

at which the several foundations were ready for the masonry, were as follows :

Pier No 1, Water Deadener sunk	Aug. 16, 1867.	Masonry begun ..	Oct. 16, 1867.
“ 2, Caisson launched	Sept. 23, 1868.	“ “ ..	Feb. 20, 1869.
“ 3, First Pile driven in False Works	Aug. 27, 1867.	“ “ ..	May 20, 1868.
“ 4, “ “ “ “ “	Sept. 2, 1867.	“ “ ..	April 2, 1869.
“ 5, Erection of Caisson begun	Jan. 20, 1868.	“ “ ..	Jan. 14, 1869.
“ 6, First Sheet Pile driven	Sept. 3, 1867.	“ “ ..	Jan. 3, 1868.
“ 7, First Pile driven	Feb. 27, 1867.	“ “ ..	Oct. 1, 1867.

These dates do not in themselves give a correct idea of the time actually consumed in putting in the substructure of the piers ; the work on some of them was more than once suspended, either on account of the season or to accommodate other work which had momentarily become of greater importance. After the caisson had been built at the site of Pier No. 5, it was left standing for two months, until machinery could be spared to sink it. At Pier No. 4, the first set of works was entirely destroyed in the spring of 1868, in consequence of which the site of the pier had to be changed, a new plan of foundation prepared, and the first pile in the new false works was not driven till the 9th day of August, 1868 ; moreover, the date given above as that at which the masonry of this pier was begun, is in reality that at which the laying of masonry was resumed after the completion of the foundation and the removal of the upper false works ; the bulk of the subaqueous masonry here was put in during the process of founding. In the cases of Piers 1 and 2, the caissons were built on shore, and the time occupied in the foundations, including this preparation, was therefore greater than the table indicates.

A correct idea of the time occupied in the different foundations, as well as of the characteristic features of the several plans, can only be given by separate narratives of the substructure operations at each of the seven pier sites.

PIER No. 1.

This pier is situated on the south side of the main steamboat channel, and at ordinary stages of water it stands about 100 feet from the shore line. The bed rock was found at an elevation of 84, or 13 feet below the extreme low-water