

Of the smaller companies and operators, I have two to report who have replaced furnaces with fans during the year. Messrs. Jones, Simpson & Co., have put in a twelve feet diameter fan at the Pierce colliery, in Archbald borough, and Messrs. William Connell & Co. have replaced their furnace with a fourteen feet diameter fan, which commenced running October 28, 1879. The Butler Coal Company have replaced a six feet diameter Patterson fan with a sixteen feet Guibal fan, and the little one has been removed to the Twin shaft, Pittston Coal Company, and the Hillside Coal and Iron Company have removed their fan from the Powder Mill shaft, in which the coal is exhausted, to a new air shaft sunk for the Spring Brook tunnel.

All the miscellaneous collieries are in a satisfactory condition at present, excepting the following: Jermyn's shaft and slope, Jermyn borough; Eaton colliery, Archbald borough; Filer colliery, Winton borough; Greenwood colliery, Lackawanna township; Hillside colliery, Pleasant Valley borough; Columbia mines, Pittston township, and the Beaver mines, Pittston borough. The first three named, the Greenwood, and the two last named, are the only very bad ones, and each of these must receive particular attention during the current year. The larger number of the collieries of the small operators, are in very good condition as to ventilation.

Taking the whole of my district, I think that it can be safely said, that the progress made during the year in bringing the condition of the collieries up to what it should be, is highly encouraging and satisfactory, and the work accomplished can be taken, no doubt, as an assurance that what is still wanting, will be done in due time.

#### Prosecutions for Violations of Law.

It is one of the most unpleasant duties of the position of an inspector, that he feels compelled, in certain instances, to enter criminal proceedings against mine bosses or workingmen, for violations of law. I have often felt that I would prefer to suffer the penalty myself than do this, if I could escape my oath-bound duty by doing so. Whenever I have been forced to prosecute, I have done it "with malice towards none and charity towards all," and have never asked the courts to inflict any but a nominal punishment. But I have been sorely grieved at the course pursued by the operators, superintendents, and workingmen, in defense of the unfortunate parties prosecuted. I do not complain at their availing themselves of all legal and honorable means in defense of the accused, but when they assail the motive of the inspector, and attribute his action to a feeling of spite and a desire for revenge, in retaliation for some real or imaginary wrong they may be conscious of having perpetrated against him, they make the cross a very heavy one to bear. I cannot account for this, only as a verification of the old maxim, that "The guilty fleeth when no one pursueth him." But it grieves me that any one, who claims an intimate acquaintance with me, can imagine it possible for me to be capable of indulging in a low and mean desire for retaliation and revenge; for I thank God that

charged to the account of years in the past, long before Mr. Vandling assumed the control of the mines, and this fact should be credited to him. He has always been found ready to admit the necessity of improving the mines, and has shown a desire to do everything possible for the health and safety of the workmen.

The Pennsylvania Coal Company's collieries stand about as they did one year ago. No material improvement has been effected in any of their old collieries. The new No. 1 Barnum shaft, however, is provided with a fan which will produce ample ventilation for this new colliery, and another fan will be provided for the No. 2 shaft. I am very sorry that I cannot report all the collieries of this company in as good condition as could be wished. John B. Smith, Esquire, the general agent of the company, has always treated me with uniform kindness, and has always professed a desire to improve the condition of the mines under his charge; but the mine superintendents have not seemed so ready to do what is needed. My remarks on the condition of these collieries in my report for 1879, will apply to them still.

The collieries of the smaller companies and operators in the district are in excellent condition as to ventilation, excepting the following: Everhart colliery, Jenkins' township; Beaver colliery, Pittston borough; Columbia mines, Pittston township; Hillside colliery, Pleasant Valley borough; Greenwood colliery, Lackawanna township; Elk Hill colliery, Dickson City borough; Filer colliery, Winton borough; Jermyn's shaft and slope, Jermyn borough; Brennan colliery, Fell township; and Forest City colliery, Forest City. Some of these have been improved during the year, but none of them will ever have good ventilation until they are provided with a fan in place of the miserable furnaces now in use in them. The workings are so shallow in these collieries that furnaces cannot ventilate them. None of these can be classed as very bad, excepting the Jermyn shaft and slope and the Brennan colliery.

An air shaft has been sunk for the Hillside colliery, Pleasant Valley, and as soon as connection is made with the workings a fan will be placed on this shaft, which will remove all cause for complaint in this case.

A new fan has been erected by Messrs. Jones, Simpson & Co., at the Eaton colliery, Archbald borough, which was sorely needed. This improvement will place the Eaton colliery in the first class as soon as the air courses are put in proper shape inside.

The main roads and traveling ways have been improved in many of the collieries, but there is a great deal yet to be done before they are all satisfactory in this respect. The importance of having clean and unobstructed roads is not realized by many of the mine bosses, but I am more convinced of it every day, and I am positively certain that many accidents to drivers and runners would be averted if the roads were kept reasonably clear of obstructions. All places where drivers are obliged to hitch and unhitch their mules from cars in motion, such as passing branches, the approaches to the foot of shafts or slopes, and inside at the chambers, should be cleared

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-