

and had to be regulated from time to time. In the New York caisson the derrick guys are fastened directly to the caisson itself. The same derricks will be used to carry up the tower masonry for about fifty feet, when they will be replaced by balance derricks.

The stones were raised by two engines, each working three drums, controlled by friction gearing. They have given perfect satisfaction, the stones being handled with ease and rapidity, and under complete control in setting.

#### DOCK.

During the winter months, the substantial dock resting on top of the caisson, on the river side, was completed, filled in, and provided with a track, turn-tables, and unloading derrick.

On the land side the excavation has been filled in level up to the masonry.

When the caisson proper had been filled in the locks were removed, the water-shaft filled, and the sections above the timber taken out. Next, the coffer dams inside the masonry well-holes were removed and the mud dug out. No water leaked through the masonry, but considerable fresh spring water oozed up through the timber foundation, that was easily kept in check by pumps. These well-holes were filled with concrete for a height of twenty-five feet, requiring five hundred and fifty cubic yards. For the remainder of the distance, up to the floor line, these well-holes remain open, so as to save masonry.

#### GENERAL DIMENSIONS BROOKLYN CAISSON.

Length over all.....	168 feet.
Breadth.....	102 „
Height of air chamber.....	9½ „
Total height when launched,.....	14½ „
“ “ when completed.....	21½ „
Cubic feet of timber in it.....	111,000 „
Weight of iron work.....	250 tons.
Launching weight of caisson.....	3,000 „