of dock, and ⅝-inch diameter by 12-foot rods on similar centres, running from near the face of the dock through the bottom slab.

The 10-foot section cross walls are reinforced as follows: Four cross rods ⅝-inch diameter by 8 feet, denoted rods "A," and two ⅝-inch diameter by 5-foot vertical rods. An additional cross rod ⅝-inch diameter by 11 feet denoted rod "B," and spaced 5 feet 4 inches on centres is used in the top slab reinforcement. Rods "A" and "B" are bent as shown on details, Fig 11.

Turning to the 12-foot cross sectional wall, we find the reinforcement somewhat different. The longitudinal reinforcement consists of nineteen ⅝-inch diameter by 35-foot rods, 6 inches on centres in the top slab, three ⅝-inch diameter by 35-foot rods 9 inches on centres and four ⅝-inch diameter by 35-foot rods 12 inches on centres in the retaining wall section, and eleven ⅝-inch diameter by 35-foot rods 12 inches on centres in the bottom slab.

The cross sectional reinforcement consists of ⅝-inch diameter by 8-foot rods, 18 inches on centres adjoining face of dock, and ⅝-inch diameter by 16-foot rods on similar centres, running from near face of dock through the bottom slab into the working house mattress. The top slab is further reinforced with ⅝-inch diameter by 14-foot cross rods 2 feet on centres. These rods are denoted rods "C."

The cross walls are reinforced with two lines of rods consisting each of four ⅝-inch diameter by 12-foot rods, denoted rods "D." Rods "C" and "D" are bent as detailed and listed in Fig. 11.

C.I. mooring bollards were fixed on every fourth cross wall in the 10-foot section and part of the 12-foot section of wall, and on every third cross wall in the 224-foot length of the 12-foot section adjoining the working house, whilst at the outshore corner of the dock wall a C.I. standard snubbing post was fixed.

Along the face of the dock wall two lines of 80-pound steel rails were placed, with the top of the rails projecting ¾ inch beyond the concrete face of dock. This was rendered necessary as a means of protecting the dock face from the risk of abrasion by vessels.

Near the outer edge of the dock face, at the top, was laid a guard consisting of a 20-pound steel rail held in place by ½-inch by 2-inch flat bar clips, and ¾-inch diameter anchor bolts placed at 4 feet centres. The clips serve the double purpose of holding the rail in position, and by reason of raising the base of same ½-inch above the top of dock enable any surface water that may collect to drain off underneath the rail.

Details of the dock wall construction are given in Figs. 3, 4, 5, 6, 7, 8 and 9, whilst the details of bent rods and reinforcement list are shown on Fig. 11.

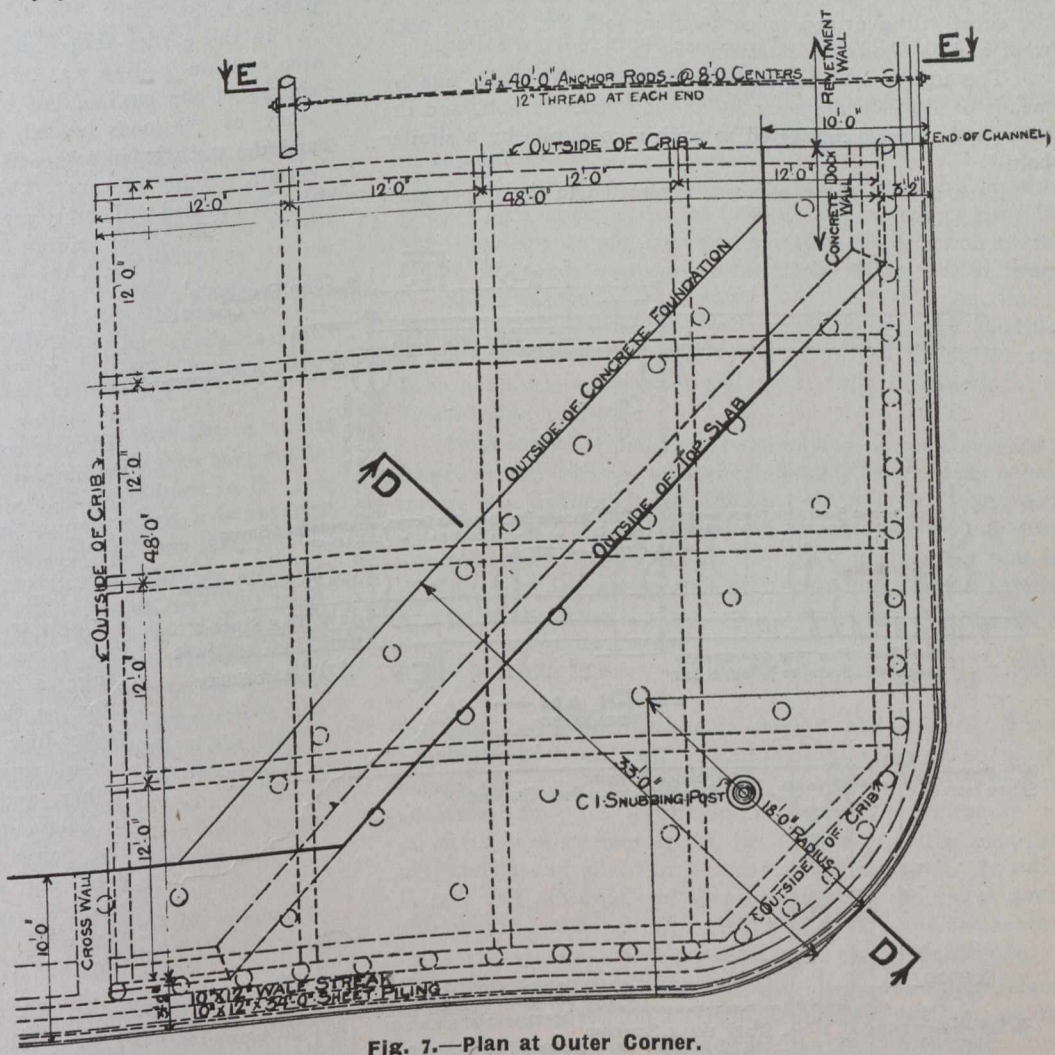

Fig. 7.—Plan at Outer Corner.

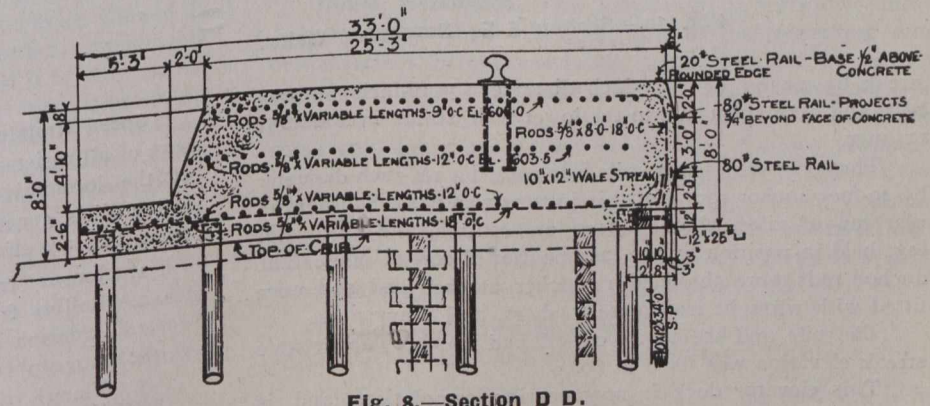

Fig. 8.—Section D D.

Revetment Walls.—Adjoining the crib end of the concrete dock wall revetment walls were built 448 feet 10 inches in length along the outshore end of the property, and 550 feet in length at right angles to last-mentioned portion and running inshore along the property line of the elevator property.

The revetment walls consist of a single row of piles, spaced 4 feet on centres to the outside of which two lines of