

in flowing back and forward between the New York Harbor and the Long Island Sound, is acting against the projecting part of the Brooklyn shore, and how this current has in olden times been directed towards the New York shore, and hollowed out that sweep formerly known as the Swamp. After flowing around the Brooklyn point the tidal current has been operating on the Brooklyn shore and excavated the Wallabout Bay.

A geological section from near Fiftieth Street on the north to the Brooklyn Heights on the south, as published in Mr. Mather's "Geology of New York," 1843, indicates no rock on the Brooklyn shore within a reasonable depth. On the New York side, on the other hand, there would appear to be a better prospect of rock. In Holt's well, near Fulton Market, the Gneiss rock is found at a depth of 126 feet. The old rock well near Trinity Church strikes rock at a depth of 26 feet. In the well of the City Hall the same Gneiss rock is found at 90 feet depth. The whole of Manhattan island appears to rest upon a Gneiss and Granite formation.

The results of the boring near the Brooklyn tower are so far favorable to a good foundation. Whether the timber platform spoken of above may be allowed to rest on the bed of the excavation, or whether a pile foundation will become necessary for its support; this question cannot and should not be decided now.

After the construction of a cofferdam the pit of the foundation must be excavated to a sufficient