Nos. 1 and 2 Shafts, Old Forge and Breaker. At Old Forge breaker four Babcock & Wilcox water tube boilers of 600 horse power in two nests or batteries were erected in 1896. Pressure carried, 110 pounds. They were put in operation November 27, 1896, and supply steam to Old Forge breaker, Old Forge shaft No. 2, and to shaft No. 13 of Central Colliery, and have supplanted three cylindrical boilers 60 feet by 30 inches, formerly at the breaker; five 36 feet by 30 inches at Old Forge shaft No. 2, and ten 36 feet by 30 inches at No. 13 shaft; the latter fifteen have not as yet been removed but are not in use at this date.

At Old Forge Shaft No. 1, one Babcock & Wilcox boiler of 130 horse power was also erected in 1896 and put in operation November 18, 1896, and is an addition to the boiler power at that place. The pressure carried is 110 pounds.

William Connell & Co.

A plane has been driven from the abandoned workings in the old tunnel in No. 5 vein to the present workings in No. 4 vein; length, 150 feet; sectional area, 84 feet; gradient, 33 1-3 degrees.

The Connell Coal Company.

"William A" Colliery. A plane has been driven having the following dimensions: Length, 230 feet; sectional area, 7 x 16 feet; gradient, 12 per cent.

An opening has also been made from the Marcy vein to the surface.

Lawrence Mine. A shaft for ventilation has been sunk from the upper to the lower drift workings; depth, 26 feet; sectional area, 8 x 8 feet.

Two planes have been driven, one 485 feet long; 7x21 feet sectional area; gradient, 10 per cent.; the other 1,600 feet long; 8x14 feet sectional area; gradient, 2 per cent to 5 per cent.

An additional plane is in course of construction in lower drift.

Jermyn & Co.

Jermyn No. 1 Shaft. A shaft has been sunk for hoisting coal; depth, 220 feet; sectional area, 11 x 26 feet.

West Ridge Coal Company.

The main hoisting shaft was completed to a depth of 556 feet; sectional area, 12 x 30 feet.

A second opening is being sunk from the Clark vein to the China vein; present depth, 80 feet; sectional area, 8 x 10 feet.

A new slope has also been completed in the No. 4 vein: length, 500 feet; sectional area, 6x15 feet; gradient, 4 per cent.

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A new 26x12x36 inch duplex Coyne pump was installed at the foot of shaft, and 410 feet of 14 inch cast pipe erected in the shaft to carry water from this pump to the surface.

A 6x7 foot manway, 56 feet in length, was driven from the Red Ash to the Ross vein, on 35 degrees pitch.

A new mule stable with 14 stalls has been built in the 11 foot vein.

PENNSYLVANIA COAL COMPANY

Central Colliery.—Car shop 63x33 feet, built of brick.

Wood shed 75x17 feet, built of wood.

Slope engine house, 36x26 feet, built of brick. Clark slope Laws shaft.

Engine house 45x21 feet 7 inches. Built of brick. Laws shaft.

Wash house, 30 feet 3 inches x 18 feet 4 inches. Built of brick. Divided into three compartments.

Boiler house 114x59 feet, wooden frame, covered with corrugated iron and consists of 8 Keeler boilers of 150 H. P. each.

New shaft tower on Laws shaft.

Mine car haulage for empty mine cars at breaker.

Rearrangement of the outside mine car tracks.

Barnum Colliery.—Brick locomotive house at No. 2 shaft.

Brick wash house at No. 2 shaft, divided into apartments for the miners, outside men and foremen.

New barn at No. 2 shaft outside.

Brick oil house at Barnum breaker furnished with oil pumps complete for lubricants.

Added one battery 300 H. P. B. and W. boilers to the boiler plant.

KINGSTON COAL COMPANY

No. 4 Colliery.—Completed the new boiler plant of 1,200 H. P. Babcock and Wilcox boilers. This is only one-half of the final boiler plant planned.

Built conveyor lines for fuel from breaker to boiler house.

Built a conveyor line to carry refuse from breaker to Williams' patent crusher. This rock is then crushed and flushed with the culm into the mine workings.

They have built new warehouse and office.

They have drilled about 12 bore holes to prove rock cover over Orchard vein.

They are driving a rock plane from Bennett vein on 15 degrees pitch to cut upper vein.

The plane has reached during the year the Orchard vein.

STEVENS COAL COMPANY

Stevens Colliery.—Installed 20 foot fan at new plant; put in a division partition shaft for upcast airway to fan.

Completed hoisting arrangements at new shaft, by installing cage on south side, fans, etc.

Installed 90 H. P. electric engine and generator for electric haulage in mines.

September 13, Sibley Colliery, Raffella Astorino, Italian, laborer, outside, was fatally injured by jumping from a car. He was on top of a car, which he with others had dumped, and he jumped to the ground with a shovel in his hands. The shovel slipped from his hand and he struck it with his stomach. He died the next day.

November 9, Old Forge No. 1 Shaft, Frank Miller, Polish, driver boy, was fatally injured. He was running with his mule ahead of the car and in some manner fell across the rail, and was disemboweled. He died the same day.

November 29, Langcliff Colliery, Michael Moskovitz, Polish laborer, employed outside near foot of breaker plane, had his skull crushed and was instantly killed by a runaway car, caused by the breaking of a draw bar. He was warned of the approach of the car and ran to a place of safety, but the car jumped the track, leaped 40 feet through the air and caught him.

Explosion of Gas

March 23, Barnum No. 2, Martin Flynn, Irish, rockman, was fatally injured by an explosion of gas. He was employed by a contractor in driving a tunnel from 6th to 5th vein. He and a driver boy went up this plane and encountered a body of gas. The gas exploded, burning both. Flynn died from his injuries 11 days afterward at the Hospital.

Suffocation by Gas

December 4, Central Colliery, Thomas Mulrooney, American, ashman, was found dead in an ash pit, under the boilers, where it was his duty to gather and remove the ashes. The Coroner's verdict was to the effect that they found the victim was overcome by impure air.

CONDITION OF COLLIERIES AND IMPROVEMENTS

PENNSYLVANIA COAL COMPANY

Barnum Colliery.—Barnum Nos. 2 and 3 have been greatly improved. The loss of life has been reduced very materially.

Central Colliery.—A twelve inch bore-hole has been driven to the bottom of the Red Ash vein at Laws Shaft, through which water will be pumped to the surface. A triplex, vertical electrical pump, with a capacity of 1,000 gallons per minute, against a 300 foot head, has been installed for this purpose.

Openings into the top split of the Red Ash vein have been made, and the vein is now being developed.

Three seven and one-half ton cable motors have been added to the equipment at this place.

A new locomotive house 40x25 has been built, also, a new brick barn and wagon shed 100x25, replacing the one destroyed by fire in December, 1906, is now completed; the ventilation in the shaft and Clark and Marcy slope workings has been greatly improved and the mines are in good condition.

A rope haul from the Checker haul to the mouth of No. 1 Checker drift has been installed.

New Jeanesville pump 18x12x18 inch has been installed at foot of shaft which pumps to the surface.

ROBERTSON AND LAW COAL COMPANY

Katydid Colliery—Inside.—A new slope driven. They drove a rock slope 600 feet from the Spring Brook vein to bottom vein for the purpose of making a shorter haulage way; also made another opening for better ventilation and another way out for the men employed in that section of the mine.

CONNELL ANTHRACITE MINING COMPANY

Bernice Colliery.—No improvements at the Griffith colliery.

At the Bernice Colliery all improvements have been completed and are to be included in report for 1905.

In connecting the bottom vein with the upper vein by slope, contracts were made for under-cutting machines and a third rail locomotive.

The electrical power has been increased by the installment of a high speed engine and dynamo.

Details will be given in report for 1905.

PENNSYLVANIA COAL COMPANY

Barnum Colliery—Outside.—Breaker remodeled to enable company to clean the mud screen coal separate from the coarse coal.

Shakers introduced on head to separate coal instead of bars.

Mechanical pickers throughout to clean the coal.

Steam tip at head of breaker to dump the cars.

Inside.—No. 1 shaft abandoned; coal taken to No. 2 shaft inside.

No. 2 shaft, new shaft tower and first motion engines 24x48 inch.

Culm slushed in the mines and new pumping plant to take care of water.

The mine car changed from 28 inch to 36 inch gauge.

No. 3 shaft, rock tunnel from Pittston vein to Checker vein.

New barns in Marcy vein No. 2 shaft and bottom vein No. 3 shaft and mules stabled inside, outside barns abolished.

Central Colliery—Outside.—Addition built to breaker to wash all fine sizes and convey culm dump to breaker.

New boiler house with 8-150 H. P. Keeler locomotive boilers, equipped with all modern improvements.

New tower is being erected for Law shaft.

New slope from surface to Clark vein and Marcy. This coal to be pulled up slope and gravitated to breaker.

CONDITION OF COLLIERIES AND IMPROVEMENTS

PENNSYLVANIA COAL COMPANY

Old Forge Colliery.—The two mountain drifts have been completed, and the Clark and Marcy veins are being developed. An air shaft has been sunk from the surface to the Clark vein. A new stone fan house has been erected, equipped with a 20 foot Guibal fan, driven by a 55 H. P. electric motor, which will soon be in operation. A system of electric haulage is being installed; the boiler house was extended 100 feet, and two batteries of Sterling boilers installed, each battery having 568 H. P. A new power house has been erected 90 x 40, equipped with three dynamos, 2-325 K. W. and 1-100 K. W., 2,300 volts, for lighting purposes. The latest motor is run by a 15x16 engine; the other two, which are used distinctly for haulage purposes, are driven by two 24x26 simple automatic engines, 550 H. P. each. The power house is erected at the breaker, and the power carried by wire to Old Forge No. 1 shaft and slope, Old Forge No. 2 shaft, and the Mountain drifts; also to Laws and No. 13 shaft of Central Colliery. In all 20 motors will be installed, five 13 ton, and fifteen seven and one-half ton. Foundations are ready for a new addition to Old Forge washery and jigs will be installed to prepare buck, pea and chestnut sizes. A conveyor line has been built to take the culm from Old Forge dump to new washery. A new store house and office has been built, 50x25.

Inside.—A large pumping plant has been built in red ash vein, at Old Forge No. 2, and two pumps installed, having a combined capacity of 4,000 gallons per M.

Central Colliery.—The breaker has been remodeled from top to bottom, and additional screens, shakers and mechanical slate pickers have been installed, to clean and prepare mud screen coal. The breaker will have a capacity of 1,800 tons, an increase of 600 tons; the pockets are enlarged and strengthened and other necessary changes made in the machinery. At Law shaft a new fan shaft has been sunk from the surface to the red ash vein, size 12x12.

Over this new shaft has been built a modern brick fan house equipped with a 20 foot Guibal fan, driven by steam. The old Central washery was abandoned and a new one built having a capacity of 1,000 tons per day, equipped with jigs for chestnut, pea and buckwheat coal. The store house which was destroyed by fire in December, 1905, was replaced by a brick structure 25x60. A ten inch bore hole has been sunk to the bottom of Red Ash vein, through which water will be pumped to the surface. A tail rope haulage system has been installed in the Clark vein slope. One 7½ ton electric motor is in operation in No. 13 shaft, and three of the same type in Law shaft; two more will be added in a short time. A rock tunnel, 7x10, driven on a 21 per centum grade will connect the bottom vein at Law shaft with the top red ash vein at the Avoca. The coal in the Avoca property will be taken through this rock tunnel and prepared for market at the Central Colliery, and the Avoca plant will be abandoned.

Barnum Colliery, Inside.—Have driven a rock tunnel from the Marcy to the Clark vein in No. 2 shaft. Olso a rock plane from the bottom or red ash vein to the top split or Babylon vein. Coal to be dropped down to bottom vein by an engine. Outside.—Have erected

now in course of erection. A new shaft from the surface to No. 3. Dunmore vein is being sunk, and it is expected that all improvements will be completed early in the Spring.

AUSTIN COAL COMPANY

Austin Tunnel.—A second opening and return have been driven in the Clark vein, connecting the new slope workings with those of the old. A shaft will also be sunk, connecting the Marcy and Clark veins for a second opening.

O'BOYLE-FOY ANTRACITE COAL COMPANY

This is a new operation, and they started to prepare coal in the early Spring. However, not a great deal of development work has been done. The B and C veins are opened and a fan and fan house have been installed and the fan is now in operation.

RELIANCE COAL COMPANY

Reliance Colliery.—A new shaft to the Clark vein has been completed, air connections made and carriages installed. A new fan and fan house have also been added.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Hallstead Colliery.—This Colliery has been idle for the past few years, but during the year just closed, a force of men has been constantly employed, reopening the veins and restoring ventilation, also renewing the outside plant. The main shaft and air shaft have been recribbed, and the boiler plant building rebuilt. The following work is being done, but not completed: Preparing the feeder dam tower and shaft, also rebuilding the Hallstead breaker; installing new scales on both the light and loaded tracks, and repairing the bore holes and boiler plant, as well as making general improvements to all the buildings.

GENERAL REMARKS

The following Collieries were idle during the year. Central Colliery which consists of No. 13 and Law shaft, suspended operations in March for repairs and improvements and did not resume during the year.

The Hallstead, while very active, neither mined nor prepared any coal. Jermyn Nos. 1 and 3 were idle, through strikes and cyclones, seven months, in all 72 days.

Jermyn No. 2 was idle eight months on account of a strike, working in all 65 days.

The Sibley was destroyed by fire, and worked but five months during the year, or a total of 84 days. Had these mines been in operation, the tonnage for the District would have been much greater.

I desire to call attention to the number of accidents that occurred through individual carelessness. There seems to be no way to prevent them, although ordinary observance of the instructions given would reduce the list at least one-half. Some men will insist that

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.

RANDALL AND SCHAAD BROTHERS ANTHRACITE COAL COMPANY, LIMITED

Randall and Schaads.—Condition as to drainage, ventilation and general safety is good.

IMPROVEMENTS AT COLLIERIES

PENNSYLVANIA COAL COMPANY

Central Colliery.—At No. 13 shaft a centrifugal pump electrically driven with a capacity of 1,000 gallons per minute has been installed.

A new opening has been driven into the Marcy vein at Laws shaft to give extra facilities for handling coal.

A plant has been erected at Avoca bank, to pick up the culm, load it into railroad cars, and send it to the various washeries for preparation.

OLD FORGE COLLIERIES

A number of machines, such as lathes, wheel-presses, and boring machines have been installed in the shop.

A number of the roads at the Mountain drifts and Old Forge No. 2 shaft have been uniformly graded to provide better haulage roads for the electrical equipment.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

The Pyne Colliery was shut down for extensive repairs to the breaker from July 3 to December 1.

The Pyne Breaker was practically rebuilt. Ten new Emery mechanical slate pickers, 44 spiral separators and 14 shakers were installed.

One breaker, 18 inches x 26 inches Hamilton Corliss engine was installed to replace two old breaker engines. One Jeffrey rock crusher was installed driven by a 50 H. P. electric motor; two new cylinders, 22 inches x 48 inches. were installed on the shaft hoisting engines, operated by two double seated 8-inch throttle boat valves and an extra or emergency valve.

A new system of heating the breaker throughout was installed, also new fire water lines.

The wooden trestle was replaced with a steel structure; a new concrete reservoir. 40 feet in diameter, for boiler feed water was built and also a new brick and concrete fire proof oil house.

A new Jeanesville 18 inch x 34 inch x 36 inch compound condensing plunger pump, capacity 1,500 gallons per minute, was installed near the foot of shaft in a fire proof pump house.

A new air-shaft was sunk from the surface to the Clark vein 12 inches x 14 inches x 300 feet in depth; and a new ventilating fan, Guibal type, 6 feet x 8 feet x 24 feet, was installed on this shaft, driven by 18 inch x 36 inch Hamilton Corliss engine.

There was also installed a new breaker dust fan, 2 feet, 7 inches x 5 feet, 6 inches x 12 inches, to be driven by a 75 H. P. electric motor. All tubing is made of galvanized iron.

CONDITION OF COLLIERIES

PENNSYLVANIA COAL COMPANY

Old Forge.—Ventilation, drainage and condition as to safety, good. Colliery is mining pillars to some extent.

Central.—Ventilation, drainage and general condition, good.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Pyne.—Ventilation, drainage and condition as to safety, good. Colliery is mining pillars.

Taylor.—Ventilation, drainage and condition as to safety, good.

Halstead.—Ventilation, drainage and general condition as to safety, fair.

JERMYN AND COMPANY

Jermyn Nos. 1, 2 and 3.—Ventilation and drainage good; condition as to safety, fair. Robbing pillars extensively.

HILLSIDE COAL AND IRON COMPANY

Consolidated.—Ventilation, drainage and condition as to safety, good. Pillars are being robbed.

ELLIOTT McCLURE AND COMPANY

Sibley.—Ventilation, drainage and condition as to safety, good.

HUDSON COAL COMPANY

Langcliffe.—Ventilation, drainage and general condition as to safety, good. Mining pillars.

Spring Brook.—Ventilation, drainage and general condition as to safety, good. Robbing pillars.

LEHIGH VALLEY COAL COMPANY

Austin.—Ventilation, drainage and general condition as to safety, fair. Robbing pillars almost exclusively.

MOOSIC COAL COMPANY

Moosic.—Ventilation, drainage and condition as to safety, good.

IMPROVEMENTS

PENNSYLVANIA COAL COMPANY

Old Forge Colliery.—Started work on the opening to the Clark and Marcy veins on the E. A. Corey tract. An air shaft 12 feet by 12 feet has been sunk 125 feet in depth. A slope 7 feet by 12 feet in the clear, 450 feet in length, on a pitch of 15 degrees, is being sunk to the Clark vein and also cuts the Marcy.

Central Colliery.—A new brick stable was built to accommodate all the mules. The inside barns have been abandoned and torn out.

shaft to the Clark vein. A new fireproof motor barn has been built near the foot of No. 1 shaft. A new and large hospital has also been made on the inside at this place. At Coray slope a fireproof motor barn and a fireproof hospital have been placed in the Clark vein.

Central Colliery.—Overwinding devices have been placed on the engines at Laws and No. 13 shafts.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Taylor Colliery.—Installed one 1,500 gallon centrifugal pump, for the purpose of pumping water from Clark vein to surface. Tunnel driven from Rock vein to bottom split of Diamond vein. Air shaft sunk from Clark to No. 1 Dunmore vein, for the purpose of ventilating Dunmore vein. Brick and concrete washhouse with steel lockers, erected on the outside.

Halstead Colliery.—Re-opening Nos. 2 and 3 Dunmore veins. Rock tunnel made from Clark to Marcy vein. Re-cribbed Feeder Dam shaft. Slope made from surface to Marcy vein. Built new reservoir for Feeder Dam shaft, to replace old one.

JERMYN AND COMPANY

Jermyn Colliery.—Installed 3 electric pumps. Concreted No. 3 shaft and fanway.

CONDITION OF COLLIERIES

PENNSYLVANIA COAL COMPANY

Old Forge, Central and Sibley Collieries.—Ventilation, drainage and condition as to safety, good. Pillars are being mined.

DELAWARE, LACKAWANNA AND WESTERN RAILROAD COMPANY

Taylor and Pyne Collieries.—Ventilation, drainage and condition as to safety, good. Pillars are being mined.

Halstead Colliery.—Ventilation, drainage and condition as to safety, fair. Pillars are being mined.

JERMYN AND COMPANY

Jermyn Colliery.—Ventilation, drainage and condition as to safety, good. Mining pillars extensively.

HUDSON COAL COMPANY

Langcliffe Colliery.—Ventilation, drainage and condition as to safety, good. Pillars are being mined.

HILLSIDE COAL AND IRON COMPANY

Consolidated Colliery.—Ventilation, drainage and condition as to safety, good. Mining pillars.

LEHIGH VALLEY COAL COMPANY

Austin Colliery.—Ventilation, drainage and condition as to safety, good. Mining pillars exclusively.

MOOSIC COAL COMPANY

Moosic Colliery.—Idle the entire year.

IMPROVEMENTS

PENNSYLVANIA COAL COMPANY

Old Forge Colliery.—Two mixed pressure turbines were installed in Old Forge power house to provide additional electrical power.

A slope was sunk from surface to Clark vein near Old Forge No. 2 shaft, and engines etc., were installed in order to facilitate transportation.

Central Colliery.—A rock tunnel was driven from the top split of the Red Ash vein to the top split of the Red Ash vein in Law shaft.