

6'x17', equal to 112 square feet. We are, also, driving a rock tunnel from one split to the other in the Clark vein, 330' long.

*Providence shaft.*—Finished new slope 300' long; sectional area 6'x10', equal to 60 square feet on a dip of 1' in 5'.

*Richmond colliery No. 3.*—Commenced sinking shaft in October, 1888, through quicksand. Reached rock at a depth of 93'. Shaft opening 12'x24', when finished will be 11'x21'. Expect to mine Diamond, G and all the veins below, on the Pulaski Carter estate. Intend to build breaker with a capacity for preparing for market 1,000 tons of coal per day. Have boiler house built with six (6) cylinder boilers 40'x34" in diameter. Also, set in place one locomotive boiler rated at 100 horse-power. Have nine pumps in position, but are not all in use at the same time.

*Rushbrook shaft.*—Are driving both sides of shaft, testing the coal. Finished second opening shaft.

*S. V. White tunnel.*—Constructed one new plane 800' long.

*Simpson colliery.*—Built one mile of railroad track for mine locomotive between breaker and coal slope. Finished building a new side on breaker. Drilled an 8" bore-hole from surface to bottom of Carbondale vein, in basin which is now being used to pump water through to surface. Are erecting a nest of three new boilers; also, sinking a new slope on dip of vein, which is now down 1,500'. Expect to reach basin in 550' more. Sectional area of slope 7'x14', equal to 98 square feet. The dip is on an angle of 6°.

I wish to call your attention to Bunker Hill breaker; while the breaker itself is situated in the Second anthracite district, the coal is prepared and accounted for in the Third or McDonald's district. The breaker for the present is used only to screen coal that has already been prepared in excess of the market's demands, the same coal having already been prepared at the several breakers near the mines and shipped to the company's dumping grounds near this breaker.

Yours very respectfully,

JAMES YOUNG,  
*Mine Superintendent.*

*Dolph Tunnel.*—Inside slope or dip being driven to crop at south end of property, and operated by a pair of hoisting engines located on surface; rope through bore-hole. Opening being driven from crop, up to meet said slope. Electricity is used for signaling.

*Marshwood Slope and Tunnel.*—Additional traveling way made on eastern crop of vein for men and mules, thus avoiding the use of the air shaft by miners and laborers and the slope for mules. No. 3 drift in Upper Dunmore gangway and airway driven in 350'. No. 4 drift in Upper Dunmore gangway and airway driven in 125'. Pennsylvania slope, in new territory, acquired from Pennsylvania Coal Company, sunk 300'.

*Jones, Simpson & Co.*—Set new boilers at breaker.

*Pancoast Shaft.*—Continued tunneling vein towards old slope workings which were filled with water, when 80' from old workings, water was tapped from two headings with 2½" holes and is now being pumped out.

*Rushbrook Mines.*—Have graded and laid 1¼ miles of track, 3' gauge, with 40 pounds railroad iron; built new boiler house 21'×55', engine house 27'×34', and fan house 14'×31', with tower 13'×16' and 36' high.

*Spencer's Shaft.*—Driving slope through strata from middle to bottom vein on an incline of 15' to 100' horizontal.

There were no improvements reported from any of the other collieries except what were necessary to provide for keeping the workings in such a condition as to provide for the quantity of coal required.

*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.