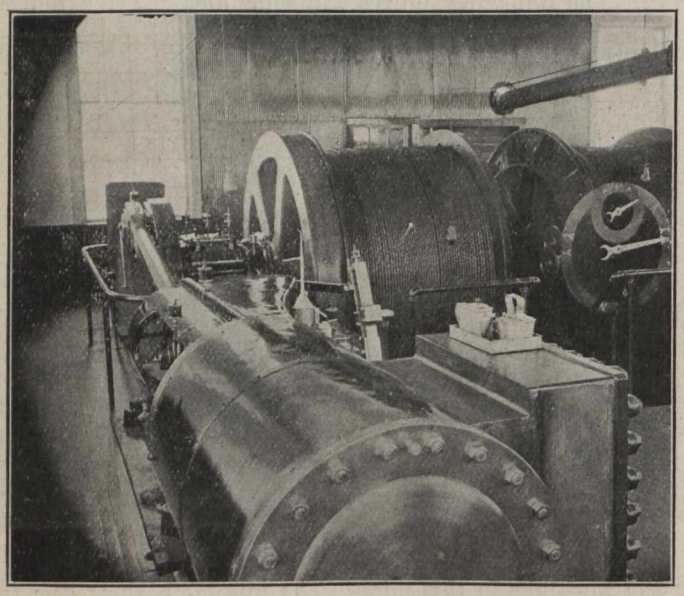
face. The east levels and west 3,800 feet are worked by horses, the number of which working at present is 22.

This mine is kept free of water by two pumps, known as the Jeansville Compound Duplex, eight hundred gallons per minute capacity, situated 1,300 feet and 3,200 feet from the surface respectively. As almost the entire drainage of the mine is caught at 3,200 feet, a small Cameron pump is used to keep the mine clear of water in the lower sinkings.

To ventilate this mine a Capell Fan 22 feet diameter, 3 feet 6 inches width of vane, with a checked capacity of 110,000 cubic feet per minute; speed, 110 revolutions, is used.

The above is the work done for ventilating purposes daily, and gives a wide margin beyond the theoretical necessities of the mine. The number of men employed is 450. The mine is not gaseous to any dangerous extent, but closed lights (safety lamps) are the rule. The Marsant is used exclusively throughout these collieries. The system of ventilating is simple but effective. No better ventilated collieries are known on the continent to-day.

The surface plant of No. 3 mine is almost perfect in its equipment. The bankhead is a model of engineering

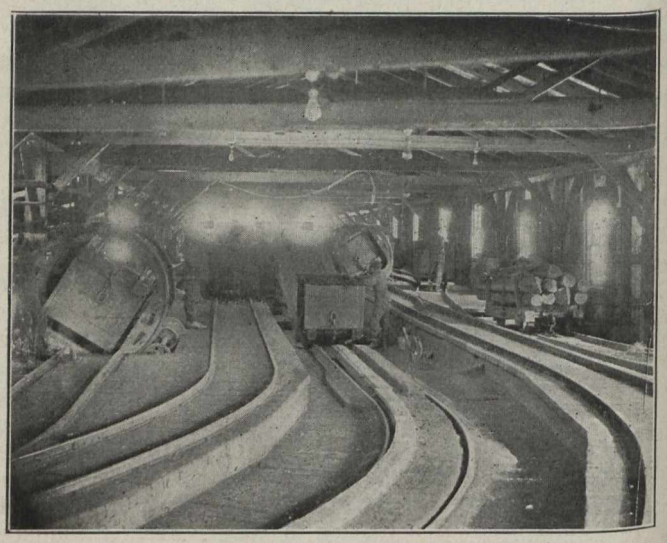


No. 2 Hoist Engine.

skill and ingenuity. There we find automatic hoists for full and empty cars, incline plants to carry the cars to certain points, automatic switches, revolving tipples, shaker screens, picking tables 450 feet in length, which carry the coal from the screens to railway cars, allowing every facility for thoroughly cleaning the coal in transit. These are capable of handling 3,000 tons per day if necessary. The whole outfit is enclosed in a corrugated iron building, and lighted by electricity. The power to move this machinery is provided by 12 boilers of the return tubular make, capable of generating 1,500 horsepower, equipped with automatic underfeed stokers, 2 Sturtevant blowers with 39 pounds pressure to the square foot. Culm is used here for firing, with good results.

No. 2 Mine—West Slope.

In the effort to describe No. 2 mine, one must needs have the bump of location very highly developed. As all the coal in seam, that is to the recognized boundaries east and west, has been extracted above the 1,900 foot lift, the visitor will find the main working bottom located 2,400 feet from the surface. The east level of this lift is worked by main and tailrope. That is, the coal from the workings is conveyed to the bottom by this method of haulage. The length of haul is 5,000 feet, the return



No. 3 Bankhead in Operation.

wheel being placed at the Aberdeen Fault, which dislocates the seam at this point, and which runs nearly parallel to the course of the main slope. Although there are two inclines, and several chutes working between the Fault and the bottom, yet the largest quantity of coal is brought by horses to the inside haulage turnout from the Aberdeen section. This section extends east from No. 5 or Aberdeen slope 400 feet to the tunnel through the fault which connects No. 2 haulage level with the Aberdeen section.

To the west of No. 5 slope the level extends 5,500 feet. Horse haulage was always employed on this level to convey the coal to connect with haulage in No. 2 slope. The quantity of coal mined east and west of No. 5 is supplemented by the coal produced in No. 5 sinking. A hoisting engine on the surface at No. 5 hoists No. 5 sinking coal to the 2,400 foot level and lands it there, whence it is hauled to No. 2 section and sent out by the rope haulage system. In the mere development of No. 5 sinking, about 500 cars of 1,800 pounds each were producer. This

Interior of Lamp House.

coal comes from the so-called halfway level east, which extends 5,000 feet and is still being driven as a counter-level 60 feet to rise of level with necessary returns airways to 2,400 level. The lower level has been driven