gressing slowly. It is not developed enough at present to give it an extended notice here. It will be fully reported next year.

DELAWARE AND HUDSON CANAL COMPANY.

No. 3 Jermyn's Shaft, Green Ridge.

This colliery is operated by the Delaware and Hudson Canal Company and the Delaware, Lackawanna and Western Railroad Company, in partnership. They are now grading a slope in coal inside, which will be eight hundred feet long, when completed, on the northwest side of the shaft, also a new gravitation plane, four hundred feet long, on the east side of the shaft.

Von Storch Slope.

They are erecting another ventilating fan at this colliery in addition to the fan which they have there at present. The new fan is seventeen feet diameter by four feet face. This is to ventilate the fourteen feet and Diamond seams of coal. The old fan, which is twenty feet diameter by five feet face, will be used exclusively for the Clark seam of coal. They have just finished a slope, six hundred feet long, in coal in the Clark seam, on the southeast side of shaft.

Legitt's Creek Shaft.

They have re-opened the Diamond seam of coal, which has been idle for four years. They are now ready for operation.

Marvine Shaft.

They are now building a gravitation plane, six hundred feet long, in the fourteen feet seam of coal, on southeast side of shaft. Also sinking a slope in coal on northwest side of shaft, which will be about twelve hundred feet long when finished. They are also driving for second opening in Diamond seam, by connecting with Diamond seam in Legitt's Creek shaft. The connection is now made.

Olyphant, No. 2.

They have built a new breaker over second opening shaft of this colliery, and call it Eddy Creek breaker. They have cut and graded a new gravitation plane to bring coal to foot of shaft from the northwest side of the property.

Grassy Island Shaft.

They are sinking a new air shaft at this colliery. It is timbered down to the rock, a distance of twenty feet from the surface. The size of shaft opening is eleven by fourteen feet. They are now drilling a bore-hole in the air shaft to let the water down through to the mine workings. They expect to finish bore-hole in a few days. The contract for sinking shaft is already let. The intention is to put up two fans on the same shaft, seventeen feet diameter by four feet face, each. They are to be run by two

storage of coal begins." Hence such a case should be excluded to prevent a construction adverse to its usage. But this does not imply that the original affirmative clause included shafts. This is upon the basis that it was a designed omission. It would not, however, be a forced, but a natural, construction to say that no distinction was intended between a shaft and a slope, and the omission was a mere lack of specification where the intent could be inferred. There is no reason why a trestle not filled with screens and machinery for "the preparation of coal," or with bins for the storage of coal, should be inhibited and prevent a connection with a breaker or slope. A new trestle would communicate fire slowly, is easily thrown down, and the exception as to a slope is some indication that the trestle was not to be included, inasmuch as such a possible construction is prohibited.

It is true, as contended by the learned counsel for the plaintiff, who cites *Com.* v. *Fraim*, *16 Pa. St. R.*, *153*, and *Big Bk. Cent. Imp. Co.* v. *Com.*, *94 Pa. St.*, *450*, that statutes will be construed so as best to effectuate the intention of the makers, though the construction may seem contrary to the letter of the statute. But even this rule applies only where the intent is clear and the contradiction seeming. If we have read the statute in question right, it intends to guard the health and safety of persons employed in and about the coal mines, but it equally intends to preserve the equities of owners existing at the time of its passage. In this view we enter judgment on the demurrer in favor of the defendant, and dismiss the bill at the cost of the plaintiff.

COLLIERY IMPROVEMENTS DURING 1886.

Delaware, Lackawanna and Western Railroad Company.

This company reports but very few improvements for the year, except what were necessary for the purpose of keeping their coal property in a condition to supply the market with their quota of coal. They have opened but very little new territory.

Brisbin Shaft.

This shaft was sunk from G, or 14-foot, to Clark vein of coal, a distance of 153 feet. Total depth of shaft, 520 feet; size of shaft opening, 35×10 feet. They are opening up the mine so as to be ready to ship coal when the market needs it.

Manville Shaft.

This shaft has been sunk 170 feet from the Clark to No. 3 Dunmore vein. Total depth of shaft, 355 feet; size of shaft opening, 27×10 feet. This mine is operated by Delaware, Lackawanna and Western Railroad Company and Delaware and Hudson Canal Company alternate months.

Delaware and Hudson Canal Company.

This company does not report any improvements for the year, ex-

Buffalo Mines.—Built a three-foot gauge track railroad from mines to Jefferson branch of N. Y., L. E. & W. R. R., a distance of two and one-third miles. Coal is hauled by a small locomotive. A new hoisting engine, new main and pony rolls and screens were also put in, and the breaker and machinery given a thorough overhauling.

Belmont Mines.—A new water-level tunnel; was opened to coal headways, and airways were driven to cut off the distance in haulage.

Edgerton No. 2 was opened by a water-level tunnel. It is located about two miles northeast of breaker. Coal is hauled by a small locomotive on a three-foot gauge track.

Eaton Tunnel.—Drove a heading to surface for manway and ventilation; size of opening, 6′x9′=54 feet.

Eaton Shaft.—Sunk a shaft from surface to the present working or "Archbald" vein 162 feet deep; size of opening, 10′x20′=120 feet area.

Jermyn No. 3.—Sinking slope; it is down 700 feet; opening 14′x7′=98 feet area; driven on a grade of one in three feet; in place, six new boilers, one pair of hoisting engines, 10′x10′, one fan engine, 12″x12″, and one pump, and are also building new breaker.

Mount Pleasant Mines.—Sinking a second opening from G, or Big vein, to Clark.

Filer's Slope, now Mount Jessup.—Have driven slope in coal about 1,000 feet in length.

Lackawanna Shaft.—Have placed an endless wire rope about 2,000 feet long in main gangway for haulage; it works satisfactorily; it is cheaper and better than horses or mules.

Pancoast Shaft.—Have put in a new set of boilers; have put in Zeigler's patent slate-pickers; have graded slope to a uniform grade for about 1,000 feet; they are using the electric arc light at this colliery and it gives general satisfaction.

Rushbrook Shaft.—Have erected a new blacksmith shop, 20′x20′, a new powder house, 10′x10′, a new barn, 14′x20′; have placed in mine a No. 10 Knowles pump, sunk a second opening to top vein, and have driven headings in top vein going east 350 feet, and in the same vein going west 300 feet; the east heading in bottom vein has been driven 400 feet, and in the same vein going west 125 feet.

Spencer Shaft.—Are driving slope in coal northwest of shaft; in middle vein they are down about 800 feet.

Hon. Thomas Waddell is at present opening up a new mine in Winton borough.

Note.—The Peakville Coal Company's colliery was idle during the year and did not ship any coal.

The Rushbrook colliery did not ship any coal during 1888.

Bridge colliery was sold and abandoned August 16, 1888.

Shaft No. 2, Penn. Coal Company, located in Dunmore, was abandoned September 1, 1888.

face at shaft and roadbed of tunnel, at which point it is dumped and the coarse coal separated from the fine, the coarse coal to be shipped direct to market and the fine to Bunker Hill breaker. A 90 horse-power engine will be used for hoisting the coal. Three boilers are in place, each 36′ long and 30″ diameter for the present furnish sufficient steam for hoistingand for one No. 4 Knowls pump at bottom of shaft.

Yours, very respectfully,

JAMES YOUNG,
Mine Superintendent.

Capouse shaft, Lackawanna Iron and Coal Company.—Have constructed a new plane between G and Rock veins 369′ long; sectional area equal 96 square feet and on an angle of 15°.

Pine Brook shaft.—Finished plane 1,500′ long; sectional area, 6′x14′, equal 84 square feet on a pitch of 15°.

Clifford shaft.—Finished one new plane 887′ long; sectional area equal 72 square feet on an angle of 6°.

Forest City mines.—Finished a new slope 400′ long; sectional area, 84 square feet on an angle of 9°.

Glenwood mines.—Constructed a slope 400′ long; sectional area, 48 square feet on an angle of 14°.

Keystone tunnel.—Finished a new plane 1,100′ long; sectional area equal 98 square feet on a pitch of 7°.

Elk Creek drifts.—Constructed a plane 80′ long; sectional area, 5′x16′, equal 80 square feet on an angle of 38°.

Eaton tunnel.—Extended slope 500 feet; sectional area, 6′x14′, equal 84 square feet on a dip of 1 in 9.

Edgerton Coal Company is opening a new drift into bottom coal $1\frac{7}{8}$ miles north of Edgerton No. 2, close to where the old Hendricks breaker stood and on the same tract of land.

Dolph tunnel.—Finished plane No. 5, 525′ long and on a pitch of 3°; also plane No. 6, 300′ long on an angle of $3\frac{1}{2}$°.

Grassy Island colliery.—Sunk second opening shaft from Grassy island to Clark vein, a depth of 157′ feet; sectional area, 308 square feet; also new air shaft for drift workings and built a new furnace.

Jermyn No. 3 slope.—This colliery is located in Dickson City borough about 2,000′ northwest of Jermyn shaft No. 4; it consists of a slope and breaker; the slope is sunk. From surface to first vein of coal is 600′ and to second vein of coal 800′. It is connected with mine workings of Jermyn No. 4 and is ventilated at present by the fan at Jermyn No. 4. They are sinking a fan shaft northeast from mouth of slope; it is now down about 175′; they are also erecting a fan. The breaker is new and located 200′ southeast of slope mouth; it has a capacity of 1,000 ton of coal per day and is furnished with all the modern improvements.

Lackawanna shaft.—Finished a plane 300′ long; sectional area, 8′x18′

Buffalo Mines.—Built a three-foot gauge track railroad from mines to Jefferson branch of N. Y., L. E. & W. R. R., a distance of two and one-third miles. Coal is hauled by a small locomotive. A new hoisting engine, new main and pony rolls and screens were also put in, and the breaker and machinery given a thorough overhauling.

Belmont Mines.—A new water-level tunnel; was opened to coal headways, and airways were driven to cut off the distance in haulage.

Edgerton No. 2 was opened by a water-level tunnel. It is located about two miles northeast of breaker. Coal is hauled by a small locomotive on a three-foot gauge track.

Eaton Tunnel.—Drove a heading to surface for manway and ventilation; size of opening, 6'x9'—54 feet.

Eaton Shaft.—Sunk a shaft from surface to the present working or "Archbald" vein 162 feet deep; size of opening, 10'x20'—120 feet area.

Jermyn No. 3.—Sinking slope; it is down 700 feet; opening 14'x7'—98 feet area; driven on a grade of one in three feet; in place, six new boilers, one pair of hoisting engines, 10'x10', one fan engine, 12"x12", and one pump, and are also building new breaker.

Mount Pleasant Mines.—Sinking a second opening from G, or Big vein, to Clark.

Filer's Slope, now Mount Jessup.—Have driven slope in coal about 1,000 feet in length.

Lackawanna Shaft.—Have placed an endless wire rope about 2,000 feet long in main gangway for haulage; it works satisfactorily; it is cheaper and better than horses or mules.

Pancoast Shaft.—Have put in a new set of boilers; have put in Zeigler's patent slate-pickers; have graded slope to a uniform grade for about 1,000 feet; they are using the electric arc light at this colliery and it gives general satisfaction.

Rushbrook Shaft.—Have erected a new blacksmith shop, 20'x20', a new powder house, 10'x10', a new barn, 14'x20'; have placed in mine a No. 10 Knowles pump, sunk a second opening to top vein, and have driven headings in top vein going east 350 feet, and in the same vein going west 300 feet; the east heading in bottom vein has been driven 400 feet, and in the same vein going west 125 feet.

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Shaft No. 2, Penn. Coal Company, located in Dunmore, was abandoned September 1, 1888.

Number of children left as orphans from accidents in 1890,	132
Number of tons of coal produced for each orphan,	67,669

There were 280,200 kegs of powder used in mining 8,932,235.07 tons of coal in 1890, which would give 31.88 tons of coal for each keg of powder used.

There are 2,753 horses and mules working in and about the mines in this district. There are also 34 mine locomotives with a horse-power of 1,799, making in all a total horse-power of 4,552 for transportation of coal in mines and between mines and breakers.

There are 905 steam boilers which supply steam for 385 hoisting, fan and breaker engines, which have a horse-power of 23,809; also 301 pumping engines and steam pumps with a horse-power 10,665.

There are 68 breakers which have a capacity for preparing and cleaning 53,045 tons of coal per day for shipment to market.

There are also 4 chute buildings for cleaning and dividing coal into various and different sizes, shipping some to market direct and some to breakers to be prepared for market.

Respectfully submitted.

PATRICK BLEWITT,
Inspector of Mines.

COLLIERY IMPROVEMENTS FOR 1890.

Delaware, Lackawanna and Western Railroad Company, has made no improvements except driving headings and airways, so as to have their mines in proper condition for opening out their mine workings when necessary.

DELAWARE AND HUDSON CANAL COMPANY.

This company has made but very few improvements during the year.

Clinton Colliery.—Has finished one outside slope.

Eddy Creek Colliery.—Has built an addition to breaker for the purpose of making chestnut, pea and buckwheat coal.

Olyphant No. 2 Colliery.—Put in place one fan engine, 18″ x 22″; size of fan 17′ diameter by 4′ width of face, also placed three boilers 34′ long by 36″ in diameter.

Jermyn No. 3 Colliery.—Finished sinking air shaft to "G" or 14′ vein. Machinery is on the ground but not put in place yet.

Capouse Colliery—Have finished one plane from "G" to Rock Vein.

Pine Brook Colliery.—Drove one slope in coal and one tunnel in rock.

At the Marvine the Clark vein which is five feet 6 inches thick and of very good quality was opened up. The second opening slope which was begun in 1893 was completed from the 14-foot vein to the surface, a distance of 384 feet.

It has an area of 98 square feet and a grade of "one in four." It is also used for a down cast for air.

At the Grassy Island mine a new plane 400 feet long on a grade of 12 degrees was completed.

A new tunnel was driven from the surface to the number 2 vein at White Oak. It is 507 feet long.

The vein here is 3 feet 6 inches thick.

A new fan is also in course of erection to ventilate all the White Oak workings.

At Coal Brook, near the face of the present workings, a new shaft was sunk a distance of 87 feet, for the purpose of ventilation.

A new tunnel was also driven at this mine from the surface to the bottom coal, cutting a five-foot vein at a distance of 100 feet.

Lackawanna Coal Company.

A tunnel 550 long having a sectional area of 84 square feet was driven by this company from the surface to the lower Dunmore vein. which is four and one-half feet thick.

A shaft for the purpose of ventilation was also sunk from the surface to this vein, a distance of 190 feet.

Delaware, Lackawanna and Western Railroad Company.

At Storr's mine, a tunnel 6x12 and 750 feet long was driven from the "big" vein to the Diamond.

A new plane 450 feet long on a grade of 11 degrees was also made.

At Storrs No. 3 two new planes were made, one 450, the other 500 feet long.

John Jermyn.

At Jermyn No. 3 a tunnel is being driven north across the measure. It is now 600 feet long and is expected to go 900 feet more to cut the lower Dunmore vein.

The coal from this new opening will be brought to the surface through the slope.

A shaft through which the tunnel workings will be ventilated has been sunk to the vein, a distance of 120 feet.

The vein at this point is reported seven feet thick and of good quality.

A new plane 450 feet long has also been made in this mine. It has a pitch of 12 degrees.

Diamond No. 2 Shaft has been enlarged from 10 x 40 feet to 12 x 40 feet from the surface to the New County vein, and extended from New County vein to the Clark vein at 12 feet by 33 feet 5 inches, and is now being sunk at these dimensions to the lower "Dunmore" veins.

A new fan has been erected, dimensions 6 x 16 feet.

Hyde Park Shaft. A new plane was driven on a grade of one and one-half inches on ten feet. Sectional area, 7 x 14 feet; length, 395 feet. Another plane was driven on a grade of one inch in ten feet; sectional area, 7 x 12 feet; length 310 feet.

Manville Shaft. A new slope of the following dimensions was driven: Length, 1,100 feet; sectional area, 84 square feet; gradient, two and one-half degrees.

Holden Shaft. A plane of the following dimensions was driven: Length, 112 feet; sectional area, 60 square feet; grade, 27 degrees.

Delaware and Hudson Canal Company.

This company is opening up No. 3 Dunmore vein, and preparing for the installation of an extensive system of tail top haulage at their "Dickson" mine.

Von Storch Mine. A plane of the following dimensions has been completed during the year: Length, 238 feet; sectional area, 14 x 7; gradient, 2 in 10.

Lackawanna Iron and Steel Company.

A tunnel has been driven from this company's "Pine Brook" mine from No. 2 Dunmore vein through a fault a distance of 820 feet, and it was intended to reach the same vein, but the vein they found resembles Dunmore No. 3.

William T. Smith.

Mount Pleasant Mine. A tunnel was driven from the four-foot to the five-foot vein; length, 200 feet; sectional area, 7 x 8 feet.

Pennsylvania Coal Company.

At No. 5 Dunmore shaft two planes have been driven, one in the Clark vein, 400 feet long, 90 square feet sectional area, 9 degrees gradient.

One in the Bottom vein 760 feet long; 90 square feet sectional area, 5 degrees gradient.

A slope is being driven in the Second Dunmore vein, and another in the Third Dunmore vein.

Three Babcock & Wilcox water tube boilers of 450 H. P. are in course of erection.

P. at 150 pounds pressure, divided into seven and one-half batteries Babcock & Wilcox vertical headed water tube boilers. They are fitted up with McClave & Brooks Automatic Stokers and self-feeding arrangement for fuel from storage pockets, and also have attached the Green Economizers, divided as follows: One for eight batteries and one for seven and one-half batteries, with induced fan draft in connection with forced fan draft. This plant is all under one roof. The steam pipe connections are as follows: To Sloan shaft 1,420 feet of 8 inch pipe. To Central shaft 1,400 feet of 8 inch pipe. To Hyde Part shaft, 3,140 feet of 8 inch pipe. Tto Hampton Shaft, 1,400 feet of 12 inch pipe. To Continental shaft 1,500 feet of 8 inch pipe. The above plant takes the place of ninety-five boilers, cylinders and locomotives. A new reservoir 100 feet in diameter has also been located near the plant which will hold 500,000 gallons of water.

At Pyne shaft a tail rope system of haulage is being installed. Length of main rope 4,000 feet; size of engines 15 feet x 30 feet geared.

Sloan Mine.—A new air shaft has been sunk to the surface vein and a connection driven from the bottom to the upcast compartment of main shaft. A new ventilating fan will soon be erected over this shaft. The fan which is now ventilating the mine and is located at the breaker over the main shaft will be removed, thus reducing the risk from fire, and at the same time doing away with the possibility of the air—which is being exhausted, entering the downcast again.

New Water Shaft.—A new shaft is being sunk at a point between the Central and Sloan shafts. This shaft is 8′x33′ in the clear, and will be 500 feet deep. It is to be used to drain the mine workings of the company's Keyser Valley collieries. When the work is finished it is proposed to raise 7,000,000 gallons of water every twenty-four hours, by the use of buckets.

An electric motor system of haulage has been installed in the Dodge mine, and a new steam generating plant erected, at a point between the Dodge and Bellevue breakers. This plant will supply steam to the two mines and breakers.

A new ventilating shaft has been sunk at the Taylor mine from the surface to the Clark vein.

In the Manville shaft of the Delaware and Hudson Company and the Delaware, Lackawanna and Western Railroad Company, and the Delaware, Lackawanna and Western Company's Holden shaft, the old cribbing has been removed and replaced by expanding metal. The work was successfully accomplished in each case, and the result is highly satisfactory.

The improvements made in the several mines in the district are of the usual kind, and as important as the condition of the mine required and the increased output demanded.

The old frame tower on coal shaft has been replaced with a substantial structure of yellow pine.

The steam plant consisting of 18 cylinder, 1 return tubular and 1 return porcupine boiler is being replaced with sterling boilers. This work is now under way, four batteries of sterling boilers being in place.

Babylon Colliery.—A tunnel has been driven from the middle to bottom split of Red Ash vein, near foot of shaft.

JERMYN AND COMPANY

Jermyn No. 2.—Slope driven from outside to the Top vein.

Jermyn No. 1.—Installed Jeanesville pump at Jermyn No. 3, 3,500 gallon capacity.

Removed four tubular boilers from Jermyn No. 3 to No. 1 boiler plant, thereby making one plant of tubular boilers instead of heretofore three tubulars and three cylinders at No. 1 and four tubulars at Jermyn No. 3.

A slope 300 feet long was driven from Clark vein to 1st Dunmore vein for ventilation and transportation.

Tunnel driven from No. 1 to Jermyn No. 3 in the Baltimore vein.

PENNSYLVANIA COAL COMPANY

The new breaker that was being built in 1903 started up work on February 1, 1904. There is being built at present a new steam plant at the breaker, Sterling boilers, capacity 1,704 horse power, to replace the 900 horse power Babcock and Wilcox boilers, these to be removed elsewhere.

ELLIOTT, McCLURE AND COMPANY

Installed rope haulage in the Clark vein. Enlarging the second opening which has resulted in a great improvement in the ventilation. The operation of small pumps and engine in No. 1 Dunmore vein by compressed air.

A new Jeanesville compound duplex pump 17x28x16x36 inch, located in the Clark vein now pumps all the water to the surface.

The cribbing in the up-cast has been replaced by 22 feet of concrete.

They have also erected four stacks 48 inches by 80 feet, furnishing them with good draft for their boilers.

DELAWARE AND HUDSON COMPANY

Greenwood No. 2.—Rope haulage road No. 1 driven 1,200 feet to

A. D. AND F. M. SPENCER

Spencer.—Ventilation, roads and drainage good. Condition as to safety good.

CARNEY AND BROWN

Carney and Brown.—Ventilation, roads and drainage good. Condition as to safety good.

J. J. GIBBONS

Gibbons.—Ventilation, roads and drainage good. Condition as to safety good.

BULL'S HEAD COAL COMPANY

Bull's Head.—Ventilation, roads and drainage good. Condition as to safety good.

NAY AUG COAL COMPANY

Nay Aug.—Ventilation, roads and drainage good. Condition as to safety good.

MOUNTAIN LAKE COAL COMPANY

Mountain Lake.—Ventilation, roads and drainage good. Condition as to safety good.

IMPROVEMENTS

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

New breaker at the Diamond was built and was in operation for a few days the latter part of year. Abandoned Tripp Slope and concentrated all of the work at Tripp Shaft. Built an addition to the boiler plant at the Manville mine.

DELAWARE AND HUDSON COMPANY

Legitts Creek.—Rock Plane driven from 5 foot vein to surface for second opening. Installation of 16 inch x 48 inch compound Duplex Jeansville pump in Clark vein. Lining of 20 inch water hole necessitated by settling of the strata through which hole was bored. Securing the roadways and sump in Clark vein, by substituting I beams in place of timber which had broken down.

Dickson.—Engine plane in Clark vein extended.

Von Storch.—6 inch hole driven from 14 foot vein to Clark vein for drainage.

PRICE-PANCOAST COAL COMPANY

Pancoast.—The tail rope system has been extended 1,000 feet into the workings of the Dunmore vein.

A new slope 400 feet long has been driven in the Dunmore vein, and at the present time a tunnel is in course of construction.

Another slope has been driven over the anticlinal in the Diamond vein and a pair of 12 inch x 12 inch hoisting engines installed.

CONDITION OF COLLIERIES AND IMPROVEMENTS

PENNSYLVANIA COAL COMPANY

At Central Colliery, an improvement has been made in the matter of access to the ash pit of the boiler house. Previously there has been but one end open, the other being walled, and the whole ventilated by a steam jet blowing in a stack. The new arrangement does away with that, and the pit is now open from both ends admitting a free passage of pure air.

An egg shaped concrete water course about a mile long, constructed through the workings of both Central and Old Forge collieries, gathers the water from these workings and delivers it to a very modern and unsurpassed pumping plant at No. 2 shaft.

The No. 2 Old Forge shaft has been idle since June and the plant and workings have been completely overhauled. The shaft is now concreted from bed-rock and raised to accommodate a grade, which permits the abandonment of the old grade crossing for mine cars on the main road, the cars now being conducted over a new steel and concrete bridge. A new steel tower has been erected to replace the old one, and also a new brick engine house and hoisting engine. At the Mountain drifts a new shaft has been sunk to the Dunmore vein tapping the advanced workings of No. 2 shaft, a 20 foot fan, electrically propelled, has been installed and encased in a brick engine and fan house, and also a fan drift, which guarantee an adequate supply of ventilation. The new shaft is used for an upcast exclusively, while the old fan shaft at No. 2 provides an additional down-cast.

I consider the Pennsylvania collieries, Old Forge and Central, to rank with the very best in my district.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

The Hallstead Colliery was closed down in September, after a conference with the Inspector, it being decided to take up the matter of some much needed improvements. Mining is suspended, but a force of men are regularly employed thus far making the changes referred to. The Pyne and Taylor collieries, which were transferred to me April 1, 1908, from the Fourth district, are in good condition. A new fan shaft is being sunk at the Pyne to supply ventilation to the Dunmore veins, which will later be developed, and a 20 foot fan will be installed thereon.

JERMYN AND COMPANY

At Jermyn Collieries a new pump has been installed at No. 2 shaft to return the water from the washery, the silt being run into the old workings. A new washery has been completed near No. 1 breaker; here the silt is first deposited in a settling tank, and the water passes off into the creek, it being first supplied from the Clark vein in No. 3 shaft by the big pump, which delivers it to the top of the washery over one thousand feet removed from the shaft.

I consider these mines in a very satisfactory condition when the fact that there are over two hundred numbers robbing is taken into consideration. Every suggestion of the Inspector is carried out faithfully by a corps of competent officials with a superintendent who is constantly trying to improve matters.

ELLIOTT McCLURE AND COMPANY

The Sibley Mine has made an excellent record during the year. The two upper veins are being robbed and every precaution is employed to protect the workmen. The lower veins have been developed to a point where they supply a generous proportion of the total output.

Ventilation and drainage are good.

CONNELL ANTHRACITE MINING COMPANY

Connells Colliery made a very good showing for the year. A manway was constructed from the shaft through the workings to the surface. This was very much needed, as it keeps the employes from the haulage road, and does away with the man holes. Ventilation and drainage good.

HILLSIDE COAL AND IRON COMPANY

The Consolidated Colliery has added another feeder in the addition of Cotters slope, a new opening driven to the surface vein for the purpose of robbing pillars. Considerable second mining is also being done in the shaft and slope workings. Ventilation and drainage good.

HUDSON COAL COMPANY

Suring-Brook and Langcliff are old collieries. The second mining at Spring-Brook will be nearly completed during the coming year. At Langcliff the territory is very large and the workings very old. Occasionally squeezes occur, which are handled in a very safe and practical way. Ventilation and drainage good.

NORTHERN ANTHRACITE COAL COMPANY

Murrays Colliery is being continually improved as to roads, drainage and ventilation. No fatal accident has occurred at this colliery during my three years of office, although the Sullivan county collieries have a very bad falling roof to the B or principal vein. This speaks volumes for both officials and employes.

O'BOYLE-FOY ANTHRACITE COAL COMPANY

O'Boyle-Foys Colliery. The management exercises the greatest care and no fatal accident has occurred at this colliery during the past three years. About three miles of tail and main rope have been installed for transportation. Ventilation and drainage good.

AUSTIN COAL COMPANY

Austin Colliery is reduced to second mining almost exclusively. I do not recall a fatal accident inside for the past three years. However, there were two very unfortunate accidents outside during the

NORTH END COAL COMPANY

North End.—Ventilation, roads and drainage fair. Condition as to safety good.

A. D. AND F. M. SPENCER COAL COMPANY

Spencer.—Ventilation, roads and drainage fair. Condition as to safety good. The principal work done is robbing pillars.

CARNEY AND BROWN COAL COMPANY

Carney and Brown.—Ventilation, roads and drainage good. Condition as to safety good. The principal work done is robbing pillars.

CLEARVIEW COAL COMPANY

Clearview.—Ventilation, roads and drainage good. Condition as to safety good.

NAY AUG COAL COMPANY

Nay Aug.—Ventilation, roads and drainage fair. Condition as to safety good. The principal work done is robbing pillars.

BULLS HEAD COAL COMPANY

Bulls Head.—Ventilation, roads and drainage fair. Condition as to safety good. The principal work done is robbing pillars.

IMPROVEMENTS

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Cayuga Colliery.—Drove a rock slope 7 by 14 by 750 feet, from Clark to Dunmore No. 3 vein. Drove a second opening, 7 by 12 by 750 feet, for the above slope. Erected a new steel and concrete fireproof pump-room in Clark vein.

Brisbin Colliery.—Built new brick wash house to accommodate two hundred employes. Drove a rock tunnel 7 by 12 by 600 feet from Clark to Dunmore vein. Drove rock tunnel, 7 by 12 by 171 feet, from Clark to New County vein; also a second opening, 7 by 12 by 171 feet, for the above tunnel. Erected new concrete pump-house in Clark vein.

Manville Colliery.—Built new annex to breaker and operations commenced November 8, 1910.

PENNSYLVANIA COAL COMPANY

Pennsylvania No. 1 Colliery.—Tore down old wooden head-frame over shaft, and erected a steel head-frame to replace old wooden structure, fireproof in all respects.

IMPROVEMENTS

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Taylor Colliery.—Installed one 6½ ton electric locomotive in Big vein. Rock plane from New County to Big vein. Concreted main shaft from surface to rock. Installed electric track pump on main gangway, Clark vein. Electric pump on B gangway, Clark vein, 300 gallons capacity. New concrete breaker and washery in course of erection.

Hallstead Colliery.—Two rock planes from No. 1 Dunmore to Clark vein. Installed drums, branches, ropes, etc., on one of the above planes, one being second opening. Re-opened Marcy vein tunnel, and installed fan to ventilate same. Covered steam lines, inside. Remodeled breaker, installed pickers, etc. Installed ash handling system at Feder-Dam boiler plant.

JERMYN AND COMPANY

Jermyn Nos. 1, 2 and 3 Collieries.—New slope and shaft to surface vein. New slope and air shaft to Marcy vein. New drift and air shaft to Clark vein. New fire room 2,000 horse power, also new jigs and shakers in the breaker.

NORTHERN ANTHRACITE COAL COMPANY

Murrays Colliery.—Wooden tower over shaft has been replaced by a steel structure.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Halstead Colliery.—Slope was driven from surface to Marcy vein for haulage purposes. Open Marcy vein to increase output. Made second opening to Marcy vein for ventilating purposes. Recribbed Feeder Dam shaft.

JERMYN AND COMPANY

Jermyn Colliery.—Sunk No. 3 shaft from No. 2 Dunmore vein to No. 3 Dunmore vein. A drift was driven from surface to bottom split of the big vein. An electric pump was installed in the second Dunmore vein.

Outside: An air compressor was installed near No. 3 shaft.

HUDSON COAL COMPANY

Langcliffe Colliery.—Outside: Breaker was remodeled to a considerable extent.

HILLSIDE COAL AND IRON COMPANY

Consolidated Colliery.—An air shaft was sunk from the surface to the top split of the Stark vein at Consolidated drift. This shaft also provides a second opening.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as mine foremen and assistant mine foremen was held in the High School, Old Forge, May 18 and 19. The Board of Examiners was composed of Augustus McDade, Inspector, Rendham; David Lloyd, Superintendent, Scranton; Morgan E. Griffiths, Miner, Taylor; Michael Cosgrove, Miner, Old Forge.

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

MINE FOREMEN

John N. Cooke, James McGinley, William C. Riddle, Bernard Boyle, David E. Davis, John J. Boyle, Thomas Phillips, John Rohland, John Digwood, William W. Powell, James Walsh, Louis Tedesco, William G. Gwyn, Old Forge; John Scriven, John Withey, William W. Jones, Gounod Evans, Thomas V. Reynolds, Grover Perry, Martin Carroll, Thomas H. Griffiths, Thomas W. Jones, Daniel Hayes, David J. Thomas, John J, Jarret, Enoch Williams, Charles J. Powell, Alex. G. Law, David Moses, William H. Powell, David E. Harris, Robert J. Jacobs, Thomas G. Townsend, George E. Williams, William G. Lewis, Peter E. Partington, Benjamin Sweetman, Thomas Daniels, George S. Goodwin, Taylor; James Kelley, John W. Clifford, Cornelius McLaughlin, Avoca; William Creeden, Frank Baxter, James Baxter, John M. Reid, Moosic; Michael Joseph, Cosgrove; Martin Durkin, John E. Jones, Barney O'Boyle, William Richards, Thomas Wylam, Rendham; Theodore P. Hartman, Charles Cooksey, John M.

CONDITION OF COLLIERIES

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Manville, Brisbin and Hyde Park Collieries.—Ventilation, drainage and condition as to safety, good.

SCRANTON COAL COMPANY

Pine Brook, Capouse and Mt. Pleasant Collieries.—Ventilation, drainage and condition as to safety, good.

PRICE-PANCOAST COAL COMPANY

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

PENNSYLVANIA COAL COMPANY

Pennsylvania No. 5. Colliery.—Ventilation, drainage and condition as to safety, good.

PEOPLES COAL COMPANY

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

GREEN RIDGE COAL COMPANY

Green Ridge.—Ventilation, drainage and condition as to safety, good.

DELAWARE AND HUDSON COMPANY

Manville.—This colliery is worked alternate months by the Delaware, Lackawanna and Western Railroad Company and the Delaware and Hudson Company.

IMPROVEMENTS

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Manville Colliery.—Constructed one fireproof air bridge in the New County vein. Completed a rock cut, 4 feet by 12 feet by 1000 feet long to improve the haulage and drainage east of the shaft. The sump in the Clark vein has been enlarged and 6 concrete walls built to improve pumping capacity. Installed one pair of 8 foot by 10 foot engines, for the purpose of handling coal on the hill east of the shaft to take the place of mule haulage.

Brisbin Colliery.—Completed a 7 foot by 12 foot tunnel, 750 feet from the Rock vein to the Diamond vein, for the purpose of getting some pillars from the Diamond vein.

Hyde Park Colliery.—Completed a second opening from Five Foot vein to the surface in the crop of vein; also second opening was driven from No. 3 Dunmore vein west of shaft on mountain side into the Continental No. 3 Dunmore vein.