Congumer's Coal Company's Shaft, Kingston, Pa.
East Boston Shaft-No: 1 carriage dropped, first trial, $18 \frac{3}{4}$ inches; second trial, 6 inches; third trial, $9 \frac{1}{2}$ inches. No. 2 carriage not used for hoisting or lowering persons.
Drlatare, Lackawanna and Western Ramboad Company's Shafts.
Avondale Shaft.-No. 1 carriage dropped, first trial, 2 inches ; second trial, $1 \frac{3}{4}$ inches ; third trial, $1 \frac{3}{4}$ inches. No. 2 carriage dropped, first trial, $1 \frac{1}{2}$ inches; second trial, $1 \frac{1}{2}$ inches; third trial, $1 \frac{1}{2}$ inches.

Boston Shaft.-No. $1 \frac{1}{2}$ carriage dropped, lirst trial, $1 \frac{1}{2}$ inches; second trial, $1 \frac{1}{4}$ inches; third trial, $1 \frac{1}{2}$ inches. No. 2 carriage dropped, first trial, $1 \frac{1}{2}$ inches; second trial, $1 \frac{1}{2}$ inches.

- Riverside Coal Company's Seraft, Plandsville, Pa.

Einterprise Shaft.-No. 1 carriage dropped; first trial, 4 inches; second trial, 柔inch. No. 2 carriage not used for hoisting or lowering persons.

Luzerne Coal and Iron Company's Shafts, Plaingyinle, Pa.
Henry Shaft.-No. 1 carriage dropped, first trial, 2 inches; seeond trial, 2 inches. No. 2 carriage not used for hoisting or lowering persons.

Prospect Shaft-No. 1 carriage dropped, first trial, 8 inches; second trial, 2 inches; third trial, 2 inches. No. 2 carriage not used for hoisting or lowering persons.

## Drlafare and Hudson Canal Company's Shafts.

Pine Ridge Shaft.-No. 1 carriage dropped, first trial, 2 inches; second trial, 2 inches; third trial, 2 inches. No. 2 carriage dropped, first trial, 2 inches; second trial, 2 inches; third trial; 2 inches.

Conyngham Shaft.-No. 1 carriage dropped, first trial, 12 inches; second trial, 14 inches; third trial, 8 inches. No. 2 carriage not used for lowering or hoisting persons.

Nortegrn Coal and Iron Company's Shafis, Plymouth, Pa.
No. 1 Shaft.-No. 1 carriage dropped, first trial, 2 inches; second trial, 2 inches. No. 2 carriage dropped, first trial, 2 inches; second trial, 2 inches.

No. 2 Shaft-No. 1 carriage dropped, first trial, 3 inches; second trial, 2 inches. No. 2 carriage dropped, first trial, 3 inches; second trial, 2 inches.

No. 3 Shaft-No. 1 carriage dropped, first trial, 3 inches; second trial, 2 inches. No. 2 carriage not used for hoisting or lowering persons.

No. 4 Shaft-No. 1 carriage dropped, first trial, 8 inches; second trial, $2 \frac{1}{2}$ inches. No. 2 carriage dropped, first trial, 6 inches; second trial, $2 \frac{1}{2}$ inches.

Whikes Barke Coal and Iron Company's Seafts.
Dodson Shaft.-No. 1 carriage dropped, first trial, 6 inches; second trial, 6 inches ; third trial, 6 inches. No. 2 earriage dropped, first trial, 6 inches; second trial, 6 inches; third trial, 6 inches.

Lance Shaft.-No. 1 earriage dropped, first trial, 5 inches; second trial, 4 inches ; third trial, 6 inches. No. 2 carriage dropped, first trial, 6 inches; second trial, 6 inches; third trial, B inches.

Plymouth No. 1.-Foot of shaft in Hillman vein, has been cleared up and very heavily timbered. Large sump driven below shaft in vein, and a duplex Janesville pump, $22 \times 10 \times 36$ feet, has been installed. Began pumping October 1. Capacity, 1,000 gallons. This work has all been done preparatory to sinking the shaft down to the Bennet vein.

The Plymouth Pumping Plant.-A pump room, $17 \times 59$ feet, with ofset $10 \times 15$ feet 6 inches. Stone side walls and brick arch. A Janesville compound duplex, $26 \times 50 \times 16 \times 48$ inches, with a capacity of 3,000 gallons, has been put in place. This pump is provided with a pump condenser. In connection with it there has been completed a 20 -inch more hole for pumping water, which is 585 feet in depth.

Plymonth No. 2.-Car haul at foot of shaft, Red Ash vein, 70 feet long. Elevates empty cars to run back to slope, 400 feet away. No. 2 slope, in 5 -foot vein, extended 300 feet. Ten-inch bore hole for flushing culm. High pressure boiler plant, four locomotive type of boilers in use; $78 \times 28$ feet 2 inches; brick boiler house, $54 \times 81$ feet. Boiler house is large enough for six boilers. Three cylinder boilers added to boiler plant.

Plymouth No. 3.-Completion of sinking shaft to bottom Red Ash vein, making total depth of shaft about 750 feet. Foot opened out about 50 feet on each side of shaft.

No. 7 tunnel through fault in Hillman vein, on shaft E gangway; 207 feet in length.

No. 9 tumel from Five Foot to Stanton vein, about 400 feet.
No. 10 tunnel from Hillman to Lance vein, 250 feet long. Are driving plane airway in Lance to connect with airshaft. Now up 300 feet.

Abbott slope from outcrop to D. Low line, 450 feet long. Are driving gangways and airways east and west.

Six-inch bore hole for drawing Abbott, Lance, Five Foot and Cooper veins to Bennet vein and Plymouth pump plant at No. 1. Extension No. 1 air shaft to Five Foot vein, about 40 feet.

Plymouth No. 4.-No. 2 slope, in Ross vein, down 300 feet, going. No. 1 slope, in Red Ash rein, extension 200 feet, going. Rope hole for Ross slope. Pair engines, $18 x 30$ inches, first motion. Frame engine house, $20 \times 32$ feet. Rope haulage, 900 feet long. Endless rope transporting cars from No. 4 to No. 5 . Engines, pair $10 \times 12$ inch.

Plymouth No. 5.-Completion of No. 3 plane, in Red Ash vein, to connect No. 4 colliery. Plane, 2,200 feet long, operated by pair engines, size $22 \times 48$ inches, at No. 4 colliery. Rope is taken down No. 4 air shaft. No. 4 plane in No. 4 tunnel, Five Foot vein, 400 feet long. Connection of top split working with air shaft and hoisting shaft for second opening.

Boston.-Extension of No. 4 plane in top split of Red Ash through. 13-10--99

Wanamie Colliery.-Tunnel top to bottom split, Baltimore, 44 yards. Tunnel Red Ash to Ross, 85 yards.

Maxwell Colliery-Opening Red Ash vein in deep shaft. Two tunnels from bottom to top split Red Ash vein, each 30 yards. Remodelled portion of breaker and installed jigs. Two hundred and fifty horse-power Babcock \& Wilcox boilers installed.

Improvements by the Delaware and Hudson Company During the Year 1900.

Baltimore Slope-Sinking No. 5 shaft, which is the old Meadow shaft, enlarged from 9 feet 6 inches $\times 19$ feet to $12 \times 28$ feet from surface to Baltimore vein, 385 feet. This shaft will be continued in solid, same size to Red Ash vein.

Baltimore No. 2.-No. 6 slope, in Red Ash vein, sunk 700 feet, operated by $10 \times 12$ inch engines, with air, only temporary.

Washery relieving breaker and saving small sizes. Refuse is taken down a new 10 -inch bore hole 530 feet deep to Red Ash vein.

Baltimore Tunnel-No. 6 slope, Red Ash vein, extended 800 feet, with a total depth of 1,400 feet.

No. 10 plane completed 3,300 feet, and is operated by pair of $16 \times 36$ inch engines, the rope running through bore hole 132 feet deep. New engine house, brick, $20 \times 40$ feet, for No. 10 plane engines.

Conyngham.-No. 6 plane, in Abbott vein, now up 1,450 feet.
No. 2 slope, in Baltimore vein, down 900 feet, completed.
Rope haulage operating No. 6 Abbott and No. 7 Kidney planes and delivering coal to foot of No. 1 Hillman slope. Operated by $14 \times 30$ inch engines, located on surface, ropes running through 8 -inch bore hole, 477 feet deep, to Hillman vein. Haulage is 4,750 feet long.

Plymouth No. 1.-This shaft is completed to the Bennett vein. Plymouth pumping plant.

Another pump room, $22 \times 54$ feet, stone side walls and brick arch, is completed.

A compound pump steam cylinder, one 26 -inch and two 38 -inch, with three plangers $11 \times 48$ inches, built by the Dickson Manufacturing Co., has been set up, and will soon be in running order. This pump has a capacity of 3,000 gallons per minute.

New fan $10 \times 28$ feet, brick house $48 \times 48$ feet .
Fan driven by two engines, $16 \times 36$ inches, to ventilate Plymouth No. 2, Red Ash vein.

Plymouth No. 2.-New set hoisting engines, 26x48 inches, with half cone drums. Engine house brick, $42 \times 38$ feet.

Washery, relieving breaker and saving small sizes; refuse is taken down a new 10 -inch bore bole, 600 feet long, to Bennett vein. No. 13 tunnel to top split in 200 feet; still driving.


#### Abstract

"An era in the history of mining anthracite in the Wyoming coal field has been inaugurated by the success of the Dundee Coal Company in reaching a superior vein of eleven feet in thickness at a depth of nearly 800 feet below the surface.

From a distance we have watched the progress of this shaft with anxious eyes, and we are sure that the pleasure to us of their success can very little be less than to the members of the company. Much credit has been thrown on our coal field by the partial and unsuccessful exploration for coal in Hanover and Newport. Borings have been abandoned at a depth of three or four hundred feet, leaving doubt about the existence of coal, in the minds of strangers, and, indeed, in the minds of some of the less sanguine of our own citizens.

The Dundee Coal Company, composed principally of our own citizens, resolved to sink its shaft to a depth of 1,000 feet if coal could not sooner be obtained. The largest vein cut had been but four feet, with many smaller ones. Still, without hesitation, vard after yard was cut. Mr. F. Koerner, an intelligent and energetic man, had charge of the work, which progressed as rapidly as the hard rock would permit, until 780 feet had been passed. Then indications of coal appeared and an auger was put down three feet to a small eight-inch seam of slate below which was a. vein of fully eight feet of beautiful coal. To the bottom of the vein is 792 feet, and to provide for the dropping of the water from above the shaft was sunk a few feet deeper, probably 800 feet in all."

The story is continued with a narrative of the personal experiences of the editor in a descent of the shaft. A large stream of water entered at a depth of 250 feet, but was cared for by pumps. The editor mined a few specimens of coal at the bottom with illumination furnished by a few gas jets pouring forth from the vein itself. He says, in his story, that the vein was supposed to be the Mills vein, found at Nanticoke, and that other veins of greater thickness were believed to be underlying it. This belief was well founded, for the territory in which this vein was located is now considered the richest in the Wyoming coal field, and the lower veins are found at a depth of from 1,800 to 2,000 feet. The ancient chronicler also tells of the gas found in the vein, for it was the presence of this gas in large quantities and the lack of knowledge of proper ventilating methods in those days that caused the subsequent abandonment of the mine.


## LEHIGH AND WILKES-BARRE COAL COMPANY

Lance No. 11 Colliery, Inside.-Tunnel, Cooper to Five Foot, No. 1 Slope, 5th West.

Nottingham No. 15 Colliery, Outside.-Corliss breaker engine.
Reynolds No. 16 Colliery, Inside.-Rock plane, Ross to Ross, No. 4 tunnel East.

DELAWARE AND HUDSON COMPANY
Plymouth Nos. 1 and 2 Colliery.-A return airway was driven from No. 14 plane, Abbott vein to No. 1 shaft.

An air shaft was sunk 55 feet from surface to Lance vein workings and 300 feet of return airway was driven in vein.

A 50,000 gallon water tank was erected and pipe connections made for boiler supply.

Plymouth No. 3 Colliery.-Extensive repairs were made to breaker and the timbering in main shaft was replaced by concrete from top to bottom. A new 8 -inch rope hole was drilled 425 feet from surface for No. 6 plane, Red Ash vein.

Plymouth No. 5 Colliery.-No. 7 plane, Bennett vein, was driven 1,200 feet and an inch rope bore hole was sunk 290 feet from surface.

No. 3 plane, Bennett vein, was driven 250 feet.
Boston.-No. 14 plane was driven from the Boston Split Red Ash 250 feet through rock to the Top Red Ash and 600 feet in the latter vein.

No. 15 plane, Bottom Red Ash vein, was driven 1,100 feet.
The Boston breaker was torn down and the coal is now being prepared at No. 5 breaker.

