

ness of the rock covers. These bore-holes are driven at intervals of 100 feet. Whether the rock cover will give out, or a pot hole or crevice be tapped between bore-holes, remains to be seen.

At the Twin shaft, the Clark 5th and 6th veins are being developed at Scovel Island, a substantial coal barrier being retained between the new and the old workings.

It was the 5th and 6th veins that collapsed at the time of the Twin shaft disaster, when there was a great loss of life, and the condition of these workings to-day is problematical. It is known, however, that they contain a large quantity of water, and it is the Company's intention to try to get it out with the pumps now being installed. It is also known that these old workings contain some gas, but how much is not known. A careful inspection, however, fails to show anything alarming. The action of gas and water in bore-holes, driven to caved territory in the 5th and 6th veins, prompted me to ask the Department of Mines to appoint some other inspectors to look over the ground, and report the result of their investigation to me in writing. This was done and the report filed in Harrisburg.

At the Babylon Colliery the robbing, which is about all that is being done, is progressing very well. A large percentage of coal is being won, and a fatal accident is a rare thing.

At the Lawrence the management has, in my opinion, persisted in risking life to rob the pillars, which in some instances are reduced to culm in the squeezed territory in which the men labor, contrary to my requests and instructions in the matter, the argument advanced being that the men are reasonably "safe" and the coal must be won. The territory that could now be robbed with some degree of safety is left to be destroyed by the cancerous growth of this squeeze, which must advance, as the resistance now retarding its development is reduced, by removing the crushed masses of coal that once did duty as pillars.

William A. Colliery.—This is a pillar problem, the solution of which has caused the most serious thought on the part of the officials in charge. The three splits of the Red Ash vein are mined, and the relative position of one to the other, with three pitches. (two to the basin, and one at right angles to it.) the Lawrence being above them at the highest elevation, and the only anchoring point being the pillar under the Lackawanna River, are the problems they must overcome to win the coal, preserve their property, and not sacrifice life. To my knowledge nothing definite has been decided upon.

#### HILLSIDE COAL AND IRON COMPANY

Consolidated Colliery.—There have been some new developments in the Red Ash vein, which will increase the tonnage and continue the life of this colliery.

#### CONNELL ANTHRACITE MINING COMPANY

**Connells Colliery.**—This company has increased their electrical equipment by the installation of motors, undercutters and dynamos. They have also constructed a large dynamo house and increased the horse power of their boiler plant.

The mines are in good condition.

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 man-way 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

## IMPROVEMENTS

## HUDSON COAL COMPANY

Clinton Colliery.—Completed a 12-inch pump hole 400 feet deep to deliver water from Clifford vein to surface; also a drift 200 feet long to surface to drain No. 11 slope. Installed a triple pump 12 by 12 driven by 100 horse power motor, and a 20 foot fan and a 17 foot fan equipped with electric power. Also installed  $2\frac{1}{2}$  miles of pole line and wire to carry electric power to Clinton washery and pumping plant, etc.

## CONNELL ANTHRACITE MINING COMPANY

Connell Colliery.—Built a new breaker, replacing the one burned in February, 1902; and installed an electric pump of 400 gallons per minute capacity. The work of driving a new drift known as "water drift" is nearly completed.

## NORTHERN ANTHRACITE COAL COMPANY

Murray Colliery.—Completed the work of replacing all wooden buildings inside with buildings of concrete construction. Also installed a gasoline mine motor of the George D. Whitcomb make.

## O'BOYLE-FOY ANTHRACITE COAL COMPANY

O'Boyle-Foy Colliery—Inside.—Installed a 30 horse power engine and scraper line in the "C" vein for the purpose of working out this vein. Built a solid concrete mule barn.

Outside.—Built a solid concrete oil and powder house.