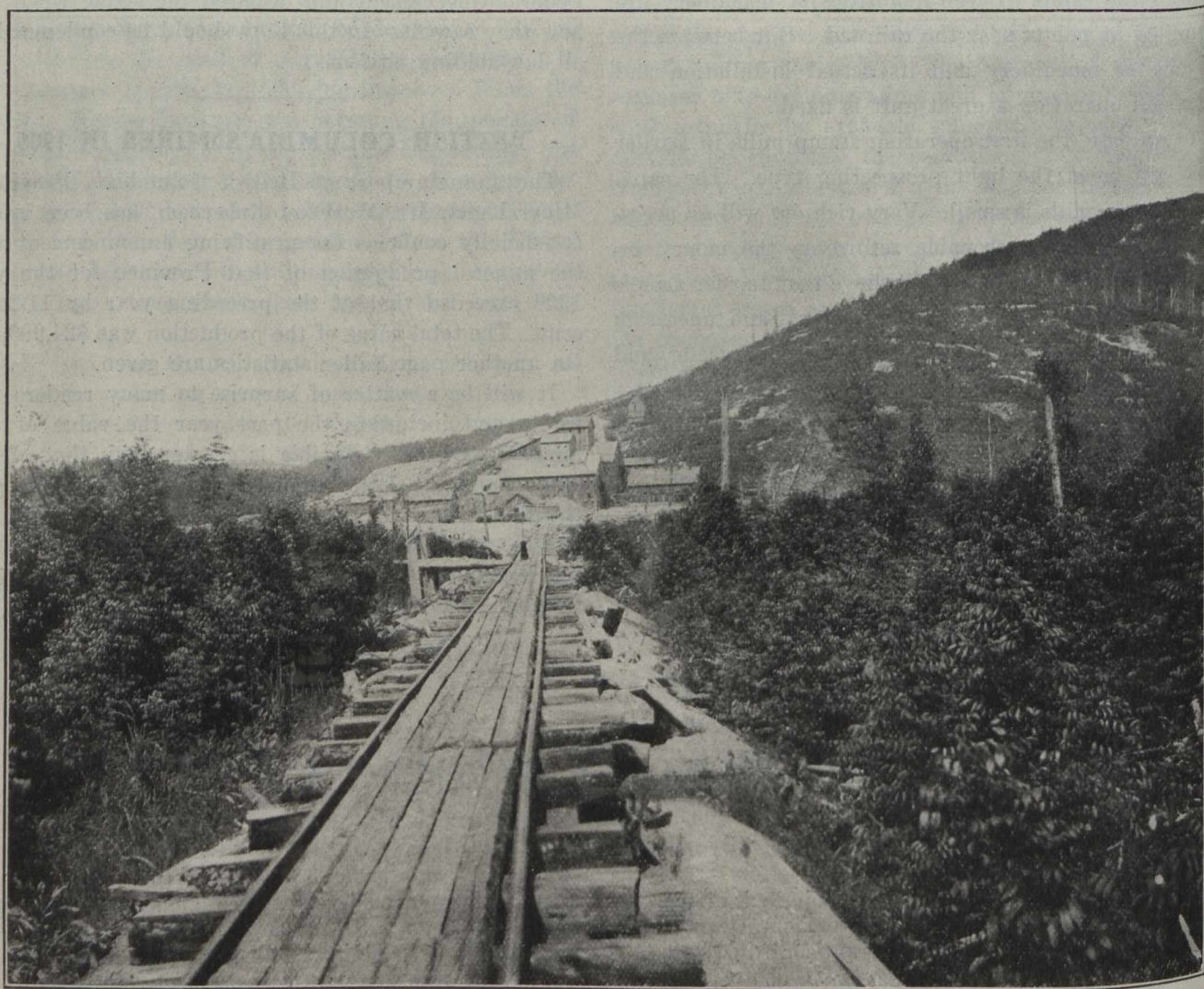


qualities, while lower down the hill the surface, protected by sand and gravel, shows both feldspar and corundum ground away by glacial action to an almost equal polish.

Craig Mountain is practically a mile in length, but the mining operations have been confined almost entirely to a portion of the eastern third, which is in the immediate neighborhood of the mill, but throughout the full length of the hill surface outcroppings show corundum with the same general characteristics of formation persistent from east to west.

Of the origin of the corundum in these rocks very little is known. It is work for the ultra specialist in geology and petrography, and calls for laboratory as

remained an unnamed curiosity, but at the time of the phosphate excitement it was declared to be phosphate, and Robillard and Fitzgerald located the ground as a phosphate mine. In 1896 Ferrier, of the Geological Survey, described the presence of corundum in the neighboring township. Mining operations were commenced May, 1900, the ore being transported in wagons half a mile to a small mill built on the site of a small water power. In March, 1904, the present large mill commenced crushing. This mill is by far the largest corundum mill ever built, and is the largest concentrating plant in Canada. It has three divisions, the main mill, the grader, and the finishing department, the latter a comparatively recent development. In the main mill the rock is



MILL AND SOUTHERN SLOPE OF CRAIG MOUNTAIN

well as field work. Those who have studied it most deeply have not yet published their conclusions. The only opinions that the writer has ventured to have on the subject are to the effect that the corundum-bearing rocks are not dykes, that they are not eruptive, and that there is no sign of segregation from magma. How, when, or why the corundum was formed is beyond the writer's line of work.

The first discovery of corundum in Ontario was made nearly thirty years ago on this Craig Mountain, then known as Robillard's Hill by Henry Robillard's daughter. As a small child she picked up and carried home a crystal that "looked like a cruet stopper." For years it

crushed till 90 per cent. of it will pass a 2.5 millimeter round hole, by means of four rock-breakers and five sets of rolls. It is concentrated on 20 Overstrom tables; the concentrates, which contain from 50 to 60 per cent. corundum, passing into bins for drainage. In the grader these concentrates are dried, pass over magnetic separators, sized into 20 sizes from 8 mesh to 200 mesh, and still further subjected to concentration on Wilfley tables and Hooper pneumatic jigs. The resulting product is again dried and again sized and passed into bins, from which it is drawn off into 100 pound bags. Each day's run of bags is sampled by hand, each size by itself, and these samples are carefully assayed, and according to