

SEVENTH INSPECTION DISTRICT—1905.

TENTH ANNUAL REPORT.

(The seventh inspection district was formed in 1895, the first annual report was for the year ended June 30, 1896).

Counties—Franklin, Gallatin, Hamilton, Jackson, Jefferson, Johnson, Perry, Randolph, Saline, Washington, White, Williamson.

WILLIAM ATKINSON, *Inspector*, Murphysboro.



It becomes our sad duty to chronicle the death of William Atkinson, late State Inspector of Mines for the Seventh Mine Inspection District. Of the dangers to which this class of State servants are exposed, he was the first to lose his life while engaged in the performance of his duty. It was nearly noon, April 3, 1905, when he learned that the coal mine at Zeiglar, Illinois,

had been wrecked by a great gas explosion and that everyone in the mine had been killed. Hurrying to the place of the disaster he descended the mine in company with a few other brave men, for the purpose of recovering the dead bodies, and to rescue those whom they hoped might yet be living. While engaged in this most commendable undertaking he had, in his anxious search, stepped for a moment out of the line of the air current, was seized by the deadly after-damp, and died before his companions could reach him. Deceased was born Feb. 2, 1848 at Alwick, England, and came to this country in 1862. Shortly after reaching New York he enlisted in the Union Army, joining Company K, New York Volunteer Infantry, and served with distinction until the close of the war. His honorable discharge bears the date of July 18, 1865.

After the close of the war he located at Murphysboro, Illinois, where he continued to reside. He was married to Zerilda Kilgore, at Harrisburg, Illinois, February 16, 1876. Of this union nine children were born, but three of whom are living. Mr. Atkinson was appointed July 1, 1901, by Governor Yates as a member of the State Board of Mine Examiners. He continued to serve in that capacity until July, 1904, when he succeeded Even D. John, as State Inspector of Mines for the Seventh District. Prior to his connection with the State Service he had served as mine manager for several coal companies in the Southern part of the State. While deprived in early youth of the advantages of an education, he possessed a bright observing mind, and accumulated a considerable store of information on a variety of subjects. Aside from his experience in the army, before coming to this country, he followed the occupation of a British sailor, and, in the line of that employment, had visited nearly every port in the world. His extensive travels gave him an intimate knowledge of human affairs and quickened his judgment of men. His was the positive type of character, combined with deep sympathy and most generous impulses. His disposition was extremely kind and he was never so happy as when performing a service for others. He was a member of several secret societies, and was buried with Masonic honors at Murphysboro, April 7, 1905. Those who enjoyed his acquaintance will long remember him for his many loving qualities of head and heart.

Owing to the untimely death of State Inspector Atkinson, the report of the condition of the mines in the district is necessarily quite limited. However, several of the operators have furnished descriptions of new plants that have been put in operation during the year.

The most noticeable event occurring in the district during the year was the terrific explosion in the mine of the Zeigler Coal Co., at Zeigler, Franklin county, April 3, 1905, whereby fifty men lost their lives. The explosion was the most disastrous to human life, with one exception, that has ever occurred in the history of coal mining in the State. The exception was the calamity that befell the Diamond Mine at Braidwood, February 16, 1883, wherein 69 men were drowned by the sudden flooding of water into that mine.

The explosion at the Zeigler mine was made the matter of special notice by Governor Deneen, who instructed the State Mining Board and the State Inspectors of Coal Mines to thoroughly investigate the cause and results of this explosion, and make an official report to him of their findings. The Governor also appointed James Taylor, Peoria, State Inspector of Coal Mines for the Third District, and John G. Massie, Belleville, ex-State Inspector, formerly of the Fifth District, as experts to prosecute a similar investigation and report thereon. The several reports of these investigations will be found in a foregoing special article in the text of this report on the explosion at the Zeigler mine.

NEW MINES.

The Majestic Coal and Coke Co., Duquoin, Perry county, has opened and equipped a new mine four and one-half miles southeast of Duquoin. The shaft is one and one-quarter miles south of the line of the Illinois Central R. R. from St. Louis, with a switch from the main line, having yard room for 100 coal cars. The sinking of this shaft was begun July 5, 1904, and completed in January, 1905; the depth of the shaft is 402 feet to a seam of coal 9 $\frac{1}{4}$ feet thick. The output of the mine is now from 1,200 to 1,400 tons a

day, and steadily increasing. The mine has a steel tower; the tower house is 45x49 feet; the engine room is 30x40 feet, with two hoisting engines, 24x26 inch cylinders, each 300 horse power, and conical drums 6x8 feet; there are two boilers, 6x18 feet, with heater attachment. The powder house is built of brick with a storage capacity for 2,000 kegs of powder; there is also a corrugated iron building with concrete floor, having tanks for storing oils. The machine and blacksmith shops are fully up to date, being fully equipped for doing all necessary work and repairs. A wash house for the men, heated by radiators and with all necessary conveniences is furnished; also a barn with forty stalls for miners' horses. A daily passenger train service to and from the mine is supplied. The mine is supplied with a Jeffrey shaker screen, having a 2,000 tons capacity, a Christy box car loader, two pair of 100 ton Standard scales, with 42 inch beams; one of the scales has an automatic weighing attachment. The ventilating fan is 20 feet in diameter, capacity 100,000 cubic feet per minute, made by the Blakeslee Manufacturing company, Duquoin. There are two self dumping cages; the mine cars hold $1\frac{3}{4}$ tons of coal.

The Zeigler Coal Co., Zeigler, Franklin county, has furnished the following description of the property and equipment of its plant: There are 7,550 acres of coal land, with an average thickness of twelve feet of coal. The present coal hoisting mechanism was placed in operation June 8, 1904. The general surface equipment connected with the hoisting and operation of coal is as follows:

Head Frame—At the head of the shaft there is a steel head frame consisting of vertical steel columns strongly framed and braced together, provided with back stays, well anchored to the foundations, the stays forming a stairway for access to the top of the head frame. The head frame is of the double compartment type, arranged with steel guides for two hoisting buckets; the buckets are of the self dumping skip type, so arranged that they discharge their contents automatically at the top of the head frame into a large steel receiving bin, from which the coal flows down into the breakers or screens; the skips are attached to $1\frac{1}{2}$ inch hoisting cables. The head frame is equipped with two 8-foot sheave wheels; the vertical distance from the top of the foundation of the head frame to the center of the sheave wheels is 125 feet.

Hoisting Engines—The hoisting plant consists of a pair of bored guide heavy balanced slide valve engines, coupled at right angles to one shaft; the engines are fitted with a Stephenson link reverse motion. The drums are fitted with a heavy brake band operated by means of double connections to hand reverse on operating platform.

Automatic Dumping Skips—The plant is equipped with two automatic dumping skips 5 feet 11 inches square, by 9 feet $11\frac{3}{4}$ inches deep; the hoisting bails of each skip are provided with safety release catches, whereby, in case of overwinding, the end of the hoisting cable is released from the skip and is automatically held up by means of hooks at the top of the head frame. At the bottom of the shaft the coal from the pit cars is dumped into an eighty ton receiving bin, the coal being discharged from the receiving bin into the hoisting skips.

Revolving Tippler—The coal from the pit cars is dumped by means of a revolving tippler, consisting of four steel rings forming bearing rollers, upon which the tippler rolls; two cars are dumped at a time.

Breaker Building—The breaker building is of fire proof steel construction, about 60x80 feet, and 100 feet high, and is equipped with 12 and 9 foot Bradford patent coal breakers. The coal from these breakers is discharged in its prepared state by means of conveying chutes, into cars below, or transferred to an 800 ton storage bin by means of a 140 foot belt conveyor; the breakers and belt conveyor are operated by electric motors.

Power Plant—The boiler room is equipped with four 400 horse power Heine water tube boilers; these boilers are equipped with automatic stokers; one boiler is provided with Green traveling link grates; one grate is 7 feet wide by 9 feet deep; this grate has a flat hanging igniting arch, consisting of steel cross girders, supporting on their lower flanges, laterally adjustable cast iron beams, between which special tile is suspended. The boilers are

connected up to a steel concrete breeching, which, in turn, is connected to a steel concrete chimney, 153 feet high, inside diameter 6 feet. All the water pumped into the boilers is passed through a Pittsburg feed water heater.

Compressors—The air plant consists of three class G Ingersoll-Sergeant steam driven duplex air compressors, with simple steam and cross compound air cylinders, of the piston inlet type, and a special improved receiver inter-cooler, the compressors are provided with the Meyer adjustable steam cut-off, and with an automatic airball governor.

Electrical Equipment—The electrical equipment consists of three Edison Bi-Polar Generators operating at 250 volts. These generators are driven by a 500-horse-power Bass Corliss engine, built with a driving wheel 18 feet feet in diameter; this equipment furnishes power for the mine, electric lights for the streets, houses, and power for the ice plant. The engine room is supplied with a ten-ton traveling crane, equipped with a Pilling air engine hoist.

Ventilating Fan—The ventilating fan is a 16 foot Robinson pattern, capable of delivering 200,000 cubic feet of air into the mine per minute.

Machine Shop—A brick machine shop 40 x 100 feet is situated just north of the power house, and is equipped with lathe, pipe machines, bolt machine, radial drill, bull-dozer, punch and shear, trip hammer, band saw and a wood turning and cutting machine. The wood working shop is prepared to rapidly turn out pit cars.

Miners' Houses—There are 115 houses, running in size from three to six rooms; three room houses rent for \$6.00 per month, including water; four room houses rent for \$7.00; five room houses for \$8.00 and six room houses for \$9.00, with water.

Miners' Comfort—A concrete wash house is provided, having 285 lockers, hot and cold water, with tub and shower baths.

An ice plant has been erected, provided with an electrically driven 15-ton refrigeration.

The store building is equipped with a cold storage room capable of holding two carloads of meat, the store has about 7,000 square feet of floor area.

The mine is connected with the Illinois Central Railroad and Iron Mountain & Southern Railway by the Chicago, Zeigler & Gulf Railway.

The town is supplied by a complete water system, the supply of water being pumped from the big muddy river. The office is a two story brick building.

The hospital is a one story frame structure with basement, and will accommodate from twelve to thirty patients, according to the necessity that may arise, and will at present accommodate twenty-six. It is well equipped and modern in all respects.

The schoolhouse is a new fire-proof concrete building, having four rooms, halls, etc., and is capable of accommodating 200 pupils; the instructions given are as good as the best in the State.

The Equitable Coal Co., Duquoin, Perry county, has erected a new steel tower.

The Forester Coal Co., Duquoin, has put in a new engine 20 x 36 inch cylinders, a conical drum 8 feet in diameter; the boilers are 6 x 18 feet with seventy 4-inch flues. The fan is of the Guibal pattern, 20 feet in diameter.

FATAL ACCIDENTS

There were seventy-nine men killed in this district during the year, fifty of whom lost their lives by the explosion at the mine of the Zeigler Coal Company, April 3, 1905. Owing to the death of State Inspector Atkinson, the detailed circumstances leading up to the causes of these fatalities are not as complete as is usually reported to the Bureau by the State inspectors. However, the Zeigler Coal Company has reported direct to the Bureau a carefully prepared list of the names of the killed by the explosion April 3, 1905, giving all the information possible to be obtained as to the nativity, residence and conjugal relationship of each man killed. Of the forty-nine men employed at the Zeigler mine losing their lives by this calamity, the bodies of forty-one were recovered and identified, while eight are reported as

missing, or their remains, if found, unrecognizable, therefore unidentified. The bodies of thirty of these unfortunates, identified, were buried at Zeigler, while eleven bodies were shipped to other places for burial. The occupation of the forty-nine killed or missing, forty-six have been given in the table following as that of miner, as no report was made as to their occupation, the ages were not ascertained; the place of burial, nativity, and the conjugal and family relationship so far as could be discovered, are given as follows:

Aured, C. O., buried at Zeigler, father living, no other near relatives known.

Baxter, William, mine manager, was buried at Ladd, Illinois, leaving a widow and one child, a daughter.

Baxter, William A., buried at Ladd, Illinois, leaving a widow.

Babincak, Mike, buried at Zeigler, leaving a widow and two children in Maltza, Hungary, Austria.

Babincak, Paul, buried at Zeigler, leaving a widow and three children in Maltza, Hungary, Austria.

Brunlick, Gustaff, buried at Zeigler, leaving a father and mother, possibly also brothers and sisters.

Campbell, Rolla, buried at the Harrison Cemetery, leaving a widow, no children, at Christopher, Illinois.

Davis, Robert T., single, buried at Coulterville, leaving parents and one brother.

Dombay, Ivan, single, buried at Zeigler, native of Nagy Kanisa, Hungary, leaving a brother in New Washington, Pennsylvania.

Dudas, Emerick, buried at Zeigler, leaving a widow and one child in Maltza, Hungary.

Dudas, John, buried at Zeigler, leaving a widow and three children in Maltza, Hungary.

Fedoraka, Jonas, buried at Ziegler, leaving a widow and three children, address unknown.

Geisler, Joseph, single, buried at Zeigler, leaving mother and brothers and sisters, residence of family unknown.

Graham, John, mine examiner, was one of the rescuing party, and was overcome by after-damp. He was buried at Zeigler, relatives, if any, unknown.

Hare, Robert, buried at Greensburg, Penn., leaving a widow.

Haydukovic, Valent, buried at Zeigler, leaving a widow and four children in Carola Croatia, Hungary.

Jankowich, Peter, buried at Zeigler, leaving a widow, previously deserted, residence unknown, also a cousin in Philadelphia, Penn.

Jones, Everett, single, buried at Mulkeytown, Illinois, the home of his parents.

Koski, Capi, buried at Zeigler.

Koski, John, buried at Zeigler, nothing known of the relatives of these two men.

Kostick, Andrew, buried at Zeigler, leaving a widow and one child in Berek, St. Miklos county, Hungary.

Kostick, Frank, buried at Zeigler, leaving a widow and one child at the same address as the one previous.

Kowach, B., buried at Zeigler, leaving a widow and three children at Mandock, Hungary.

Kowachich, Ivan, single, buried at Zeigler, relatives at Nagy, Kanisa, Hungary.

Lindsey, John, one of the rescuing party, was overcome by the after-damp, was buried at Mulkeytown, Illinois. Nothing given as to family.

Lovrek, Mike, single, Austrian, buried at Zeigler; relatives unknown.

McKenzie, Andrew, buried at Zeigler, leaving brothers and a sister.

McKenzie, William, buried at Zeigler, leaving a widow and four children; location not given.

Macky, Oscar, buried at Zeigler, single, relatives unknown.

Moretti, David, buried at Zeigler, single, cousin, 623 N. 6th St., St. Louis, Mo. Parents in Milan, Italy.

Perryman, Frank, buried at Zeigler, deserted wife in Jackson, Miss. seven years ago, relative of Dr. Stam, Holly Springs, Miss.

Rayburn, James, buried at Carterville, leaving widow and one child at that place.

Rabby, A., buried at Zeigler, leaving widow residing at Witnyed, county Sopron, Hungary.

Robinson, C. B., buried at Crawfordsville, Indiana, leaves a widow at that place.

Sabolich, Steve, buried at Zeigler, leaving a widow and two children in Godala, Croatia. Hungary.

Semivan, Louis, buried at Zeigler, leaving a widow and two children in Nagy, Kanisa, Hungary.

Sloh, Joseph, buried at Zeigler, single, an Austrian-Pole, relatives in that country.

Tinan, David, buried at Zeigler, single, leaves a brother and sister, residence unknown.

Vinar, George, buried at Zeigler, single, relatives living in Pothering county, Borek, Hungary.

Withrow, H. M., buried at Newton Upper Falls, Mass., leaving brother and sister at that place.

Wood, J. O., was killed while working in the tower for a Construction Company, was buried at Cleveland, Ohio; nothing known of relatives.

The bodies of the following eight men were not recovered or were not identified:

Canfield, Mike, leaves a widow and six children, who will remove to Sheffield, Illinois.

Ipsan, Stif., leaves a widow and two children in Velika Croriza, Croatia, Hungary.

Maros, John, single, home same as preceeding.

Mikesie, T., leaves a widow, whereabouts unknown, native of Croatia, Hungary.

Nolan, J. T., leaves a mother.

Rashance, Mike, leaves a widow and one child in Torchich, Croatia, Hungary.

Roper, John, leaves a widow and four children in Chisholm, Minnesota, where he owned property.

Suke, Mike, single, so far as known, a native of Austria.

William Atkinson, State Inspector of Mines for the Seventh District, whose home was at Murphysboro, led the first rescuing party to enter the mine, and was soon overcome by gas or after-damp.

Following will be found the tables of the fatal and non-fatal accidents, also the usual county tables, giving the detailed information, of the coal mining industry of the district: