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CRIB CONSTRUCTION FOR WELLAND SHIP CANAL

NOTES ON THE DESIGN AND CONSTRUCTION OF THE REINFORCED CONCRETE CRIBS WHICH ENTER INTO THE HARBOR DEVELOPMENT AT PORT WELLER. THEY WILL BE FIFTY-FIVE IN NUMBER, EACH WEIGHING ABOUT 2,000 TONS.

THE new Welland Ship Canal is a \$50,000,000 waterway at present under construction between Lake Erie and Lake Ontario. It is being built under the direction of the Department of Railways and Canals, Ottawa. When completed, it will be the third to bear the name of "Welland Canal," its predecessors having, each

The Canadian Engineer for August 21st, 1913. Another article, appearing in the issue for November 5th, 1914, covers the work of construction to practically the end of last season. One feature, however, which is of world-wide importance in that it is being constructed in dimensions beyond comparison with any similar work, the

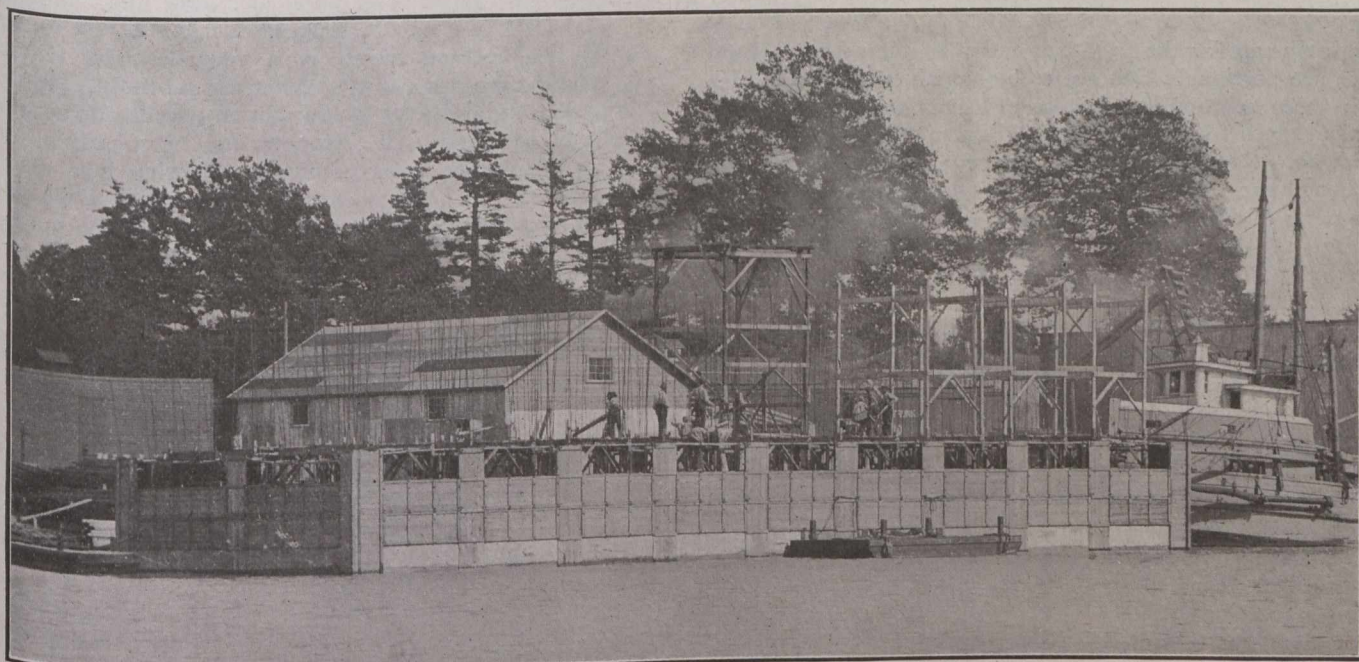


Fig. 1.—A Crib Under Construction—12 feet of concrete in place. Its weight has just sunk the supporting pontoon a few inches below the surface.

in its turn, given place to the demands of commercial and industrial development for greater and better accommodation of Great Lakes traffic. The importance to Canadian trade and commerce of the present extensive improvement in the water transportation route from the central west to the Atlantic may be better imagined when it is remembered that last year the Port of Montreal handled some 72,000,000 bushels of Western grain alone.

The new canal will be 25 miles in length and will include 7 lift locks 800 ft. long and 80 ft. in width, each with a lift of $46\frac{1}{2}$ ft., providing a depth of 25 ft. over the sills, this depth to be ultimately increased to 30 ft. Detailed particulars respecting the undertaking and the essential features of the design adopted, are to be found in

nearest approach being the Kobe harbor improvements in Japan, is the construction of 55 reinforced concrete cribs which, when placed, will provide dockage and protection to the extent of about 6,000 ft. inside the harbor which is being developed at Port Weller. The construction of these cribs marks the latest development, not only in Canada but in all countries where this form of construction has been adopted. Besides the enormous dockage and protection which they will adequately and economically provide, there is to be considered the fact that over 5,500 ft. of it is to be constructed ready for use in the short space of three working seasons. Further, the harbor design calls for cribs with a height of 34 ft., while the available location for their construction provides a depth