The ventilating current is divided into two main splits at the bottom of the downcast air shaft and is sub-divided again on the south side of the mine. The Angle Deep is ventilated by a single split.

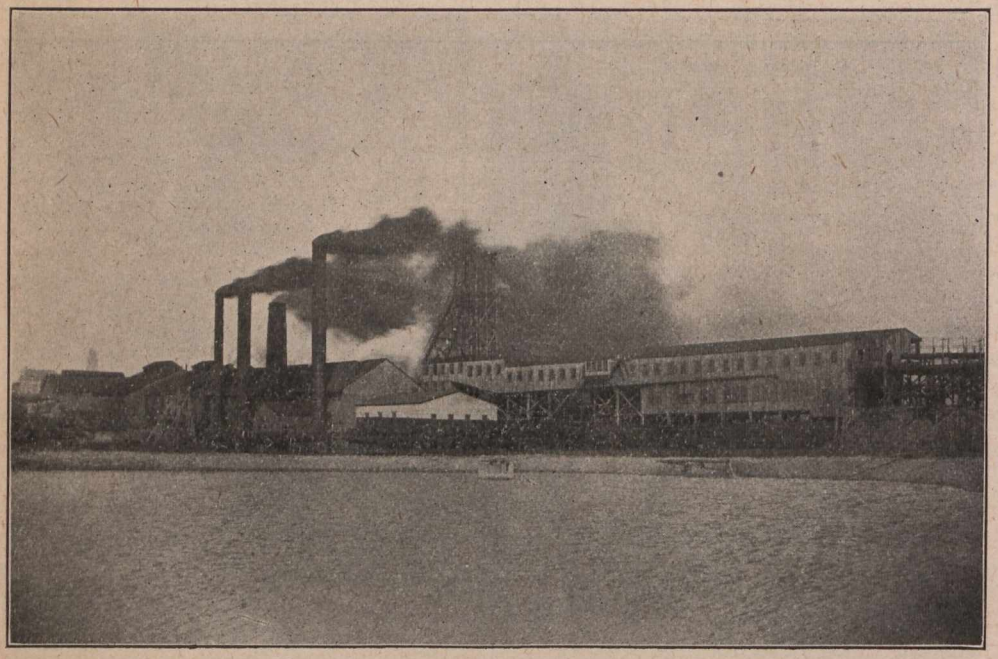
The pumping plant of the mine is as follows: One 20 inches by 8 inches by 24 inches Northey steam pump, one compound Northey pump, 12 inches and 24 inches by 8 inches and 24 inches. One six stage McDougall turbine pump, operated by power from the Central Power Station at No. 2 colliery. The steam for the Northeys is taken from the International boilers through a borehole into the Phalen seam. The three pumps discharge into a common borehole, which empties itself into the Harbour seam above, and is conveyed by means of the International water level to the shore. There is also a large Cameron pump that discharges into the sea through the opening that was made into No. 1 workings from the shore at the time of the fire. There is another large Northey pump on the surface for fire protection purposes and several other pumps for the colliery water supply.

The average force employed at the colliery is round 700 men. The horses number about seventy. The underground equipment consists of about 400 mine cars, 45 compressed air percussive pick mining machines, and about 22 "Little Hardy" shearing machines. The mine is fully equipped with Ackroyd & Best electrically lighted safety lamps, with magnetic locks. The underground workings are equipped with sufficient relighters, which are kept under individual and careful supervision.

An examination of the chart of outputs of individual mines, Fig. 4, will show a drop in the output of No. 1 in the years 1903 and 1904. This was caused by a fire, which broke out in the workings on the 19th of March, 1903, and getting beyond control, necessitated the flooding of the mine in order to extinguish the fire. The mine was unwatered on the 13th of June, 1904, but it was not until the middle of 1905 that the output regained its normal tonnage. A full description of the fighting of this fire, and the flooding and pumping operations that followed, will be found in a paper contributed to the Canadian Society of Civil Engineers by the late Shirley Davidson and Norman MacKenzie, the present superintendent of No. 2 district.

The next number of this series will deal with No. 5 Colliery (Reserve), No. 3 Colliery, and No. 4 (Caledonia).

(To be continued.)



RESERVE MINE—No. 5, PHALEN: No. 10, EMERY (SHAFT).

THE SUMMER EXCURSION.

At our request, Mr. H. Mortimer-Lamb, secretary of the Canadian Mining Institute, has outlined the programme of this summer's trip.

"The excursion will start from the city of Quebec either very early on the morning of August 24th (probably shortly after midnight), or early on the morning of the following day, in order that the party may have an opportunity of viewing the scenery along the Bay of Chaleur, which will thus be passed in daytime. Two whole days will be spent in Sydney visiting the steel works and collieries in the vicinity; and one day at Stellarton. Possibly the party may visit Halifax; but all the arrangements in connection with the Nova Scotia visit will be made and carried out by the Mining Society of Nova Scotia, who have kindly offered to consider the Institute and the European representatives as its guests during our stay in that province. It is designed that we shall reach Sherbrooke on Monday morning, August 31st, and leave immediately by the Quebec Central for Thetford and Black Lake, where a day will be spent visiting the asbestos mines. Leaving Sherbrooke early in the morning of Tuesday, September 1st, we arrive in Montreal at noon and spend a day and a half in the city, leaving for Toronto at 10. p.m., on September 2nd. On September 3rd, an ex-