

GREENWOOD BREAKER COLLIERY.

This breaker is located in Lackawanna township, and situated $\frac{1}{2}$ mile south-east of the Lackawanna river; it is operated by the L. S. C. & I. Co. Thomas B. Williams is general superintendent, William Eynow is mining boss and M. L. Corne is Outside foreman.

Description.—The coal that is prepared at this breaker is mined at No. 6 tunnel, which is situated about $\frac{1}{2}$ mile south; they mine and prepare from 200 to 300 tons of coal per day; they employ 37 miners, 31 laborers, 19 drivers, 7 door-boys and 7 company men in the mine; 38 slate pickers, 5 head and plate men, 7 drivers, 6 company men, 5 mechanics and 2 bosses outside; in all 164 men and boys; they are working the "Old" vein; average thickness $6\frac{1}{2}$ feet; they work headings 15, air-ways 15 and chambers 27 feet wide; they leave pillars from 8 to 14 feet wide to sustain the roof; they leave cross-entrances 60 feet apart for the purpose of ventilation; the roof is good; the mine is in a good working condition.

Ventilation is produced by a furnace; the in-take is located at mouth of tunnel, area 50 feet; the out-cast is located in furnace air-shaft, area 50 feet; the main doors are hung so as to close of their own accord; they have attendants at main doors; the amount of ventilation has been measured and reported; ventilation is good.

Machinery.—They use 1 steam engine at the breaker of 40-horse power; the breaker machinery is boxed and fenced off so that operatives are safe; they use no machinery at the tunnel.

Remarks.—They have furnished a map of mine; they have a second opening; they have no house for men to wash or change in; the mining boss seems to be a practical and competent man; 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.

STAFFORD BROOK COLLIERY.

This colliery is located in Lackawanna township and situated 500 feet south-east of the Lackawanna river. It is operated by the W. V. R. R. and coal company. William Connell is general superintendent, James Connell is mining boss and W. Thomas is outside foreman.

Description.—The opening to the coal consists of a shaft and two tunnels; the shaft is 70 feet deep to No. 2 vein, which is the bottom bench of the Big vein; there is a breaker connected with these mines; they mine and prepare about 200 tons of coal per day; they employ 41 miners, 10 laborers, 24 drivers, 4 door-boys and 19 company men in the mines; 20 slate pickers, 4 head and plate men, 4 drivers, 11 company men, 4 mechanics and 2 bosses outside; in all 148 men and boys; they are working the No. 2 vein of coal; average thickness about 8 feet; they work headings and air-ways from 12 to 15 and chambers 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 rock; the mines are in a good working condition.

Ventilation is produced by furnaces; the intakes are located at mouths of tunnels; area about 96 feet; the outcasts are located in furnace air shaft; area about 96 feet; the amount of pure air is 28,200 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 traveled roads and an extra one in case of an accident to any of the others; the air is circulated to the face of the workings in two splits; the amount of ventilation has been measured and reported; ventilation is good.

Machinery.—They use one breaker engine of 25-horse power and one hoisting engine of 40-horse power; the boilers have been cleaned and examined and reported in good condition; they have a steam-gauge to indicate the pressure of steam; the breaker machinery is boxed and fenced off so that operatives are safe; there is no machinery required at the tunnels.

Remarks.—They have furnished a map of the mines; they have second openings; 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 mines under twelve years of age; the engineers seem to

Jessup Coal Company—Filer's Slope.—This company is sinking a new slope in coal; it is now down 900 feet. Sectional area, 96 feet.

Hillside Coal and Iron Company—Glenwood Shafts.—The work on the two shafts and breaker, reported in last year's report, 1886, under the head of Erie colliery improvements, has been advanced as follows: The shaft to top vein has been completed at a depth of 100 feet. The shaft to bottom vein has reached a depth of 160 feet. Work is being pushed rapidly forward in this shaft. The breaker to prepare the out-put of these two shafts for market is about finished, and is expected to prepare coal from the top vein about February 1, 1888. This Company is also sinking the Clifford shaft, at Forest City, as rapidly as possible.

John Jermyn—Jermyn No. 4 Shaft has built a new reservoir for spring water to supply the boilers. Started sinking a new slope November 5, 1887, and are down 170 feet. Slope opening, 14'x7'; pitch, 1 foot in 3 feet. Has set three new boilers in place; one pair of engines, 10'x10'; one fan engine, 12'x12', and one pumping engine.

Wm. T. Smith—Mount Pleasant Slope.—Sinking a new shaft to Clark vein. Size of shaft opening is 30'x11'. Depth of shaft from surface to bottom of little vein, 27 feet; Diamond vein, 139 feet; Rock vein, 171 feet; G or Big vein, 241 feet; new County vein, 292 feet; and to Clark vein, 365½ feet.

Moosic Mountain Coal Company—Marshwood Colliery have everything ready to ship coal when branch track to breaker is finished. Are now pushing the work rapidly forward.

William H. Richmonds—Richmond Shaft.—Finished sinking shaft reported in 1886, and are now mining coal in No. 2 vein.

Winton Coal Company—S. V. White Mine has sunk a new shaft and built a new furnace.

Pennsylvania Coal Company—Shaft No. 1 Dunmore.—The second opening of this shaft is not yet completed.

William Connell & Co.—Stafford Shaft has been put in good working order. A new hoisting tower and new engine and boiler houses have been erected. A new nine foot diameter fan has been put in place, and a new railroad track has been laid connecting this shaft with the National breaker, where the coal is prepared for market.

Watkin's Son & Co.—Watkin's Colliery.—This company has erected a new breaker, having a capacity to prepare 500 tons of coal per day of ten hours. Have also erected a boiler house, blacksmith shop, barn and office, etc. Also sunk slope, opened a tunnel, sunk air shaft, and built air stack and furnace for ventilating purposes.