

**ROARING BROOK COLLIERY.**

This colliery is located in the borough of Dunmore, and lying one and one-half miles south-east of the Lackawanna river. The shaft is 211 feet deep to the upper vein, 246 feet deep to the middle vein, and 294 feet deep to the lower vein; the opening is 10 by 21 feet. It is operated by the Roaring Brook coal company. J. R. Davis is general mine superintendent, Patrick Mongan is mining-boss and C. W. Baxter is outside foreman.

*Description.*—There are two breakers connected with these mines—one is connected to the shaft tower, in which they prepare coal for local coal sales, and the other is forty-five hundred feet south-east, connected by a plane and railroad to the shaft; it is situated on the southern division of the Delaware, Lackawanna and Western railroad; they mine and prepare about 650 tons of coal per day; they employ 70 miners, 70 laborers, 49 drivers, 7 door-boys and 37 company men in the mines; 35 slate pickers, 6 head and plate men, 8 drivers, 30 company men, 13 mechanics and 3 bosses outside—in all 327 men and boys; there was a large fall in the lower vein on the 31st of December; they are working these veins, which are called Nos. 1, 2 and 3 veins; average thickness of each 5 feet; they work headings and air-ways from 10 to 12, and chambers about 83 feet wide; they leave pillars about 13 feet wide to sustain the roof; they have cross-entrances about 25 feet apart, for the purpose of ventilation; the roof is of a schaly and fire-clay nature, which is effected by being exposed to the air, as it causes it to break up into small particles, becomes dangerous, and requires a great deal of care and timber to secure it; the mines are not in a good working condition at present.

*Ventilation* is produced by means of a furnace, located two hundred and twenty-five feet from main opening; the in-take is located in main shaft, area 160 feet; the up-cast is located in furnace air shaft, area 80 feet, and the amount of fresh air is about 23,000 cubic feet per minute; the main doors are hung so that they will close of their own accord; they have attendants at main doors; they have double doors on main traveled roads, and an extra one in case of an accident to any of the others; the air is circulated to the face of the workings in three splits; the amount of ventilation has been measured and reported; ventilation is generally good.

*Machinery.*—They use two hoisting engines at shaft of 70-horse power, 1 pumping engine of 60-horse power, 1 breaker engine of 10-horse power running small breaker, 1 breaker engine of 35-horse power running large breaker, 1 engine for hoisting the men, of 25-horse power, 2 engines for hoisting up planes of 40-horse power; they have a metal speaking-tube in the shaft; they have two safety-carriages, with all the modern improvements; they have an adequate brake, and flanges of sufficient strength and dimensions for safety, attached to the sides of the hoisting drum; they use standard ropes and links; the boilers have been cleaned and examined, and reported in good condition; they have a safety valve to indicate the pressure of steam.

*Remarks.*—They have furnished a map of mines; they have a second opening, located 225 feet from main opening; they have a house for men to wash and change in; the mining boss seems to be a practical and competent man; there are no boys working in the mines under 12 years of age; the engineers seem to be experienced, competent and sober men; they do not allow any person to ride on loaded cars in the mines; they do not allow over ten men to ride on the safety carriage at one time; the parties having charge know their duty in case of death or serious accident; the shaft opening is protected by safety gates; the breaker machinery is boxed and fenced off, so that operatives are safe.

mometer will cost but a trifle, and the price of the water gauge is only \$3 50 to \$4 50. But I am more than convinced that the cost is not the trouble, but it is the general indifference to, and ignorance of their uses.

Fire in the Mines.

**ROARING BROOK SHAFT.**—At six o'clock, Tuesday morning, July 17th, 1877, the stable in the lower vein of the Roaring Brook shaft, Dunmore, was found to be on fire. It had got on fire some time during the previous night, but it is not known how long a time it had been burning, nor is it known how it was set on fire. When discovered, the fire had burned out all the wood work of the stable including the props which supported the roof; nine mules were also burned, and were buried there by the roof caving in upon them. The fire spread rapidly, and extended into the adjoining old workings, where a large number of log pillars had been put in to protect the shaft from a general crush of the workings, which occurred some years ago. On being notified of the fire, John R. Davies, Esquire, general superintendent of the colliery, immediately applied to the Nay Aug hose company of Scranton for hose, which the generous and large hearted Nay Aug boys readily granted; and by half-past seven o'clock there was a stream of water on the fire. The hose was attached to the steam pumps in the engine house on top of the hoisting shaft, and thence conducted down the second opening to the fire.

I was informed of the fire late in the afternoon of the same day, and I repaired to the colliery with all possible haste; but on reaching the head of the shaft I was informed that the fire was completely under control, and some of the men believed it was entirely extinguished; hence, I did not descend the shaft that night. By request of Mr. Davies, I visited the colliery again the following morning, and I immediately descended the shaft to the scene of the conflagration, where I found the fire burning fiercely; Patrick Mongan, the mine boss, was there in charge of a gang of men hard at work, digging their way in to the fire. I remained there all that morning, and simple justice demands that I should say that all the men working there seemed to understand exactly what was proper to do and when and how to do it; they were forced to prop the roof yard by yard as they advanced, but there was always a prop ready, without a moment's delay, whenever one was needed. After looking on for some time I saw that the fire was advancing into the old workings nearly as fast as the men could follow it, and I suggested that they stop uncovering it, and work their way around the fire, and as near to it as the heat would permit. This suggestion was acted upon, and by the following morning the men had made an opening all around the fire, and were masters of the situation; then the water was turned on to the very heart of the fire, and by night of that day, the water and steam had put the fire out, but the roof and surroundings were still so hot that the water was kept on until Saturday, the 21st.

John R. Davies, Esquire, deserves credit for his prompt and sagacious

action in directing the men and in supplying them with everything required by the emergency; his foresight had everything on hand so that not a minute's time was lost; and had it not been for this, the fire, having gained so much headway before it was discovered, would have spread into the workings in spite of the untiring and faithful labor of the mine boss and fire boss, and the workmen under their charge, causing incalculable damage and loss to the company. It gives me pleasure to testify that all parties who took part in extinguishing the fire—the workmen as well as the superintendent and bosses—deserve great credit for the cool and sound judgment exercised in all that was done. It would be hard to find a set of men to work so well together to extinguish a fire, as these men of the Roaring Brook colliery.

**BUTLER MINE FIRE.**—Considerable has been published relative to this fire in the columns of our local press, and a few lines relative to it may not be out of place here.

The fire originated in an old abandoned mine which was worked out many years ago, at a point near the outcrop of the fourteen feet or Pittston vein, and on the highest ground of the Butler property. It was undoubtedly set on fire by some scamps, who apparently made an old drift in that location their head-quarters. The attention of S. B. Bennett, Esquire, the superintendent of the Butler colliery, was first called to the fire some time in June, 1877. It had made considerable progress south-east of the pitch, along the standing pillars, when it was first discovered, and it was hoped, from the direction it was taking, that it would not travel down the pitch, and steps were immediately taken to cover up the cave holes through which the air penetrated to the fire. This in a measure retarded its progress, but it still continued to spread. As there was no water obtainable, an arrangement was made with a party to open and clear out an old chamber, with the view of cutting the fire off; but owing to the incompetency of said party, this work failed to answer the purpose and had to be abandoned.

Now, however, a plan has been adopted, (though it must incur very heavy expense,) which cannot fail to succeed. A point has been selected, about eight hundred feet from the fire, at which an open cut is being made from the surface down to the old workings, which will be about three hundred and fifty yards in length, twenty feet wide at the bottom, and the depth ranging from twelve to forty-five feet. The engineer in charge, Mr. C. T. Conrad, estimates the possible removal of fifty thousand cubic yards of materials, but he hopes to be able to tunnel a part of the way. The work is being pushed forward vigorously.

The progress of the fire is slow, but is more rapid in cold than in warm weather. About five acres have been burned over, and there are about five acres more to burn before the fire reaches the cut. No coal of any value will be destroyed, for there remains no unworked coal in this vein on this or any adjoining property, excepting about ten acres on the south-east,