

## ACCIDENTS

**The Naomi Mine Disaster**

An explosion of a very serious character that resulted in the death of thirty-four employes and the destruction of considerable property occurred at the Naomi mine of the United Coal Company, located near Fayette City, Sunday evening, December 1, between seven and eight o'clock.

The explosion was caused by gas being ignited by an open light or an electric spark or flame from the electric wires, and it was greatly augmented by coal dust.

Henry Louttit, Inspector of the First District, in which the explosion occurred, arrived at the mine soon after the accident and took active charge of the work of recovering the bodies. He reported the accident to the Department of Mines early the following morning, Monday, and fourteen of the Bituminous Inspectors were directed to go at once to his assistance.

After a brief examination of the conditions, the impression prevailed among the inspectors that no one would be found alive in the mine, as the after damp would in all probability have smothered those who were not burned by the gas or hurled to death against the sides of the mine by the force of the explosion. The miners, most of whom were foreigners, were at work almost a mile from any entrance. The night shift had gone to work a short time before the explosion, and as it was Sunday night the number of men was fortunately small, there being only 34 out of the 350 employes at work.

The explosion was one of terrific force and attracted persons for miles around. A crowd composed largely of women and children soon reached the mine, and the usual sad scenes were enacted that are a part of the history of every disaster of this nature.

The work of rescue was made exceedingly difficult by the fact that the main entrance to the mine had been effectively blocked by the fallen roof and by the deadly fumes of the after damp that filled the shaft in which the rescuers were working and against which it was impossible to battle long at one time. Many of the passageways were blocked by old timbers that had been blown down. The miners from the neighboring operations and the officials of the company all rendered every assistance possible in the work of relief.

Only one man, an unknown foreigner, (out of 34 employes), reached the surface after the explosion occurred, and as he reached the open air he fell unconscious from inhaling the gas fumes and died in a few minutes.

The mine is a slope mine opened several years ago. The conditions existing in the mine had been the subject of consultation between the Inspector of the district and the officials of the mine, and during the year several communications were sent to the mine officials calling attention to the necessity of keeping the ventilation and the means of escape in case of emergency up to the re-

quirements of the law. No great danger was apprehended from the accumulation of gas, although at intervals more or less gas had been encountered. The quantity, however, had been so small that open lights were used generally throughout the mine. During the year the Inspector examined the mine on February 26, May 14, August 5 and November 12, but did not at any time find the conditions such as to warrant drastic measures against the officials, but on account of the mine generating a small percentage of gas he was opposed to the use of electricity where the gas could be detected by the ordinary safety lamp, and so advised the mine officials. The company, however, had a perfect right under the law to use any power desired as long as the mine was operated with open lights. It was made evident at the coroner's inquest, by the testimony of one of the fire bosses, that the mine was a gaseous one, but the superintendent and mine foreman did not realize the gravity of the situation. It may be stated that the superintendent and mine foreman were new men, having been placed in charge of the mine less than two months before the explosion. If the fire boss had performed his duty, the employees would not have been allowed to enter the mine that Sunday evening when the conditions were manifestly unsafe.

The committee of experts who made the examination for the company differed from the inspectors as to the point of ignition, but that is not a matter of great importance. Nor is it important to know whether the explosion was the result of a blown-out shot, as claimed by the company's committee, or of an electric spark or an open light or flame from the electric wires, as claimed by the inspectors. The report of the company's committee and the report of the inspectors are as follows:

#### REPORT OF COMMITTEE APPOINTED BY COMPANY

"Pursuant to your request we examined the Naomi mine workings on December 10, to determine, if possible, the cause of the explosion that occurred December 1.

From the fact that all stoppings affected between the main tunnels were blown to the east and all loose materials along main tunnels were blown across to the east and to the south along main tunnels in direction of the pit mouth, and all loose materials on the butt entries to the west of main tunnels were blown and drifted inward to the west, we are of the opinion that the origin of the explosion was at or near the face of the main tunnels, the region of greatest force being further out.

We find there was a blown-out shot at the face of No. 2 main tunnel, the back of the hole being on the solid about six inches.

We are of the opinion that there was some disarrangement of the ventilation permitting an accumulation of explosive gas prior to the explosion.

We are unable to determine what effect, if any, the blown-out shot at face of No. 2 main tunnel had on the ventilation or the explosion."

#### REPORT OF MINE INSPECTORS

"We, the following bituminous mine inspectors, who were called to the Naomi mine to assist in the recovery of the bodies of the persons lost in the disaster at said mine on the evening of December first, beg leave to inform the inquest of our observations and conclusions as to the cause and location of the said disaster, after a thorough examination of the said mine.

The Pittsburg coal bed is being mined here, lying at a depth beneath the surface of about 147 feet. The coal is hoisted out of a slope at an angle of about 33 1-3 per cent., and the opening used for ventilation and traveling way is a shaft partitioned off into two compartments.

We found the concrete work of the slope destroyed, but the ventilating apparatus and traveling way remained practically intact. The mine is ventilated by a Robinson fan 20 feet in diameter and 8 feet wide, driven by steam power and usually run at about 80 revolutions a minute. We found the

stoppings of concrete and brick, used for guiding the ventilation into the interior of the mine, all blown out with few exceptions, but otherwise the mine is not much injured.

We consider this a very gaseous mine and found explosive gas in large quantities in all of the interior workings, and even after the ventilation had been restored, as at present, we found the mine generating explosive gas very freely. We believe the mine to have been worked with open lights with but very few exceptions. We are of the opinion that the total volume of air in circulation in the interior workings at the time of the explosion was insufficient to keep the mine in a safe condition. Very few of the victims of the explosion were killed as the result of the force developed by the explosion, but by the after damp when trying to make their escape.

We are of the opinion that the disaster was the result of an explosion of fire damp intensified by the coal dust of the mine. This gas was fired either by one of the open lights used by the employes or by an electric spark or flash from an arc formed by the electric appliances in use in the mine.

There exists a difference of opinion among the inspectors only as to the real agency that fired the gas, and as to the real location at which the explosion originated. This difference of opinion is due to the peculiar conditions now existing. It is the opinion of the inspectors that if the gas was fired by an electric spark, the explosion occurred in the vicinity of No. 25 entry, and if an open light was the agency that fired the gas, it occurred at some other point in the mine."

The testimony given at the inquest by the engineer in the power house seems to support the opinion of the inspectors as to the cause of the explosion. He stated that at 7.26 o'clock, P. M., the circuit breaker blew out and the explosion followed almost instantly.

The verdict of the Jury is as follows:

"We find that Joe Hagerdish, Frank Risky and others, came to their death as the result of an explosion of gas and dust in the Naomi mine of the United Coal Company.

This gas seems to have accumulated from insufficient ventilation and was, we believe, ignited from the arching of the electric wires or an open light at some point not definitely located.

We condemn the use of electric wires on return air currents, and we further condemn the use of open lights in all gaseous mines.

We would recommend that hereafter an air shaft be opened up when the workings reach a point 4,000 feet from the mine opening. Further, that the Mining Commission appointed by the Governor recommend such amendments to the mining laws that human life will be protected and the present laws be more rigidly enforced.

(Signed)

Arthur S. Hagan, M. D., Coroner.  
Harry R. Boyd.  
Claude H. Truxal.  
N. Bert Lowman.  
Charles Cheeseman.  
Wooda H. Lange.  
Ambrose G. Bradley.

### The Darr Mine Disaster

One of the most prosperous years ever known in the bituminous region was, at its close, marred by several disasters of unusual magnitude. Of these, the explosion at the Darr mine of the Pittsburgh Coal Company, located near Jacobs Creek, Westmoreland County, by which 239 persons were killed, was the most serious one.

The accident occurred about 11.30 on the morning of the 19th of December. Persons in the vicinity of the mine describe the explosion as an awful rumbling followed by a loud report and a concussion that shook the nearby buildings and was felt within a radius of several miles. The Darr mine is a slope opening in the