

Hillside Coal and Iron Company.

At Glenwood a new air shaft was sunk to the Archbald seam, a distance of 136 feet. Three new planes were also completed, the length of which are 425, 500 and 525 feet respectively.

At Erie a new air shaft was sunk, sectional area of which is 64 square feet, and a depth of 19 feet.

At Keystone a new tunnel was driven from the surface to the Archbald seam, a distance of 175 feet.

At Forest City a new air shaft was sunk, having an area of 144 square feet, and a depth of 180 feet. A new "Broadbent" fan was also erected at this place 25 feet in diameter, driven by an horizontal engine, cylinder 20"×36" directly connected to the fan shaft.

At Clifton a new plane 300 feet long, with a sectional area of 84 square feet, and a gradient of 15° has been completed.

Murray Carney and Brown.

A new plane 2,500 feet long with a grade of 6 feet to the 100 feet has been completed; they have also enlarged their breaker thereby increasing its capacity from 75 tons to 250 tons per day. Three new boilers have also been placed in position.

Pancoast Coal Company.

This company sunk its main shaft to the bottom split of "G" vein, a distance of 295 feet, area 10'×34'. It is intended to sink the main shaft to the same seam this year for a second opening.

Northwest Coal Company.

At Simpson slope a new fan 15 feet in diameter was erected to ventilate the coal slope workings, exhausting 75,350 cubic feet of air per minute, with a working speed of 70 revolutions per minute. It is run by an horizontal engine cylinder 12"×24".

Moosic Mt. Coal Company.

At Marshwood a new slope has been sunk a distance of 850 feet on a gradient of 10½ degrees, with an area of 72 square feet.

Elk Hill Coal and Iron Company.

At Richmond No. 3 a new air shaft, which was also a second opening, was sunk from the surface to the 14-foot vein, a distance of 155 feet. Sectional area 63 square feet.

This company is also sinking a new shaft and building a breaker in Fell township.

Mt. Jessup Coal Company, Limited.

At this company's colliery a new slope has been sunk through old workings to an abandoned levee opening up work in solid coal and pillars. Eight boilers were replaced by new ones.

Pennsylvania Coal Company.

At Gypsy Grove a new shaft to be used as a second opening was sunk from the surface to the third Dunmore vein a distance of 60 feet; area of shaft, 80 square feet.

Murray Coal Company.

Completed the slope begun in 1892, total length of which is 2,500 feet, with an area of 117 square feet; angle $3\frac{3}{4}$ degrees.

Pancoast Coal Company.

Sunk their hoisting shaft to within a few feet of the Clark vein, making a total depth of 428 feet; size of shaft is 10x34 feet.

They also sunk their man shaft to the bottom split of "G" vein, and intend to continue sinking it until the Clark vein is reached.

Delaware, Lackawanna and Western Railroad Company.

At Storrs, No. 2, a tunnel from the big vein to the Diamond is being driven; length, 444 feet; area, 72 square feet.

At Storrs, No. 3, a new slope 1,450 feet long, having an area of 98 square feet and an angle of 4 degrees was completed and put in operation.

Jones, Simpson & Co. sunk a new air shaft 40 feet deep; area, 100 square feet, which made a much needed improvement in the condition of the ventilation in the drift workings.

A new slope was also sunk by this company a distance of 550 feet on a grade of 8 degrees, with an area of 104 square feet.

The Sterrick Creek Coal Company completed two new planes; length, respectively, 175 and 280 feet, each on a grade of $8\frac{1}{2}$ degrees.

New York and Scranton Coal Company sunk a new air shaft a distance of 250 feet, with an area of 120 square feet.

A new tunnel was also driven by this company from the surface to the Dunmore vein, a distance of 1,000 feet.

The Elk Hill Coal and Iron Company, at Richmond, completed their new plant begun in 1892, including a new breaker, a shaft and slope.

side a depth of 57 feet, commencing with chamber in top Ross on opposite side of fault, thus furnishing good ventilation for both splits, and a means of escape if necessary.

A slope, 200 feet deep, was sunk in Mt. Thomas, Ross bottom split, below level of tunnel.

A new steam pipe line 3,600 feet long was run from Klondyke boilers to Mt. Thomas, to drive fan, slope and pump engine.

A 10 ton mine locomotive was put to draw the coal from same colliery, viz: Mt. Thomas, in place of mules.

A new steam plane is under construction from a point on Red Ash, west gangway, Mt. Thomas, to a distance of 1,000 feet, up the pitch to a point at or near outcrop of vein, cutting off, several gangways from Klondyke east workings, enabling them to handle the coal much cheaper than the present system of haulage.

DELAWARE AND HUDSON COMPANY

Langcliff Colliery.—No. 2 slope, Red Ash vein, was extended 700 feet.

Two bore holes, 180 feet deep, each, put down for flushing culm into the mines.

ROBERTSON AND LAW COAL COMPANY

Katydid Colliery.—The only improvement made at this colliery during the year was a washery annex to the breaker and they have commenced washing the dump and mixing it with fresh mined coal.

NORTHERN ANTHRACITE COAL COMPANY

Murray Colliery.—They have extended the tracks for the large empty cars about 1,000 feet.

Installed a new breaker engine which is about 140 horse power, replacing the one that was formerly in use which was about 90 horse power.

TROY COAL COMPANY

Troy Colliery.—This company has made many extensive improvements.

They erected a new breaker, with a capacity of 500 tons.

Installed a new boiler plant, return tubulars of the Fox pattern, with a total horse power of 250.

They have replaced the old trestling leading from foot of plane to the breaker by a new one.

They installed a haulage system over half a mile long both inside and outside.

They are driving a new tunnel from bottom split of the Ross vein to the top split of the same vein, a distance of about 100 feet.

They are sinking two slopes, one in the Ross vein and one in the Red Ash vein. This will open up a large area and increase their output.

I consider these mines in a very satisfactory condition when the fact that there are over two hundred numbers robbing is taken into consideration. Every suggestion of the Inspector is carried out faithfully by a corps of competent officials with a superintendent who is constantly trying to improve matters.

ELLIOTT McCLURE AND COMPANY

The Sibley Mine has made an excellent record during the year. The two upper veins are being robbed and every precaution is employed to protect the workmen. The lower veins have been developed to a point where they supply a generous proportion of the total output.

Ventilation and drainage are good.

CONNELL ANTHRACITE MINING COMPANY

Connells Colliery made a very good showing for the year. A man-way was constructed from the shaft through the workings to the surface. This was very much needed, as it keeps the employes from the haulage road, and does away with the man holes. Ventilation and drainage good.

HILLSIDE COAL AND IRON COMPANY

The Consolidated Colliery has added another feeder in the addition of Cotters slope, a new opening driven to the surface vein for the purpose of robbing pillars. Considerable second mining is also being done in the shaft and slope workings. Ventilation and drainage good.

HUDSON COAL COMPANY

Suring-Brook and Langcliff are old collieries. The second mining at Spring-Brook will be nearly completed during the coming year. At Langcliff the territory is very large and the workings very old. Occasionally squeezes occur, which are handled in a very safe and practical way. Ventilation and drainage good.

NORTHERN ANTHRACITE COAL COMPANY

Murrays Colliery is being continually improved as to roads, drainage and ventilation. No fatal accident has occurred at this colliery during my three years of office, although the Sullivan county collieries have a very bad falling roof to the B or principal vein. This speaks volumes for both officials and employes.

O'BOYLE-FOY ANTHRACITE COAL COMPANY

O'Boyle-Foys Colliery. The management exercises the greatest care and no fatal accident has occurred at this colliery during the past three years. About three miles of tail and main rope have been installed for transportation. Ventilation and drainage good.

AUSTIN COAL COMPANY

Austin Colliery is reduced to second mining almost exclusively. I do not recall a fatal accident inside for the past three years. However, there were two very unfortunate accidents outside during the

IMPROVEMENTS

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Taylor Colliery.—Installed one 6½ ton electric locomotive in Big vein. Rock plane from New County to Big vein. Concreted main shaft from surface to rock. Installed electric track pump on main gangway, Clark vein. Electric pump on B gangway, Clark vein, 300 gallons capacity. New concrete breaker and washery in course of erection.

Hallstead Colliery.—Two rock planes from No. 1 Dunmore to Clark vein. Installed drums, branches, ropes, etc., on one of the above planes, one being second opening. Re-opened Marcy vein tunnel, and installed fan to ventilate same. Covered steam lines, inside. Remodeled breaker, installed pickers, etc. Installed ash handling system at Feder-Dam boiler plant.

JERMYN AND COMPANY

Jermyn Nos. 1, 2 and 3 Collieries.—New slope and shaft to surface vein. New slope and air shaft to Marcy vein. New drift and air shaft to Clark vein. New fire room 2,000 horse power, also new jigs and shakers in the breaker.

NORTHERN ANTHRACITE COAL COMPANY

Murrays Colliery.—Wooden tower over shaft has been replaced by a steel structure.

Bottom Dunmore Vein.—A new motor road from the foot of Clifford shaft to the foot of Dunmore slope has been completed; Clifford shaft has been abandoned as a hoisting way and hereafter all the coal will be transported to the foot of Dunmore slope by motor and hoisted to the surface by way of No. 2 shaft.

A rock tunnel has been driven in a southerly direction through a fault south of the Dunmore slope, which will develop the 3rd Dunmore vein beyond the fault.

HUDSON COAL COMPANY

Clinton Colliery.—Inside: New haulage road driven about 2,000 feet and is in operation.

Outside: A washery, 62 by 80 feet, has been built and is nearly ready for operation. Two and one-half miles of poles and wiring completed for electrifying the colliery.

Twelve-inch pump hole 400 feet deep to Clifford vein.

NORTHERN ANTHRACITE COAL COMPANY

Murray.—Installed a 24-inch cast iron column pipe in air shaft, through which to pump mine water to the surface.

Also installed two piston pumps, capable of discharging 1,200 gallons per minute to the surface, with a piston travel of 137 strokes per minute.

Replaced 25 feet of old cribbing on the air shaft with new timber and backed it with a concrete wall 2 feet thick. All wooden buildings in the mine are also being replaced with concrete buildings.

IMPROVEMENTS

HUDSON COAL COMPANY

Clinton Colliery.—Completed a 12-inch pump hole 400 feet deep to deliver water from Clifford vein to surface; also a drift 200 feet long to surface to drain No. 11 slope. Installed a triple pump 12 by 12 driven by 100 horse power motor, and a 20 foot fan and a 17 foot fan equipped with electric power. Also installed $2\frac{1}{2}$ miles of pole line and wire to carry electric power to Clinton washery and pumping plant, etc.

CONNELL ANTHRACITE MINING COMPANY

Connell Colliery.—Built a new breaker, replacing the one burned in February, 1902; and installed an electric pump of 400 gallons per minute capacity. The work of driving a new drift known as "water drift" is nearly completed.

NORTHERN ANTHRACITE COAL COMPANY

Murray Colliery.—Completed the work of replacing all wooden buildings inside with buildings of concrete construction. Also installed a gasoline mine motor of the George D. Whitcomb make.

O'BOYLE-FOY ANTHRACITE COAL COMPANY

O'Boyle-Foy Colliery—Inside.—Installed a 30 horse power engine and scraper line in the "C" vein for the purpose of working out this vein. Built a solid concrete mule barn.

Outside.—Built a solid concrete oil and powder house.

not only acts as a second opening, but also improves the ventilation. An air bridge or air "cross over" was cut in the rock in the west tunnel section in the Dunmore No. 1 vein, 6 by 12 feet by 37 feet, which gives an additional split of air in that section.

Mount Pleasant Colliery.—A rock plane from the 3rd or China vein to No. 1 Dunmore vein has been driven and fully equipped.

PRICE-PANCOAST COAL COMPANY

Pancoast Colliery.—Installed one steam duplex pump, 28 by 14 by 24 feet in No. 3 vein to pump water to surface. Steel support substituted for timber on foot branch in Dunmore vein.

A rock tunnel 90 feet long was made from Clark to New County vein for ventilation and second opening.

Engine plane 1,000 feet long was made from Clark into New County vein for transportation.

Installed one double inlet Jeffrey exhaust mine fan 20 by 7 feet, and one 28 by 28 inch Ridgway engine.

A surface hospital has been provided.

SPENCER COAL COMPANY

Spencer Colliery.—No. 1 and No. 2 shafts have been retimbered and a new tower built at No. 2 shaft. The tower at No. 1 shaft was cut down 20 feet during the year.

A surface hospital has been built, the washery retimbered and a new 125 H. P. engine installed in the washery to replace four small engines.

NAY AUG COAL COMPANY

Nay Aug Colliery.—Installed a 100-ton loading scale, jigs for egg, stove and nut coal, and new grates, blowers and boilers. A new washhouse has also been built.

CARNEY AND BROWN COAL COMPANY

Carney and Brown Colliery.—A rock tunnel was driven through 150 feet of fault in the Clark vein.

CARNEY AND BROWN COAL COMPANY

Carney and Brown Colliery:

Carney and Brown Slope.—Ventilation, drainage and safety conditions, fair.

NO. 6 COAL COMPANY

No. 6 Colliery:

No. 6 Slope.—Ventilation and drainage good. Safety conditions, fair.

IMPROVEMENTS

PENNSYLVANIA COAL COMPANY

Pennsylvania No. 1 Colliery.—A rock tunnel 5 by 7 feet and 250 feet long, was driven from the First Dunmore vein, No. 1 shaft, to the First Dunmore vein, through faulty ground, for the purpose of ventilation.

No. 5 Colliery.—Brick building erected, 41 by 150 feet, to take care of outside stock. A new and more modern pump room was finished in Third Dunmore vein near foot of shaft.

A rock tunnel about 500 feet long and 7 by 10 feet in cross-section was driven from the Third Dunmore vein through an upthrow in the Bunker Hill section.

Underwood Colliery.—This colliery was placed in operation April 28. The work of construction has been going on during the year. The boiler plant, power plant, engine house and other necessary buildings are about completed.

SCRANTON COAL COMPANY

Pine Brook Colliery.—Installed 300 Maxim water tube boiler.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Diamond Colliery.—Built new washhouse and sub-station. Installed one 7-ton electric locomotive with reel, etc.

PRICE-PANCOAST COAL COMPANY

Pancoast Colliery.—A tunnel 600 feet long was driven from No. 3 to No. 2 vein.

NAY AUG COAL COMPANY

Nay Aug Colliery.—Built new washhouse. Also built addition to mule barn outside. Installed Hayes derailler above breaker as a safety precaution. A First Aid team was trained in the Y. M. C. A. and Bureau of Mines car.

SPENCER COAL COMPANY

Spencer Colliery.—Installed electric hoist in No. 1 shaft, 100 H. P. motor to replace steam hoist. Installed four 30 H. P. motors in mines, and new rotary pump for washery. Concreted 40 feet of No. 1 shaft from No. 1 to No. 2 Dunmore vein. Built 100 feet of new trestle and new scraper line at breaker.

CARNEY AND BROWN COAL COMPANY

Carney and Brown Colliery.—A second opening driven from Marcy vein to surface, a distance of 150 feet. A new hoisting tower was erected.

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IMPROVEMENTS

DELAWARE AND HUDSON COMPANY

Olyphant Colliery.—The breaker is being remodeled. A tunnel, 325 feet long, was driven from Five Foot vein to 20 Inch vein. No. 15 plane was extended 190 feet from Clark vein to New County vein. Two 7-ton electric locomotives were installed in Dunmore vein, and two in New County vein. Three coal-cutting machines were also installed.

SCRANTON COAL COMPANY

Johnson Colliery.—Removed 75 feet of roof 10 feet wide and 3 feet thick in the Dunmore No. 3 vein at the foot of No. 1 plane, for the purpose of grading the road so that the electric motor could be used to haul the cars on the plane instead of the rope.

Removed 200 feet of bottom rock 10 feet wide and 4 feet thick in the Dunmore No. 2 vein for the purpose of using electric motor for haulage on slope instead of rope.

The second opening shaft was recribbed, and the brattice between the upcast and downcast renewed from top to bottom.

Two Scranton pumps 10 by 18 by 22 were installed in the Big vein for emergency purposes.

CARNEY AND BROWN COAL COMPANY

Carney and Brown Colliery.—The old breaker was destroyed by fire November 26, 1915, and a new 250-ton capacity breaker was erected and started operations September, 1916.