

to seven feet in diameter. There are four steam boilers, each with a capacity of 150 horse-power; each boiler is eight feet in diameter, and 17 feet long, with 72 four-inch flues.

The smoke stack is made of three-eighth inch steel and is 100 feet high; the engine and boiler houses are large and well arranged. They are built of brick with fire proof roofs supported by trusses; the floor of the boiler room is made of paving brick, and that of the engine room is concrete.

The ventilating fan is a Capell, 13½ feet in diameter and seven and a half feet wide; its full capacity (without mine resistance) is reported to be 350,000 cubic feet of air per minute; the fan house is built of fire proof material.

A No. 1 high speed engine of 50 horse-power is geared direct to a 50 horse-power generator, giving electric light to the premises, and entries in the mine; ten arc lights are used on the surface. The office building at the mine is built of brick, 30x56 feet, and contains a fire proof vault 8x10 feet, a bath room is also connected with the office. All the company buildings on the premises are heated by steam and supplied with hot and cold water.

A hotel and other dwellings are erected near the mine; everything around the mine on the surface is put up very substantial and intended to be fire proof.

To handle the coal output economically, ample side tracks are provided and suitable scales are erected. The underground works are laid out on the most improved plan, and it is expected that the mine when it is opened out to its full capacity, will maintain an output of 2,000 tons per day.

The Chicago-Springfield Coal Co. has opened out a new mine on the line of the C. & A. railroad, two and one half miles north of the corporate limits of the village of Ridgley, Sangamon county; the plant is first-class in every particular. The hoisting and air shafts are each 225 feet deep. The coal seam is No. 5 of the general section, and is six feet thick.

The hoisting shaft is 8x10 feet in the clear and the air shaft is 8x20 feet; five feet of the air shaft is taken off of one end for a stairway and escapement.

The tower posts and screen bearing posts and flooring are all of hard pine; the screen housing and tower is covered with corrugated iron; the tower is 107 feet high.

The boiler house is built of brick with fire-proof roof, and concrete floor; only two boilers have been installed at this time, others will be put in when required; each boiler is 72 inches in diameter, and 18 feet long, with 64 four-inch flues; the boilers are connected by britching to a brick stack, 10x10 feet square at the base, and 100 feet high. The engine house is also built of brick, with a fire proof roof; the hoisting engine is double first motion, each cylinder is 20x36 inches with a straight drum six feet in diameter. The head sheaves are seven feet in diameter. Air signals are used in the hoisting shaft; dump cages, weigh pans, and shaker screens are used; the shaking screens are seven feet wide and 42 feet long. There are four track scales, one on each loading track, each scale is 80 feet long; the side tracks are double on the north, and 3,800 feet in length, three tracks are on the south, 2,800 feet in length.

The fan at the air shaft is 22 feet in diameter and six feet wide, operated by an engine 12x28 inches, geared direct; the fanhouse is built of brick, and is intended to be fire proof. The washhouse provided is also built of brick, here the miners can change their clothes and wash after coming from the mine; the washhouse is ten feet wide and 60 feet long, properly drained, both hot and cold water are supplied.

A town site will soon be located, ten houses, with a hotel, have already been erected. The underground works are laid out on the most modern plan, and the coal will be worked on what is known as the panel system.

The office building at the mine is built of brick and is fire proof. The U. S. dial scale is used for weighing the miner's coal. When properly opened out this mine will have a large output.

The Tuxhorn Coal Co., Springfield, has opened out a new mine at Keys, Sangamon county, on the C. H. & D. railroad, three miles east of the corporate limits of the city of Springfield. The main shaft is 220 feet deep, 8½x14½ feet in the clear; the air shaft is 222 feet deep and 8½x14 feet in the clear; five feet is taken off of one end of the latter for a stairway and escapement.

The tower and screen posts are hard pine, covered with corrugated iron; the tower is 66 feet high to the center of the head sheaves. The boiler and engine houses are built of brick, with fire proof roofing; the buildings are detached; there are four boilers, each 48 inches in diameter by 30 feet long (common cylinder boilers), with an 80-foot smoke stack.

The hoisting engine is double cylinder, first motion; each cylinder is 20 inches in diameter, with a 36-inch stroke; the drum is straight and five feet in diameter. Dump cages with pan and shaker screens are used. The track scale is 76 feet long with ample side-tracks. The coal seam is No. five of the general section and is five feet nine inches thick at the bottom of the shaft. The ventilating fan is 15 feet in diameter within a brick fan house; the fan engine is geared direct to the fan shaft. The mine sump is made near the bottom of the air shaft and the water is pumped up this shaft.

The whole details of this plant are well laid out, both on the surface and in the mine. The coal will be worked on the panel system and the mine, when fully developed, will have a large output.

The Royal Colliery Co., Chicago, has opened out a new mine two miles west of the corporate limits of Virden, Macoupin county. The mine is connected by a spur of the C. B. & Q. railroad. The main shaft is 302 feet deep and is 8x16 feet in the clear. The coal seam is No. five of the general section and is seven and one-half feet thick. The air shaft is 8x16 feet with five feet taken off of one end for a stairway and escapement. The tower is built of wood and is 98 feet high, covered with corrugated iron. The boiler and engine houses are built of brick, with fire proof roofing. There are only two boilers located at present; two more will be put in when required. Those now in place are 84 inches in diameter and 18 feet long, with 72 four-inch flues; each boiler is rated at 140 horse power. The smoke stack is 80 feet high. The hoisting engine is first motion, double cylinder, each cylinder 24x36 inches and was built by the Litchfield Car & Machine company, Litchfield, Ill. The shaking screens are eight feet wide by 42 feet long with dump cages and weigh pan, put in by Duncan Bros., Alton, Ill. The underground works are laid out on the panel system and designed for a large output.

The Island Grove Coal company, Old Berlin, has sunk a new shaft two and one-half miles north of Berlin, Sangamon county, near the track of the Wabash railroad. The shaft is 185 feet deep; the coal seam is five feet and six inches thick. Very little mining has been done so far. This will be a local mine for some time. The company intends to have a spur run connecting the mine with the railroad.

The Superior Coal company, Gillespie, has opened up two new mines in Macoupin county, designated as Nos. 1 and 2. Mine No. 1 is two miles southeast of Gillespie and No. 2 is three and one-half miles south. Railroad connections are made to these mines by a branch road, known as the Macoupin county railroad, connecting at Greenridge with the C. & A. railroad, thence south crossing the C. C. & St. L. railroad at Gillespie and to the mines.

No. 1 shaft is 348 feet deep and 9x17 feet in the clear, with two cageways and pipe chambers. The cageways are each seven feet wide; the pipe chamber two feet four inches wide. The seam of coal is eight feet thick and No. 5 of the general section, being equivalent to Mt. Olive and Staunton coal seams. The tower is built of steel; the compressor, dynamo, engine and boiler houses are built of brick with slate roof; there are six boilers, each 60 inches in diameter, by 18 feet long, with 60 four-inch flues, each rated at 100 horse power. The hoisting engine is double first motion; each cylinder 24x36 inches with a seven foot straight drum; the ropes are one and three-eighth inches in diameter; dump cages are used for hoisting; the screens are stationary, as the coal from the mines will be consumed by the Chicago & Northwestern railroad. The fan is 16 feet in diameter and five and one-half feet wide; it is a central disk fan; the fan house is fire proof. The underground works are laid out on the improved plan. The coal will be mined and worked on the panel system. Fifteen miners' houses have been built at No. 1 mine and 22 at No. 2. The No. 1 is a duplicate of the No. 2 mine.

The coal at these mines will be mined by the Ingersoll-Sergeant coal cutting machines. A large Ingersoll compound compressor has been installed at each mine and air signals will be used. The towers and out-housing around

both shafts are all built of steel; ample side-tracks and scales have been put in. The company owns an extensive royalty of coal lands with a suitable tract of surface land at each mine and has plans now under way for sinking No. 3 mine. These mines in the future will have a large output when properly opened out.

The Kortkamp Coal company, Hillsboro, has sunk a new shaft two miles east of Hillsboro, Montgomery county, on the line of the C. C. & St. L. railroad, also connecting with the Frisco line to Chicago. The shaft is 500 feet deep, 8x15 feet in the clear; the tower is built of wood covered with corrugated iron. The boiler and engine house is built of brick, with fire proof roofing; only one boiler is placed at present, others will be put in as required. The boiler now in place is 72 inches in diameter by 18 feet long, having 70 four-inch flues; the hoisting engines are built with first motion, double cylinder, each 24x36 inches. Coal has not been shipped from the mine, as the shaft is only sunk through the coal. The air shaft is not yet finished; shaking screens and dump cages have been installed. A town site has been laid out and 18 houses have already been built. The coal seam is No. 5 and is seven and one-half feet thick.

The Consolidated Coal Co. of St. Louis, Mo., has opened out a new coal mine one and one-half miles west of Staunton, Macoupin county. This mine will be known as No. 14; connected with the mine will be a spur switch from the Wabash railroad. The main or hoisting shaft is 8 feet 10 inches by 15 feet 6 inches in the clear, and is 284 feet deep; the air shaft is of the same size, with five feet taken from one end for a stairway and escapement. The tower frames are of wood, covered with galvanized iron. The boiler, compressor, dynamo and engine houses are built of brick with fire proof roofing; there are four boilers, each 72 inches in diameter and 18 feet long. Each boiler is rated at 163 horse power. The hoisting engines are double first motion, each cylinder 24 inches in diameter with 36 inches stroke. An Ingersoll-Sergeant compressor has been put in, steam cylinder 18x24 inches. Dump cages and shaker screens have been put in. A large washery has been built with a Smith box-car loader. The coal seam is No. 5 of the general section, and is seven feet thick. The underground works are laid out with a view of having a large output when the mine is fully developed.

#### IMPROVEMENTS.

The Springfield Coal Mining Co. has built a brick blacksmith shop and office at its No. 3 mine at Starns, and has put in a new hoisting engine, double cylinder, first motion 20x36 inches. At its No. 4 mine, Black Diamond, a new tower has been erected, also screens and outhouses; a new fan 20 feet in diameter has been put in to take the place of the one destroyed by fire Sept. 27, 1903. The company has also put in a first motion engine, double cylinder 20x36 inches; two new dump cages and shaker screens. New track scales have been put in at the No. 5 mine (Iles Junction), also two new track scales at the No. 2 shaft at Riverton.

The Williamsville Coal company, Selbytown, has put in dump cages and screens; retimbered a portion of the hoisting shaft, improved the tower, and built a new stairway in the escapement shaft.

The West End Coal Co., Springfield, has put in a first motion engine, double cylinder 20x36 inches, and relaid the mine tracks with 35-pound rails, with a view of putting in an electric haulage motor in the near future.

The Chicago-Virden Coal Co. has retimbered a portion of its No. 2 mine at Auburn; also rebuilt a portion of the tower of that mine.

The Virden Coal Co. has put in a tight partition in their air shaft, with suitable doors at the top and bottom of the shaft to keep ice from the stairway in winter.

The Wilmington and Springfield Coal Co., Springfield, has installed a 20-foot fan at its air shaft, located about one mile east of hoisting shaft. The fan is run by an electric motor, power being supplied from a generator located in the Springfield Iron Co.'s plant.

The Consolidated Coal Co. of St. Louis, Mo., has made several improvements at its No. 7 mine, at Staunton, Macoupin county. A new tower has been

erected, also a tippie-house built, with self-dumping cages and shaker screens; a new fan 22 feet in diameter has been put in. The mine tracks have been relaid with 30-pound rails. It is intended to introduce mechanical haulage. Two 150-horse power boilers have been installed.

At this company's No. 8 mine, Mount Olive, Macoupin county, a new tower has been built, also a tippie-house with shaker screens and dump cages; three new boilers, each 72 inches in diameter by 18 feet long, rated at 150-horse power, have been put in. The mine tracks have been relaid with 30-pound rails; a 150 K. W. generator has been installed with two ten-ton electric motors for mine haulage.

At the No. 10 mine, Mount Olive, five new boilers have been put in, each boiler is 72 inches in diameter by 18 feet long, rated at 150-horse power. A Sullivan air compressor has also been installed, a steam cylinder 24 inches in diameter, a high pressure cylinder 16½ inches in diameter, and a lower pressure cylinder 26 inches in diameter.

The Hillsboro Coal Co., Hillsboro, Montgomery county, has put in dump cages and shaking screens. The tower has also been improved.

The Manufacturers' Fuel Co., Nilwood, Macoupin county, has put in a new boiler.

#### CHANGES IN CORPORATE NAMES.

The coal mine at Ridgely, Sangamon county, formerly operated by the Republic Iron and Steel Co., has changed and is now known as the Wilmington & Springfield Coal Co.

The Weaver Coal & Coke Co., Nilwood, Macoupin county, has been changed to the Manufacturers Fuel Co.

The Raymond Coal Co., Montgomery county, has been changed to the Miller Coal Co.

#### PROSPECTIVE MINES.

The Consolidated Coal Co. of St. Louis, Mo., is sinking a new shaft two miles west of Mt. Olive, Macoupin county. This mine, when completed, will be known as No. 15. A spur will be run from the Wabash railroad to the mine.

The Cora Coal company is sinking a new mine near Cora station, Sangamon county, on the line of the C., P. & St. L. railroad, about eight miles north-west of Springfield.

Robert Solomon, one of the late owners of the Black Diamond coal mine, Springfield, is sinking a new shaft on the line of the C. & A. railroad, about two miles south of Auburn, Sangamon county.

#### FATAL ACCIDENTS.

The following is a detailed statement of the fatal accidents which have occurred in the district during the year ending June 30, 1904:

Aug. 7, 1903, Peter Bogards, miner, age 30 years, single, was burnt by an explosion of powder in the Chicago-Virden Coal company's mine No. 3, Chatham, Sangamon county. He died ten days afterward. He was making a cartridge, when his lamp fell into the keg of powder.

Aug. 8, 1903, Frank Powers, miner, aged 30 years, single, was injured by falling coal and clod at the working face of his room in the Victor Coal company's mine at Pawnee, Sangamon county. He died Sept. 26, 1903.

Aug. 10, 1903, Albert Goekel, carpenter, aged 38 years, married, was injured by falling from the roof of the boiler house, at the Consolidated Coal company's mine No. 6, Staunton, Macoupin county, dying the same day. He leaves a widow and five children.

Aug. 26, 1903, William Davis, miner, aged 35 years, single, was killed by falling rock while working in an air course in the Chicago-Virden Coal company's mine at Chatham, Sangamon county.

Aug. 26, 1903, Steve Bolki, miner, aged 26 years, single, was injured by falling rock in the Chicago-Virden Coal company's mine at Chatham, Sangamon county; he died 14 days after the accident. His partner, Wm. Davis, was working with him at the time of the accident.