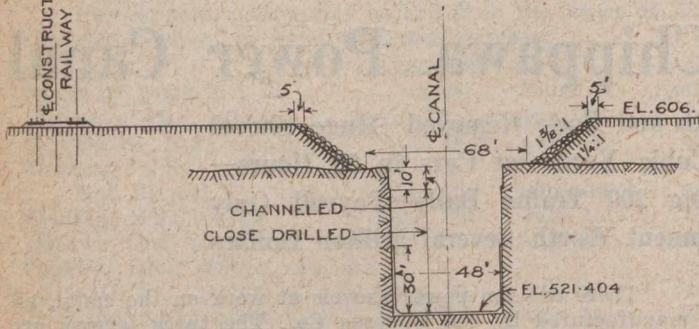
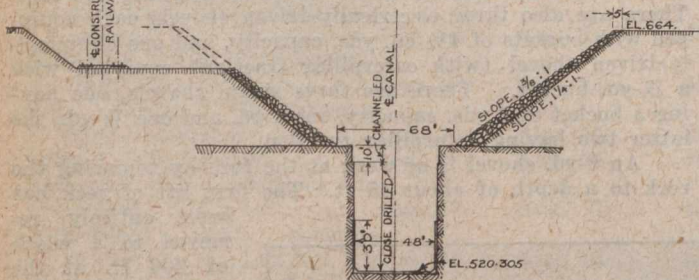


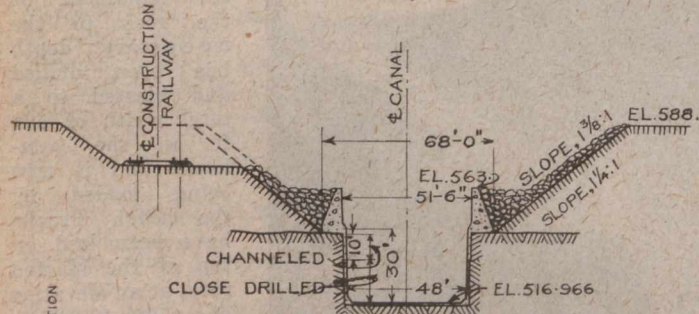
CROSS-SECTION AT STA. 20+00



CROSS-SECTION AT STA. 110+00



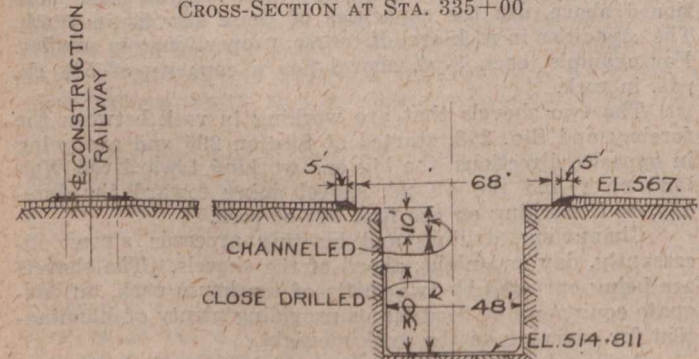
CROSS-SECTION AT STA. 162+00



CROSS-SECTION AT STA. 320+00



CROSS-SECTION AT STA. 335+00



CROSS-SECTION AT STA. 422+00

The 1-yd. shovel is working toward the Welland river, south of Sta. 323 (the Grand Trunk bridge), cleaning the rock preparatory to channeling.

Between the Niagara, St. Catharines & Thorold Railway (Sta. 273) and Muddy Run creek (Sta. 200), there are



BATTERY OF RAND AND SULLIVAN ROCK DRILLS AT THE FOREBAY

three shovels working in earth: One 8-yd. shovel, one 4 1/2-yd. and one 2-yd.

The steam-driven 7/8-yd. shovel is working south of Muddy Run, digging pilot cuts, ditching, loading, ballasting and doing other miscellaneous preparatory work. The electrically-driven 7/8-yd. shovel is grading the construction railway from Queenston to the power-house site.

Among the other plant on the job are 21 electric locomotives, 7 steam locomotives, 150 twenty-yard Western steel dump cars, 50 sixteen-yard Western wooden dump cars, 12 box and flat cars, one 5-yd. dredge, one Ligerwood cableway excavator (800-ft. span), 2 draglines each equipped with a



CRANE MOVING ROCK IN SKIPS FROM CANAL SECTION AT ENTRANCE TO FOREBAY

one-yd. bucket, 2 White motor dump trucks, 1 Sawyer-Massey traction engine, 10 Troy 3-yd. dump wagons, 1 Sawyer-Massey road scraper, 3 Bay City cranes of 40-tons capacity at 16 1/2 ft. radius, 2 Bay City cranes of 15 tons capacity at 16 1/2 ft. radius, 2 London concrete mixers, 4 Ransome concrete mixers, 1 Wettlaufer concrete mixer (each of these 7 mixers having a capacity of approximately 1 cu. yd. of mixed concrete), 2 cement-guns of the N-2 type, 1 Ransome grout mixer, 1 McKenna bar bender, several Sterling concrete carts, 1 Stephens-Adamson crushed stone conveyer, 75 Sullivan rock drills, 8 Ingersoll-Rand rock drills, 2 Leyner oil furnaces, 3 Sullivan drill sharpeners, 1 McKiernan-Terry pile hammer, 1 Vulcan pile hammer, 1 Beatty clam-shell bucket, 1 Hayward orange-peel bucket, 1 Orton & Steinbrenner 3/4-yd.