

capital than new collieries can be opened in the middle or eastern end of the Southern coal field.

LEHIGH COAL AND NAVIGATION COMPANY.

This corporation during the last year has completed a new opening, No. 5 shaft, which is sunk down to the Primrose vein and is in excellent condition, and about 12 feet thick. This makes the fourth shaft sunk by this company within the last six years. Neither of these openings, up to the present time, have been shipping any coal, except that taken out of gangways in making preparations for large outputs. Three of these new openings, however, during the year 1890, will largely increase the output of this company. The coal produced with the exception of No. 5 shaft will be taken from the Mammoth vein. A new breaker has been erected to prepare the coal from No. 11 shaft, having all the modern improvements for cleaning and handling a large amount of coal. They have also erected a large 24-foot fan in addition to the 20-foot one that previously ventilated the upper workings of the colliery.

THE KASKA WILLIAM SHAFT DISASTER.

This is the most deplorable calamity that has taken place in this district since the year 1870, there being the greatest number of lives lost by a single accident during the last 18 years. It is true beyond a doubt that many of the victims that lose their lives in and about the mines, contribute more or less to their own misfortunes, but in this case it was the reverse. These ten unfortunate men had finished their day's work and were ascending the shaft, expecting to reach their homes and families in safety. Those hopes however they never had an opportunity of realizing, for when the cage arrived about midway of the shaft, an empty mine-car was pushed into the shaft, and in the same compartment the ten men were ascending. The car came in contact with the cage, snapping the rope, dropping it with the ten persons, about two hundred and fifty feet down to the bottom of the shaft, where they were either crushed to death or drowned in the sump.

It was in the evening about six o'clock when the accident occurred and the hoisting of coal had ceased for the day. The three top-men whose duty it was to take the loaded cars off the cages and put the empties on, had started for their homes. However before two of them had gotten far from the top of the shaft the outside foreman met them, requesting them to return and send three empty cars down the shaft in order that the night shift should have sufficient cars to make their shift's work.

The two top-men that were present returned, viz: Albert Fritz, the man having charge of the head of the shaft, and John Decker, one of Fritz's helpers. Both the men stated in their evidence before the coroner's jury, that after returning to the shaft the first thing they did was to run an empty car into the foot of plane "A," shown on the ac-

accompanying plan of the head frame of Kaska William shaft. The cars are hoisted up the plane by an automatic chain hoist "D," the plane being fifteen feet long, having a vertical rise of about four feet in fifteen. They also stated that they ran the car on to the transfer truck "E," and transferred the truck and car from track "A" to track "F," ready to run it on the cage as soon as it arrived at the landing. Fritz testified that he secured the car on the truck by a stop block, also that he placed the stop or safety block "F" in position, blocking the track between transfer truck and the shaft. Decker in his testimony corroborated Fritz's statement in every respect. John Fritz also stated that as soon as he had secured the car he moved from the car to the tally board to mark the number of cars hoisted that day, and while in the act of marking the number of cars he heard the car in motion, and as he looked around he saw the car running to the shaft and Decker behind it. There is no doubt whatever as to Decker having removed the stop blocks and pushing the car off the transfer toward the shaft, from the fact that he himself testified that he removed the safety blocks and pushed the car off the transfer. When questioned as to his motive for doing so, he answered that he thought Fritz said all right, the usual signal given by Fritz when the cage arrived at the landing point and was ready to receive the empty car. We do not think for a moment that Decker intended to run the car into the shaft, but we are of the opinion he being anxious to get home and not altogether satisfied in consequence of having to return to perform additional labor after working hours, he, in order to reduce the time they would have to stay, opened the safety blocks and pushed the car off the transfer, not intending that it should run into the shaft, but that it should be in close proximity to the cage when it arrived at its landing place, and that by so doing he would save time.

In looking at the other side of the question Decker had been working on the head of the shaft several months and was fully aware that after the car was pushed off the transfer it would run to the cage by gravitation, the intervening track between transfer and cage having sufficient grade to carry the cars to the cage, there being only about six feet between the front end of the car and mouth of the shaft.

The accompanying plan shows the tracks and system by which the cars are handled at the upper landing, that point standing sixty feet above the surface. The structure is built of iron. Previous to the building of the iron shaft frame, also the new breaker built in connection therewith, the coal and employes were all landed at the same point, viz., the level of the surface. During that time the mouth of the shaft was protected by flat gates raised and lowered with the cages. After the new structure was completed the system was changed, the coal being landed at the upper landing whilst the employes were all landed at the original landing on the surface. In place of the flat gates the mouth of the shaft was secured by a fence, whilst at the upper landing the north and south

sides of the mouth of the shaft were fenced. The east and west sides of the shaft were opened for the free passage of the loaded and empty cars to and from the cages, and safety blocks were placed in position between transfer and cage to keep the empty cars from accidentally running into the shaft which, up to the date of the accident, was deemed sufficient protection, and that the law was complied with which reads as follows: "Article 12, Rule 49. Safety blocks or some other device, for the purpose of preventing cars from falling into a shaft or running away on a slope or plane, shall be placed at or near the head of every shaft, slope or plane, and said safety blocks or other device must be maintained in good working order."

There was considerable comment through the press in reference to the terrible disaster, and, as usual, the company was condemned because it had not complied with the law, and the inspector did not fail to receive an equal amount of condemnation because he had not compelled the company to comply with the law. However, these comments were generally made by those who knew nothing whatever about the circumstances or conditions that existed, and much less about what the law required. It was and still is the opinion of the public in general that the cars could and were run into the shaft from the breaker or some other distant point, and that there was no obstruction to stop the cars from running or being pushed into the shaft. That, however, is erroneous for the fact is the cars had to pass through three different movements, as shown on the accompanying plan, before a car could be brought into a position to be run on the cage or into the shaft. The tracks running from shaft to breaker and returning from breaker to shaft, as will be observed by the plans, are gravity roads and are on two different levels, hence the cars had to be raised up the incline plane "C" before they could reach cage landing. From the head of the plane for a distance of fifteen feet the cars pass along the south side of the shaft where it is intercepted by the transport truck "E," on which it is carried from track "A" to tracks "FF." The track on which the car stands intersects with the two tracks leading to the cages when they are landed. When the car is in a position to run on the cage the front end of the car stands within six feet of the cage or shaft, and in that position Fritz left the cars standing, he having placed a stop block in front of the car on the transfer and the safety block "F" across the track, between the shaft and transfer, hence, before the car could be moved from the transfer these obstructions had to be shifted from the position Fritz had placed them in. And, in the second place, it required the power of a man to push the car off the transport. Yet, notwithstanding this, it is too true that through the ignorance or carelessness of this one man ten unfortunate men lost their lives. Since the accident occurred automatic gates have been placed in position and safety blocks operated by the keys on which the cages rest. It is more than probable had these arrangements been

in use previous to the accident the chronicling of the sad loss of life would not be necessary. But this was the last place about the colliery where any person ever expected an accident of that character to occur. The Middle Creek shaft had been in operation for seventeen years under precisely the same conditions. However, after the accident automatic gates were placed at the head of this shaft also.

The following is the verdict of the coroner's jury that investigated the cause of the accident, which speaks for itself:

The coroner's jury yesterday returned the following verdict in the accident at Kaska William colliery: The jury, after visiting the scene of the disaster and examining all the witnesses that could be found, again visited the top of the shaft and practically examined and tested the working of an empty car on the same, do render the following verdict:

First. We find that the men came to their deaths by the falling of an empty car into said shaft while the cage which contained the miners was coming up May 9, 1889.

Second. We find that the stop blocks at the top of the shaft were in place and in good order, according to rule 49 of article XXI of the mining law.

Third. From the testimony of Albert Fritz and John Decker, employed as top men on the top of said shaft, we find that said stop blocks were placed in proper position to keep the car from being pushed on or from running into the mouth of said shaft.

Fourth. We find that John Decker, according to his own evidence, did move said safety blocks, and, according to the evidence, did push said car from its position, causing it to run into the shaft.

Fifth. We furthermore are of the opinion that John Decker was an incompetent person to be employed in the position he held, for the following reason: he did not understand the language of Albert Fritz; the jury also considers it an unwise policy to have two or more men working at such an important position who do not understand each other's language.

Sixth. It is the opinion of the jury that it is not safe to let down into the shaft any empty cars while men are being hoisted on the other cage, neither do they consider it safe to handle empty cars on the top of the shaft while men are being hoisted or let down the said shaft.

Seventh. The jury also recommend that there be safety gates placed at the top of the shaft.

GEORGE HINEY, *Foreman.*

LEWIS LORENZ.

ADAM DERR.

RICHARD HOLIHAN, *Sr.*

JOHN CARBY.

HENRY KRIES.

E. C. LUKS, *Coroner.*

R. WINLACK, *Deputy Coroner.*

May 14, 1889.

John Decker was placed under arrest and sent to the county jail. Some of his friends, however, secured his release by entering his bail in the sum of six hundred dollars for his appearance at court. He, however, was no sooner released than he left the country suddenly for parts unknown to his bondsmen, and it is generally supposed that he went to Hungary, his native land.

OUTBURSTS OF GAS.

We regret very much to have to again put on record the sad loss of life, from this source of danger, by which five unfortunate men lost their lives by being overwhelmed by its sudden discharge, together with the large volumes thrown off. There have been several of these sudden outbursts during the year, but only two of the number with fatal results, although the workmen on several other occasions barely escaped with their lives. The miners as a rule, face the many dangers that surround them in their daily occupation without fear. However, there is one exception, and that is these sudden outbursts. In fact the terrorizing effect that these outbursts have upon the miners in general, keep sections of these collieries idle for months, together by reason of the lack of miners in consequence of this dangerous element.

On January 25, one of these outbursts took place, causing the deaths of two miners in the Middle Creek shaft and in what is known as the Black Heath vein. The two men were engaged in a breast, the angle being about 55 degrees. From the indications it appeared that the men had fired a shot and had retreated to what they supposed to be a place of safety, viz: the intake pillar heading, no doubt under the impression that the velocity and volume of air passing through the heading would be quite sufficient to cope with any body of gas that might be given off, even from an outburst. However, if these were their conclusions they were doomed to disappointment, for the fact is, that the volume was so great and sudden, that this section of the mine in a few minutes was charged with gas, filling back against the current as well as with the direction of the current, overwhelming and suffocating the two unfortunate men in the heading in which they had taken refuge as a place of safety.

On May 25, another outburst occurred with fatal results at Otto colliery, causing the death of three miners by suffocation. Fortunately, with the exception of the three unfortunate victims, the balance of the miners working in that section of the mine were down on the gangway getting their dinners. Had they been at their working places, it is very doubtful whether any of them would have made their escape, and would have met the same fate that overtook the other three men. One of the victims was not working in the breast that the outburst occurred in, but in a breast on the inside, hence he was on the intake air current, and without doubt he heard and felt the concussion of the outburst,