

all material in small boats. They secured bags of sand and succeeded in keeping above the water by dint of great effort. Sunday morning, April 6, when the water was almost at its greatest height, they began to feel that they could and would succeed in keeping it out, when it was discovered that a very small stream was running in through the clay from the south side at a depth of possibly 10 feet below the surface of the water. They began strengthening the dykes on this side with sand bags, but before a great while they could see that this little stream was increasing in size. It steadily grew larger until 9:28 A.M. with a mighty inrush of what looked like the entire river, the water broke through under the levee, carrying it and everything for a hundred yards around into the shaft. The velocity of the water was so great that it carried pit cars and other objects that were near the pit head into the mine, and the suction pulled the end out of the engine and boiler room and the blacksmith shop.

In an hour and twenty-two minutes after the water had began running into the mine it completely filled the shaft, thereby trapping in all the air that was in the mine. The mine goes to the dip in all directions, being 13 feet lower at the air shaft than at the hoisting shaft and 48 feet lower in some of the northeast entries than at the main shaft. After the water had filled the opening at the main shaft and had filled the mine until the air could not escape at the air shaft, it continued to run in for five hours, all the time compressing the air that was behind it and trapping in more as the pressure and weight of water increased. At 3:50 in the afternoon of the 6th, after the water had been compressing the air for five hours, the air rebounded with a force that was almost beyond comprehension. It threw out mine cars, cages, huge concrete blocks, sheave wheels, engines and completely destroyed the entire top works. Water, stone, dirt, and machinery were thrown into the air to an estimated height of 500 feet. The sheave wheels, which had gone down the shaft together with the headframe, were blown out and fell over a hundred yards from the pit head, completely burying themselves in the hard earth.

Twenty-two minutes after the first outburst, a second one came, and, eight minutes after, was followed by a third, either of which were considerable less force than the first. The second outburst threw water to a height of possibly 150 feet, and a picture was made of it while in action by one of the local photographers. The third outburst, which rose to a height of probably 75 feet, was followed by numerous others, each in turn growing less and less until they were only high air bubbles. This bubbling continued for more than a week before the mine finally filled. The shaft now stands to within 2 feet of the level of the surface and presents the appearance of an old well caved in around the top until it is about 40 feet across.

RE-OPENING SEALED TERRITORY AT ZEIGLER

The large territory which was sealed, on account of a fire in 1908, was successfully re-opened May 14, 1913. The work was started from the third and fourth right entries, off the sixth west south. There was a block of coal to go through of 75 feet. This coal was cut by chain machines until the advance holes, which were drilled 15 feet ahead by a compressed air drill, had gone through when the coal was cut by an air-punching machine, and sheared down so as not to have to shoot. After getting the coal down so as to get air in the sealed-off workings, temporary brattices were put in; this was followed up with permanent wood stoppings, which were plastered with wood fiber. Two experienced men went ahead at all times exploring for the safety of the men, until it was ascertained the fire at room 18 was out. Then the walls were opened by cutting around with hand picks, which was both dangerous and slow. When this was done, all the men were called out, except the inspectors and management of the mine. The walls were opened one at a time in less than three-quarters of an hour. Rails, trolley wire, pit cars and machines were recovered and a large territory, that will materially increase the output of the mine, re-opened.

There is also a territory that has been sealed up since 1910 on account of a squeeze, the pillars having been drawn previous to that time. The

was opened on the same system. The third west south territory has not shown any signs of gas since it was cleared out. The territory just recovered makes this mine a complete circle, one of the best in the State, and one of the largest producers. The work was done with electric lamps, no safety lamps being allowed in the mine, except by those who were directing the work. Every precaution was taken in regard to safety. All hammers used in bratticing were made of copper, and helmets were worn by the men in charge when necessary.

The work was done under the direction of the State and county inspectors, R. H. Zoller, general manager; Joseph Yerly, superintendent, and Nels Johnson, mine manager.

EXPLOSION AT ELDORADO COAL MINING CO.

February 19, 1913, I received a message about 10:15 A.M. at Equality, Gallatin County, that an explosion had occurred at the above named mine at 7:20 A.M. I immediately notified the manager, Oscar Cartlidge, and Superintendent J. C. Duncan of the Benton Mine Rescue Station of the accident, then got a rig and drove through the country a distance of eight miles, and arrived at mine about 12:15 P.M., and found that four lives had been lost and three men badly injured, and were just bringing the last body up.

The explosion occurred immediately after the last cage of men had descended for work, and was caused by ignition of accumulated gas at the face of the third and fourth west north. The explosion was confined to this portion of the mine and as a result only those working in that locality were in danger. Immediately after the explosion Superintendent Ginney organized a rescue party, having first sent out call for assistance. District Superintendent Bagwell of the O'Gara Coal Co., together with his mine managers and assistants from O'Gara Mines Nos. 8, 10 and 11, responded. As soon as Mr. Bagwell arrived on the scene he called the general office of the O'Gara Coal Co., at Harrisburg, and requested the regular rescue corps of the company, together with all the equipments, to be sent to the mine at once. This request was received at the office at 8:00 A.M., and at 8:45 the rescue corps, in charge of O'Gara Mine Inspector C. A. Horning and District Superintendent J. J. Morris arrived at the scene of disaster, the Big Four Railroad Company having furnished a special train to carry the entire party, which was made up of Mine Inspector C. A. Horning, Superintendent J. J. Morris, Superintendent W. H. Stricklin, Superintendent Richard Neeson, Mine Manager Frank Keesner, Robert Wright, R. F. Macklin, James Cook, James Pyre, Sherman Walters and Jake Ingram. Upon the arrival at the scene those in charge of the O'Gara Rescue Corps, co-operated with the mine management in organizing parties for going into the mine and recovering those who had not succeeded in escaping. Messrs. William Taylor and James Robinson, who were familiar with the workings of the mine and regularly certified rescue men, were equipped with Draeger helmets and went to the scene of the explosion. These two men were followed up by Messrs. Horning, Ginney, Morris, Bagwell and others with pulmotors, stretchers, etc. At 10:30 o'clock the first body was recovered. The other three were recovered soon thereafter. In the meantime, however, the two men who were severely burned had been carried out to the parting and at first they were both supposed to have succumbed to the effects of the explosion, but the pulmotors were immediately brought into use, and after patient efforts of over half an hour on each man, they were resuscitated. This work was ably assisted in by Superintendent Morris of the Saline County Coal Co. and his entire rescue corps, consisting of Charles Stahlbert, Walter Scott, Charles Tinsey, William Taylor, Charles Cathcart, Bertram Peak, William Schuman and James Johnson, who had been furnished with a special engine by the Big Four, and they arrived at the mine when their assistance was most needed. Soon after these two men who were injured had been resuscitated, it was found that three of the rescue party who had rashly rushed into the effected portion of the mine were down from the effects of noxious gases. Again the pulmotors were brought into use and it was only through the efficient work of the men in charge of the pulmotors that their lives were saved.