work. At the water-line the New York tower has a length in the direction of the river of one hundred and forty-one feet, and a width of fifty-nine feet. On top of the timber foundation these dimensions are respectively one hundred and fifty-seven feet, and seventy-seven feet, while the base of the foundation measures one hundred and seventy-two feet by one hundred and two feet.

The elevation of the floor is one hundred and nineteen feet above high water; the height of the roofing above the floor, one hundred and forty-nine feet, making a total height of two hundred and sixty-eight feet from high water to the roof, without balustrade; or from the base of the foundation to top of the balustrade three hundred and fifty-four feet. The towers consist essentially of three main shafts, united below the floor line by connecting walls, the latter enclosing two square, hollow spaces for the purpose of saving masonry. Above the floor these shafts extend singly for a height of eighty feet; here they are united by two gothic arches of thirty-six feet rise, covering the roadways.

The facestone throughout are Granite, and the backing also, with the exception of a small portion of Limestone. The backing throughout is cut backing, thus reducing the spaces occupied by cement and concrete to less than 8 per cent.

The quantity of masonry in the New York tower from the timber to the summit is 44,000 yards, giving a weight of about 93,000 tons on top of the timber foundation, superstructure included. These quantities do not include the timber and concrete foundation below the masonry. Including the latter we have a pressure at the base of the entire structure of six and a-half tons per square foot. On top of the timber, ten tons; on the masonry at the water line, thirteen and a-half tons, and at the base of the Central Shaft at the Floor line, twenty-six tons!

To meet these exceptionally great pressures, the masonry has throughout been laid in the most conscientious manner, and all by day's work.