In each of the long spans, the lowest part of the bridge shall be 135 feet in the clear above mean high tide, at the middle of the river.

_On the Roadway._—Across the long spans, and across Blackwell’s Island, the roadways for carriages shall be on the same floor as the railway, thus requiring a total available width of 34 feet. On both the direct and return approaches the gradients shall be 4 feet per 100 feet, with level resting places as shown upon the profile.

A clear headroom of 16 feet shall be allowed in all instances for the roadway, and there shall be a clear headway of 20 feet above the railway.

_On the Sidewalks._—The grades on the sidewalks may be arranged as most convenient to the designers. In case of a relative change of level with reference to the roadway, it will be preferred that they should be ramped to an inclination not exceeding 1 in 12, rather than to resort to staircases.

**FOUNDATIONS AND MASONRY.**

Wherever practical, the design shall provide for carrying the foundations to the rock, the approximate line of which is shown upon the profile. The masonry provided for shall, in all cases, be first-class, and laid in hydraulic cement mortar. A gross sum of $100,000 shall be allowed by each designer in his estimates, to cover the cost of the coffer-dams required to lay the foundations for the abutments. These latter shall consist of masonry from the bed rock to a height of at least 10 feet above mean high water; above this they may be of masonry, or they may be towers of cast-iron, wrought-iron, or mild steel, as preferred by the designers.

All masonry shall be so designed that the distributed weight, including that of the loaded superstructure, shall nowhere produce pressures exceeding 180 pounds to the square inch, and the foundation castings of iron columns shall be proportioned so as to limit the strain upon their surface of contact with the pedestal stone to 300 pounds per square inch.

Iron or steel used in the towers shall be proportioned in accordance with the specifications hereinafter given for their employment in the other parts of the bridge.

**MOVING LOADS.**

In addition to the weight of the structure itself, and of its floors and appurtenances, the following moving loads shall be provided for:

1st. _For the Railway._—Of two 45-ton Mogul locomotives coupled, occupying each, with its tender, a length of 48 feet, and with 75,000