

During the summer a movement was set on foot to establish a living rate of wages for the hand-miner, but after several conferences and a failure to agree, the men finally went to work for a cent and a half a bushel. Subsequently, however, the owners advanced this rate to a cent and three-quarters per bushel, or 43½ cents per ton, which is now the ruling price for hand-mining.

Accompanying this I submit my notes on the different mines in each county, a detailed record of the casualties which have occurred, and such tables of statistics of the production of coal, etc., as are required by law.

Very respectfully,
ROBERT WINNING,
Inspector 5th District.

ST. CLAIR COUNTY.

THE ABBEY COAL Co.

This company is extensively engaged in mining on the line of the Vandalia railroad, and have several shafts in the vicinity of Caseyville, St. Clair county, and Collinsville, Madison county. Those in St. Clair county are the No. 1 and No. 5. The Springwell mine and No. 2 are now abandoned as hoisting shafts, the coal from those workings being taken out at the No. 1 shaft. The coal is worked on the single-entry system, the entries being 16x6½ feet.

On my first visit, in November last, the company had 80 men and 8 mules at work, but in the succeeding April this force was reduced to 15 men and 3 mules. The mine is well ventilated, having 11,700 cubic feet of air in circulation in two "splits."

Joseph Higginbotham, Underground Manager.

The No. 5 mine of the Abbey company is worked wholly with mining machines, and has been from the time it was originally opened. It is laid out on the single-entry plan. The roof requires an unusual amount of timbering, from the fact that there is from 6 to 8 feet of slate overlying the coal. The Harrison improved mining machines are used, and the men working them are the most skillful operators I have seen in the district. The labor in these works is divided in the following manner: There are seven machines, with a skilled operator for each, and with each of these there are two helpers, making 21 men handling 7 machines. These make employment for 7 drillers and blasters, 40 loaders, 6 drivers, 3 trappers, 2 cagers, 2 roadmen, 1 dumper, 2 car trimmers, 1 slack shoveler, 7 timberers, 1 fireman, 1 blacksmith, and 1 prop-cutter. All the men are paid by the day. Machine men, timberers and blasters receive \$2.25, and shovelers and loaders \$1.75 per day. A ventilating fan has been erected here, which has increased the amount of air in circulation from 4,680 to 21,340 cubic feet per minute. The company has endeavored to comply with the requirements of the law, and their works are in good shape.

William Fletcher, Superintendent; Caleb Davis, Underground Manager.

THE PROVIDENCE MINE.

This mine was connected by side-track with the Vandalia road, and operated by Messrs. Miller, Daniels & Co. At a distance of 186 feet from the bottom of the shaft they encountered a fault, when the roof gave way, and precipitated a body of sand into the mine, which flowed with such force and rapidity as to fill 40 yards of entry 12 feet wide by 4½ feet high in 30 minutes. Subsequent efforts to tunnel through the fault were ineffectual, and the property was abandoned.

JOSEPH MORRIS' MINE

Is on the Ohio and Mississippi railroad, between O'Fallon and Lebanon. It was opened originally on the single-entry system, but is being changed to that of double-entry, the proprietor claiming as a reason for the change that double-entries cost less in the long run, gave the mine better ventilation and the men better satisfaction. He had a working force of 12 men and boys underground, and 4 on the top. I found a very small amount of air in the passages, owing to a recent fall of rock in the return air course. This was satisfactorily cleared up.

THE BENNETT MINE.

This is about a mile east of the preceding, and is owned and operated by Mr. Jeremiah Bennett. The coal in this and the Morris mine is of better quality than that of other mines in the vicinity, and commands a better price in the market. This is a double-entry mine, employing 38 people underground. On my first visit I found some gas in the workings, and a feeble current of air; but by cleaning up and widening the return air-way, succeeded in doubling the volume of air and dissipating the gas. There was no escapement outlet to this mine except through the air-shaft in which the furnace was located. The proprietor has undertaken to remedy this state of things, and may proceed to sink another shaft.

THE LEBANON MINE.

This place is also on the Ohio and Mississippi railroad, at Lebanon, and is owned and operated by Gustave Weisberger. The shaft was sunk a year ago, under many difficulties. At a depth of 26 feet, 12 feet of quicksand was encountered; and again, at a depth of 50 feet there was found 30 feet more of quicksand producing 120 gallons of water per minute. With this experience with the strata, they have not yet undertaken to sink an escapement.

In April there were 17 men at work in the mine, which was ordinarily ventilated by exhaust steam from the pump, but as that was undergoing repairs, there was no current perceptible.

THE SUMMERFIELD MINE.

This is also on the Ohio and Mississippi railroad. There were only 3 men at work in it at the time of my visit, and there was no attempt at ventilation. The property has changed hands three times since I came into the field, and as it is necessary that an escapement shaft should be sunk at once, it may continue to change.