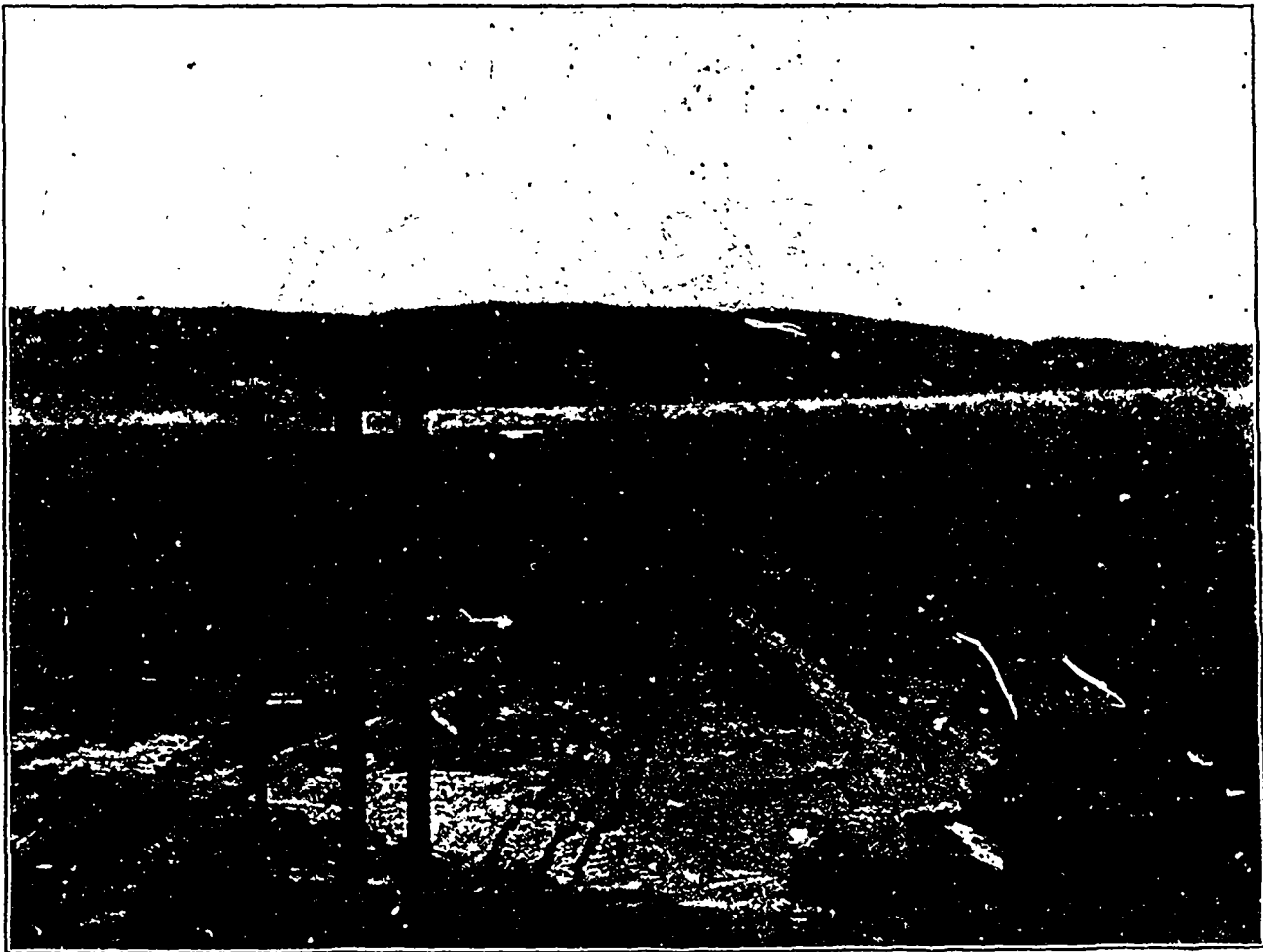


RECENT DEVELOPMENTS AT THE CANADA CORUNDUM COMPANY'S MILL.

(By D. G. Kerr.)

Three of Prof. Richards' hydraulic classifiers, which were recently installed at this Company's mill, are now in operation and doing excellent work on the fine sizes. The mill practice may be described as follows: The ore is conveyed from the quarries to a "coarse ore" bin, which has a capacity of 400 tons, it is conveyed from chutes (on the under side) to a 15x24 inch crusher, of the Blake type, by which it is crushed to 2 1-2 inches and

minute. They are covered with perforated sheet steel, the holes being 3 mm. in diameter. The undersize, or ore passing through these holes, is taken to No. 1 elevator, while the oversize goes to two sets of rolls also 14x40 inches. The pump from these rolls is elevated by No. 2 elevator and made to pass through two more trommels, of the following dimensions: 3 feet diam., 13 feet long, with 18 revolutions per minute, the perforations being 3 mm. The undersize from these trommels goes to the No. 1 elevator and the oversize to a set of 14x24 inch Gates' rolls. The crushed ore from this set of rolls is again conveyed to the No. 2 elevator, the



View Showing Tramway from the Mill to the Wharf.

dropped on to an 18-inch conveying belt 85 feet in length, having an elevation of 16 feet at the delivery end. The stream of coarsely crushed ore is distributed to three fine crushers, two of the Blake type having 6x24 inches jaw opening and one Gates' gyratory crusher. These three machines crush the ore to pass a 3-4 of an inch ring and under. It is then dropped into a bin of 300 tons capacity. From this fine ore bin the ore is fed to rolls by a Challenge feeder. The first set of rolls which are 40 inches in diameter and 14 inches face, run 85 revolutions to the minute. The product from these rolls goes to two trommels, which are three feet in diameter, 13 feet long, and make 20 revolutions per

process being continued until all the ore is finally crushed sufficiently small to pass through a 3 mm. screen. As already mentioned, the material which passes through the 3 mm. holes of both sets of trommels is taken to No. 1 elevator. This elevator lifts the fine pulp to a height of 75 feet where it is dumped into a "dividing box," in which by the introduction of water a division is made into three streams of water and pulp, which are piped to the three classifiers. These classifiers are built from the designs and plans of Prof. Richards of Boston. They consist of six boxes placed in a line, containing water pressure compartments; the first box is 10 inches wide and the last 36 inches wide. The