

be experienced, competent and sober men; the parties having charge know their duty in case of death or serious accident; the shaft landing is protected by a vertical safety-gate.

NATIONAL ANTHRACITE COLLIERY.

This colliery is located in the city of Scranton, and located about 1,000 feet south-east of the Lackawanna river. It is operated by the W. V. R. R. and C. Co. Wm. Connell is general superintendent, John Humphrey is mining boss and Robert Penman is outside foreman.

Description.—The opening to the coal consists of four tunnels; there is a breaker connected with these mines; they mine and prepare about 300 tons of coal per day; they employ 73 miners 40 laborers, 30 drivers, 5 door-boys and 18 company men in the mines; 45 slate pickers, 6 head and plate men, 5 drivers, 20 company men, 4 mechanics and 2 bosses outside; in all 248 men and boys; they are working the No. 2 and 3 veins; No. 3 vein is commonly called and known as the Clarke vein; average thickness of No. 2 is 8 and No. 3 vein is 9 feet; they work headings and air-ways, from 12 to 15 and chambers 25 feet wide; they leave pillars 15 feet wide to sustain the roof; they leave cross-entrances 60 feet apart for the purpose of ventilation; the roof is rock; the mines are in a good working condition.

Ventilation is produced by furnaces; the in-takes are located at mouth of tunnels, area about 96 feet; the out-casts are located in furnace air-shaft, area about 96 feet; the amount of pure air is 21,800 cubic feet per minute; the main doors are hung so as to close of their own accord; they have attendants at main doors; they have double doors on main traveled roads, and an extra one in case of an accident to any of the others; the amount of ventilation has been measured and reported; ventilation is good.

Machinery.—They use 1 breaker engine of 25-horse power, and 2 hoisting engines, each 30-horse power; there is no machinery required at the tunnels.

Remarks.—They have furnished a map of mines; they have a second opening for each tunnel; they have a house for men to wash and change in; the mining boss seems to be a practical and competent man; he has a fire boss to assist him; there are no boys working in the mine under 12 years of age; the engineers seem to be experienced, competent and sober men; the parties having charge know their duty in case of death or serious accident; the breaker machinery is boxed and fenced off so that operatives are safe.

MEADOW BROOK COLLIERY.

This colliery is located in the city of Scranton, and situated about 1,000 feet east of the Lackawanna river; it is operated by William Connell & Co.; Thomas L. Jones is mining boss, and William Humphrey is outside foreman.

Description.—The openings consist of 4 tunnels, namely, Nos. 1, 3, 4 and 6; there is a double breaker connected with these mines; they mine and prepare about 480 tons of coal per day; they employ 70 miners, 74 laboreis, 20 drivers, 8 door-boys and 13 company men in the mines; 60 slate pickers, 8 lead and plate men, 2 drivers, 17 company men, 6 mechanics and 3 bosses outside—in all 281 men and boys; they are working No. 5 vein in Nos. 1, 3 and 6 tunnels, and No. 3 vein in No. 4 tunnel; they work headings and air-ways from 12 to 15, and chambers about 25 feet wide; they leave pillars about 15 feet wide to sustain the roof; they leave cross-entrances about 60 feet apart for the purpose of ventilation; the roof is hard rock; the mines are in a good working condition.

Ventilation is produced by means of furnaces; the intakes are located at mouth of tunnel, areas from 72 to 90 feet; the upcasts are located in furnace air shafts, areas from 72 to 90 feet; the amount of pure fresh air is 64,800 cubic feet per minute; the main doors are hung so that they will close of their own accord; they have attendants at main doors; they have double doors on main travelled roads, and an extra one in case any of the others get broken; the amount of ventilation has been measured and reported according to law; ventilation is good.

Mosier Shaft Colliery.

They erected a new fan at this shaft sixteen feet in diameter by four feet face. They also placed in position three new boilers, thirty-five feet long by thirty inches in diameter.

Phoenix Shaft Colliery.

They are sinking this shaft, at present, to the lower seams of coal, and it will be in operation again about the 1st of next June.

Stetler Shaft Colliery.

This is a new shaft, located in Marcy township, Luzerne county, on the line of the Lackawanna and Bloomsburg division of the Delaware, Lackawanna and Western Railroad Company. They commenced sinking the shaft last August. The size of the shaft opening is ten by twenty-eight feet in the clear. The probable depth of the shaft will be one hundred and ten feet. The second opening shaft is ten by twelve feet in the clear.

MACHINERY.—There are two hoisting engines, two hundred horse-power; one breaker engine, eighty horse-power; and one fan engine, forty horse-power, to run a fan twelve feet in diameter by three and a half feet face. There are six boilers in place, forty feet long by thirty-four inches in diameter. The only work they are doing at present is sinking the shafts.

No. 1 Shaft, Greenwood Colliery.

This is a new shaft, located in Lackawanna township, and on the line of the Lehigh and Susquehanna division of the Central railroad of New Jersey. The shaft opening is eleven by twenty-eight feet, and they are now down to the coal, one hundred and fifty-five feet from the surface.

National Colliery.

A hoisting tower and chutes have been erected at this colliery, and the old shaft is being sunk to the No. 5 seam of coal. The shaft opening is eleven by twenty-seven feet, and it is down one hundred feet from the surface. It has cut the No. 3 or Clark seam of coal. The probable depth will be about two hundred and thirty feet.

Pine Brook Shaft Colliery.

This shaft has been sunk one hundred and twelve feet deeper from the Clark to the rolling-mill or four foot seam of coal. They have also located a circular shaft fourteen feet in diameter. It is sunk from the surface two hundred and eighty-seven feet deep to the same seam of coal. It is located two hundred feet northeast of the main shaft. The company intend erecting two fans, seventeen feet in diameter, over the opening of the second opening shaft, which will be used for an air shaft also.

Fair Lawn Sope Colliery.

This slope has been sunk eighty feet deeper to the seam of coal below the Clark.

diameter by three and a half feet face. Everything about this colliery is first-class.

Hillside Shaft.

A plane has been extended six hundred and fifty feet long and a slope three hundred feet.

Spring Brook Mines.

A self-acting plane six hundred and fifty feet long is in course of construction, and a slope three hundred and fifty feet long finished.

Pennsylvania Coal Company.

Are sinking a new shaft at Lackawanna, Old Forge township. It is down forty-five feet below the surface. They are also pumping out the water in the *Carbon Hill shaft*, preparatory to working the coal out of that property.

Dunn Colliery.

Is a new one, located in Old Forge township, about one thousand five hundred feet south of the *Sibley shaft*. It is owned by the Pennsylvania Anthracite Coal Company. There is a slope sunk to the coal, and are now sinking a shaft, which is down about fifty feet. There is also a new breaker in course of construction. Capacity, about six hundred tons per day.

Greenwood Colliery.

Shaft No. 1 is now down to the coal, and they are driving towards second opening. They have erected a new boiler, engine, and head house, and put in place new boilers and machinery. They have also built a new fan, fourteen feet diameter by four feet face.

National Mines.

The shaft has been finished and sunk to No. 5 seam of coal, which the company commenced in 1881. The second opening is not complete yet.

Pine Brook Shaft.

The second opening and air-shaft, fourteen feet circular, that was commenced in 1881, has been finished, and the company have erected over it a double or two fans on one shaft. They are seventeen and a half feet in diameter by four feet face. These fans are fastened on the same shaft, about eight feet apart. They are the first of this pattern erected in this district, and they give a larger volume of air than any others in it. The style and drawings of this fan are fully described in Mr. G. M. Williams' report of last year, page 148 to 151.

Lucas Shaft.

This is a new shaft, located at Green Ridge, city of Scranton—is owned and operated by the Lucas Coal Company, Limited. They are now working the G or big seam of coal. The shaft is 10×30 feet; depth one hundred and fifty feet to coal. The breaker is one of the largest in the val-

COLLIERY IMPROVEMENTS FOR 1883.**Everhart Mines.**

P. BLEWITT:

DEAR SIR: We have made the following improvements at this colliery since we took possession in April, 1883: Sunk slope opposite breaker two hundred and sixty-eight feet to basin of Marcy seam; opened tunnel near plane at breaker (is in about fifty feet) to same seam coal, five feet thick bottom part, with four feet fire-clay parting, and four feet top coal above; put in three new boilers at old slope, also put one new hoisting engine at the slope near breaker; built and bought forty new mine cars; erected trestle work one hundred and fifty feet long over main track to slope near office; have driven through fault on north side, find a good vein of clean coal eight feet thick, opened airway and traveling road to same.

ALLEN & POOLE,
Operators.

Fairmount Shaft.

Have sunk main shaft 16'×13' to the bottom or Red Ash seam two hundred and twenty-feet, and have commenced second opening shaft 8'×10', which was partly sunk in 1882; have put in a new safety-carriage, making two in main shaft; also got one-and-one-fourth-inch new wire rope in place of old one-and-one-eighth-inch.

A. MORRIS & Co.

Florence Shaft.

This has been finished, and it is in good working condition.

Stetler Shaft.

There has been a new slope finished in the mines, also the air-currents have been changed, making an improvement in ventilation.

Spring Brook Mines.

There has been a new breaker built at this mine, with a capacity for preparing and shipping six (600) hundred tons of coal per day.

Dunn Colliery.

Has been completed and is in good working condition.

Greenwood Colliery.

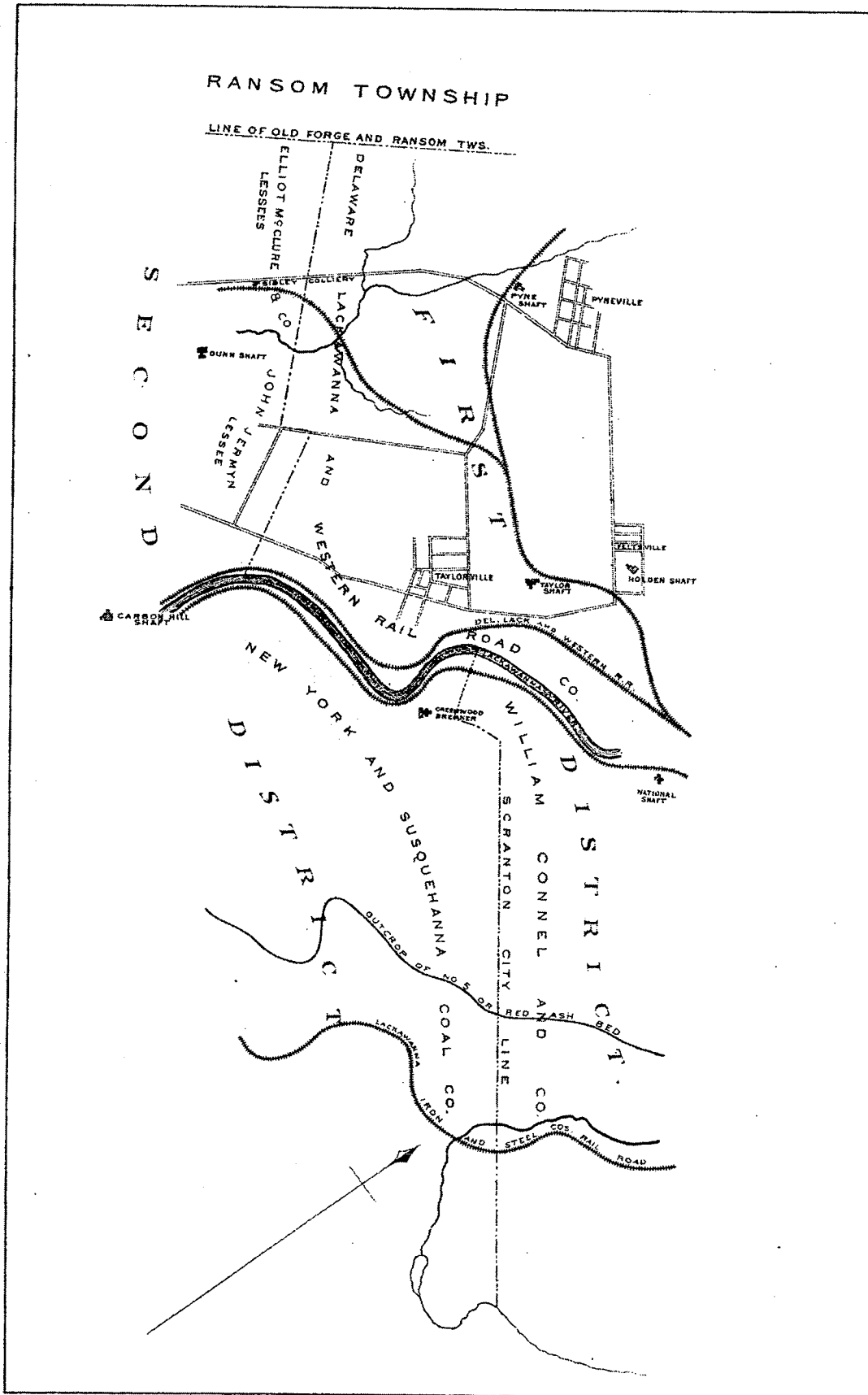
All the improvements are completed in No. 1 shaft, and are now sinking a slope on the north-west side of shaft.

Sibley Colliery.

Has been improved by putting in an additional steam-pump and four more steam boilers.

National Mines.

There has been a connection made between the shaft and slope, which is used for a second opening.



Taylor Colliery.—General repairs in breaker and bracing tower. Installed electric lights in breaker and buildings. Concreted and timbered pump shaft. New brick hoisting house. New supply engine house. New brick and concrete oil house. New water line for fire purposes.

Holden Colliery.—General breaker improvements. New set bony rolls. Braced breaker tower. New brick fire pump house and mine foreman's office. Fuel conveyor line from breaker to boiler plant.

National Colliery.—Installed new scales for light and loaded tracks. Concreted main shaft. Erected new scale house and office. New washery annex. Now in course of construction new boiler house and heater and pumps.

DELAWARE AND HUDSON COMPANY

Greenwood Colliery.—No. 1 slope in No. 2 Dunmore vein driven 375 feet.

SCRANTON COAL COMPANY

Capouse Colliery.—Sunk main shaft from Clark vein to bottom vein, distance 194 feet. Sunk No. 2 shaft from Clark vein to bottom vein, distance 194 feet. A water level tunnel was driven on west side of shaft from Clark vein to Dunmore vein, distance 794 feet.

Sloan.—One 100 H. P. electric hoist on Dunmore vein slope, induction motor. Three $6\frac{1}{2}$ ton electric locomotives installed to operate in the Surface and New County veins.

One 200 K. W. rotary converter at water shaft to supply power to Sloan New County vein. One 4x14 feet dust fan, in progress of erection, to take the dust from the breaker.

Bellevue.—One 450 gallon capacity electric pump installed in Clark vein. Electric pumps installed in Nos. 1 and 2 slopes and No. 3 tunnel. Electric chain hoist installed at foot of main shaft. Four electric locomotives to operate in the Clark and Dunmore veins, and one rotary converter. A new concrete wash house with lockers erected. New fire pump and fire line.

Dodge.—One 30 H. P. motor for endless rope, three electric locomotives inside, one rotary converter sub-station installed.

Taylor.—Lighting breaker and buildings with electricity, one 300 K. W. rotary converter and sub-station building.

Holden.—Four electric locomotives installed in Clark vein and one electric pump in Clark vein.

National.—One electric hoist in Clark vein, three electric locomotives, and a new water reservoir outside.

DELAWARE AND HUDSON COMPANY

Greenwood.—Checker vein plane at No. 1 new shaft extended 600 feet. No. 1 slope in No. 2 shaft driven 125 feet and completed. No. 1 plane in No. 2 shaft driven 900 feet.

The general condition of almost all the collieries in the district, as to ventilation, drainage and general safety, is good.

One rock slope from the No. 2 to the No. 3 Dunmore vein, 7 x 12, to a depth of 193 feet.

One 4 x 4 x 14 ventilating fan on the surface vein, driven by a 10 H. P. electric motor, was installed; one 50 H. P. electric motor to drive the ventilating fan at the Central Air Shaft to replace the steam engine, and one 35 H. P. electric hoist to replace the steam hoist to operate the Central Air Shaft.

Hampton Colliery, Outside.—Installed one 750 gallon steam pump for fire protection.

Sloan Colliery.—Installed one 150 H. P. electric hoist on the rock slope sunk from the Clark vein to No. 2 Dunmore vein.

Continental Colliery.—One rock tunnel, 7 x 12, in length 218 feet, from the Clark to the New County vein on the pitch, for the purpose of shortening the haulage.

The main shaft and the air shaft were concreted, replacing the old wood cribbing.

Bellevue Colliery.—New concrete barn in slope. Rock tunnel from New County to Big vein, and a second opening to the same tunnel. Rock tunnel from No. 2 to No. 1 Dunmore vein, and a second opening to the same tunnel.

Built new concrete blacksmith and carpenter shop, outside.

Dodge Colliery.—Concrete partition in main shaft.

Holden Colliery.—Installed electric hoist on plane to Surface vein.

National Colliery.—Installed dust fan in breaker. New brick blacksmith and carpenter shop, concrete barn built, inside. New fire pump and fire line installed. Outside.

DELAWARE AND HUDSON COMPANY

Greenwood Colliery.—Drift opened from outside to Checker vein. Haulage road built from breaker to head of plane, outside, distance 1,000 feet. A plane 400 feet in length, equipped with 10 x 12 engines, was built to hoist coal from mouth of drift to the Surface railroad.

Sloan Colliery.—The new air-shaft was sunk a distance of 336 feet during the year.

Bellevue Colliery.—New annex to breaker under construction. Two Triplex Plunger pumps installed. Two low vein coal-cutting machines installed. New concrete mule barn inside.

Dodge Colliery.—New locomotive house. (Outside.) One additional electric locomotive installed. One new 750 gallon fire-pump installed. New concrete mule barn inside. New wash-house.

Holden Colliery.—One additional electric locomotive installed. One additional boiler installed. New wash-house. New concrete barn inside.

National Colliery.—Rock tunnel, No. 2 to No. 1 Dunmore vein. New wash-house. New concrete barn inside.

This Company is to be commended for its efforts in educating its non-English speaking employes. Colonel R. A. Phillips, the General Manager, conceived the idea of having pictures taken in the mines showing how accidents occur and how they are prevented. Two hundred of these pictures appear in book form with simple statements. The book was prepared under the direction of Colonel Phillips and Mr. C. E. Tobey, Superintendent of the Coal Mining Department, and ten thousand copies have been printed and will be distributed to groups known as extension schools in the various mining communities.

The company is promoting this educative work through the local branch of the Young Men's Christian Association.

SCRANTON COAL COMPANY

Capouse Colliery.—All inside buildings reconstructed of incombustible material.

PEOPLES COAL COMPANY

Oxford Colliery.—New mule barn inside constructed of incombustible material.

New breaker was erected south of the site of the old breaker with a capacity of 1,500 tons daily, equipped with the most modern machinery of every kind.

CARLETON COAL COMPANY

National Colliery.—New breaker erected, capacity 100 tons daily. Began operations December 12.

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, Scranton, April 15 and 16. The Board of Examiners was composed of the following persons: H. O. Prytherch, Mine Inspector, Scranton; John P. Corcoran, Superintendent, Rendham; William J. Jenkins, Miner, Scranton; James W. Reese, Miner, Scranton.

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

Hyde Park Colliery.—A 7 by 12 foot tunnel, 220 feet long was driven from the Rock to the Diamond vein. All the inside buildings reconstructed of incombustible material. An automatic overwinding device was attached to the hoisting engines.

National Colliery.—An air shaft was sunk from the surface to the Clark vein, a depth of 75 feet. This shaft is 10 by 16 feet in the clear. A rock tunnel was driven on a 45 degree pitch from M. gangway, Clark vein to B. gangway, Clark vein, 7 feet by 12 feet, a distance of 60 feet for ventilating purposes. Installed railings around all dangerous parts of machinery and openings in the breaker and around all engines and machinery outside. Installed a Welch automatic overwind device or engine stop on hoisting engines. Completed new concrete wash-house, which is properly ventilated, and there is a person in charge to see that it is kept clean.

Dodge Colliery.—New locomotive house outside. Installed additional electric locomotive, 750-gallon fire-pump, and a Welch automatic overwind device or engine stop on hoisting engine. New concrete mule barn inside. New concrete wash-house completed; it is properly ventilated and there is a person in charge to see that it is kept clean. Started work on a new haulage system on the outside to safely convey the cars from the drift to the head of the breaker, which is now being done by an engine. This will be completed in a short time. Installed railings around all dangerous parts of machinery and openings in and around the breaker.

Holden Colliery.—Installed railings around all dangerous parts of machinery in and around the breaker. A Welch automatic overwind device or engine stop was installed on hoisting engines. Completed new concrete wash-house, which is properly ventilated, and there is a person in charge to see that it is kept clean.

Continental Colliery.—A second opening and return air course was driven from No. 1 Dunmore to Clark vein, a distance of 73 feet. An air shaft and second opening was also sunk near outcrop to Diamond vein, depth 30 feet. An automatic overwinding device was attached to hoisting engine.

Hampton Washery.—All the buildings were reconstructed of incombustible material.

This Company is educating its non-English speaking employes. Colonel R. A. Phillips, the General Manager, conceived the idea of having pictures taken in the mines showing how accidents occur and how they are prevented. Two hundred of these pictures appear in book form with simple statements. The book was prepared under the direction of Colonel Phillips and Mr. C. E. Tobey, Superintendent of the Coal Mining Department, and ten thousand copies have been printed and will be distributed to groups known as extension schools in the various mining communities.

This Company is promoting this educative work through the local branch of the Young Men's Christian Association, and it deserves much greater patronage than it is getting at present, as it instructs not only in theory, but also in practice.

SCRANTON COAL COMPANY

Capouse Colliery.—All inside buildings reconstructed of incombustible material.

CONDITION OF COLLIERIES

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Bellevue, Archbald, Sloan, Hyde Park, Dodge, **National**, Continental and Holden Collieries.—Ventilation, drainage and condition as to safety good.

HUDSON COAL COMPANY

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

SCRANTON COAL COMPANY

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

PEOPLES COAL COMPANY

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

CARLETON COAL COMPANY

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

MINOOKA COAL COMPANY

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

IMPROVEMENTS

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Bellevue Colliery.—Installed one rock pulverizer to be used to crush the rock from the breaker and have it flushed into the mines, and one new Corliss breaker engine to replace old engine.

Completed one rock tunnel from No. 2 to No. 1 Dunmore to develop No. 1 Dunmore vein, and new air shaft and engine house. Are installing fan and engine to replace old fan and engine.

Installing a fire escape on breaker. There will be several exits in case of fire.

National Colliery.—Installed an endless rope haulage system at foot of shaft for the purpose of conveying the coal, and a fan at the old Stafford workings. Completed the track and electric equipment, and tunnel from No. 2 to No. 1 Dunmore vein near Meadow Brook shaft to develop No. 1 Dunmore vein. Made a tunnel from Clark to New County vein to develop a section of the New County vein.

Made second opening tunnel from No. 1 Dunmore vein to Clark vein and second opening from Clark vein to New County vein for ventilating purposes.

Dodge Colliery.—The main shaft has been made wider in order to use a larger car and an endless rope installed from the shaft to the breaker to handle the mine cars.

National Colliery.—Repaired shaft tower. Installed new boilers in order to be able to generate the required amount of steam necessary to operate machinery with safety.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in Scranton, May 18 and 19. The Board of Examiners was composed of Jenkin T. Reese, Mine Inspector; Joseph P. Jennings, Superintendent, Moosic; James W. Reese, Miner, Scranton; and William J. Jenkins, Miner, Scranton.

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

MINE FOREMEN

G. Elliott Acker, Richard S. Arscott, Richard Banks, August Bogdansky, Edwin D. Bowen, John J. Cadden, Abel Davis, Anthony Dowgiallo, Thomas J. Evans, Philip Evans, Thomas Francis, David W. Griffiths, Reese Griffiths, James Harper, Frank Harmer, Alfred D. Harris, John Harrison, Richard T. Havard, Joseph Hoffman, Samuel House, Evan Jones, John Jones, James Jones, Benjamin Hodgson, William C. Jones, William J. Jones, John A. Kennedy, William Knuckey, William King, Ernest Lewis, Gomer Lewis, Michael McHale, Patrick McHale, George W. Mackie, Thomas J. Matthews, Thomas M. Morgan, Ralph Oliver, Robert J. Owens, William Parry, William E. Phillips, Reese B. Powell, David Reese, John J. Reese, Robert Reid, John Richards, Edward Roberts, Robert L. Roberts, Charles Szurna, Joshua Taylor, Samuel A. Thomas, Spencer Thomas, Robert N. Walker, William J. Walters, Fred Whatley, David Williams, Griff Williams, Robert E. Williams, William Williams, Scranton; Alfred Bright, Michael R. Budash, Samuel Dawe, Llewellyn J. Evans, Throop;; David Eynon, John Oakey, Benjamin Watkins, Dickson City; John Fox, Thomas O'Hora, William H. Powell, John C. Toole, Minooka; George Hollenbeck, Thomas B. James, George J. Kincel, William Morris, Taylor; Steve Thomas Macko, Wilbur A. Stevens, Dunmore; David J. Thomas, Blakely; William Vessie, Olyphant; Andrew Brown, Pittston.

ASSISTANT MINE FOREMEN

Edwin Beecham, David C. Brown, David J. Davies, Thomas X. Davis, William T. Davies, Evan W. Evans, John H. Harvey, Frank Houck, Arthur Jones, John L. Jones, Benjamin Kondrasky, Edward Lewis, James Littlejohn, Henry Lumley, John Ludwidowski, James A. McNamara, John F. Masterson, David T. Morgan, Evan D. Morris, Thomas C. Parry, Anthony Pender, William Evan Rees, John Warren, William T. Williams, Garrett Wren, Scranton; Ralph Atkinson, Throop; William Fitzgerald, Leo H. Winters, Olyphant; John Halpin, Dunmore; Stephen Jordan, Taylor; Benjamin Maschal, Greenwood; Nathan Thomas, Dickson City.

Sloan Colliery.—Outside:—Installed an auxiliary line between Hampton and Sloan mines.

Archbald Colliery.—Completed a bore hole from surface to New County vein, and changing cable.

Installed one Goodman coal-cutting machine in the Diamond vein; also four 7-ton locomotives with reel devices, etc.

Outside:—Installed one rotary converter, transformer, switch-board; changing equipment in sub-station.

Continental Colliery.—Installed one 7-ton electric locomotive, with reel, etc., in Dunmore No. 3 vein, also one Goodman coal-cutting machine.

Outside:—Built a new washhouse.

National Colliery.—Installed one motor in Dunmore No. 1 vein and an endless rope at foot of shaft in No. 2 Dunmore vein.

Outside:—Built stairway, railings, etc., around boilers.

SCRANTON ANTHRACITE COAL COMPANY

Oak Hill Colliery.—Completed a new slope to the No. 2 Dunmore vein. Built an addition to the breaker.

SPRUKS COAL COMPANY

East Mountain Colliery.—Inside:—Installed an electric hoist.

Outside:—Installed one 12 HP. gasoline engine and built an engine house for same. Built a new office and scale house, mule barn, hospital with equipment, and track and trestle from breaker to Erie tracks, and a set of coal pockets for storing coal for delivery.

Sunk an air shaft.

CONDITION OF COLLIERIES

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Bellevue, Dodge, Continental, Archbald, **National** and Sloan Collieries.—Ventilation, drainage and condition as to safety, good.

DELAWARE AND HUDSON COMPANY

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

SCRANTON ANTHRACITE COAL COMPANY

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

CARLETON COAL COMPANY

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

SPRUKS COAL COMPANY

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

IMPROVEMENTS

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Bellevue Colliery.—Installed 5 7-ton electric locomotives, wing reel device, etc.

Dodge Colliery.—Completed roof cut from New County to Big vein. Installed 3 7-ton electric locomotives, and 3 200 KW transformers, cable, bore hole, etc.

National Colliery.—Installed 2 7-ton electric locomotives.

Sloan Colliery.—Completed second opening from Diamond gangway, No. 2 Dunmore vein, into the No. 2 Dunmore vein, at Bellevue Colliery.

DELAWARE AND HUDSON COMPANY

Greenwood Colliery.—Completed a plane in Dunmore No. 3 bed, from old No. 1 shaft and New No. 1 shaft, to lower coal to New No. 1 shaft, thereby doing away with old No. 1 shaft.

Stripping of New County bed started.

Installed two 1200-gallon pumps at foot of New No. 1 shaft, one centrifugal and one plunger. Direct motion engines installed at No. 2 shaft, and 18 Lehigh Valley jigs in the breaker.

A great deal of interest is manifested in this district in the workings of the Greenwood Colliery Safety Institute which gives splendid promise of producing results.