

THE TYEE COPPER COMPANY'S

SMELTER AT LADYSMITH.

THE smelting works of the Tyee Copper Company, Limited, are situated to the west of the town of Ladysmith and lying between the E. & N. Ry. and Oyster Bay, giving a water frontage of approximately 3,000 feet in length. A lagoon in the bay extending 1,000 feet in length by 500 in breadth, forms an admirable dumpage for slag for years to come, while on the outside of the lagoon there is deep water for dock purposes. The ground between high water

whenever the amount of ore procurable justifies the company taking this step. Two spurs of the E. & N. Ry. enter the property on the east, the lower one to the 37-foot level, for the shipment of matte, and the upper into the 51-foot level for the delivery of coke and coal. At the rear of the smelter buildings, also on the 51-foot level, are the burnt ore bins, of a capacity of 1,000 tons for the storage of burnt ore from the roast piles. The tramway, about 2,000 feet in length, connects the bins with the roast yards lying to the west.

The ore is conveyed from the Tyee mine in bottom dumping cars by the E. & N. Ry. Co. and delivered by them into two sets of bins at the roast yards, having



Smelting Building and Engine House.

mark and the track of the E. & N. Ry. has been laid off in terrace form, which gives a gravity system throughout.

Although the plant as recently designed and constructed is of 200 tons capacity, the power house, smelting shed and dust chamber have been built for a capacity of 600 tons per day, so that nothing more than the actual machinery will be required to treble the capacity of the works, besides which some 60 feet of ground lying between the power house and smelting shed have been excavated ready for such extension. The buildings themselves, situated on the 37-foot level, have been placed sufficiently far back into the hill side to admit of the installation of a Bessemering plant

a capacity of 1,600 tons. From this point the ore is trammed out over a series of six permanent trestles placed 60 feet apart and running north and south. At right angles to these trestles are six trenches four feet deep and forty feet apart, thus dividing the ground into beds 60x40 feet. The piles are built lengthwise with the cuttings so that half of each pile may be shovelled into the burnt ore cars on either side, thus reducing the distance to a minimum. The spreading of the ore over the ore beds is effected by means of a travelling bridge, placed between and at right angles to the permanent trestles and running on rails. By this means the ore can be dumped from the bridges onto any part of the pile, each series of trestles being provided with