

## V.—ANCHORAGE.

No rock will be found available for anchoring the suspension cables on either side of the river. No great saving would result from rock, even should it be found near the surface, because at the point where the anchorage will have to be located, the grade of the Bridge is so much elevated above the natural ground, that high anchor walls for the support of the anchor chains cannot be dispensed with.

Each of the four cables enters the anchor walls at an elevation of nearly 80 feet above tide, and passes through the masonry a distance of 20 feet, at which point a connection is formed with the anchor chains. These are composed of ten links, the first one is 18 feet long, the others are 12 feet 5 inches long each, measured from centre to centre of eye. Each chain has a total length of 129 feet 9 inches, and forms a curve of one quarter of a circle or exactly  $90^\circ$ . The first link which connects with the cable, occupies a horizontal position, while the last one is placed in a vertical line, and is attached to a massive anchor plate, which supports the superincumbent masonry, whose weight must be great enough to balance the greatest tension, to which the chain can ever be exposed.

By this curvature of the chain a portion of its tension is converted into pressure, directed upon the wall. This pressure will be supported at each knuckle by cast iron plates, which are to be bedded upon large blocks of granite.