. At the same time, this is not to say that the ventilation arrangements were beyond criticism. On the contrary, I look upon a single unchecked doors in the main haulage roads as bad mining practice in any circumstances."

There was no evidence available in regard to searching of the men on the afternoon shift but it was clear that searching was done in a very perfunctory manner. The report strongly recommend that no system of searching should be approved that did not include a provision for a complete search at frequent but not regular intervals. Preferably the search should take place at the surface before the men entered the cage.