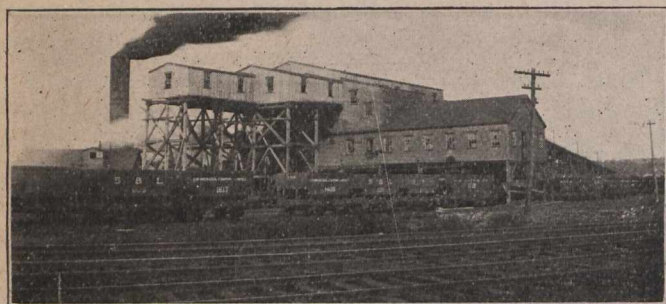


Reserve territory, which is the barrier against the work-000 feet in length from the bankhead to the end of ings of No. 2 Colliery. An auxiliary electrical haulage plant has recently been installed at No. 8 Landing, at a point 9,000 feet below the bankhead. This trip haulage will deal with all the coal below that point, and will transfer to the endless main haulage by means of a curve. The power for the trip haulage is generated at



DOMINION, No. 3.

the Central Electric Plant, and is conveyed down a borehole 420 feet deep to a 100 h.p. Westinghouse motor.

The old main haulage engine was a large engine originally intended to drive the shafting of a large cotton mill, and it operated three haulages by means of friction clutches on a common shafting. It has recently been dismantled and replaced by one of the 28 inches by 60 inches engines from No. 1 Colliery.

The surface power equipment consists of seven Babcock & Wilcox boilers with rated capacity of 1,678 h.p., fitted with Parsons blowers. There are three steel and one brick smokestacks.

The air compressor house contains two Rand Compressors, steam cylinders 36 inches by 20 inches by 48 inches stroke, with a capacity of 3,000 cubic feet per minute, installed in 1900; one straight line Norwalk compressor with a capacity of 2,000 cubic feet, installed in 1905. In 1906 a Walker compressor was added, having a capacity of 3,500 cubic feet. This compressor is of similar design to the four other Walker compressors that the Coal Company have installed. It is compound, steam cylinders 24 inches by 41 inches, air cylinders 23½ inches by 38 inches, with 48 inch stroke, running at 60 revolutions. The whole of the compressor plant is lubricated by an automatic lubricating installation, similar to the arrangement at the other collieries. The operation of the automatic lubrication is economical in the consumption of oil, and is much more cleanly and less dangerous to the enginemen than the previous oil-can method.

The mine is ventilated by two fans, one situated near the bankhead at Reserve, and the other at the mouth of the East Slope, about one mile distant. This latter fan is of the Guibal type, 24 feet diameter, vanes 6 feet 6 inches wide, running at 100 revolutions, with an original rated capacity of 300,000 cubic feet at 2 inch WG. There are two small boilers at the East Slope which generate steam for the fan engine. The ventilator at Reserve itself is a Chandler fan, 15 feet diameter, with a rated capacity of 205,000 cubic feet at 1.4 inches WG.

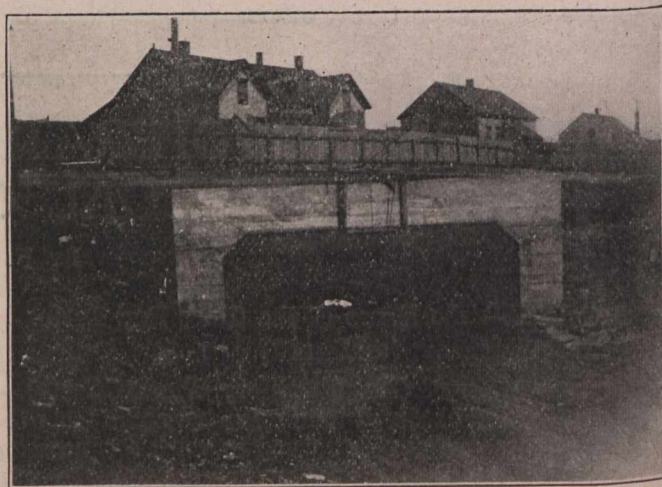
The bankhead is new, and was erected in place of the old structure that was destroyed by fire in October, 1906. This old bankhead had grown by successive accretions, and was a wonderful maze of screens and machinery, as such erections usually are. The present

structure is of wood, hard pine posts with spruce stringers on concrete foundations, completely housed from the weather, and fitted throughout with stand pipes and hose for fire protection.

The screening plant consists of four sets of screens and picking belts, arranged to deal with the product from the Phalen and the Emery seams. At the present time Nos. 1 and 2 belts deal with the French Slope Phalen coal, No. 3 belt with the East Slope Phalen coal, and No. 4 with the Emery coal. When the East Slope is discontinued Nos. 3 and 4 belts will deal with the Emery output, which is steadily increasing.

The coal from the French Slope, after leaving the haulage rope, is conveyed by an inclined automatic car-haul to a Phillips automatic dump, which unloads on to a feeder belt 7 feet 6 inches long by 4 feet wide speeded at nine feet per minute. This belt discharges the coal gradually, with the minimum of breakage, and well distributed on to a battery of three shaking screens, which in turn discharge on to a picking belt, 38 feet 6 inches long by 5 feet wide, running at sixty feet per minute. The picking belts are well manned by young men, whose business it is to throw out any shale or foreign matter that is detrimental to the quality of coal, which is an easy matter owing to the even distribution of the coal layer and the slow movement of the picking belt. The other three belts are of similar construction, being 40 feet, 52 feet 6 inches, and 54 feet in length respectively. Each set of picking belts discharges on to a transverse loading belt, 39 feet long by 4 feet wide, driven by a 15 h.p. electric motor. The end of the loading belt can be raised or lowered according to the amount of coal in the car being loaded so as to limit the fall to a minimum and reduce the breakage. The screens and picking belts are driven by a 75 h.p. motor, and there is a separate motor for the car haul. Power is obtained from the Central Electric Plant.

The mouths of both the main and back deeps of the French Slope are protected by reinforced concrete ap-



CONCRETE APPROACH TO THE FRENCH SLOPE RESERVE.

proaches, installed after the bankhead fire. That in the main deep is 90 feet in length and the back deep 30 feet.

The colliery shops are very complete, in order to render the colliery more or less independent of the central shops at Glace Bay. The machine shop contains a crank-shaper, 12-foot lathe, Merrill pipe threader and other machine tools, driven by a small Sturte-