THE NEW YORK FOUNDATION.

The foundation of the New York tower is located at the end of pier twenty-nine, in deep water, at a distance of four hundred feet from the shore or bulk head line. A front of two hundred and thirty-five feet on the pier line is taken up by the foundation itself and the enclosure of sheet-piling.

The position of the tower was such as to occupy the two ferry slips of the Williamsburg Ferry Company, between piers twenty-nine and thirty. These slips had to be vacated before any work could be done on the foundation itself.

Already in July, 1870, negotiations were begun on the site, for the removal of the ferry to an adjoining slip, and also for the removal of a neighboring dumping ground, which would be occupied by the ferry. Possession was obtained in April, 1871, and the construction of the new ferry slips commenced on the part of the Ferry Company and completed in August.

While this work was going on, a length of one hundred feet of the end of pier twenty-nine was removed, and the operation of dredging a level for the reception of the caisson carried on.

The river bed has a slope of ten feet in the width of the foundation and consists principally of black dock-mud overlying the sand, and covered with sunken timber-cribs filled with stone—the total quantity amounting to five thousand yards. No difficulty was experienced in dredging the bed to a uniform level of thirty-seven feet below high water.

As soon as the ferries were vacated, a pile bridge was built connecting the foundation with the shore, and covering