will rarely exceed 600 tons, it would require a pressure of more than 32,000 tons to crush the top course.

The base and towers on the New York side contain 1350 cubic yards, which weigh about 3,000 tons. Add to this the weight of the superstructure of 1000 tons, and we have a total of 4000 tons, in a compact and solid mass. For lateral stability, I have relied entirely upon this weight and the central direction of the forces, which act upon the top course. The inclination of the tangents of the suspension cables very nearly coincides with the angle of the land cables, consequently their united tensions will produce a vertical pressure through the axis of each tower.

As regards the apparent lateral pressure of the cables upon the towers, the danger is only imaginary and not real. The strongly inclined position of the upper or Rail Road cables, which insures that remarkable degree of lateral firmness so observable in the upper floor, appears to produce a lateral pressure towards the inside, which these small masses of masonry could not long resist. When however, the observer takes his stand either on top of the towers or back of the anchorage, in line with the anchor cables, he will discover, that all is right and as it should be. A medium line between the two anchor cables, when continued towards the river, will be found to correspond precisely with a mean line between the tangents of the two suspension cables, consequently, the force growing out of the united tension of the cables, is bound to keep within a vertical plane, which descends through the axis of the towers. The horizontal projection of the cables on the plan, show the perfect safety of this arrangement. By connecting the