

another was instantly killed by a sinker's bucket falling on him while at work in the bottom of the shaft; another was killed while running a mining machine; another by a premature blast; and another was burned by a dynamite shot blowing through the rib and died shortly afterwards.

Miscellaneous, Outside

There were three accidents outside of the mine. One man was killed by coming in contact with a live electric wire; another one was killed by a moving railroad car at the tipple, and another one was fatally injured by jumping from a car on the tipple and falling through the trestle, a distance of forty feet. He died shortly afterwards.

Clyde Mine Fire

October 13, about 1:15 p. m. a fire was discovered, by an electrician, in the pump-house situated in a breakthrough between No. 1 and No. 2 right main, about 1,800 feet from the entrance of the mine. All the employes (with the exception of six men who were missing) had safely made their exit from the mine when warned of the danger. About 4 p. m., while making an official visit in No. 5 mine of Vesta Coal Company, Washington county, I received a message that the Clyde mine was on fire. I at once proceeded to the mine, arriving there at 10:50 p. m. The mine foreman, with a rescuing party, returned from the mine at 10:50 p. m., and reported that they had made two attempts to reach the place where the fire was first discovered and had been driven back by dense volumes of smoke. They said it was impossible to proceed further in that direction.

I learned that since the fire had been discovered the engineer in charge of fan, and a miner, had entered the fan-house during the afternoon, to examine the fan, and that an explosion had taken place at that point, seriously burning both men.

I held a consultation with the mine official and after examining the map of the mine produced and carefully considering the pump-house location, in which the fire was supposed to have originated, and the report of the mine foreman and rescuing party, I decided to confine myself to the information received, together with report of the explosion in the fan-house. The latter impressed me with the belief that if an explosive mixture was being carried on the return to the fan-house in such quantities as had been so recently demonstrated, there was a possibility, at any moment, of a repetition of the explosion by the mixture coming in contact with the fire that was raging in Nos. 1, 2 and 3 mines.

This led me to study carefully the safest method of retreating from the mine if any trouble should arise during further visits for the purpose of recovering the bodies.

I was fully aware that wooden stoppings had been the prevailing method of conducting the air along the main entries prior to this date, and that being the case it would give the fire additional power to spread from one main to another.

With the above in view and the evidence given by the rescuing party—that there was not a possibility of a living person inside of the mine—we decided to postpone another inside exploration until morning. I gave strict orders that no open lights should be al-

lowed at or near the fan-house or main entrance to the mine, that the fan should be kept running at the same speed, and a strict watch kept over its behavior, and should any disturbance be noticed to notify me at once. Early in the morning I found that nothing unusual had taken place, I then decided to make another examination of the mine and ascertain what course to pursue, with a view of recovering the bodies, and to prevent the fire from spreading into other parts of the mine. With a rescuing party I proceeded to the point that had been reached by previous rescuing parties, and then decided that, owing to the dense volume of smoke at that point, it was impossible to proceed any farther in that direction of the main. We returned and I met Inspectors I. G. Roby, A. McCanch and Henry Louttit, who had come to my assistance by request.

We examined the mine map, inspected the fan, air ways and entrance and then ordered more stoppings to be built with slide door attachment. After the stoppings had been completed we entered the mine by opening the slide door, closing it when through. We then opened the next one on the inside, and upon examination by Inspectors Louttit, McCanch, Roby and myself we found large quantities of smoke and gas, sufficient, if ignited, to cause serious results. We waited some time to see if the atmosphere was persistent as to its mixture. Noticing no perceivable difference, we returned to the outside and held a consultation with the mine officials. We suggested that every precaution should be exercised and outlined a method for fighting the fire by forcing water into the mine, thus leaving it in the hands of the mine officials. I continued to make frequent visits to the mine, keeping everything under close observation. November 29, I. G. Roby Inspector of the Fifth District, accompanied me, and we again entered the mine, proceeded along the main, and upon the examination of No. 11 butt we discovered the six miners, lying side by side, apparently asleep. I would say, that owing to the position of the bodies and the peaceful countenances of the men they had lain down to rest, and the products of combustion had done their deadly work while the victims peacefully awaiting relief from the rescuing party that had made three attempts to reach them. Enclosed find report of the Coroner's inquest, which followed a few days after the recovery of the bodies.

Clyde Mine Inquest

Inquest held at Fredericktown, Pa., December 6, 1905.

On bodies of: George Kelley, Richard Marsh, Lorenza Tanza, Richard Marfi, Sista Barnardinio, Homer Harvey.

The following jurymen were sworn: H. H. Weaver, J. V. Bumgardner, George C. Mitchener, Arch Gordon, John Hawkins, Osman McCarthy.

Verdict: "We find that George Kelley, Richard Marsh, Lorenza Tanza, Richard Marfi, Sista Barnardinio and Homer Harvey came to their death in above named mine from carbonic oxide gas on or about October 13, 1905, through failure in some way to find their way out of the mine after being notified. The cause of the gas was a fire having occurred at the brattice at the pump on main entry from some unknown cause. Further we recommend that the legislature enact a law compelling all owners of mines to cause all stoppings

and all overcasts to be built of non-inflammable material satisfactory to the mine inspector of the district."

CONDITION OF MINES AND IMPROVEMENTS

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

The mines under this company's management, have been much improved in ventilation by the building of concrete and brick stoppings and incombustible overcasts. At Eclipse mine a new fan has been installed which very much improved the ventilation. At Chamouni mine they have installed motor haulage and built 14 permanent stoppings. At Albany they have built 6 permanent stoppings, 3 overcasts and installed one 25 H. P. electric pump. Fayette City sunk a rectangular shaft 217 feet deep, placing stairs in one side of it, and installed a 15 foot diameter Capell electric fan with speed controller. This fan ventilates Fayette City and Apollo mines. A fire proof fan-house has also been built.

Crescent mine fan ventilates Vigilant mine. However it is not sufficient for both mines. I have taken the matter up with the superintendent. Each mine should have a separate fan. At Crescent they have built 43 brick stoppings and 2 brick overcasts. Vigilant has built 62 brick stoppings and improved the main air-course.

VESTA COAL COMPANY

Vesta mines.—Ventilation and drainage fair and general conditions satisfactory. They are installing at Vesta No. 4 a Capell fan, 16.5 feet in diameter, to be driven by 300 H. P. Walker motor, and have built a fire proof fan house.

PITTSBURG COAL COMPANY

The mines of this company are in fair condition with the exception of Colonial No. 2, which needs improvement in ventilation.

H. C. FRICK COKE COMPANY

The mines operated by this company are in good condition.

Edenborn.—They have built 22 permanent stoppings and 5 permanent overcasts. A brick arched underground mine stable, 18 feet wide and 250 feet long has been constructed, and the loaded car side at the shaft bottom has been arched for a distance of 200 feet, with a brick arch 18 feet long and 12 feet high. One Pennsylvania 250 H. P. boiler has been installed. A Pennsylvania crusher capable of crushing 1,000 tons of coal per day, with an elevator to carry the coal from the crusher to the bin, has been built. The machinery of this crusher is driven by a Harrisburg engine, with a system of ropes and belts.

The old fan engine has been replaced by a Vulcan Iron Works' engine; size 20x32.

Gates.—Nos. 1 and 2 are in good condition. They have built two permanent overcasts and twenty-four permanent stoppings and thirty-seven masonry stoppings have been repaired, the air compartment of the two ventilating shafts has been relined with 1 1/8 inch. yellow pine, tongued and grooved flooring, which has added materially to the efficiency of the ventilation.