Erected the following fire-proof buildings: Scale house, hospital, mine foreman's office, supply house, engineering office, wash house, boiler—fan house and compressor house.

Installed 3 jigs in breaker and slush pump and concrete well for breaker water.

#### PITTSTON COAL MINING COMPANY

Hadleigh Colliery.—Inside:—Sank trock slope from Cupola to Twin vein 125 feet, 16 degree pitch. Drove two tunnels each 45 feet from Cupola to Twin vein.

Installed  $7\frac{1}{2}$  by 5 by 6 inch pump in Cupola vein, a pair of 12 by 14 inch engines on No. 5 slope and 1,100 feet of 3 inch steam pipe in Cupola vein. Sank slope from surface to Ross vein a distance of 200 feet in coal.

Built hospital at foot of shaft in Ross vein and equipped it with First Aid to the Injured outfit and organized First Aid Corps inside and outside. Hospital is supplied with steam heat and hot and cold running water.

Sank 4 inch bore hole from surface to Cupola vein, distance 131

Outside.—Erected a new 600 to 800 ton breaker, a shaft engine house 20 by 40 feet and a concrete fan house. Installed,  $16\frac{1}{2}$  foot fan. Built a 12 by 12 foot yellow pine tower for shaft.

Installed 3 Simplex jigs on counter product coal and 1 pair of 16 by 30 Vulcan engines on Ross slope and erected building for them 16 by 28 feet.

Erected powder house 8 by 8 by 10 feet.

## MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held April 22 and 23 in the Y. M. C. A. Building, Wilkes-Barre.

The Board of Examiners was composed of Thomas J. Williams, Mine Inspector, Wilkes-Barre; Samuel R. Morgan, Superintendent, Wilkes-Barre; Patrick McGrane, Miner, Sugar Notch; William H. Chappell, Miner, Wilkes-Barre.

The following persons passed a satisfactory examination and were granted certificates:

#### MINE FOREMEN

John David, Sheldon Jones, Plains; Albert Harris, Parsons; Henry Rees Owens, Wilkes-Barre.

## ASSISTANT MINE FOREMEN

Frank Bryan, Alfred Benning, Emanuel Bennett, Thomas R. Evans, James Hendy, David W. Jones, David T. Jones, Albert J. Thomas, Thomas A. Welsh, Thomas D. Williams, William Williams, Charles Bryan, Evan Cann, Gwilliam Hughes, Thomas Jones, Samuel Richard Morgan, Wilkes-Barre; Thomas Morris Thomas, Benjamin F. Lloyd, Benjamin R. Humphrey, Peely; Thomas E. Cordy, Old Forge; Michael J. Gorham, Ashley; David G. Harris, Guy E. Conner, Plains; John Mulholland, Silas Morris, Sugar Notch; Leopold Suwalski, Nanticoke; Raymond Bowman, Duryea.

At Conyngham shaft, concrete partition walls were built in shaft from Red Ash Top Split to 150 feet above Baltimore vein. New car haul in Red Ash vein installed at foot of shaft, and a rock plane 108 feet long driven as return airway, Red Ash vein.

At Baltimore No. 2, concreted east side foot of shaft in Red Ash

vein, shaft at pump room 7 feet by 10 feet by 60 feet.

Established Mine Rescue Station and lecture room for Wilkes-Barre Division at Conyngham, equipped with Draeger helmets and pulmotors, etc.

Completed the work of concreting barns.

#### WILKES-BARRE ANTHRACITE COAL COMPANY

Hillman Vein Colliery.—Inside: Built new fire boss shanty and emergency hospital of fireproof material at foot of shaft, also new 16-stall fireproof stable near foot of shaft. Installed 70-horse power engine at top of No 2. East slope driven 300 feet. Baltimore slope extended 940 feet. Baltimore tunnel driven 630 feet toward Stanton vein as the second opening for Baltimore workings. Two tunnels from Hillman vein to Kidney vein, each 220 feet, connected by a gangway. New 40-horse power engine installed in Hillman slope. Hillman slope driven 450 feet. Electric triplex pump installed in Hillman slope. 40-horse power engine installed for placing of refuse, and 20-horse power engine installed in new Seven Foot slope. New Seven Foot slope driven 300 feet. One triplex pump installed in pump lift to supply washery.

Outside.—New fan installed in boiler house for forced draft on boilers. Two bore holes driven from surface to the Seven Foot vein, about 90 feet each, to be used for slushing. Washery completed and in operation.

#### PITTSTON COAL MINING COMPANY

Hadleigh Colliery.—Outside: A new breaker is being built to replace the old one, which was torn down.

## DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

This Company is sinking two new shafts on the Laurel Run farm near the Parson station of the Delaware and Hudson Company. These shafts will be sunk to a depth of 1,150 feet to the Red Ash vein. The coal will be conveyed in mine cars over the old Wilkes-Barre and Eastern road bed and bridge to the Pettebone breaker. Both shafts have been sunk to the rock and concreted to surface.

Installed a 12 by 24 inch Vulcan hoist and a No. 10 Knowles pump on No. 20 slope in Skidmore vein. Constructed a concrete air bridge on No. 9 slope.

Built an addition to the Long slope barn.

Outside: A steel tramway was erected over the timber yard. A concrete entrance to sump slope manway was constructed. A new powder-house of concrete and hollow tile was built. The ground immediately west of the breaker was converted into a lawn and 100 feet of concrete laid in constructing the driveway. A concrete and hollow tile engine house was built and engine installed to operate fuel conveyor from the breaker to the boiler house.

#### PITTSTON COAL MINING COMPANY

Hadleigh Colliery.—Completed rock tunnel, from outside to Ross vein, a distance of 100 feet; also completed second opening; rock slope from Cupola to Twin vein, distance 200 feet; coal slope in Red Ash vein a distance of 440 feet, and drove a rock plane, from No. 4 tunnel, a distance of 200 feet to the Ross vein.

Installed one 125 horse power Lidgerwood electric hoist; one 14 by 20 by 11 by 18 compound duplex Laidlow-D-Gordon pump in Red Ash vein.

Built a concrete pumphouse, 60 by 30 by 10 feet, equipped with steel and arches, reinforced, and with all necessary fire protection.

Completed 500 feet of 8-inch cast iron pipe line from foot of shaft to No. 4 tunnel; retimbered shaft from surface to Red Ash vein.

Outside: Installed one Roybel overwinding device for safety; one 15-ton locomotive crane; 10 dump cars; one Scranton duplex plunger pump 12 by 7 by 12 inches with 300 feet of water line for breaker; two feed water pumps in boiler plant.

Built a washery with a capacity of 500 tons per day, equipped with shakers and simplex jigs, type "D," driven by one 50 H. P. G. E. motor. Constructed dam 50 by 25 by 10 feet of reinforced concrete and steel, for water supply to breaker for fire protection.

# MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in the City Hall Building, Wilkes-Barre, June 6 and 7. The Board of Examiners was composed of Frank Kettle, Mine Inspector; Sheldon Jones, Superintendent, Wilkes-Barre; George W. Raub, Miner, Plymouth; and Patrick McGrane, Miner, Sugar Notch.

The following persons passed a satisfactory examination and were granted certificates.

## MINE FOREMEN

Thomas J. Evans, Arthur Davis, Joseph Ruddick, Nanticoke; John Driscoll, Esau Davies, Plymouth; Edward J. Williams, William R. Williams, Warrior Run; John S. Lyons, Wilkes-Barre; Fredrick Holzberger, Dorranceton; John M. Williams, Rhone; Thomas F. Carr, Concrete City; William J. Williams, Buttonwood; Thomas L. McGuire, Rhone.

PA Mine Inspection 1916

Outside: Constructed a concrete and hollow tile washhouse for employes. Installed a silent chain for operating the overwinding device on the shaft engine. A feed pump of large capacity was installed in the boiler house, and covered the feed water lines. Completed a concrete curbing around the colliery yard.

### PITTSTON COAL MINING COMPANY

Hadleigh Colliery.—Outside: Completed an 8-inch steam line, 400 feet long, equipped with steel flanges, from boiler house to shaft engines and breaker. All lines have been covered with 8 per cent. magnesia covering. Boilers have been reconstructed and rebuilt. Installed small conveyor line for conveying fuel to boiler house. Also installed one GE D. C. current generator, type MP, connected to Harrisburg engine, and one 9 by 14 inch saddle tank locomotive. Constructed a brick building 18 by 60 feet, for generator room, supply store and office. Also reconstructed ambulance house. Completed a 4 inch line 1200 feet long, for fresh water supply to boiler house.

Inside: Installed electric lights throughout the mines; also two 7-ton Baldwin electric locomotives, with overhead trolley; and hung 6000 feet of 2-0 trolley wire. Bonded all rails where locomotives travel. Installed one 100-H. P. D. C. Lidgerwood electric hoist on Red Ash slope, one Goyne duplex plunger pump at foot of Twin slope, and one Scranton duplex plunger pump at foot of Red Ash slope.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Pettebone Nos. 3 and No. 4 Collieries.—Completed the shafts to the Red Ash vein, a depth of 1086 feet and 1098 feet. Installed the necessary hoisting equipment and ventilating fans.

#### MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held May 18 and 19 in the Y. M. C. A. Building, Wilkes-Barre. The Board of Examiners was composed of Thomas J. Williams, Mine Inspector; Samuel R. Morgan, Superintendent, Wilkes-Barre; Patrick McGrane, Miner, Sugar Notch; William H. Chappell, Miner, Wilkes-Barre.

The following persons passed a satisfactory examination and were granted certificates.

#### MINE FOREMEN

Josiah Beech, Alfred W. Davis, Lewis J. Jenkins, Edmund P. Thomas, Edwardsville; Edward Finn, Thomas A. Welch, Wilkes-Barre; George McKechnie, Courtdale; William James Williams, Parsons; John Wordoski, Peely; Charles D. Dare, Larksville.

## ASSISTANT MINE FOREMEN

Edwin B. Charlton, John Crawford, Corey Cannon, David R. Evans, Edward Griffiths, Charles F. Hoffman, John Kovalick, James G. Morgan, James J. McGrath, Roger Sayes, Wilkes-Barre: Daniel Blaine, Larksville; John Bonsall, Plains; John Morris, William Price, Edwardsville; Leonard Payne, Askam.