on the foundation. It obviates any danger of the crib ever becoming undermined.

In the construction of one of these cribs a wooden pontoon is used, the interior dimensions of which are 110

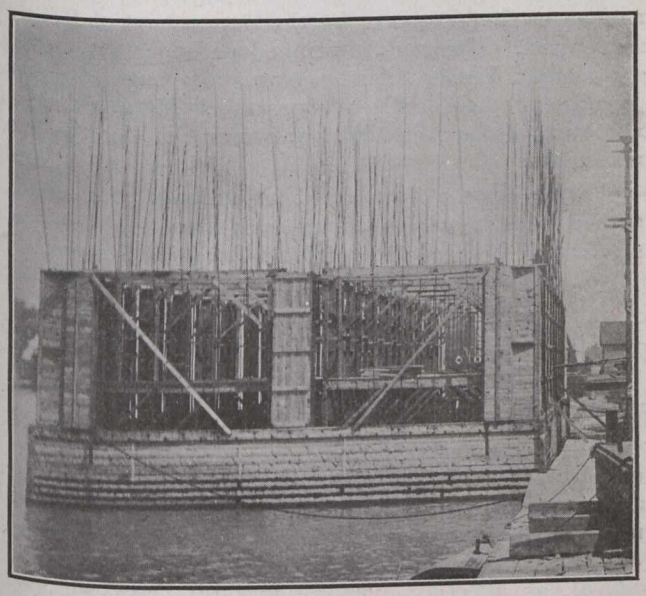

Fig. 4.—End View, Showing Reinforcing and Form Bracing.

ft. in length, 38 ft. in width, with a height of 6 ft. The concreting forms and the reinforcing steel are set in position inside of the pontoon, while afloat at the building site, which, in this instance, is at Port Dalhousie, about 2½ miles from Port Weller, where they are to be placed. The pontoon floor is made up of 8 x 10-inch longitudinal stringers, placed 2 ft. c. to c., and one course of 2-inch planking on the bottom. Then there is a course of 2-inch matched sheeting, in the jointing of which there is applied a special preparation, giving a remarkable degree of watertightness. One of the pontoons launched recently has not taken in more than 8 inches of water in the course of three weeks afloat.

As the concreting is proceeded with, the pontoon sinks in accordance with the added weight. The concrete is placed in courses 3 ft. in height. Fig. 1 illustrates a stage in the construction of one of the cribs where 12 ft. of concrete work have been placed, and at which stage the pontoon has just become submerged. The operation is continued until the crib is completed to its full height. The removable bottoms, which the accompanying illustrations show under construction, are then placed in the different compartments, where they are securely braced down and packed. Water is then admitted between the pontoon and the removable bottoms for the purpose of carefully testing the latter against leakage. A watertight joint is made between the bottoms and the concrete ledge upon which it rests by placing between them a rope made of jute yarn covered with canvas which is tightly squeezed down by the wedges that serve to hold the bottom in place.

The next operation consists in removing the pontoon from the crib. This is very easily accomplished, the sides and ends being detachable. The pontoon is ballasted to overcome buoyancy, and the crib is then towed away by tugs to the harbor site and sunk into position by opening the sea valves as described above. This pontoon is thereupon reassembled and the construction of another crib begun. It is to be noted that in the finished crib there is no timber or other material susceptible to decay; it is entirely a reinforced concrete structure.

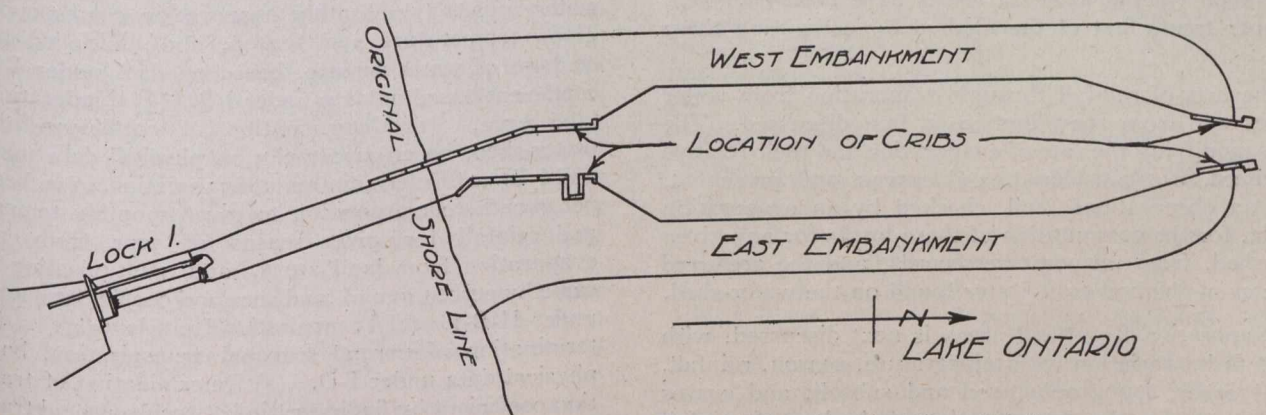

Fig. 5.—Plan of Harbor at Port Weller, Showing Location of Cribs.

On the construction work which has already been accomplished the contractors have poured the concrete in lifts of about three feet, placing the horizontal reinforcing

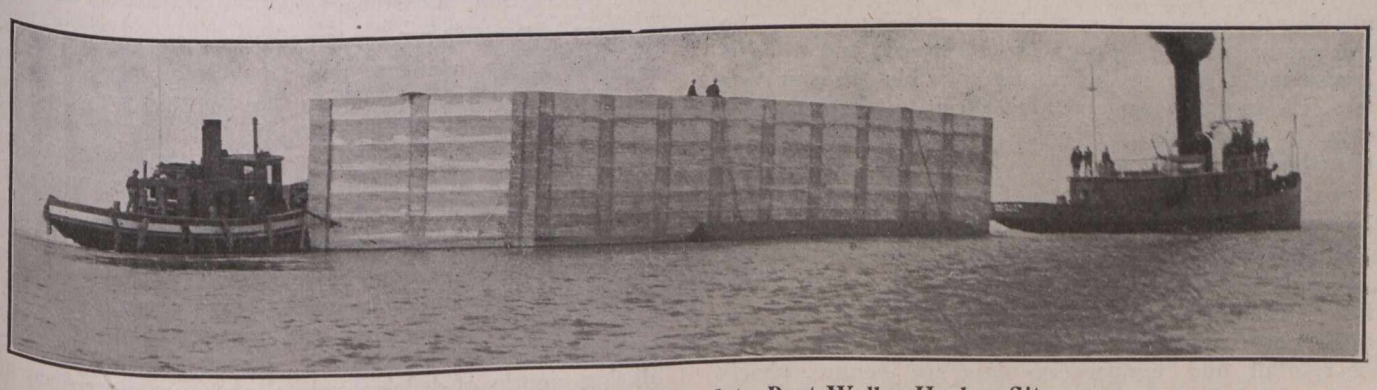

Fig. 6.—Completed Crib Being Towed to Port Weller Harbor Site.