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SLOPE PROTECTION—NEW WELLAND SHIP CANAL

DESCRIPTION OF WASH WALL IN CUTS AND ON WATERTIGHT EMBANKMENTS OF CANAL—ITS CONSTRUCTION ALONG WATER LINE AND SODDING OF UPPER SLOPES.

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TO avoid sliding or damage that might arise from the corroding action of waves and currents, the slopes of the new Welland Ship Canal are being protected throughout by a concrete slab or wash-wall at water level, and in cuts by sodding the slopes above.

The canal prism, both where watertight banks are necessary and in cuttings, is to be 200 feet wide at the

On the west side the tow path, on which a macadamized roadway 16 feet in width is to be built, intervenes between the top of the slab and the slope. This slope is also 2:1, and is up or down depending on whether the tow path is on the top of a watertight bank or in a cut. In either case the slope is sodded. It might be interesting to note also that the slopes of all drainage ditches as well as the canal slopes proper are being sodded.

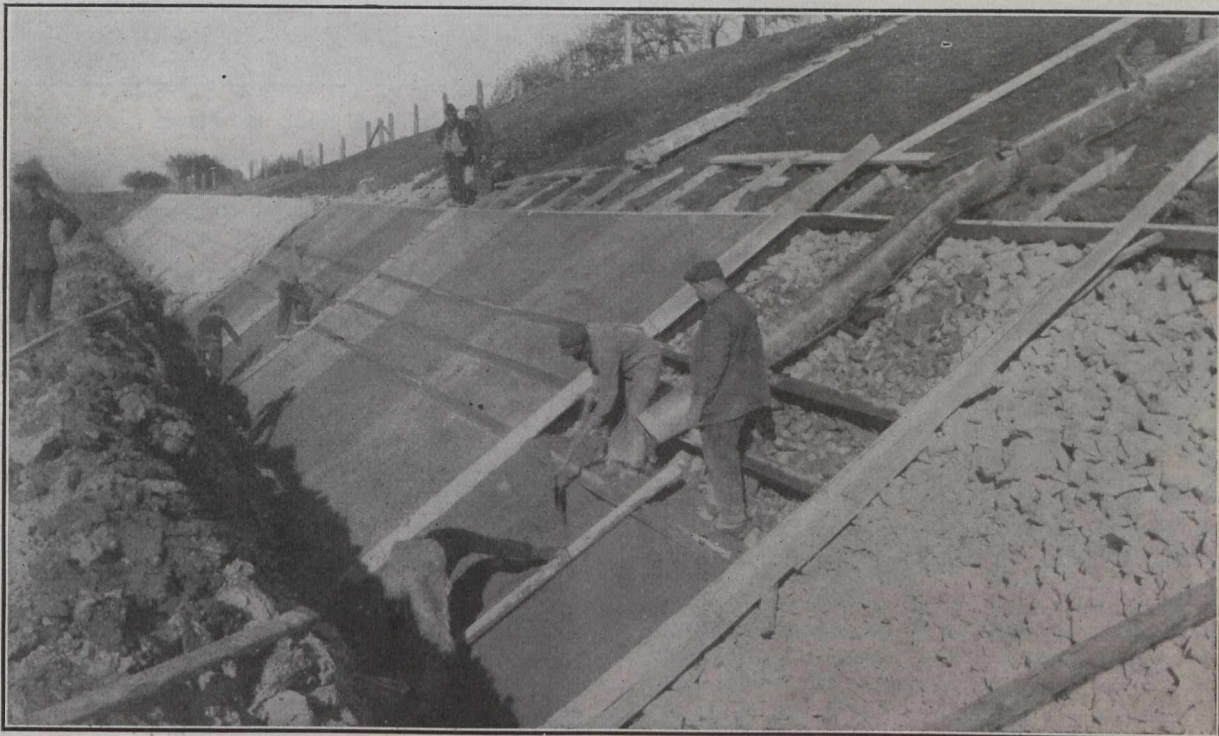


Fig. 1.—Concrete Slab Construction Showing Crushed Stone Foundation and Sodded Slope Above.

bottom, with a 2:1 slope to five feet below water level, which is 25 feet above grade. This slope is unprotected, and is followed by a horizontal five-foot berm, the back of which forms the footing for the slab which extends up 14½ feet on a 1¼:1 slope, thus bringing the slab from five feet below to four feet above the water. On the east side the 2:1 slope continues above the slab where cuts occur, and the slab is here extended to five feet above water level. This slope is sodded as soon as possible after trimming, the sod being held in place by pegs driven through it. In Fig. 2, which shows a small slope on the construction railway, a man may be seen placing the pegs.

The slab itself is six inches thick and is placed on a 12-inch layer of 4-inch crushed stone. Its construction on the slopes of the watertight banks has not yet been attempted owing to the necessity of leaving the banks already built a considerable time to attain as nearly as possible final settlement.

Construction in cuts has begun on the east slope of the 70-foot cut at the Queenston Road, near Homer; and also adjoining the waste weir of Lock No. 2. In taking out the cuts with steam shovel or dragline excavator, excavation is being carried to what will be the