Improvements by the East Boston Coal Company.

A tunnel was driven in the East Boston shaft a distance of 108 feet, from the Cooper to the Lance seam; area 7x14 feet.

In the Baltimore seam an underground slope was sunk 250 feet, 8x12 on a pitch of 7 degrees.

At the Langeliffe colliery an air shaft was sunk 70 feet to ventilate the tunnel workings; area, 30 feet.

Laflin Coal Company.

This company erected a new breaker on the site of the old one which was burned, and which was recorded in my last report. It is a model structure and contains about 900,000 feet of lumber and is fitted with the most approved machinery for cleaning and preparing the coal. It has a capacity of 1,000 tons per day and was started to ship coal in November, 1895. All the dangerous parts are protected by railing or covering as the law requires. A new shaft was sunk 600 feet northeast of the breaker; size, 12x26 feet, cutting the Marcy Ross and the both splits of the Red Ash seams at a depth of 256 feet. The second opening will connect with the slope workings when completed. A new fan 17 feet in diameter was erected to ventilate the shaft workings. The engine is 15x18 inches directly connected.

Babylon Coal Company.

A tunnel was driven in this colliery from the top to the bottom split of the Red Ash seam, a distance of 140 feet for transporting coal.

Mount Lookout Coal Company.

A tunnel was driven through a rock roll in the Pittston seam in this colliery a distance of 1,000 feet, area 7x12 feet. A new fan 20 feet in diameter was erected to help ventilate the workings which are very extensive. This is the third ventilating fan erected in this colliery. An underground slope was sunk 600 feet; area, 8x12 feet.

The main and air shafts are now being sunk to the Red Ash seam.

Algonquin Coal Company.

In the Pine Ridge colliery a shaft was sunk to the Checker seam, 28 feet for ventilation. A tunnel was driven from the Hillman to the Rock seam a distance of 116 feet; area, 7x12 feet. A shaft was sunk from the Hillman to the Kidney seam as a second opening to those veins.

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shaft three rock tunnels were driven a total of 357 feet. Likewise a rock tunnel was driven from checker to Ross vein, a distance of 246 feet.

At the Laffin colliery the No. 4 slope was sunk 500 feet. The No. 3 Rock slope was driven from the Marcy to Red Ash vein, a distance of 321 feet. New hoisting engines have been placed in position to hoist the coal from the above slopes.

Improvements by the Clarence Coal Company

A new breaker was built with a capacity of 500 tons per day. It went into active operation May 1, 1903.

A new fan of the Guibal pattern, 12 feet in diameter, was erected on the return air shaft to furnish ventilation for the inside workings.

Mine Foremen's Examinations

The examination of applicants for certificates of qualification for mine foremen and assistant mine foremen was held in this district on the 9th and 10th of September, 1903, at Pittston, Pa. The board of examiners was H. McDonald, Mine Inspector; J. L. Cake, Supt., and John J. Morahan and David P. Williams, miners.

The following twenty-one applicants for mine foremen were recommended to the Chief of the Department of Mines for certificates:

Mine Foremen

John J. Hoban, Michael Gilroy, Michael Healey, Hamlet Corrigan, Peter Parry, Wm. J. Williams, Roland F. Jones and John S. Campbell, of Avoca, Pa., Frank Hanahoe and George Bradley, Michael Madden, Richard Harris and George Rowan, of Pittston, Pa., James Pollard, Henry Northoff and John P. Daley, of Luzerne, Pa., Morgan E. Griffiths, of Taylor, Pa., Thomas Ninnis, of Duryea, Pa., Maurice Finn, Parsons, Pa., Michael S. Martin, Port Griffith, Pa., and James H. Gibbons, Hudson, Pa.

Twenty applicants for assistant mine foremen's certificates were recommended.

Assistant Mine Foremen

Gwilym Evans, Caleb Jones, William Coleman, John Noonan, West Pittston, Patrick Walsh, Alfred M. Hefferan, John King, James Weston, Pittston, Charles Cottel, Edward F. Reilley, Avoca, Joseph Chynoweth, John J. Martin, Port Griffith, August Zitterman, Michael J. Brady, Luzerne, Daniel R. Edmunds, Parsons, David J. Thomas, Plains, Thomas Sheehan, Thomas Reidy, Wyoming, Thomas Hooper, Maltby, Thomas McNamara, Miners Mills.

A steam plant has been projected in the Thomas shaft Red Ash vein from the shaft level up the east rise and driven a considerable distance which will work all the coal to the crop a distance approximately 3,500 feet. A pair of 16x20 inch engines is placed in position to handle all the coal.

A new slope called Butler Marcy slope, has been sunk from the surface in Marcy vein and through the old abandoned workings of the Butler shaft until at the present writing it has reached a distance of 3,500 feet. A pair of first motion 26x36 inch Vulcan engines installed for hoisting the coal, a new engine and fan house were erected and a 20-foot diameter fan built to ventilate the workings.

At the Consolidated colliery, of the above company, the No. 1 slope has been extended 140 feet to the bottom split of Red Ash vein.

DELAWARE AND HUDSON COMPANY

At the Delaware shaft, a new air return has been driven in the Cooper vein, a distance of 3,000 feet, to ventilate the territory covered by the mine fire of 1900, and also to ventilate numbers 19 and 20 tunnel workings.

At the Baltimore slope, No. 5 plane in Baltimore seam has been graded and a pair of engines installed on the surface which operate the plane by rope through a bore hole.

HUDSON COAL COMPANY

At the Laffin colliery a bore hole was drilled near the breaker and crusher plant installed for crushing the refuse from the breaker which is being flushed into the mine.

An engine plane in the Red Ash vein was driven 1,250 feet, a bore hole was drilled from surface to head of plane and a pair of 14x2 inch engines was installed on the surface to operate the same.

At the Laurel Run colliery, a rock tunnel from the Checker to Red Ash vein was driven a distance of 1,050 feet.

A new haulage road has been driven 450 feet toward Pine Ridge workings, to transport the coal up the Pine Ridge shaft to be prepared in the breaker. This road when finished will do away with the Laurel Run breaker.

Mine Foremen's Examinations

The examination of applicants for certificates of qualification as mine foremen and assistant mine foremen, was held on the 15th and 16th of June, at Pittston.

No. 33 Tunnel driven through over turn basin in Mineral Spring shaft district, Red Ash vein.

Inside slope extended in Red Ash 600 feet.

Rope hole completed to Red Ash vein.

300 H. P. return tubular boiler installed at Coal Brook.

Breaker has been equipped with mechanical pickers.

William Crusher, new bore holes and pipe lines extended, taking care of all the silt and refuse from breaker.

New 20 foot double intake Guibal fan driven by Corliss engine.

Brick house.

Henry Colliery.—300 H. P. B. and W. water tube boiler installed.

New 25 foot double intake fan driven by Corliss engine.

Concrete air shaft completed in Five Foot vein.

New 25 foot double intake fan driven by Corliss engine, brick house, completed in Red Ash shaft.

New 16x24 hoist engine and brick house completed and Five Foot slope reopened.

New second outlet completed in Borroughs tract, Five Foot vein.

Two tunnels with second outlet completed in Red Ash shaft district.

New inside barn completed in Red Ash.

New brick overcast, empty car foot turnout, column and steam lines installed in Red Ash shaft.

Rock slope completed in Wyoming shaft district, from lower Baltimore to Skidmore vein.

Rock slope from Baltimore to Skidmore vein completed in Henry shaft district.

Nos. 21, 22 and 23 subslopes started in Red Ash district.

Prospect Colliery.—300 H. P. B. and W. water tube boiler added to the plant, brick house.

New inside barn Red Ash.

New electric transportation outfit has been installed consisting of one 175 K. W. 250 volts generator, directly connected to 20x18 McEwen engine, 225 R. P. M.

Two electric locomotives installed in Red Ash and Baltimore.

William crusher and extension of silt lines.

Additional mechanical pickers in breaker.

Additional fire emergency pump 16x10x16.

Laffin.—No. 4 plane, bottom split Red Ash, extended 900 feet in rock and coal.

No. 3. plane, bottom split Red Ash, extended 230 feet.

Pine Ridge.—No. 31 tunnel driven from Rock to Hillman 240 feet. No. 12 slope Rock vein extended 650 feet and pair of 12x16 inch engines installed.

Pair of 8x12 inch engines installed for sinking No. 13 slope in Hillman vein.

Pair of 8x12 inch engines installed for sinking No. 14 Kidney slope. Laurel Run.—No. 11 tunnel extended 750 feet toward Red Ash vein. Haulage road toward Pine Ridge driven 950 feet in Checker vein. New 28 foot Guibal fan installed, but as yet not in commission. The laurel Run breaker was abandoned August 1, and all coal from this colliery prepared at Pine Ridge breaker.

Baltimore No. 2.—No. 7 slope extended 950 feet Red Ash vein.

Heidelburg Number 2 Colliery.—Extensive repairs were made in breaker during the year.

Robbing of Red Ash vein was extensively carried out.

Silting of a portion of Red Ash vein under the Delaware and Hudson Railroad tracks was completed.

HILLSIDE COAL AND IRON COMPANY

Number 1 Slope in Thomas Shaft has been driven on the Middle Split of the Red Ash vein from the shaft level toward the basin, a distance of about 600 feet; area 6x16 feet. This Slope is continued as a steam plane to the top split of the Red Ash through the dividing rock, and has been driven a distance of about 300 feet. After entering the top split, the same engines will also serve on a continuation of the plane driven toward the basin as a slope in the top split, which will be driven as far as the coal can be worked.

These engines will therefore handle the coal in the Bottom Red Ash Slope and on the Power Plane Slope in the top split of the Red Ash. The Number 1 Power Plane in the middle split of the Red Ash has been extended a distance of about 350 feet; area, 6x14 feet. Con-

dition, good.

Fernwood Colliery.—A washery 40x60x76 feet high has been built

to wash out the Fernwood culm dump.

A power house built of brick 35x35x16 feet, and one 150 K. W. 275 to 300 volt electric generator, with 19x18 inch Ewen engines have been installed, and three $7\frac{1}{2}$ ton electric motors in Number 1 Slope. Condition of colliery, good.

Clarence Colliery.—The Number 1 Slope has been extended 106 yards during the year, area 6x12 feet, and the Number 2 Slope 79

2-3 yards, area 6x12 feet. Condition of colliery, good.

HUDSON COAL COMPANY

Laflin Colliery.—New trestie from plane to breaker to replace one blown down by storm, new blacksmith and carpenter shop, locomotive house and supply house.

Number 5 Slope Bottom Red Ash, driven 600 feet.

Number 3 Plane driven 100 feet in rock from bottom to top split Red Ash and continued in vein 150 feet.

Number 6 Slope opened and driven 100 feet.

Condition of colliery, good.

Pine Ridge Colliery.—Number 13 Slope driven through rock from Hillman to Rock vein a distance of 250 feet, and continued in Rock vein a distance of 550 feet.

An 8 inch bore hole was put down 102 feet for rope for Number 13 Slope.

Number 14 Slope in Kidney vein extended 100 feet and completed, Number 15 Slope in Hillman vein extended 200 feet.

Number 16 Slope in Rock vein opened and driven 425 feet. A 22 inch bore hole was sunk for the purpose of pumping through to the surface from Checker vein, a distance of 464 feet.

A 6 inch bore hole sunk 146 feet to Hillman vein for flushing purposes.

A 6 inch bore hole sunk 203 feet to Rock vein for flushing purposes, Condition of colliery, fair.

IMPROVEMENTS

HILLSIDE COAL AND IRON COMPANI

Butler Colliery.—A tram road two miles in length has been built, by which the coal from the Fernwood slope openings is now being transported to the Butler breaker and there prepared; these openings now being a part of the Butler colliery. This necessitated changing the track gauge in the mines from 28 to 36 inches, as well as the car equipment, and adding about two hundred additional mine cars. A 26 ton steam locomotive was provided for transporting the coal outside, and one 7½ ton and one 10 ton Westinghouse electric motor were added to the inside equipment.

In the Thomas shaft two short rock tunnels were driven from the second to the third Red Ash vein.

In the Butler Marcy vein slope the No. 9 heading was driven up the basin tapping the old Pennsylvania Coal Company workings, and by the aid of two electric pumps the water standing there has been practically all pumped out.

Two General Electric $7\frac{1}{2}$ ton gathering locomotives were added during the year, one in Checker vein slope and one in Thomas shaft. A 4×10 foot-electrically driven ventilating fan was installed in connection with the Checker vein workings.

A new 240 K. W. General Electric generator and McEwen auto matic high speed engine added to the electric power plant, and a new and larger cold air blast outfit to the boiler plant.

HUDSON COAL COMPANY

Laffin Colliery.—No. 4 rock tunnel was driven through the fault from the Red Ash vein 100 feet to same vein.

No. 5 Plane was driven 1,450 feet to fault in the top split of the Red Ash vein.

Pine Ridge Colliery.—Electric plant was installed and put in operation to handle the coal from Laurel Run slope to Pine Ridge shaft underground.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as Mine Foremen and Assistant Mine Foremen was held in the Y. M. C. A. Rooms, Pittston, May 19 and 20.

The Board was composed of the following members: Hugh McDonald, Inspector, Pittston; James J. McCartey, Superintendent, Luzerne; David P. Williams, Pittston and Michael J. Healey, Avoca, Miners.

Outside. Completed a brick, iron and concrete power house 38 by 96 by 16 feet, and installed therein one 330 H. P. McEwen engine driving D. C. generator to furnish electricity to Nos. 5, 6 and 11 shafts. Also completed a concrete, iron and brick building for sand-dryer, cement-house, lime, hay, feed, hospital and storeroom.

Number 14 Colliery.—At the Red Ash shaft installed a hoisting and a fan engine, and built houses for same. Also built an addition to No. 2 tower. At the Hillman slope installed an engine, and built a

house for same.

Ewen Colliery.—Inside: Sunk an air shaft, 12 feet by 14 feet, from surface to the Marcy vein at Hoyt shaft. A new concrete pump-room was built in the Schooley shaft, Pittston vein, and a Jeanesville pump, 24 by 48 by 12 by 36 inches was installed therein.

Outside:—Erected a new concrete and steel breaker and washery to replace the breaker destroyed by fire on December 11, 1914. Installed a 14-foot fan, enclosed in a brick building, to ventilate workings in the Hoyt shaft. At the Schooley shaft, a new washery was erected to prepare coal taken from the culm bank for steam purposes.

DELAWARE AND HUDSON COMPANY

Laffin Colliery.—Extended No. 4 plane, Red Ash vein, a distance of 250 feet.

Delaware Colliery.—Extended No. 14 plane in the Red Ash vein, 350 feet through fault to the workable coal beyond. Completed a tunnel, from No. 7 plane Ross vein, a distance of 500 feet, to cut veins in back basin.

Pine Ridge Colliery.—Completed No. 26 slope, Checker to Bennett vein, and No. 30 slope in Red Ash vein was extended a distance of 250 feet toward the basin.

HILLSIDE COAL AND IRON COMPANY

Butler Colliery.—Completed the water tunnel to Fernwood to take the water to the Pittston water tunnel.

LEHIGH VALLEY COAL COMPANY

Mineral Spring Colliery.—Inside: A fire line was installed in the Red Ash vein.

Outside:—A concrete dam was constructed at the reservoir to increase capacity of same. Completed structural steel work under an empty car trestle. Drilled a bore hole from the surface to the Red Ash vein, a depth of 265 feet, to conduct signal wires from outside engine house to No. 5 plane.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in the Y. M. C. A. Hall, Pittston, May 18 and 19. The Board of Examiners was composed of Hugh McDonald, Inspector; H. T. McMillan, Superintendent, West Pittston; Frank J. Parks, Miner, Pittston; and Michael J. Ford, Miner, Pittston.

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

CONDITION OF COLLIERIES

DELAWARE AND HUDSON COMPANY, INSIDE, HUDSON COAL COMPANY, OUTSIDE

Laffin, Delaware, Pine Ridge, Baltimore No. 5 and Baltimore Tunnel Collieries.—Ventilation, drainage and condition as to safety, good.

TRADERS COAL COMPANY

Ridgewood Colliery.—Ventilation and drainage, fair. Condition as to safety, good.

LEHIGH VALLEY COAL COMPANY

Mineral Spring Colliery.—Ventilation, drainage and condition as to safety, good.

HADDOCK MINING COMPANY

Black Diamond Colliery.—Ventilation, drainage and condition as to safety, fair.

RAUB COAL COMPANY

Louise Colliery.—Ventilation, drainage and condition as to safety, fair.

EAST BOSTON COAL COMPANY

East Boston Colliery.—Ventilation, drainage and condition as to safety, good.

WILKES-BARRE COLLIERY COMPANY

Madeira Colliery.—Ventilation and drainage, fair. Condition as to safety, good.

JOHN CONLON COAL COMPANY

Conlon Colliery.—Ventilation, drainage and condition as to safety, good.

HEALEY COAL COMPANY

Miners Mills Colliery.—Ventilation, drainage and condition as to safety, good.

CENTRAL COAL COMPANY

Wyoming Colliery.—Ventilation, drainage and condition as to safety, good.

IMPROVEMENTS

DELAWARE AND HUDSON COMPANY, INSIDE, HUDSON COAL COMPANY, OUTSIDE

Laffin Colliery.—Rock plane 450 feet long was driven from the Bottom Red Ash to the Mercy bed. A tunnel 60 feet long was driven from the Bottom to the Top Red Ash.

The electrification of all air driven equipment was completed and 4 electric locomotives were installed.

Retimbered main shaft.