

the integrity of the whole, the four cables are added. If a rigid economy were to be exercised for the want of capital, less strength and stiffness might answer; moreover, by a reduction of weight and of strength, a great deal of expensive material and work might be saved. But in the same proportion would the stiffness of the work be also decreased, and its safety in the case of a great hurricane less assured.

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#### IV.—TOWERS AND FOUNDATIONS.

The great features of the work will be the two towers, of which plans and elevations are herewith submitted.

The base of each tower at the water line, measured in the direction of the river, is 134 feet long, and its extreme width will be 56 feet. Below the upper cornice, at the top of the tower, these dimensions are reduced to 120 feet by 40 feet. This reduction is not effected by a gradual drawing in or sloping but by sloped offsets at intervals, which leave the intermediate portions of the masonry plumb face. The elevation of the floor is 118 feet above high water; the height of the roofing above the floor is 150 feet, making a total height of 268 feet from high water to top of roof, not including the balustrade and ornamental blocks. This large body does not form one solid mass, but is built hollow.