

which they begin varies from 97.5 to 100, the latter being the height fixed by the original plans, and adopted on Piers 1 and 6, but subsequently changed on observing the exceedingly low stage at which the ice went out in 1868. The ice-breaker nose is protected by a heavy plate of cast-iron, and the shoulders are carefully dressed to a curve ; this cutting being done after the stones were laid in the pier. The overhang of the cornice is one foot on each side of the pier, and two feet on the starlings, making two feet and ten inches on the angle of the nose. All the oblong piers have the same total length, the difference being in their thickness. Piers 1 and 3 finish eight feet thick at the neck, and ten feet broad on top ; Piers 4, 5, and 6 finish seven feet thick at the neck, and nine on top ; and Pier No. 7, six feet at the neck and eight on top. As Pier No. 7 is situated within the line of the shore it was built without an ice-breaker. All of those piers finish at an elevation of 145.6.

The pivot-pier is of circular form, 29 feet in diameter, and built plumb without a batter. The cornice has an overhang of one foot and a-half, making the diameter on top 32 feet. This pier finishes four inches higher in the centre than on the circumference, this difference being made to accommodate the dimensions of the turn-table ; its elevation on the outside is 142.24. The two pillars on the bank are of square section, measuring seven feet and eight inches on top and finishing at the same height as the oblong piers. The south abutment is built with its ends parallel to the trusses of the 68 foot span, and finishes at an elevation of 147.10.

These sizes make the actual clear openings of the draw 160.38 feet, at an elevation of 100, the lowest navigable stage of water ; 162.8 feet at the neck of the piers, where the piers are narrowest, and 160.25 feet between the copings.

The first stone laid was in the south abutment, on the 21st of August, 1867 ; work was suspended here during the building of Pier No. 1, and the abutment was not completed till the latter part of December. The pillars were begun in December immediately after the completion of the abutment, and finished in the following month. The time occupied in building the several piers is shown by the following table :