to a loss of twenty-five per cent. in total strength. Through the elasticity of the material a certain equalization will take place, but nobody can tell to what extent, and the determination of tension in a single wire can only be hypothetical. Furthermore, it is no easy matter to handle a strand of fifty tons weight, which will exert a strain of forty tons, while being pulled over the towers and put in position. All points so far are decidedly in favor of the third plan. But one great disadvantage is connected with it, namely, the loss of time involved, from the fact that towers and anchorages must be finished, before cable making can commence. This is not the case with the first two methods; wire ropes or wire strands can be manufactured while the masonwork goes on, and after completion of the latter, they can be put in place at once. The advantages of making the cables in place are, however, as we have seen, so predominant, that there could be no hesitation in adopting this method at the East River