

at 10 per cent. less cost, is equal to Connelsville, Pa., coke for smelting purposes. The freight on coke by rail or river from Pennsylvania to St. Louis is greater than the cost of the coke from the Brookside seam of coal laid down in St. Louis, and this difference of cost, and, in fact, the cheap iron produced in Alabama, compels the smelters of Missouri ore to look for a cheaper coke. There is no doubt that the Brookside coke will be extensively used in the future.

Wm. Freaudanan, Manager; John Evans, Underground Manager.

TROY COAL AND MINING COMPANY.

This shaft is located on the St. Louis, Vandalia and Terre Haute Railroad, adjoining the corporate limits of the village of Troy. This is a new colliery, the shaft having been sunk within the last year. The works will be started on the double-entry plan, and the coal will be mined with coal cutting machines. A Norwalk compressor has been erected and five Harrison coal cutting machines will be used during the year. The shaft is 278 feet deep, coal averaging 5 feet.

Manager, A. D. Donk; Underground Manager, Richard Dingle.

WOLF & BROS. COAL MINE.

This mine is located in the corporate limits of the village of Edwardsville and is connected by coal tracks with the Wabash, St. Louis and Pacific and Toledo, Cincinnati and St. Louis Railroads. The shaft is 217 feet deep. The coal has an average thickness of 5 feet 6 inches. The coal is hoisted by a single engine 10x22, second motion. Drum, 5 feet; rope, 1 inch; screens, 1 inch by 10 feet; and for weighing the coal top scales are used. This company has sunk an escapement shaft during the year. The ventilation of the mine at present is by steam jet; the company intends, however, putting in a ventilating fan. The works are laid off on double and single entry plan.

Manager, Otto Wolf; Underground Manager, Joseph Schawyer.

FRANK SHUMACH'S MINE.

This mine is located within the city of Edwardsville, and on the spur of the Wabash, St. Louis and Pacific Railroad leading to the center of the city. The shaft is 136 feet deep. The coal has an average thickness of 5½ feet. The coal is worked by pillar and room and single-entry. There is an average of 20 miners employed during the year. The operator is at present sinking a new shaft. The old shaft is about worked out. The new shaft will be opened up on double-entry and the coal worked in better shape.

WORDEN COAL AND MINING COMPANY.

This mine is situated on the Wabash, St. Louis and Pacific Railroad, adjoining the village of Worden. The shaft is 270 feet deep, the coal averaging 6 feet 10 inches in thickness. Top scales are used for weighing the coal. The company works an average of

70 miners. Hoisting engine, 10x20; boiler, 42 inches by 20 feet; drum, 6 feet; rope, 1 inch; screens, ¾ inch by 12 feet. The company has put up during the year a 10x3 inch ventilating fan.

Manager, H. H. Lucker; Underground Manager, John Ax.

WABASH COAL AND MINING COMPANY.

This shaft is situated on the Wabash, St. Louis and Pacific Railroad, one-half mile east of Worden. The shaft is 175 feet deep. The coal will average 7 feet in thickness. The company works on an average 25 miners. The hoisting engine is double, 10x18, cylinders standing at an angle of 45 degrees. Hoisting drum, 5 feet; rope, 1¼ inches; one boiler, 42 inches by 22 feet; screen, 1 inch by 10 feet. Top scale for weighing the coal. This company has stopped mining since July 1, 1834. There was an escapement shaft started, but is now abandoned.

Manager, Robt. Zesch.

MCDONALD COAL AND MINING COMPANY.

This shaft is situated on the Wabash, St. Louis & Pacific Railroad, one mile east of Worden. The shaft is 300 feet deep. The coal will average 7 feet in thickness. This is a new mine. The company worked on an average 20 miners last year. Hoisting engine is single, 14x28; drum, 7 feet and rope 1½ inch. Top scales are used for weighing the coal. Screens, 1 inch by 12 feet. An escapement shaft has been sunk during the year and a 10x3 feet ventilating fan put up. This company is experimenting with a coal cutting machine, the invention of Dr. McDonald, the manager of the mine.

AUBURN COAL AND TILE COMPANY. SANGAMON

This shaft is located within the corporate limits of the village of Auburn, on the line of the Chicago, Alton and St. Louis Railroad. The depth of the shaft is 268 feet, the coal having an average thickness of 6½ feet. The mine is worked by pillar and room, and double entries. The company has just finished an escapement shaft. The shaft is at present ventilated by a furnace, though it is the intention of the company to erect a fan at the escapement shaft. The coal is hoisted by a pair of double engines, on second motion; the engines are 10x16, geared 5 to 1. The hoisting drum is 5 feet in diameter, one inch steel ropes are used for hoisting.

Manager, H. Dawson, Jr.; P. M. Yoakley, Underground Manager.

WABASH COAL AND MINING COMPANY.

Shaft No. 1 is located one mile south of the city of Springfield, at the intersection of the Wabash, St. Louis and Pacific Railroad and the Chicago, Alton and St. Louis Railroad. The shaft is 250 feet deep, the coal averaging 5½ feet in thickness. This is one of the oldest mines in Sangamon county. The working face of the rooms is nearly a mile from the bottom of the shaft. The coal is hauled to the shaft bottom by mules, which is very expensive and reduces the profits of the company. Machinery ought to be introduced for

bringing the coal from the face of the workings to the shaft. The seam of coal is well situated for the introduction of the tail rope or endless rope system of hauling, which would reduce the price of getting the coal to the shaft fully one-third. The company employs on an average 75 miners. The coal is hoisted by double engines, on the second motion. The mine is ventilated by a furnace 5 feet in width of grate bar. This company sunk a hoisting shaft one half mile west of the old shaft, to be used as an escapement shaft. There is also a passage way between the main shaft and the Black Diamond mine adjoining.

T. P. Mowitt, Manager; Thos. Reid, Underground Manager.

BLACK DIAMOND MINE.

This mine is located about three-quarters of a mile south of the corporate limits of the city of Springfield, on the line of the Wabash, St. Louis and Pacific Railroad. It is owned and operated by Speed Butler & Co. The shaft is 250 feet deep, the coal averaging 5½ feet. A drain tile manufactory is connected with the mines. The company employ on an average, during the year, 75 miners. The mine is ventilated by a 10-foot fan. The works are all opened on the double-entry plan. The coal is hoisted by a pair of double engines, on the second motion; the engines are 10x16, geared 5 to 1. The hoisting drum is 6 feet in diameter; the ropes 1¼ inch; two boilers, each 48 inches by 20 feet. There is no escapement shaft sunk at this mine; there is an underground connection with the Wabash Coal Company's mine for an escapement. There has been a great deal of litigation between this company and the Wabash Coal Company in regard to the passage way being kept open. The Wabash Company claim that the other party had no right to open a passage. Speed Butler maintains that the Wabash Company worked over their line, thereby creating an escapement for his shaft. On May 14, 1884, I visited the Butler shaft and found the passage way had fallen in. I applied to Judge Zane for an injunction to stop both mines until the passage way was cleaned up and retimbered; the Judge granted the injunction; the passage way was opened, but not as the mining law contemplates. The Judge allowed the mines to work again. I have instructed Thos. Gray, the underground manager, to go through the travelling way every day until there can be some decision given as to who is responsible for keeping the travelling way open.

BARCLAY COAL AND MINING COMPANY.

This shaft is located within the corporate limits of the village of Barclay, on the line of the Springfield branch of the Illinois Central Railroad. The shaft is 240 feet deep and the coal 5½ feet thick. The company employs on an average 100 miners. The mine is ventilated by a 6-foot Murphy fan. The escapement shaft is located about quarter of a mile from the hoisting shaft. Ladders are put in every twenty feet. The coal is hoisted by a single engine 12x24; two boilers, 42 inches by 26 feet; hoisting drum, 6 feet; rope, 1½ inch. The mine is worked on the double-entry plan; a 4-foot pillar is left between the rooms.

Manager, Wm. Graham.

SPRINGFIELD CO-OPERATIVE COAL COMPANY.

This shaft is located near the northern limits of the city of Springfield, on the line of the Chicago, Alton and St. Louis Railroad; the shaft is 250 feet deep; the coal has an average thickness of 5½ feet. The company employs on an average 50 miners. The works are opened on the double-entry plan. The mine is ventilated by a fan 8 feet in diameter. The air is split. This mine is connected into the old north shaft for an escapement. The coal is hoisted by double engines, 10x22, second motion. Three boilers are used, two cylinder each, 36"x20", and one two-flue, 42"x24". There is a steam brake attached to the hoisting drum of the engine which is a very useful invention in case of overwinding.

Manager, George Neilson.

WILMINGTON AND SPRINGFIELD COAL COMPANY.

This shaft is located near the northern limits of the city of Springfield, on the line of the Chicago, Alton and St. Louis Railroad. The shaft is 250 feet deep, the coal averaging 5½ feet in thickness. The company employs on an average 100 miners. The mine is ventilated by a fan 8 feet in diameter. Coal is run direct from the shaft to the Springfield Iron works. This mine was opened by single entry which causes a great deal of trouble in ventilating the working faces; connection is made into the Springfield Co-operative shaft for escapement. The mine is worked a long distance from the bottom and the coal is hauled out by mules where machinery ought to be used. The coal is hoisted by a single engine 12x20; two boilers are used, 38"x28'.

Manager, Harris Hickox; Underground Manager, Edward Edwards.

RIVERTON COAL AND MINING COMPANY.

Shaft No. 1, is located about six miles northeast of Springfield, on the line of the Wabash, St. Louis and Pacific Railroad. The shaft is 200 feet deep; the average thickness of the coal is 6 feet. The company employs on an average 150 miners. The mine is worked on the double-entry plan and the air is split for each set of entries. A furnace is used for ventilation, having 5 feet width of grate bar. This is one of the largest mines in Sangamon county; the escapement shaft is located a quarter of a mile east of the main shaft; the coal is hoisted by twin engines, on the second motion, geared 5 to 1. There are two boilers, each 42"x26½'; the screens are ½ inch; no nut coal is made. The company owns a store in connection with the mine, and the manager stated that it was not made compulsory for the miners to trade there. This company has sunk a new shaft on the Illinois Central, shaft No. 2. Everything has been fitted up in first class style, double engines, first motion, and a Murphy fan for ventilation. The company are working each way from No. 1 and 2 for escapement shaft for No. 2.

Manager, Robert Jess; Underground Manager, Joseph Hickey.

WABASH COAL AND MINING COMPANY.

Shaft No. 2 is located within the limits of the village of Dawson, on the line of the Wabash, St. Louis and Pacific Railroad. The